



CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE &  
PLANNING

# GRID IMPLEMENTATION PLAN 2023-2028 FOR THE ELECTRICITY TRANSMISSION SYSTEM IN IRELAND

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## Appendices for the Natura Impact Statement

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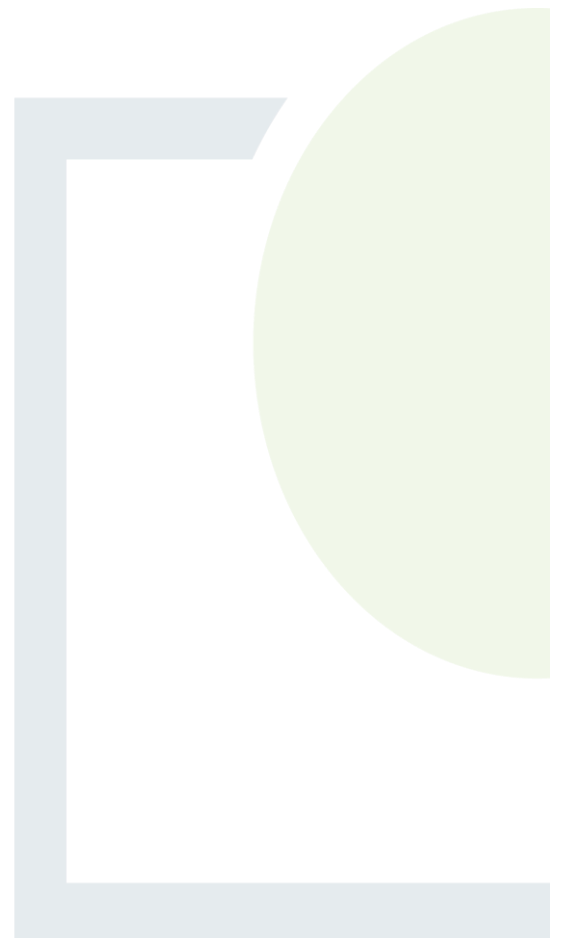
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## 1. APPENDIX 1 SITE SPECIFIC CONSERVATION OBJECTIVES REFERENCES

- NPWS (2015) Conservation Objectives for Killyconny Bog (Cloghbally) SAC [IE0000006] Version 1.  
NPWS (2021) Conservation Objectives for Lough Oughter and Associated Loughs SAC [IE0000007] Version 1.  
NPWS (2017) Conservation Objectives for Ballyallia Lake SAC [IE0000014] Version 1.  
NPWS (2018) Conservation Objectives for Ballycullinan Lake SAC [IE0000016] Version 1.  
NPWS (2018) Conservation Objectives for Ballyyogan Lough SAC [IE0000019] Version 1.  
NPWS (2014) Conservation Objectives for Black Head-Poulsallagh Complex SAC [IE0000020] Version 1.  
NPWS (2018) Conservation Objectives for Danes Hole, Poulnalecka SAC [IE0000030] Version 1.  
NPWS (2018) Conservation Objectives for Dromore Woods and Loughs SAC [IE0000032] Version 1.  
NPWS (2017) Conservation Objectives for Inagh River Estuary SAC [IE0000036] Version 1.  
NPWS (2018) Conservation Objectives for Pouladatig Cave SAC [IE0000037] Version 1.  
NPWS (2017) Conservation Objectives for Lough Gash Turlough SAC [IE0000051] Version 1.  
NPWS (2021) Conservation Objectives for Moneen Mountain SAC [IE0000054] Version 1.  
NPWS (2018) Conservation Objectives for Moyree River System SAC [IE0000057] Version 1.  
NPWS (2018) Conservation Objectives for Poulmagordon Cave (Quin) SAC [IE0000064] Version 1.  
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NPWS (2014) Conservation Objectives for Clonakilty Bay SAC [IE0000091] Version 1.  
NPWS (2016) Conservation Objectives for Caha Mountains SAC [IE0000093] Version 1.  
NPWS (2014) Conservation Objectives for Lough Hyne Nature Reserve and Environs SAC [IE0000097] Version 1.  
NPWS (2011) Conservation Objectives for Roaringwater Bay and Islands SAC [IE0000101] Version 1.  
NPWS (2021) Conservation Objectives for Sheep's Head SAC [IE0000102] Version 1.  
NPWS (2021) Conservation Objectives for St. Gobnet's Wood SAC [IE0000106] Version 1.  
NPWS (2016) Conservation Objectives for The Gearagh SAC [IE0000108] Version 1.  
NPWS (2016) Conservation Objectives for Three Castle Head to Mizen Head SAC [IE0000109] Version 1.  
NPWS (2016) Conservation Objectives for Aran Island (Donegal) Cliffs SAC [IE0000111] Version 1.  
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NPWS (2016) Conservation Objectives for Durnesh Lough SAC [IE0000138] Version 1.  
NPWS (2016) Conservation Objectives for Fawnboy Bog/Lough Nacung SAC [IE0000140] Version 1.  
NPWS (2017) Conservation Objectives for Gannivegil Bog SAC [IE0000142] Version 1.  
NPWS (2014) Conservation Objectives for Horn Head and Rinclevan SAC [IE0000147] Version 1.  
NPWS (2016) Conservation Objectives for Inishtrahull SAC [IE0000154] Version 1.  
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NPWS (2015) Conservation Objectives for Slieve League SAC [IE0000189] Version 1.  
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NPWS (2018) Conservation Objectives for Ballinturly Turlough SAC [IE0000588] Version 1.  
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NPWS (2018) Conservation Objectives for Lough Funshinagh SAC [IE0000611] Version 1.  
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NPWS (2016) Conservation Objectives for Cloonshanville Bog SAC [IE0000614] Version 1.  
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NPWS (2021) Conservation Objectives for Ben Bulbin, Gleniff and Glenade Complex SAC [IE0000623] Version 1.  
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NPWS (2019) Conservation Objectives for Lough Nabrickkeagh Bog SAC [IE0000634] Version 1.  
NPWS (2021) Conservation Objectives for Templehouse and Cloonacleigha Loughs SAC [IE0000636] Version 1.  
NPWS (2021) Conservation Objectives for Turloughmore (Sligo) SAC [IE0000637] Version 1.  
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NPWS (2016) Conservation Objectives for Galtee Mountains SAC [IE0000646] Version 1.  
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NPWS (2018) Conservation Objectives for Tacumshin Lake SAC [IE0000709] Version 1.  
NPWS (2011) Conservation Objectives for Raven Point Nature Reserve SAC [IE0000710] Version 1.

NPWS (2019) Conservation Objectives for Ballyman Glen SAC [IE0000713] Version 1.  
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NPWS (2019) Conservation Objectives for Carriggower Bog SAC [IE0000716] Version 1.  
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NPWS (2020) Conservation Objectives for Glen of the Downs SAC [IE0000719] Version 1.  
NPWS (2021) Conservation Objectives for Knocksink Wood SAC [IE0000725] Version 1.  
NPWS (2017) Conservation Objectives for Buckronev-Brittis Dunes and Fen SAC [IE0000729] Version 1.  
NPWS (2021) Conservation Objectives for Vale of Clara (Rathdrum Wood) SAC [IE0000733] Version 1.  
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NPWS (2019) Conservation Objectives for Blackstairs Mountains SAC [IE0000770] Version 1.  
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NPWS (2021) Conservation Objectives for Cullahill Mountain SAC [IE0000831] Version 1.  
NPWS (2021) Conservation Objectives for Spahill and Clomantagh Hill SAC [IE0000849] Version 1.  
NPWS (2019) Conservation Objectives for Clonaslee Eskers and Derry Bog SAC [IE0000859] Version 1.  
NPWS (2021) Conservation Objectives for Lisbigney Bog SAC [IE0000869] Version 1.  
NPWS (2018) Conservation Objectives for Ridge Road, SW of Rapemills SAC [IE0000919] Version 1.  
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NPWS (2018) Conservation Objectives for Clare Glen SAC [IE0000930] Version 1.  
NPWS (2018) Conservation Objectives for Kilduff, Devilsbit Mountain SAC [IE0000934] Version 1.  
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NPWS (2014) Conservation Objectives for Carrowmore Point to Spanish Point and Islands SAC [IE0001021] Version 1.  
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NPWS (2022) Generic Conservation Objectives for Inishmore SPA [IE0004152] Version 9.  
NPWS (2022) Generic Conservation Objectives for Dingle Peninsula SPA [IE0004153] Version 9.  
NPWS (2022) Generic Conservation Objectives for Iveragh Peninsula SPA [IE0004154] Version 9.  
NPWS (2022) Generic Conservation Objectives for Beara Peninsula SPA [IE0004155] Version 9.  
NPWS (2022) Generic Conservation Objectives for Sheep's Head to Toe Head SPA [IE0004156] Version 9.  
NPWS (2012) Conservation Objectives for River Nanny Estuary and Shore SPA [IE0004158] Version 1.  
NPWS (2022) Generic Conservation Objectives for Slyne Head to Ardmore Point Islands SPA [IE0004159] Version 9.  
NPWS (2022) Generic Conservation Objectives for Slieve Bloom Mountains SPA [IE0004160] Version 9.  
NPWS (2022) Generic Conservation Objectives for Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA [IE0004161] Version 9.  
NPWS (2022) Generic Conservation Objectives for Mullaghanish to Musheramore Mountains SPA [IE0004162] Version 9.  
NPWS (2022) Generic Conservation Objectives for Slievefelim to Silvermines Mountains SPA [IE0004165] Version 9.  
NPWS (2022) Generic Conservation Objectives for Slieve Beagh SPA [IE0004167] Version 9.

NPWS (2022) Generic Conservation Objectives for Slieve Aughty Mountains SPA [IE0004168] Version 9.  
NPWS (2022) Generic Conservation Objectives for Cruagh Island SPA [IE0004170] Version 9.  
NPWS (2022) Generic Conservation Objectives for Dalkey Islands SPA [IE0004172] Version 9.  
NPWS (2022) Generic Conservation Objectives for Deenish Island and Scariff Island SPA [IE0004175] Version 9.  
NPWS (2022) Generic Conservation Objectives for Bills Rocks SPA [IE0004177] Version 9.  
NPWS (2022) Generic Conservation Objectives for Connemara Bog Complex SPA [IE0004181] Version 9.  
NPWS (2014) Conservation Objectives for Mid-Clare Coast SPA [IE0004182] Version 1.  
NPWS (2022) Generic Conservation Objectives for The Murrrough SPA [IE0004186] Version 9.  
NPWS (2022) Generic Conservation Objectives for Sligo/Leitrim Uplands SPA [IE0004187] Version 9.  
NPWS (2014) Conservation Objectives for Tralee Bay Complex SPA [IE0004188] Version 1.  
NPWS (2022) Generic Conservation Objectives for Kerry Head SPA [IE0004189] Version 9.  
NPWS (2022) Generic Conservation Objectives for Galley Head to Duneen Point SPA [IE0004190] Version 9.  
NPWS (2022) Generic Conservation Objectives for Seven Heads SPA [IE0004191] Version 9.  
NPWS (2022) Generic Conservation Objectives for Helvick Head to Ballyquin SPA [IE0004192] Version 9.  
NPWS (2022) Generic Conservation Objectives for Mid-Waterford Coast SPA [IE0004193] Version 9.  
NPWS (2022) Generic Conservation Objectives for Horn Head to Fanad Head SPA [IE0004194] Version 9.  
NPWS (2022) Generic Conservation Objectives for Cross Lough (Killadoon) SPA [IE0004212] Version 9.  
NPWS (2014) Conservation Objectives for Courtmacsherry Bay SPA [IE0004219] Version 1.  
NPWS (2022) Generic Conservation Objectives for Corofin Wetlands SPA [IE0004220] Version 9.  
NPWS (2022) Generic Conservation Objectives for Illaunnaon SPA [IE0004221] Version 9.  
NPWS (2022) Generic Conservation Objectives for Mullet Peninsula SPA [IE0004227] Version 9.  
NPWS (2022) Generic Conservation Objectives for Lough Conn and Lough Cullin SPA [IE0004228] Version 9.  
NPWS (2022) Generic Conservation Objectives for West Donegal Islands SPA [IE0004230] Version 9.  
NPWS (2022) Generic Conservation Objectives for Inishbofin, Omev Island and Turbot Island SPA [IE0004231] Version 9.  
NPWS (2022) Generic Conservation Objectives for River Boyne and River Blackwater SPA [IE0004232] Version 9.  
NPWS (2022) Generic Conservation Objectives for River Nore SPA [IE0004233] Version 9.  
NPWS (2022) Generic Conservation Objectives for Ballintemple and Ballygilgan SPA [IE0004234] Version 9.  
NPWS (2022) Generic Conservation Objectives for Doogort Machair SPA [IE0004235] Version 9.  
NPWS (2023) Generic Conservation Objectives for North-west Irish Sea SPA [IE004236] Version 1.  
NPWS (2022) Generic Conservation Objectives for Southern Canyons SAC [IE002278] NONE PUBLISHED YET.  
NPWS (2022) Generic Conservation Objectives for Porcupine Bank Canyon SAC [IE003001] Version 1.  
JNCC (2017) Conservation Objectives for Cuilcagh Mountain SAC [UK0016603] Version 2.1.  
JNCC (2015) Conservation Objectives for Upper Lough Erne SAC [UK0016614] Version 2.  
JNCC (2015) Conservation Objectives for Derryleckagh SAC [UK0016620] Version 2.  
JNCC (2015) Conservation Objectives for Magheraveely Marl Loughs SAC [UK0016621] Version 2.  
JNCC (2015) Conservation Objectives for Slieve Beagh SAC [UK0016622] Version 2.  
JNCC (2015) Conservation Objectives for Cladagh (Swanlinbar) River SAC [UK0030116] Version 2.  
JNCC (2015) Conservation Objectives for Moninea Bog SAC [UK0030212] Version 2.  
JNCC (2015) Conservation Objectives for Rostrevor Wood SAC [UK0030268] Version 2.  
JNCC (2017) Conservation Objectives for Slieve Gullion SAC [UK0030277] Version 2.1.  
JNCC (2015) Conservation Objectives for Upper Lough Erne SPA [UK9020071] Version 2.  
JNCC (2017) Conservation Objectives for Eastern Mourne SAC [UK0016615] Version 2.  
JNCC (2015) Conservation Objectives for Lough Foyle SPA [UK9020031] Version 2.0.  
JNCC (2015) Conservation Objectives for River Faughan and Tributaries SAC [UK0030361] Version 3.0.  
JNCC (2015) Conservation Objectives for River Foyle and Tributaries SAC [UK00030320] Version 3.0.  
JNCC (2015) Conservation Objectives for Moneygal Bog SAC [UK0030211] Version 2.0.  
JNCC (2015) Conservation Objectives for Slieve Beagh-Mullaghfad-Lisnaskea SPA [UK9020302] Version 2.0.

JNCC (2015) Conservation Objectives for Lough Melvin SAC [UK0030047] Version 2.0.  
JNCC (2015) Conservation Objectives for Fardrum and Roosky Turloughs SAC [UK0030068] Version 2.0.  
JNCC (2015) Conservation Objectives for West Fermanagh Scarplands SAC [UK0030300] Version 2.0.  
JNCC (2015) Conservation Objectives for Monawilkin SAC [UK0016619] Version 2.0.  
JNCC (2015) Conservation Objectives for Largalunny SAC [UK0030045] Version 2.0.  
JNCC (2015) Conservation Objectives for Pettigoe Plateau SPA [UK9020051] Version 2.0.  
JNCC (2015) Conservation Objectives for Pettigoe Plateau SAC [UK0016607] Version 2.1.  
JNCC (2015) Conservation Objectives for Fairy Water Bogs SAC [UK0016611] Version 2.0.  
JNCC (2015) Conservation Objectives for Carlingford Lough SPA [UK9020161] Version 2.0.  
JNCC (2015) Conservation Objectives for Eastern Mourne SAC [UK0166105] Version 2.1.

## 2. APPENDIX 2 BACKGROUND INFORMATION ON EUROPEAN SITES



Table 2-1 Site characteristics, quality and documentation references for each of the European Sites

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
000030	Danes Hole Poulnalecka SAC	O'Sullivan P. (1994). Bats in Ireland. The Irish Naturalists' Journal. Special zoological supplement. 21pp. Self C.A. (ed) (1981). Caves of County Clare. University of Bristol Speleological Society. 225pp. Speleological Union of Ireland (1997). National Biodiversity Plan: Guidelines for Caves and Karst Protection 1997. Unpublished.	The site contains a small though significant natural limestone cave. As this site contains 250 Lesser Horseshoe Bats ( <i>Rhinolophus hipposideros</i> ) it is a site of international importance. It is also important as it lies along the eastern limit for the distribution of this species in Ireland. The site also supports a stand of Old Oak woodland.	This site consists of a small fossil limestone cave in the banks of a tributary to the River Ahaclare west of Broadford Co. Clare. The cave is approximately 50 m long and 2-3m wide. The passage is at times quite low. The cave ends in a sump. There is no sign that this water floods other parts of the cave or that the stream outside the entrance floods the cave. The cave is used as a winter hibernation site by Lesser Horseshoe Bats. The area surrounding the cave is mixed woodland which provides ideal foraging habitat and shelter for the bats. A summer roost and important commuting hedgerows down to the Ahaclare are also included in the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				site.
000037	Pouladatig Cave SAC	O'Sullivan P. (1991). Bats in Ireland. The Irish Naturalists' Journal. Special Zoological Supplement. 21pp.Self C.A. (1981). Caves of County Clare. University of Bristol Spelaeological Society.	A good example of a natural active limestone cave. As >100 Lesser Horseshoe Bats ( <i>Rhinolophus hipposideros</i> ) use this site as a winter hibernation roost it is a site of international importance. The surrounding scrub and hedgerows provide necessary shelter for the bats.	Pouladatig Cave is a natural limestone cave situated near Inch Bridge west of Ennis County Clare. It is a short active stream cave with some rock falls and small chambers. The cave entrance is small and is sheltered by hawthorn trees. After the entrance there is a low bedding crawl but the cave then opens out into roomier passageways. The length of the cave is approx. 100 m. Cave habitats include flowing water mud banks boulders rock roof and walls. The cave is used as a hibernation site by <i>Rhinolophus hipposideros</i> . The surrounding scrub vegetation and hedgerows is included in the site as it provides foraging areas and shelter for the bats.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
000054	Moneen Mountain SAC	<p>Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book. 1 Vascular Plants. The Stationery Office Dublin. Doyle G.J. (1982). Minuarto-Thlaspietum Alpestris (Violetea Calaminariae) in Ireland. J. Life Sci. R.D.S. 3: 143-146. Healy B. Oliver G. Hatch P. and Good J. (1997). Coastal Lagoons in the Republic of Ireland. Vol. II. Inventory of Lagoons and Saline Lakes. Unpublished report prepared for the National Parks and Wildlife Service Dublin. Keane S. and Rule M. (1993). Unpublished NHA Report to the National Parks and Wildlife Service Dublin. Lavery T.A. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottenburg 1775 (Lepidoptera: Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-199. McGough H.N. (1984). A Report On The Grasslands And Closely Related Vegetation Types Of The Burren Region Of Western Ireland. Unpublished report to the Forest and Wildlife Service Dublin. McGuire C. (1998). Survey of Lesser Horseshoe Bats <i>Rhinolophus hipposideros</i> (Bechstein) and other bat species in north Co. Clare Ireland. Irish Naturalists' Journal 26: 43 - 50. Ó Críodáin C. (1992). Conservation Of Grassland Sites Of Scientific Interest In Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin. O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement. 21pp. van Swaay C.A.M. and Warren M.S. (eds.) (2003). Prime Butterfly Areas in Europe - Priority Sites for Conservation. National Reference Centre for Agriculture Nature and Fisheries Ministry of Agriculture Nature Conservation and Fisheries the Netherlands. Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and The Burren. Cambridge University Press Cambridge.</p>	<p>The site contains four priority Annex I habitats. The overall quality of the site is further emphasised by the diverse range and continuous nature of high quality limestone habitats present over such a large area. Another important feature is the presence of <i>Pyrola media</i> a Red Data Book species confined to upland heaths. Also noteworthy is the presence of <i>Meles meles</i> and <i>Martes martes</i> both Red Data Book vertebrates. A summer colony of <i>Rhinolophus hipposideros</i> (&gt;60i) occurs within the site. The site supports populations of <i>Euphydryas aurinia</i>.</p>	<p>This is a large composite site situated in north County Clare. The Carboniferous limestone rises into a series of rounded hills intersected by deep and often steep valleys to the north of the site before levelling out towards the south. The site encompasses a complete range of inland Burren habitats from open limestone pavement and its associated grasslands and heath to dense <i>Corylus avellana</i> scrub and patches of <i>Fraxinus excelsior</i> woodland. A small turlough is contained within the site.</p>
000077	Ballymacoda (Clonpriest and Pillmore) SAC	<p>Bowman J.J. Clabby K.J. Lucey J. McGarrigle M. and Toner P. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report (1996-97). BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in</p>	<p>This is a fine example of a relatively small estuarine system. Intertidal flats are well represented with a good diversity of macro-invertebrate species and range of intertidal</p>	<p>This site comprises the estuary of the Womagh River a substantial river which drains a large agricultural catchment. The site includes part of the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Goodwillie R. (1986). Areas of Scientific Interest in Co. Cork. Report compiled for Cork County Council. Hutchinson C.D. (1979). Ireland's Wetlands and their Birds. I.W.C. Dublin. Merne O.J. (1989). Important Bird Areas in Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Nairn R.G.W. (1986). <i>Spartina anglica</i> in Ireland and its potential impact on wildfowl and waders - a review. Irish Birds 3: 215-228. Sheppard R. (1993). Ireland's Wetland Wealth. I.W.C. Dublin. Smiddy P. (1992). The waterfowl of Ballymacoda Co. Cork. Irish Birds 4: 525-548. Smiddy P. (1998). The Distribution of Wetland Birds at Ballymacoda Co. Cork: a Preliminary Report 1971-88. Unpublished report. Dúchas the Heritage Service Dublin.</p>	<p>biotopes. Atlantic salt meadows are particularly well-developed and currently extending in parts of site. <i>Salicornia</i> and other annuals of intertidal sand and mud flats also occur. The quality of habitats on the site is good though pollutants from surrounding agricultural catchment undoubtedly enter site. The site is very important for wintering waterfowl with over 20000 birds occurring at times. 11 species occur in numbers of national importance including <i>Pluvialis apricaria</i> (one of largest populations in the country) and <i>Limosa lapponica</i>. The ornithology of the site has been well studied.</p>	<p>tidal section of the river and extends out to the low tide mark. The inner part of the estuary is well sheltered by a stabilised sandy peninsula (Ring peninsula). Sediment types vary from muds and muddy sands in the inner part to fine rippled sands in the outer exposed part. The main channel is flanked by salt marshes and wet fields much of the latter being partly improved for agriculture. Usage of the site is low mainly comprising grazing in the grass fields and low level recreation on the sandy beaches.</p>
000090	Glengarriff Harbour and Woodland SAC	<p>Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin. Goodwillie R.N. (1986). Report on Areas of Scientific Interest in County Cork. Unpublished report to Cork County Council CAAS Dublin. Kelleher C. (1999). Lesser Horseshoe Bat Summer Roost Survey Cork/Kerry Region Ireland 1999. Internal Report to The Vincent Wildlife Trust unpublished. Kelly D.L. and Iremonger S.F. (1997). Irish wetland Woods: the plant communities and their ecology. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 97B: 1-32. O' Sullivan P. (1994). Bats in Ireland. <i>Irish Naturalists' Journal Special Zoological Supplement</i> 21pp. Scannell M.J.P. and O'Donnell D. (1994). West Cork (r.c.H3). 5th-6th June - Report of Field</p>	<p>Exceptional diversity of high quality semi-natural and natural habitats. Extensive hyper-oceanic oak woods with <i>Arbutus unedo</i> and <i>Taxus baccata</i> have well developed bryophyte and lichen floras and support important species-rich</p>	<p>A wooded glacial valley opening out into a sheltered bay with rocky islets. Underlying rock is Old Red Sandstone with soils varying from acid brown earths to alluvial brown earths and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Meeting BSBI News 66: 53-54. Shorten M.G.M. (1992). Areas of Scientific Interest For Birds in Cork. Unpublished report to Cork County Council. Irish Wildbird Conservancy. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. and Flynn J. (1980). An Assessment of the Status of the Common Seal <i>Phoca vitulina vitulina</i> in Ireland Biological Conservation 17: 115-123. Warner P. (1984). Report on the Census of Common Seals (<i>Phoca vitulina vitulina</i>) in the Republic of Ireland During 1984. Unpublished report to the Forest and Wildlife Service Dublin. Warner P.J. (1983). An Assessment of the Breeding Population of Common Seals (<i>Phoca vitulina vitulina</i> L.) In The Republic Of Ireland During 1979 Irish Naturalists' Journal 21: 24-26. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report to IWC RSPB FWS (R. of I.) DoE (NI).</p>	<p>invertebrate fauna including <i>Geomalacus maculosus</i> and several rarities. Good examples of alluvial forests occur along the Glengarriff and Coomarkane rivers. Rocky islets in the harbour support one of the largest colonies of <i>Phoca vitulina</i> in Ireland and contain a small breeding colony of <i>Sterna paradisaea</i>. The site supports a population of <i>Lutra lutra</i>. The site is one of the most important in the south-west for <i>Rhinolophus hipposideros</i> and includes three summer and three winter roosts the numbers at one of which exceed the summer and winter thresholds for international importance. The quality and extent of the oakwoods and the diversity of habitats and species including many rarities make the site of international importance.</p>	<p>peat. Hyper-oceanic climate. Site supports a complex mosaic of terrestrial habitats mostly old oak woodland conifer plantations and complexes of rock outcrop heath and scrub blanket bog <i>Molinia</i> grassland and rivers and streams. The sheltered bay is highly indented with many islets and a rocky shoreline.</p>
000091	Clonakilty Bay SAC	<p>Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide</p>	<p>Site contains a fine diversity of dune habitats</p>	<p>Site is a tidal bay separated by</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Fahy E. (1972). A Preliminary Report on Areas of Scientific Interest in County Cork. An Foras Forbartha Dublin. Hutchinson C. (1979). Ireland's Wetlands and their Birds. Irish Wildbird Conservancy Dublin. Hutchinson C.D. and O'Halloran J. (1994). The ecology of Black-tailed Godwits at an Irish south coast estuary. Irish Birds 5: 165-172. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>notably an area of fixed dunes of moderate size and which are relatively intact. Eu-Atlantic decalcified fixed dune also have a presence at site. Both of these habitats are scarce on the south coast. The intertidal sand and mud flats support important staging and wintering bird populations. Of especial note is a regular population of <i>Limosa limosa</i> of international importance.</p>	<p>Inchydoney Island. Receives the flows of several small rivers the biggest being the Fealge. Bulk of site comprises intertidal sand and mud flats. A small sand dune complex occurs on Inchydoney Island while a well developed area of brackish and freshwater marsh occurs at Cloheen. Underlying rock is mainly Devonian Old Red Sandstone. The sandy soil is slightly calcareous in nature but shows a trend towards acidification. Clonakilty town occurs at top of site. Recreation is a main land use.</p>
000129	Croaghonagh Bog SAC	<p>Douglas C. Dunnells D. Scally L. &amp; Wyse Jackson M.B. (1990). A Survey to Locate Lowland-Highland Blanket Bogs of Scientific Interest in Cos. Donegal Cavan Leitrim and Roscomon. Unpublished report to the National Parks &amp; Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin.</p>	<p>Despite its relatively small size this bog is a good example of an upland blanket bog which shows characteristics more typical of a raised bog. The surface is largely intact and there is a good surface topography with</p>	<p>Croaghonagh bog adjoins the south-west shore of Lough Mourne in the Barnsmore Gap area of Donegal. The Mourne Beg River forms part of its eastern boundary. The N15</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>hummocks hollows and some large pools. A good range of plant species and well-developed bryophyte and lichen flora is present. Some wet heath occurs in association with the blanket bog. The site is used at times during winter by <i>Anser albifrons flavirostris</i> and has <i>Lagopus lagopus</i> and <i>Lepus timidus hibernicus</i>.</p>	<p>road runs close to its western boundary while a tertiary road bisects the site. The site is underlain by metamorphosed sandstone. A small lake Lough Carn occurs within the bog and a tributary stream (Mary Breens Burn) of the Mourne Beg River runs through the site. The site is predominantly active blanket bog with some wet heath and cutaway bog also occurring.</p>
000142	Gannivegil Bog SAC	<p>Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Government Publications Stationery Office. Dublin. Douglas et al (1990). A Survey to Locate Blanket Bogs of Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report for NPWS Dublin. Webb D.A. Parnell J and Doogue D. (1996). An Irish Flora. Dundalgan Press. Dundalk. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO. Belfast.</p>	<p>The site is important for three Annex I habitats wet heath oligotrophic lakes and the priority habitat blanket bog. The site also supports a small though significant winter population of <i>Anser albifrons flavirostris</i> and has breeding <i>Pluvialis apricaria</i>. The Red Data Book species <i>Lepus timidus hibernicus</i> and <i>Meles meles</i> are known to inhabit the site. Other species of interest utilising the site include</p>	<p>Geologically the site is underlain by igneous granite which is outcropping in many areas. Topographically the site is undulating with three prominent hills in the centre south and east of the site the highest of which rises to 226m. The site comprises lowland blanket bog wet &amp;</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Lagopus lagopus (Red Grouse) and Rana temporaria (Common Frog).	dry heath and oligotrophic lakes. The site features interconnecting pool complexes streams & lakes which are hydrologically linked. The blanket bog & heath support species typical of this habitat. Also present are steep slopes colonised by semi-natural scrub woodland of Quercus Sorbus & Betula.
000154	Inishtrahull SAC	Barrington R.M. (1900). Migration of Birds as Observed at Irish Lighthouses and Lightships. Dublin & London. Charlesworth J.K. (1942). Survey of Inishtrahull - Part 2. Glacial erratics from Inishtrahull. Irish Naturalists? Journal 8: 29-30. Delvin T.R.E. & Merne O.J. (1966). Malin Head Bird Observatory Report 1965. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Terns <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>Sterna albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Stelfox A.W. (1940). Inishtrahull Co. Donegal : A preliminary survey. Irish Naturalists? Journal 7: 238-242. Stelfox A.W. (1943). Survey of Inishtrahull - Part 4. A list of the flowering plants ferns etc. Irish Naturalists? Journal 8: 116-132. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.	The site is important as it has the most northerly example of vegetated sea cliffs in Ireland. While not particularly high or sheer these are extremely exposed. Vegetation of the cliffs is typical and includes the rare <i>Ligusticum scoticum</i> a Red Data Book species. Quality of habitat considered good with probably no significant damaging activities occurring. Has seabird colonies mainly <i>Fulmarus glacialis</i> and <i>Phalacrocorax aristotelis</i> .	The site is situated approximately 12 km north-east of Malin Head and comprises the island of Inishtrahull and a group of islets the Tor Rocks as well as the intervening sea area. The Tor Rocks are the most northerly point of land in Ireland. The geology is Lewisian gneiss considered the oldest rock in Ireland and having affinities with the



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>Terns (<i>Sterna hirundo</i> <i>S. paradisaea</i>) formerly bred but not on a regular basis or in significant numbers since the 1970s. The site has the largest population of breeding <i>Somateria mollissima</i> (200 pairs) in Ireland. Island is used on occasions by wintering <i>Branta leucopsis</i>.</p>	<p>rocks of southern Greenland and some of the Hebridean Islands. The soils on Inishtrahull are thin glacial tills or peaty podzols. Most of the coastline is of relatively low cliffs the highest point of the island being only 43 m at the western end. The cliffs are well indented with a number of deep clefts and off-lying rocks. The vegetation of the interior of the island is predominantly grassland. The Tor Rocks comprise six rocky pinnacles rising to an estimated 20 m above high water mark Inishtrahull was formerly inhabited but not since 1928. There is an automated lighthouse on the island.</p>
000165	Lough Nillan Bog (Carrickatlieve) SAC	Douglas C. Dunnells D. Scally L.and Wyse Jackson M.B. (1990). A Survey to Locate Lowland-Highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim	Lough Nillan Bog includes an important extensive	Lough Nillan Bog comprises three

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>and Roscommon. Unpublished report to the Wildlife Service Office of Public Works Dublin. Mooney E.P. Goodwillie R.N. and Douglas C. (1991). Survey of Mountain Blanket Bogs of Scientific Interest. Unpublished report to the National Parks and Wildlife Service Dublin. Ruttledge R.F. and Ogilvie M.A. (1979). The Past and Current Status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1:293-363. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83-1993/94 - The First Twelve Years of International Conservation Monitoring. Greenland White-fronted Goose Study and the National Parks and Wildlife Service Office of Public Works Dublin.</p>	<p>area of relatively undisturbed good quality blanket bog and many small to medium-sized good quality oligotrophic lakes. The site supports important populations of Anser albifrons flavirostris (Greenland White-fronted Goose) Pluvialis apricaria (Golden Plover) and Falco columbarius (Merlin). The uncommon bog moss Sphagnum teres occurs on the site.</p>	<p>separate areas of level ground with blanket bog low hills with heath vegetation and an abundance of streams and small to medium-sized lakes. Small areas of cutaway bog humid grassland scrub and broad-leaved deciduous woodland also occur. The site is underlain by metamorphic siltstones and intrusive igneous rocks.</p>
000173	Meentygrannagh Bog SAC	<p>Douglas C. Dunnells D. Scally L. and Wyse Jackson M. (1990) A Survey to Locate Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the National Parks and Wildlife Service Dublin. Mooney E.P. Goodwillie R.N. and Douglas C. (1991). Survey of Mountain Blanket Bogs of Scientific Interest. Unpublished draft report to the National Parks and Wildlife Service Dublin. Blockeel T.L. (1997). A Revision of British (and Irish) specimens of Drepanocladus vernicosus. Unpublished report to JNCC. Blockeel T.L. and Long D.G. (1998). A Check-list and Census Catalogue of British and Irish Bryophytes. British Bryological Society Cardiff. Blockeel T.L. (2000). The identification of Drepanocladus revolvens and D. cossonii and their distribution in Britain and Ireland. Bulletin of the British Bryological Society 75: 32-40. Hedenäs L. (1989). The general Scorpidium and Hamatocaulis gen. Nov. in Northern Europe. Lindergia 15: 8-36.</p>	<p>Good quality blanket bog system including the best highland saddle bog in County Donegal and supporting a diversity of habitats such as pool and hummock systems flushes transition mires and fens domed valley bogs swallow holes and Rhynchospora lawns. The boreal relict moss Homalothecium nitens rare in Ireland occurs in the fen area. Also present is the rare and legally protected Drepanocladus</p>	<p>An intact highland blanket bog system overlying quartzite and pelite bedrock located on a gently sloping hillside and exhibiting a range of topographic features such as swallow holes headwater streams and valley bottom. Site contains the headwaters of the River Swilly.</p>

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			<p>vernicosus this being its only station in Co. Donegal. Little or no peat cutting and a low level of sheep grazing have retained the site in a near-natural condition. Recently however serious damage has been caused to the transition mire and fen system by the insertion of drains.</p>	
000208	Rogerstown Estuary SAC	<p>Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Doogue D. Nash D. Parnell J. Reynolds S. &amp; Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Fahy E. Goodwillie R. Rochford J. &amp; Kelly D. (1975). Eutrophication of a partially enclosed estuarine mudflat. Marine Pollution Bulletin 6: 29-31. Gaynor K. &amp; Browne A. (1999). Survey of Irish Link Golf Courses. Unpublished report for Duchas The Heritage Service. Dublin. Goodwillie R. (1988). A preliminary report on areas of scientific interest in County Dublin. 2nd Edition. An Foras Forbartha Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Kavanagh P. (1989). Assessment of Copper Lead and Zinc Levels in Rogerstown Estuary. Unpublished BA (Mod) thesis Trinity College Dublin. Kirk McClure Morton / MarEnCo. (1993). Mathematical Modelling Study and Environmental Survey of Rogerstown Estuary County Dublin. A report for Dublin County Council. Madden B. Jeffrey D.W. &amp; Jennings E. (1993). Distribution and ecology of Zostera in County Dublin. Irish Naturalists' Journal 24: 303-309. McManus F. McNally J. &amp; Cooney T. (1992). The wildfowl and waders of Rogerstown Estuary. Irish East Coast Bird Report 1991 pp54-72. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In:</p>	<p>A typical eastern estuary with fairly extensive intertidal sand and mud flats. Quality variable owing to pollution from a number of sources especially a large landfill site which was built on the mudflats. The salt marshes which fringe the estuary are of moderate importance and quality and include both Atlantic and Mediterranean salt meadows as well as Salicornia flats. The sand dune element at site is limited in its distribution and quality. Has three Red Data Book plant species. Of high importance for wintering waterfowl with an internationally important population of Branta bernicla horta and</p>	<p>Site comprises a relatively small estuarine system in north County Dublin. Receives the Ballyboghil and Ballough rivers both of which flow through an agricultural catchment. It is a funnel shaped estuary extending for about 6 km from east to west and up to 2 km at its widest. Has a wide salinity range from near full sea water to near full fresh water. Estuary is bisected by a causeway and bridge which carries the Dublin-Belfast railway line. A</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. O'Reilly H. & Pantin G. (1957). Some observations on the salt marsh formation in Co. Dublin. Proceedings of the Royal Irish Academy Vol. 58 Sect. B: 89-128. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	nationally important populations of a further 16 species including <i>Pluvialis apricaria</i> . <i>Sterna albifrons</i> has bred.	sandy peninsula stretches across the outer part of the estuary restricting water flow to a channel of c.200 m. In addition to salt marsh and sand dune habitats some agricultural fields which adjoin the estuary are included in site - some of these have botanical or ornithological interests. .
000212	Inishmaan Island SAC	Bleasdale A et al (1996). Machair survey. NPWS (in preparation). Berrow S.D. Mackie K.L. O'Sullivan O. Sheperd R.B. Mellan C. and Coveney J.A. (1993). The second international chough survey in Ireland 1992. Irish Birds 5: 1-10. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1 Vascular Plants. Wildlife Service Ireland. Curtis T.G.F. (1991). The flora and vegetation of sand dunes in Ireland In : A Guide to the Sand Dunes of Ireland (M.B. Quigley Ed.) 42-46. European Union for dune conservation and coastal management. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland Their types and distribution. In: A Guide to the Sand Dunes of Ireland (M.B. Quigley Ed.) 6-9. European Union for dune conservation and coastal management. Hannon K. et al (in preparation). 1995 All Ireland Tern Survey IWC/NPWS. Lysaght L (1995). The Burren and Aran Islands - An atlas of breeding birds (in press). McGough H.N. (1984). A Report on the Grasslands and Closely Related Vegetation Types of the Burren Region of Western Ireland. Report to the Forest and Wildlife Service. Merne O.J. and Whilde A. A seabird colony register (1). Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A preliminary report. NPWS. Webb D.A. and Scannel M.J.P. (1983). Flora of Connemara and the Burren. Cambridge University Press. Curtis T.G.F. McGough H.N. and Wymer E.D. (1988). The discovery and ecology of rare and threatened arable weeds previously considered extinct in Ireland on the Aran Islands Co Galway. Irish Naturalists' Journal 22: 505-513 (3). Merne O. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Merne O. (1989). Important bird areas in	Inishmaan is an outstanding site with a rich and diverse range of Annex I habitats of karstic carboniferous limestone and of coastal types. Traditional agricultural in the form of rye cultivation is still carried out and provides a habitat for a number of rare and threatened arable weeds <i>Lolium temulentum</i> <i>Bromius racemosus</i> and <i>Avena strigosa</i> . Many other (6) rare and some protected plant species also occur. Ornithologically the island is important for breeding <i>Pyrrhocorax</i>	Inishmaan is the middle of the three Aran Islands situated approximately 15km off the west coast of County Clare. Geologically the island is an extension of the karstic carboniferous region of the burren. The shallow soil is a unique man-made combination of sand and seaweed built up over the centuries. Pockets of <i>rendzina</i> are

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Europe. ICBP Technical publication No. 9 Cambridge. 888pp (1).	pyrrhocorax Sterna paradisaea and Sterna albifrons.	found throughout the limestone pavement.
000238	Caherglassaun Turlough SAC	Donaldson F.& F. and McMillan N. (1979). A note on the Mollusca of three turloughs. Ir. Nat. Journal 19(11) : 400-401. MacGowran B. (1985). Phytosociological and Ecological Studies on Turloughs in the West of Ireland. Unpublished Ph.D. Thesis University College Galway. Goodwillie R. (1992). Turloughs Over 10ha - Vegetation Survey And Evaluation. Unpublished report for National Parks and Wildlife Service Dublin.	The site is important as it contains the priority Annex I habitat turlough along with the Annex II species <i>Rhinolophus hipposideros</i> . The site is very unusual in its combination of permanent water daily (tidal) fluctuations turlough surroundings deep holes/cliffs and extensive flooded woodland. The site supports the Red Data Book plant species <i>Limosella aquatica</i> <i>Rorippa islandica</i> and <i>Viola persicifolia</i> along with an excellent variety of turlough and aquatic plant communities. These are generally eutrophic and there is little deposition of marl (Calcium Carbonate). The site supports small numbers of wildfowl.	The turlough lies in a basin with even slopes on the South and East sides and a series of low cliffs and limestone pavements on the North-West. Collapse features are notable here and to the west of the lakes. The whole area floods at times of high water though the lake is generally stable (apart from small tidal effects) in summer. Scrub/woodland is common in many places and it is inundated generally.
000252	Coole-Garryland Complex SAC	Curtis T.G.F. & McGough H.N. (1988). The Irish Red Data Book. Stationery Office Dublin. Goodwillie R. (1992). Turloughs Over 10ha: Vegetation Survey and Evaluation. A report for the National Parks and Wildlife Service of the Office of Public Works (Unpublished). Sheppard R. (1993). Irelands' Wetland Wealth. Irish Wildbird Conservancy Dublin. Louman E. (1984). The vegetation of the Coole turlough area. Unpublished Report Universitat van Amsterdam. Southern Water Global and Jennings	This is considered to be the most important turlough complex in the country and therefore in Europe. It contains many rare species and	This is a large site situated in a low lying karstic limestone area. It contains a series of seasonal lakes

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		O'Donovan & Partners (1998). South Galway Flood Study Final Report (Vol 1.-111.). Prepared for Office of Public Works Dublin.	communities associated with turloughs and the unusual turlough/woodland transition. Also present is the Annex II species <i>Lutra lutra</i> . Contains only documented example of <i>Chenopodium rubri</i> of submountainous river. Has important wintering waterfowl populations notably <i>Cygnus cygnus</i> in internationally important numbers and <i>Cygnus columbianus</i> and <i>Anas penelope</i> in nationally important numbers. Has breeding <i>Vanellus vanellus</i> .	(Turloughs) fed by springs and a partly subterranean river surrounded by woodland pasture and limestone heath. The turlough plays host to two nationally rare species <i>Limosella aquatica</i> and <i>Filipendula vulgaris</i> . The juxtaposition between woodland and turlough provides ideal habitat for several important invertebrate faunal communities. The Red Data Book species <i>Martes martes</i> occurs within the site.
000255	Croaghill Turlough SAC	Goodwillie R. (1992). Turloughs Over 10ha - Vegetation Survey & Evaluation. Unpublished report for National Parks and Wildlife Service Dublin.	The site is one of the wettest peat-filled turloughs known but it also illustrates many fine wet-dry zonations because of the topography it has a long flooding period. It includes a small area of wet annual vegetation including <i>Rorippa islandica</i> as a specialist rare species. It has a long flooding period.	Croaghill Turlough occupies a very undulating basin so that when it dries out it breaks up into a series of semi-permanent pools with intervening mounds or ridges. The vegetation is correspondingly diverse: most is based on peat and the large area of

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				Persicaria amphibia is noteworthy. The site appears eutrophic. There is no marl (CaCo3) deposition.
000286	Kiltartan Cave (Coole) SAC	Coleman J.C. (1965). The Caves of Ireland. Anvil Books Tralee. Kinahan G.H. Foot F.B. and Symes R.G. (1863). Members of the Geological Survey of Ireland Sheets 124 125 (148-150). Mullan G. (1995). An Unusual Deposit in Coole Cave in Co. Galway. Irish Speleology 15. McAney C.N. (1994). West of Ireland Hibernation Survey 1994. Unpublished report of the Vincent Wildlife Trust. London. O'Sullivan P. (1994). Bats in Ireland. The Irish Naturalists' Journal. Special zoological supplement. 21pp. Self C.A. (1981). Caves of County Clare. University of Bristol Spelagological Society.	The site is a fine example of a natural limestone 'fossil' cave. It shows many representative cave features including gour pools and straw stalactites. As this site contains >50 Rhinolophus hipposideros in winter it is a site of international importance. It is the only major cave in the area and the only major hibernation site known for the Lesser Horseshoe in County Galway.	This site is a natural limestone cave. It is situated north of Coole Park just off the main Galway-Ennis road County Galway. It is approximately 800 m in length and is a segment of an abandoned streamcourse of the Gort River. The entrance to the cave is reached by a 3 m descent after which the cave divides into two passageways. It is used as a hibernation site by approximately seventy-five Rhinolophus hipposideros. Most of the bats are found in the right-hand side passage.
000296	Lisnageeragh Bog and Ballinastack Turlough SAC	CEC (2007). The Interpretation Manual of European Union Habitats. Version EUR 27. European Commission DG Environment Brussels Nature and Biodiversity. <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_</a>	Lisnageeragh Bog and Ballinastack Turlough SAC is a large composite	Lisnageeragh Bog and Ballinastack Turlough SAC

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>im.pdfCoxon C. (1986) A study of the geology hydrology and geomorphology of turloughs. Unpublished Ph.D. Thesis University of Dublin Trinity College Ireland. Coxon C.E. (1987a) The spatial distribution of turloughs. Irish Geography 20: 11-23. Coxon C.E. (1987b) An examination of the characteristics of turloughs using multivariate statistical techniques. Irish Geography 20: 24-42. Coxon C. and Coxon P.(1994) Carbonate deposition in turloughs (seasonal lakes) on the western limestone lowlands of Ireland II: the sedimentary record. Irish Geography 27: 28-35.Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Cummins S. Bleasdale A. Douglas C. Newton S. O'Halloran J. &amp; Wilson H.J. (2010) The status of Red Grouse in Ireland and the effects of land use habitat and habitat quality on their distribution. Irish Wildlife Manuals No. 50. National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/DEHLG">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/DEHLG</a> (2000). National Parks and Wildlife Service Conservation Plan. Draft II. Lisnageeragh Bog and Ballinastack Turlough cSAC: Site Code 296 County Galway.Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin. Douglas C. and Grogan H. (1985). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon Part II. Internal Report to the Forest and Wildlife Service Dublin.Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014a) Raised Bog Monitoring and Assessment Survey 2013 - Garriskil Bog – Site Report. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014b) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin.Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at: <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a>Fossitt J. (2000). A Guide to Habitats in Ireland. The</p>	<p>site which contains good examples of the priority Annex 1 habitats Active Raised Bog and Turlough along with the non-priority habitats Degraded Raised Bog and Depressions on peat substrates of the Rhynchosporion. Raised bog is a rare habitat in the EU and one that is becoming increasingly scarce and under threat in Ireland. Ireland has a high proportion of the total EU resource of Atlantic raised bog (over 50%) and so has a special responsibility for its conservation at an international level. The bog is one of the most extensive remaining in east Galway and the quality of the habitat is generally good despite a long history of drainage and peat-cutting. The site already supports a significant area of high quality raised bog microhabitats. Although the turlough area is rather small it is unusual in that it lies adjacent to a raised bog which requires very different hydrological conditions</p>	<p>consists of 2 raised bogs and a small turlough situated about 3 km north-east of Glenamaddy in Co. Galway. The raised bogs include the main area Lisnageeragh Bog and cutover which covers approximately 383.5 ha and the smaller area c.0.9km to the east which comprises 4.27 ha and is within Keeloges Bog NHA (000281). Ballinastack Turlough lies at the north-west end of Lisnageeragh Bog and covers approximately 23.7 ha. The site includes almost 273 ha of uncut raised bog and approximately 114.77 ha of cutover bog.The remaining 48.3 ha of the SAC includes wet and dry grassland and conifer plantations developed on the bog margins. The</p>



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		<p>Heritage Council Ireland. Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin. Goodwillie R. (1992) Turloughs over 10 hectares: Vegetation survey and evaluation. Unpublished report to the National Parks and Wildlife Service Dublin. Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at: <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a> National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin. NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin. NPWS (2007) Turloughs Draft Backing Document. In: The Status of EU Protected Habitats and Species in Ireland. Backing Documents Article 17 Forms Maps. Volume 2. Unpublished National Parks and Wildlife Service Report Dublin. pp. 510-550. NPWS (2008) The Status of EU Protected Habitats and Species in Ireland. Conservation Status in Ireland of Habitats and Species listed in the European Council Directive on the Conservation of Habitats Flora and Fauna 92/43/EEC. Unpublished National Parks and Wildlife Service Report Dublin. NPWS (2013) The Status of EU Protected Habitats and Species in Ireland. Habitat Assessments Volume 2 Version 1.1. Unpublished Report National Parks and Wildlife Services Department of Arts Heritage and the Gaeltacht Dublin Ireland. 390-408. NPWS (2013). The Status of EU Protected Habitats and Species in Ireland. Version 1.0. Unpublished Report National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin Ireland. NPWS (2016a). Lisnageeragh Bog and Ballinastack Turlough SAC (site code 000296) Conservation objectives. National Parks and Wildlife Service Ireland. NPWS (2016b). Lisnageeragh Bog and Ballinastack SAC (site code 000296) Conservation objectives supporting document - raised bog habitats. National Parks and Wildlife Service Ireland. NPWS (2016b). Lisnageeragh Bog and Ballinastack SAC (site code 000296) Conservation objectives supporting document - Turloughs. National Parks and Wildlife Service Ireland. NPWS (in prep.). Lisnageeragh Bog and Ballinastack SAC (site code 000679) Draft Raised Bog Restoration Plan. National Parks and Wildlife Service Ireland. Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatabosbeheer The Netherlands. Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland:</p>	<p>to develop. This makes the transition between the two ecosystems extremely rare and of high ecological value.</p>	<p>bedrock geology of the site is carboniferous limestone. Lisnageeragh Bog is a good example of a Western raised bog that forms an irregular plateau blanketing low drumlin hills and hollows. The SAC section of Keeloges Bog NHA consists of 3.4 ha of high bog and 0.85 ha of cutover in Ballyhard townland which has been restored as part of an EU LIFE project (2011-15). This area was afforested with conifers in 1969 and was recently clear-felled and the drains blocked in an effort to restore raised bog vegetation as part of this EU project. Lisnageeragh Bog was also part of EU Cohesion Fund restoration project (in the 1990s) in the form of drain blocking on the high bog and another</p>

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		<a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a>		<p>Coillte EU LIFE (2004-08) funded project which included the felling of mature conifer plantations both on the high bog and cutover. This project was successful in restoring Active Raised Bog (ARB) supporting conditions on the high bog and restoring transitional areas between the high bog and adjacent mineral soils. Ballinastack Turlough occupies a depression and merges with the raised bog and cutover to the east and south and agricultural fields to the north and west. The soils of the turlough are peaty and the vegetation is sedge dominated. Lisnageeragh Bog is one of the most extensive raised bogs remaining in east Galway. It is relatively intact</p>

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				<p>with 61% of the original bog still present but the quality of the habitat has been severely impacted by a long history of drainage and peat-cutting which continues at this site. The area of Active Raised Bog on this site has expanded by 16.6 ha between 1994 and 2012 due to the two EU funded restoration projects which blocked drains and felled conifer plantations on the bog. The wettest areas on the bog have well developed hummock/hollow/pool systems with bog moss Sphagnum species cover of up to 90% and inter-connecting pools covering over 25% of the bog surface. The presence of a number of flushes some of which are dominated by</p>

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				<p>                     Purple Moor-grass (<i>Molinia caerulea</i>) adds to the overall habitat diversity of the high bog. Associated with the bog and to the north-east is an area of wet grassland on heavy clay soil which grades into abandoned and regenerating cutover bog. This area is wet and rich in bog mosses. There is also an extensive area of cutover bog in the south-west comprising a mixture of dry banks dominated by Heather and wet pools. Ballinastack Turlough whose winter floodwaters lap at the edge of the raised bog and cutover has a vegetation dominated by Common Sedge (<i>Carex nigra</i>). The natural transition between Ballinastack turlough and the                 </p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>                     bog has been altered to some extent by historic turf-cutting and agricultural land use. There is a well-defined zonation of the vegetation which relates to the depth and duration of flooding plus soil type and management. It extends downwards from cutover raised bog through lightly grazed Purple Moor-grass and rush (<i>Juncus</i> spp.) dominated grassland on peat to a less grazed tall Common Sedge wet fen and swamp species dominated vegetation on more calcareous peat and finally a more grazed grassy and herb rich sward on silty peat which leads down to the swallow holes which drain the turlough. The sandy silty soils in the north west are more heavily used for agriculture and                 </p>

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				<p>where not fertilised have the usual grass/sedge and herb rich sward typical of the upper edges of turloughs. The co-occurrence of turlough and raised bog is a very rare phenomenon and the maintenance/restoration of transitions between these two priority habitats is of high conservation significance. Site specific conservation objectives have been developed for Lisnageeragh Bog for Active Raised Bog habitat to help meet the national conservation objectives for raised bogs. One of the key objectives of the plan is to restore the area of Active Raised Bog to 58.8ha. There is also long-term potential for 2.6 ha of bog peat-forming habitats (BPFH) to develop if</p>

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				<p>restoration measures are undertaken on cutover areas. Such detailed objectives have yet to be developed for the Keeloges Bog subsite of the SAC but will be produced as part of the restoration plan for the Keeloges Bog NHA site. Current information suggests that while raised bog vegetation will be restored to some of the site the current area restored is too small to support Active Raised Bog. The drain blocking on the high bog and cutover will reduce the impact of drainage on the ecology of this section of Keeloges Bog and may in the long term help support the eventual restoration of some of the Degraded Raised Bog on the open high bog in the NHA to Active</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>Raised Bog. The SAC section of Keeloges Bog is being actively managed for conservation by the landowner Coillte as part of an EU LIFE Project and most of the required restoration measures have already been carried out. An After LIFE management plan is being developed by Coillte for the future conservation management of that part of the SAC.</p>
000330	Tully Mountain SAC	N/A	<p>The main interest in this site lies in the occurrence of alpine heath of the Arctostaphylos-Juniperus type a habitat now rare in western Ireland. Though it has suffered some disturbance it is still of generally good quality. The dry heath component of the site has been greatly damaged by over-grazing and is now of only moderate interest.</p>	<p>This for the most part is an upland site. The south-western boundary is the HWM along the coast. Heath in mosaic with rock bare soil and Pteridium aquilinum is the dominant habitat. Flushes and bog type vegetation occur in the wetter areas. Small upland lakes and streams</p>



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				are present.
000397	Red Bog Kildare SAC	Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Kildare. Unpublished report An Foras Forbartha Dublin.	The site displays a succession from open water (eutrophic in status) to ombrotrophic bog. Transition mire vegetation is considered to be well represented at this site with some typical species. A small colony of <i>Larus ridibundus</i> has bred in the past (current status unknown) which is one of few nesting sites in eastern Ireland and the site also has breeding <i>Aythya fuligula</i> and <i>Fulica atra</i> .	The site comprises a relatively small wetland which lies between moranic ridges. Open water is a principal habitat though there are no obvious inflowing or outflowing streams. Open water is fringed by various wetland habitats with bog (raised type) fens and freshwater marsh. Some willow ( <i>Salix</i> spp.) occurs. The surrounding land is improved grassland. An extensive quarrying operation occurs to the east and south of site.
000432	Barrigone SAC	An Foras Forbartha. ASI report 1972. O'Criodain C. (1992). Conservation of grassland sites of scientific interest in Ireland. Internal report to National Parks and Wildlife Service Dublin. Keane S. And Walsh T. NHA internal report to the National Parks and Wildlife Service Dublin. Lavery T. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> .	The importance of this site lies primarily in the diverse range of habitats and species present within such a small area. This includes the protected plant <i>Viola hirta</i> and the Annex II species <i>Euphydryas aurinia</i> for which the site holds one of the biggest colonies in the county.	Topographically the site slopes gently upwards from north to south from 15m on the north boundary to almost c. 40m at the south. From here there is a distant view of Aughinish Island and the Shannon Estuary to the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>60% of the site is dominated by the priority Annex I habitats. In an area where agricultural activity is high and in this case intensive quarrying is carried out these dry grassland habitats are very important. Limestone outcrops throughout the site. Calcareous grassland is well represented and is notably species rich particularly for orchids of which 8 species have been recorded including the scarce <i>Neotinea maculata</i>. Associated with the limestone pavement and calcareous grassland are areas of <i>Juniperis communis</i> scrub.</p>	<p>North. Barrigone is an area of dry grassland with limestone outcrops together with associated scrub. The substrate bedrock and microclimate contribute to produce a specific and substantial range of plants.</p>
000463	Balla Turlough SAC	<p>Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to the National Parks and Wildlife Service. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.</p>	<p>The site is unusual in having a peat dome which shows a possible route for the formation of a raised bog. The vegetation here includes <i>Stellaria palustris</i> which is more often a fen plant and is seldom found in turloughs. It also has a small area of the peculiar and more usually calcifuge vegetation</p>	<p>The turlough lies in a North-South depression crossed by a main road (Castlebar-Claremorris). Water enters at the edges (particularly South &amp; West) and there is a pronounced peaty dome in the centre which is flooded less often</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			associated with oligotrophic marl deposits.	than the margins. The groundwater is oligotrophic in nature and there is some marl (CaCO <sub>3</sub> ) precipitation in ditches - some of them former peat cuttings.
000466	Bellacorick Iron Flush SAC	Scannell M.J.P. (1958). <i>Saxifraga hirculus</i> in Co. Mayo (Dooleeg). Irish Naturalists' Journal 12:248. King A.L.K. and Scannell M.J.P. (1960). Notes on the vegetation of a mineral flush in Co. Mayo. Irish Naturalists' Journal 13:137-140. Synnott D. (1970). <i>Thelypteris palustris</i> and <i>Malaxis paludosa</i> in N-W Mayo. Irish Naturalists' Journal 16:282. Lockhart N.D. (1987). The occurrence of <i>Homalothecium nitens</i> (Hedw.) Robins in Ireland. Journal of Bryology 14:511-517. Lockhart N.D. (1989). Three new localities for <i>Saxifraga hirculus</i> L. in Ireland. Irish Naturalists' Journal 23:65-69. Lockhart N.D. (1991). Phytosociological and Ecological Studies of Lowland Blanket Bog Flushes in West Galway and North Mayo. Unpublished Ph.D. Thesis National University of Ireland.	An historically important site as the only recorded station for the moss <i>Meesia triquetra</i> in Britain or Ireland now thought to be extinct here. Site is still valuable for one of only six populations of <i>Saxifraga hirculus</i> in the Republic Ireland and for the presence of several more species including <i>Hammarbya paludosa</i> and <i>Homalothecium nitens</i> .	A small minerotrophic flush developed on glacial till overlying calcareous sandstone with some lowland blanket bog and some <i>Molinia</i> / <i>Angelica sylvestris</i> vegetation showing incipient scrub development. Site is entirely surrounded by extensive peat extraction works.
000484	Cross Lough (Killadoon) SAC	Couhoun K. (1998) I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997) The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. 2. Inventory of lagoons and saline lakes. Unpublished Report to the National Parks and Wildlife Service Dublin. Lloyd C. (1982) Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1989) Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge.	A high energy shoreline with a boulder-shingle ridge extending for almost 1 km. Considered typical of the type of perennial vegetation of stony bank habitat as found on the west coast of Ireland. No known rare or scarce species	Situated near Killadoon village in south-west Mayo this relatively small coastal site has a good diversity of habitats. Cross Lough is a coastal freshwater lake which has a

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>which are characteristic of the habitat. Site displays a fine gradation from sandy beach through shingle-boulder ridge dry grassland and freshwater coastal lake. Traditional site for breeding <i>Sterna sandvicensis</i> with 70 pairs in 1995.</p>	<p>brackish character and may become lagoonal at times. The lake narrows in its southern part and there is dense swamp vegetation. Wet grassland occurs adjacent to the lake on the landward side. On the seaward side there is a band of dry grassland which has the character of machair in places. There is then a boulder beach a shingle beach and finally a sandy beach. The main landuse in the site is grazing by cattle and sheep.</p>
000492	Doocastle Turlough SAC	<p>Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation Survey &amp; Evaluation. Unpublished report to National Parks and Wildlife Service. Sheppard R. (1993). Irelands Wetland Wealth. Irish Wildbird Conservancy Dublin. Goodwillie R. Buckley P. and Douglas C. (1993). Owenmore River : EIA of Proposed Arterial Drainage. Unpublished report to National Parks and Wildlife Service.</p>	<p>This site is the best developed of the three most northerly turloughs in the country with a good diversity of vegetation and several plants uncommon in the locality. There is some nutrient-poor fen with <i>Galium uliginosum</i> - its only station in east Mayo. No arterial or other drainage has been carried out. The bird</p>	<p>Doocastle Turlough occupies a shallow basin in rolling drift-covered lowlands. Its base retains some water in summer in a series of pools and ditches but it is predominantly grass-covered and closely grazed. A central rise is flooded less often</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			population is relatively large also.	and has more oligotrophic vegetation than elsewhere. The eastern end includes a castle on an elevated site.
000495	Duvillaun Islands SAC	<p>Berrow S.D. Whooley P. &amp; Ferriss S. (2002). Irish Whale and Dolphin Group cetacean sighting review (1991-2001). Irish Whale and Dolphin Group. 34pp. Berrow S.D. Whooley P. O'Connell M. &amp; Wall D. (2010). Irish cetacean review (2000-2009). Irish Whale and Dolphin Group. 60pp. B.I.M. (1997). The physical interactions between grey seals and fishing gear. Report to the European Commission DG XIV. An Bord Iascaigh Mhara (The Irish Sea Fisheries Board) Dún Laoghaire Co. Dublin. Ireland. 74pp. B.I.M. (2001). Grey seal interactions with fisheries in Irish coastal waters. Report to the European Commission DG XIV. Study 95/40. An Bord Iascaigh Mhara (The Irish Sea Fisheries Board) Dún Laoghaire Co. Dublin. Ireland. 74pp. Cabot D. (1967). The birds of Duvillaun More Island Co. Mayo. Irish Naturalists' Journal 15: 357-359. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keefe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M and Ó Cadhla O. (2004). Aerial surveying of grey seal breeding colonies on the Blasket Islands Co. Kerry the Inishkea Group Co. Mayo and the Donegal coast during the 2003 breeding season. Report to the National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. Coastal &amp; Marine Resources Centre University College Cork. 10pp. Cronin M.A. Duck C.D. and Ó Cadhla O. (2007). Aerial surveying of grey seal breeding colonies on the Blasket Islands Co. Kerry the Inishkea Group Co. Mayo and the Donegal coast Ireland. J. Nat. Conserv. 15 (2): 73-83. I.W.D.G. (1990-2011). Various published and online Irish Whale and Dolphin Group sources. These included all Survey Reports delivered via the PReCast &amp; ShOPS ship survey programmes in addition to information gathered in the ISCOPE (2003-2005) and ISCOPE II (2006-2009) projects. Kiely O.R.M. (1998). Population biology of grey seals (<i>Halichoerus grypus</i> Fabricius 1791) in western Ireland. PhD. thesis for the National University of Ireland University College Cork. Ireland. Kiely O. and Myers A.A. (1998). Grey Seal (<i>Halichoerus grypus</i>) pup production at the Inishkea Island group Co. Mayo and Blasket Islands Co. Kerry. Biology and Environment: Proceedings of the Royal Irish Academy 98B: 113-122. Leonard N.C. (1966). Bird Population of the Duvillaun Islands. Cyclostyled report Dublin. Lloyd C.S. (1982). An</p>	The Duvillauns form part of a larger group of islands together with the Inishkeas and Inish Keeragh which hold c. 33% of the national population of <i>Halichoerus grypus</i> . They support a nationally important wintering population of <i>Branta leucopsis</i> and nationally important breeding populations of five seabird species notably <i>Larus marinus</i> and <i>Phalacrocorax carbo</i> . Small colonies of <i>Hydrobates pelagicus</i> and <i>Sterna paradisaea</i> also occur. The site also provides habitat for the Annex II cetacean species <i>Tursiops truncatus</i> . Boat use or marine tourism activity by the human population may cause disturbance to natural behaviours and impact negatively on the species within the site.	Site comprises a group of uninhabited islands rocks and reefs situated at the southern tip of the Mullet Peninsula. Duvillaun More and Duvillaun Beg are the main islands but Turduvillaun Gaghta Island Keely Island and Leamareha Island are included as well as the surrounding marine areas. Much of Duvillaun More is above the 30m contour and there are cliffs at the north-west west and south-west sides. About two-thirds of this island is covered by a grassy sward. Duvillaun Beg also has a grassy sward and an extensive intertidal shoreline.

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		<p>Inventory of Seabird Breeding Colonies in The Republic Of Ireland. Unpublished report to the Forest and Wildlife Service Dublin Report. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Grimmett R.F.A. and Jones T.A. (1989). Important Bird Areas in Europe. ICBP Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Ó Cadhla O. and Strong D. (2003). Grey seal population status at islands in the Inishkea Group as determined from breeding ground surveys in 2002. Report to the National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. Coastal &amp; Marine Resources Centre University College Cork. 7pp. Ó Cadhla O. Strong D. O'Keeffe C. Coleman M. Cronin M. Duck C. Murray T. Dower P. Nairn R. Murphy P. Smiddy P. Saich C. Lyons D. and Hiby A.R. (2007). An assessment of the breeding population of grey seals in the Republic of Ireland 2005. Irish Wildlife Manuals No. 34. National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 60pp. Ó Cadhla O. and Strong D. (2007). Grey seal moult population survey in the Republic of Ireland 2007. Report to the National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 22pp. Oudejans M. (2008). Bottlenose dolphins in northwest Ireland. A study to determine population size habitat use and site fidelity in the coastal waters of County Mayo. Report to The Heritage Council Kilkenny. 29pp. Oudejans M. Ingram S. Englund A. Visser F. &amp; Rogan E. (2010). Bottlenose dolphins in Connemara and Mayo 2008-2009. Movement patterns between two coastal areas in the west of Ireland. Report to the National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin. 29pp. Oudejans M. Ingram S. Englund A. Visser F. &amp; Rogan E. (2011). The bottlenose dolphin in NW Ireland: distribution abundance and movement patterns. Conference paper presented to the 8th Annual Marine Biological Association Postgraduate Conference Queen's University Belfast. 24pp. Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. Unpublished report to the Minister for Fisheries Forestry and Wildlife Dublin. Warner P. (1984). Grey Seal Census at the Inishkea Group and the Blaskets 1984. Unpublished report to the Forest and Wildlife Service Dublin.</p>		<p>The other islets are mostly rocky knolls.</p>
000500	Glenamoy Bog Complex SAC	<p>Bassett A. (1983). Report on the Conservation Value of Irish Coastal Sites : Machair In Ireland. Unpublished report. Forest and Wildlife Service Dublin. Bassett A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy. 85B : 1-20. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd</p>	<p>The blanket bog is of international importance as a prime example of the extreme oceanic</p>	<p>An extensive site on the north Mayo coast underlain by metamorphic rocks</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>K.B. Mellon C. Coveney J. (1993). The Second International Chough Survey in Ireland 1992. Irish Birds: 5: 1-10. Blockeel T.L. (1997). A Revision of British (and Irish) Specimens of Drepanocladus vernicosus. Unpublished report to JNCC. Blockeel T.L. and Long D.G. (1998). A Check-list and Census Catalogue of British and Irish Bryophytes. British Bryological Society Cardiff. Blockeel T.L. (2000). The identification of Drepanocladus revolvens and D. cossonii and their distribution in Britain and Ireland. Bulletin of the British Bryological Society 75: 32-40. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Central Fisheries Board (2003). Irish Salmon Catches 2001. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2003. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar survey of Irish machair sites 1996. Vols. 3 and 4 Irish Wildlife Manuals Dúchas The Heritage Service Dublin. Doris Y. Clabby K.J. Lucey and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Doyle G.J. (1982). The vegetation ecology and productivity of Atlantic blanket bog in Mayo and Galway western Ireland. Journal of Life Sciences of The Royal Dublin Society. 3: 147-164. Doyle G.J. (1990). Phytosociology of Atlantic blanket bog complexes in north-west Mayo: In: Doyle G.J. (Ed). Ecology and conservation of Irish peatlands. 75-90. Royal Irish Academy Dublin. Doyle G.J. O'Connell C.A. and Foss P.J. (1987). The vegetation of peat islands in bog lakes in County Mayo western Ireland. Glasra 10: 23-25. Doyle G.J. (1973). Primary production estimates of native blanket bog and meadow vegetation growing on reclaimed peat at Glenamoy Ireland. In: Bliss L.C. &amp; Wielbolaski F.E. (Eds.) Primary Production and Production Processes Tundra Biome. pp 141-151. Stockholm. Douglas C. Garvey L. Kelly L. O'Sullivan A. and Van Doorslaer L. (1989). A Survey to Locate Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to Forest and Wildlife Service Dublin. Foss P.J. and McGee E. (1987). A Survey to locate Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to Forest &amp; Wildlife Service Dublin. Hedenäs L. (1989). The genera Scorpidium and Hamatocaulis gen. Nov. in northern Europe. Lindbergia 15: 8-36. Heuff H.E. (1976). An Ecological Study in Relation to Phytoproduction in some Bog Pools in a Western Blanket Bog (Glenamoy Co Mayo Ireland). Internal Report of the Hugo de Vries Laboratory No. 27. Amsterdam. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland pp. 365-416 in: Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority sites for conservation I: Northern Europe. BirdLife International (BirdLife conservation Series No. 8) Cambridge UK. Lockhart N.D. (1987). The occurrence of Homalothecium nitens (Hedw.) Robins in Ireland. J. of Bryology 14: 511-517. Lockhart N.D. (1989). Three new localities for Saxifraga hirculus L. in Ireland. Irish Naturalists' Journal 23: 65-69. Lockhart N.D. (2003). Rare plant report: Saxifraga hirculus. Unpublished. National Parks &amp; Wildlife Service Dublin. Lloyd C. (1982). Inventory Of Seabird Breeding</p>	<p>form of lowland blanket bog. Associated with the bog are other annexed habitats - transition mires Rhynchosporion vegetation dystrophic lakes and Juniperus communis formations. Vegetated sea cliffs extend for about 20km on the north fringe of the site while machair now badly degraded occurs to the west. A population of Petalophyllum ralfsii occurs this is one of the most important stations in Ireland for this liverwort. Also present is a population of the rare moss Drepanocladus vernicosus and recently discovered populations of Saxifraga hirculus. The site is important for the conservation of Salmo salar the rivers functioning primarily as spate fisheries. Spawning habitat is good. Cliffs have important seabird colonies notably of Hydrobates pelagicus and Fratercula arctica. Falco peregrinus Falco columbarius and Pyrrhocorax pyrrhocorax are other Annex I Birds Directive species which</p>	<p>mostly of schists and quartzites. Dominated by low-level undulating blanket bog rising to the peaks of Maumakeogh (379m) and Benmore (343m) to the East and a fringe of high sea cliffs (up to 275 m) on the North fringe. Area is drained by four rivers - Muignabo Glenamoy Belderg and Glenglasra. Site includes one medium sized lake. Owing to its exposed position site receives rainfall with high concentrations of magnesium and potassium. In addition to the annexed habitats site has marine water estuarine system various types of heath and grassland and exposed rock. Much of the areas surrounding the site are now planted with conifers.</p>

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		Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland - In: Grimmets R.F.A. and Jones T.A. (Eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore J.J. Dowling P. and Healy B. (1975). Glenamoy Ireland. In: Rosswall T. and D Rea Heal O.W. (Eds). Structure and Function in Tundra Ecosystems. Ecological Bulletin (Stockholm) 20: 324-343. North Western Regional Fisheries Board (2002). Vincent Roche provided information in a letter to Dúchas dated the 19th September 2002. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: An Anglers Guide. Merlin Unwin Books London. Schouten M. (1984). Some Aspects of the Biogeographical Gradient in Irish Ombrotrophic Bogs. Proceedings of the 7th International Peat Congress Dublin. pp 414-432.	breed in the site.	
000503	Greaghans Turlough SAC	Goodwillie R. (1992). Turloughs Over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin.	The site is somewhat uniform because of the topography but what vegetation it has is well developed. There is a relatively large stand of wet annual plants which is otherwise scarce in the locality. Wintering whooper swans add significantly to its value.	Greaghans Turlough occupies a shallow depression edged by farmland east of Ballinrobe. The northern edge is the deepest and has several swallow holes and collapses which in summer take water from two small inflowing streams. The soil is predominantly marl with a thin peaty layer but there is little current precipitation. The main vegetation types are based on Carex nigra and Persicaria amphibia. Two small semi-permanent ponds exist.
000527	Moore Hall (Lough	McAney C.M. (1994). The Lesser Horseshoe Bat in Ireland - Past Present and Future.	As >200 Lesser	This site consists of



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
	Carra) SAC	Folia Zoologica 43(4): 384-392.O'Sullivan P. (1994). Bats in Ireland. The Irish Naturalists' Journal. Special zoological supplement. 21pp.	Horseshoe Bats (Rhinolophus hipposideros) use this site throughout the year as both a winter and summer site it is a site of international importance. This is the largest known site for this species at its northern distribution limit in Europe.	three locations in a wood in Co. Mayo close to Lough Carra which are used throughout the year at various times by >200 Lesser Horseshoe Bats. One location a series of cellars and an underground passage in the ruins of Moore Hall House is used by >100 bats in winter; a second winter site -close to the ruins- consists of a drainage passage and is used by >50 bats; a third location -a two storey former dwelling in the grounds of the house- is used by >200 bats as a summer breeding site. The surrounding mixed woodland and lake shore provide ideal foraging habitat.
000534	Owenduff/Nephin Complex SAC	Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a> :February 2001.Curtis T.G.F. & McGough H.N. (1988). The Irish Red Data Book. 1: Vascular Plants. Stationery Office Dublin.Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-97. Statistical Compendium of River Quality Data.	Extensive tracts of deep blanket bog dominate most of this site. It occurs both on gently undulating terrain and	This is a large inland site which is underlain by schists and gneisses in the west and quartzite

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		<p>Electronic Publication on Disk. Environmental Protection Agency Wexford. Douglas C. Garvey L. Kelly L. O'Sullivan A. and Van Doorslaer L. (1989). A Survey to Locate Blanket Bogs of Scientific Interest in Co. Mayo. Unpublished report to the Forest and Wildlife Service Dublin. Foss P.J. and McGee E. (1987). A Survey to Locate Blanket Bogs of Scientific Interest. Unpublished report to the Forest and Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83-1993/94. GWFG Study Research Report No. 8. Hart H.C. (1883). Report on the flora of the Mayo-Galway mountains. Proceedings of the Royal Irish Academy 3B: 694-768. Haworth P.F. (1987). An Upland Study of West Galway. Unpublished Report. World Wildlife Fund UK. Heuff H. (1987). The Vegetation of Irish Rivers. Unpublished report to the Forest and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland pp. 365-416 in: Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation I: Northern Europe. BirdLife International (BirdLife Conservation Series No. 8) Cambridge. Lockhart N.D. (1989). Three new localities for <i>Saxifraga hirculus</i> L. in Ireland. The Irish Naturalists' Journal 23: 65-69. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine <i>Falco peregrinus</i> breeding population in the Republic of Ireland. Bird Study 42: 20-30. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Roden C.M. (1986). A survey of the flora of some mountain ranges in the west of Ireland. The Irish Naturalists' Journal 22: 52-59. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland - Irish Red Data Book 2: Vertebrates. H.M.S.O. Belfast.</p>	<p>mountain slopes and is rated as of International Importance. Other Annex I habitats occurring within the site are dystrophic lakes transition mires oligotrophic lakes Juniper scrub wet heath alpine heath and floating river vegetation. In addition to blanket bog of international importance the Owenduff River which drains most of the site is one of the best examples of a little-modified river system in western Europe. The site contains the EU Habitats Directive Annex II plant species <i>Saxifraga hirculus</i> and <i>Drepanocladus vernicosus</i> and the Annex II animals <i>Lutra lutra</i> and <i>Salmo salar</i>. Four Annex I Bird Directive species occur all typical bogland and upland species: <i>Anser albifrons flavirostris</i> <i>Falco peregrinus</i> <i>Falco columbarius</i> and <i>Pluvialis apricaria</i>.</p>	<p>in the east and south. A large proportion of the site (c.25%) lies above 200 m and these upland areas contain spectacular mountain cliffs and corrie lakes. Many of the mountain peaks reach altitudes of over 500 metres while 721 metres is the height of the tallest summit. Most of the site is drained by the Owenduff River and its complex network of tributaries and streams which generally flow in a south-east to north-west direction. Much of the land surrounding the site is afforested with conifers.</p>
000541	Skealaghan Turlough SAC	<p>Goodwillie R. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report for National Parks and Wildlife Service Dublin. Coxon C.E. (1986). A Study of the Hydrology and Geomorphology of Turloughs. Unpublished Ph. D thesis. Trinity College Dublin. MacGowran B. (1985). Phytosociological and Ecological Studies</p>	<p>Skealaghan is of considerable value because of the high level of diversity in flora and</p>	<p>This turlough is set in rolling countryside over 3km from the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		on Turloughs in the West of Ireland. Unpublished Ph.D thesis. National University of Ireland.	fauna (eg. birds). The vegetation is well developed and although controlled by grazing is not significantly damaged by it. The site was rated 19th overall in an evaluation of major Irish turloughs in 1990.	nearest river (Robe). It has some rock exposures on the northern edge and also in a central rise. Vegetation diversity is high because of the presence of long-lasting water in ditches and abandoned peat cuttings. The habitats are fairly oligotrophic and there is some precipitation of marl (CaCo3).
000542	Slieve Fyagh Bog SAC	Douglas C. Garvey L. Kelly L. O'Sullivan A. and Van Doorslaer L. (1989). A Survey to Locate Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to the Wildlife Service Dublin. Foss P.J. and McGee E. (1987). A Survey to Locate Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to the Wildlife Service Dublin.	This site contains one of the few relatively intact mountain blanket bogs in this region and is of value for its size and diversity of blanket bog types. Significant areas of intact blanket bog remain although parts of the site have been damaged by overgrazing and erosion.	An upland plateau underlain by a bedrock of shales and sandstones supporting a range of blanket bog types including mountain highland and lowland. A series of small oligotrophic lakes occur on the plateau (c.300m) and several streams descend from this area to the lowlands below. The steeply sloping plateau sides support acid

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				grassland communities.
000571	Charleville Wood SAC	<p>Ashe P. (1988). <i>Mycetobia obscura</i> Mamaev (Diptera: Anisopodidae) a species new to Ireland and a first record for the British Isles. <i>Bulletin of the Irish Biogeographical Society</i> 11: 2-5. Daly O.H. O'Neill F.H. &amp; Barron S.J. (in prep.) The monitoring and assessment of four EU Habitats Directive Annex I woodland habitats. <i>Irish Wildlife Manuals National Parks and Wildlife Service Department of Culture Heritage and the Gaeltacht Dublin</i>. European Commission (2013) Interpretation manual of European habitats. EUR 28. European Commission DG Environment Brussels. Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Offaly. Unpublished report prepared for Offaly County Council An Foras Forbartha Dublin. Fossitt J.A. (2000) A guide to habitats in Ireland. The Heritage Council Kilkenny. Kelly D.L. and Fuller S. (1988). Ancient woodland in central Ireland: does it exist? In Salvitani F. (Ed.) <i>Human Influence On Forest Ecosystems Development In Europe</i> 363-369 ESF FERN-CNR. Pitagora Editrice Bologna. Long M.P. &amp; Brophy J.T. (2019) Monitoring of sites and habitat for three Annex II species of whorl snail (<i>Vertigo</i>). <i>Irish Wildlife Manuals No. 104. National Parks and Wildlife Service Department of Culture Heritage and the Gaeltacht Dublin</i>. O'Neill F.H. &amp; Barron S.J. (2013) Results of monitoring survey of old sessile oak woods and alluvial forests. <i>Irish Wildlife Manuals No. 71. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin</i>. Perrin P. Martin J. Barron S. O'Neill F. McNutt K. &amp; Delaney A. (2008) National Survey of Native Woodlands. Volume I: Main report. Report submitted to the National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin. Perrin P.M. &amp; Daly O.H. (2010) A provisional inventory of ancient and long-established woodland in Ireland. <i>Irish Wildlife Manuals No. 46. National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin</i>. Speight M.C.D. (1985). Adjustments to the Irish hoverfly list (Dipt. Syrphidae). <i>Irish Naturalists' Journal</i> 21: 385-391. Speight M.C.D. (1988). <i>Elgiva sollicita</i> <i>Chyromya flava</i> and <i>Paykullia maculata</i>: insects new to Ireland. <i>Irish Naturalists' Journal</i> 22: 415-416. van der Sleen S. &amp; Poole A. (2002) Inventory of semi-natural woodlands in the eastern part of County Offaly Ireland: a pilot study for the national inventory of native woodlands. <i>Dúchas the Heritage Service Dublin</i>.</p>	<p>The woodland is one of a very few ancient woodlands in Ireland with some parts undisturbed for at least 200 years. Notable for its size and the occurrence of several rare insect species particularly <i>Mycetobia obscura</i>. The lake attracts locally to regionally important numbers of waterfowl. The site supports a large population of the rare snail <i>Vertigo moulinsiana</i>.</p>	<p>A large oak woodland on deep glacial deposits surrounded by estate parkland and agricultural grassland. Site includes a small lake partially overgrown by reed swamp with a wooded island and a stream bordering the western site margin.</p>
000581	Moyclare Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report for the Minister of State at the Department of Finance. Stationery Office Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report for National Parks and Wildlife Service Dublin. National</p>	<p>Moyclare Bog is a small raised bog site which contains examples of the Annex I habitats active raised bog degraded</p>	<p>The site is underlain by low permeability Waulsortian Carboniferous limestones. The</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National parks and Wildlife Service Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Raised Bogs of Scientific Interest. Internal report to the Forest and Wildlife Service Dublin.</p>	<p>raised bog and depressions on peat substrates (Rhynchosporion). Much of the bog surface is wet and has a moderate to high cover of Sphagnum moss. It supports Rhynchospora fusca a relatively rare species. Perhaps the most striking feature of this bog is the high proportion of active raised bog within the uncut dome (c.60%). The site occurs in close proximity to a number of important raised bogs close to the flood-plain of the River Shannon.</p>	<p>subsoil geology is dominated by silty/stoney till. Sections to the north indicate that shell marl underlies the peat in places. Most of the raised bogs in the vicinity have been cut away by Bord na Móna over the past 50 years. Part of the cutaway bog has been converted to improved grassland but is included in the site for hydrological reasons.</p>
000584	Cuilcagh - Anierin Uplands SAC	<p>Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Cavan. Unpublished report to Cavan County Council An Foras Forbartha Dublin. Douglas C. Dunnells D. Scally L. and Wyse Jackson M.B. (1990). A Survey to Locate Lowland-highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the Wildlife Service Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin. Reilly P.A. (2001). The Flora of County Cavan. National Botanic Gardens Glasnevin.</p>	<p>One of the more extensive areas of intact montane blanket bog in Ireland with exceptionally well developed vegetation cover in flat plateau areas including dystrophic lakes hummock and hollow complexes and large areas of wet heath and to a lesser extent dry heath. Inland cliffs support a range of locally rare mountain plants. The site is an important breeding area for several</p>	<p>An extensive area of upland composed of Yoredale shales and Carboniferous Sandstones straddling the international boundary with Northern Ireland and covered with montane blanket bog wet heath humid grassland with some small oligotrophic lakes and numerous headstreams and</p>

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			upland birds.	flushes. Inland cliffs of shales occur at the higher elevations and include important fossil remains notably goniatites.
000600	Cloonchambers Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance Stationery Office Dublin.</p> <p>Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon Part I. Internal report to the Forest and Wildlife Service Dublin.</p> <p>Fahy E. and Goodwillie R. (1974). A Preliminary Report on Areas of Scientific Interest in County Roscommon. An Foras Forbartha Dublin.</p> <p>Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin.</p> <p>Lavery T.A. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottenburg 1775 (Lepidoptera: Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-199.</p> <p>van Swaay C.A.M. and Warren M.S. (eds.) (2003). Prime Butterfly Areas in Europe - Priority Sites for Conservation. National Reference Centre for Agriculture Nature and Fisheries Ministry of Agriculture Nature Conservation and Fisheries the Netherlands.</p>	<p>This is a large and important western raised bog site which contains areas of active raised bog degraded raised bog and calcareous fen. The presence of an extensive flushed fen area on the high bog surface is a very rare feature of Irish raised bogs and is thus of considerable ecological and ecohydrological interest. Of particular botanical interest is the presence of <i>Vaccinium vitis-idaea</i> a scarce plant species usually associated with montane heath habitats in the west of Ireland.</p>	<p>It is thought that this site is underlain by low permeability clayey Carboniferous limestones. The subsoils are dominated by stony till in a silty matrix. The site has a complex sub-surface morphology with the raised bog having grown out of three separate lake basins. An area of base-rich fen vegetation has developed in one area where the peat depth is relatively shallow and there is upwelling of groundwater. Some of the marginal areas of cutover have been converted to semi-improved grassland but are included in</p>

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				the site for hydrological reasons.
000606	Lough Fingall Complex SAC	<p>Curtis T.G.F. (1983). Proposed Nature Reserve at Lough Fingall Co. Galway. Nature Reserve Schedule Wildlife Service Dublin. Unpublished.Curtis T.G.F. and McGough N.H. (1981). A Survey of The Wetlands of the Fergus Catchment and Adjoining Areas. Report to the Forest and Wildlife Service Dublin. Unpublised.Goodwillie R.N. (1992). Turloughs Over 10 ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin.O'Sullivan P. (1994). Bats in Ireland - Irish Naturalists' Journal. Special Zoological Supplement. 29 pp.Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin.Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.Goodwillie R. Heery S. and Keane S. (1997). Wetland vegetation in the Gort lowlands. Unpublished Report for Southern Water Global Ltd. and Jennings O' Donovan and Partners.</p>	<p>This site has six annexed habitats including four priority habitats - turloughs orchid-rich calcareous grassland cladium fen and limestone pavement. The turlough habitat is one of the largest and most important in the country. The interplay and gradation between habitats results in valuable zonation and a diversity of conditions suiting many less common species. The site has an internationally important breeding population of Rhinolophus hipposideros. Some scarce invertebrate species occur at the site and two Red Data Book plant species.</p>	<p>This site lying within 2-3km of Galway Bay is within the stretch of flat low-lying bare limestone known as the Ardrahan limestones. It is characterised by a complex of habitats some of which are scarce and specialised. It includes a number of oligotrophic turloughs in which the characteristic vegetation is well developed. Limestone pavement is well represented along with calcareous grassland juniper scrub and the rare lowlands Arctostaphylos - Dryas heath. There are also some infilling shallow turlough-type lakes. The well-known 'Burren flora' is well-represented. A large building at</p>

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				Cloghballymore provides a breeding site for the Lesser Horseshoe Bat ( <i>Rhinolophus hipposideros</i> ) while surrounding mixed woodland provides ideal foraging habitat.
000610	Lough Croan Turlough SAC	Goodwillie R. and Fahy E. (1974). A Preliminary Report on Areas of Scientific Interest in Co. Roscommon. Unpublished report to Roscommon County Council. An Foras Forbartha.Hutchinson C. (1979). Ireland's Wetlands and their Birds. Irish Wildbird Conservancy Dublin.Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin.Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.	The site is a diverse wetland with fen reedswamp and turlough communities in juxtaposition. While it all floods at times it seems drier now than it would naturally be. It still contains a large flora which includes <i>Rorippa islandica</i> - a turlough speciality. The wintering waterfowl numbers are moderate and the site is especially useful to dabbling duck. Also has breeding wildfowl including <i>Anas clybeata</i> and <i>Aythya-ferina</i> both Red Data Book species.	Loagh Croan lies in a flattish area of glacial till without limestone outcrops. It is split into two main parts - the east functions as a typical turlough with a wet reedy centre. The west is a fen floating in places which also floods in winter. In between there is undulating ground. Both basins retain some water all year round but there is little overground inflow. The vegetation is eutrophic for the most part.
000611	Lough Funshinagh SAC	Goodwillie R. and Fahy E. (1974). A Preliminary Report on Areas of Scientific Interest in Co. Roscommon. Unpublished report to Roscommon County Council. An Foras Forbartha Dublin.Humphreys G. (1978). Ireland's former premier breeding haunt of aquatic birds Irish Birds. 1 (2): 171-187.Hillis J.P. & Cotton D.C.F. (1989). Black-	The site is most unusual for its size and intermittent drying and provides a waterfowl	Lough Funshinagh is classified as a turlough since it fluctuates to a



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>necked Grebes breeding in Ireland Irish Birds 4 (1): 72. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Fox A.D. Norris D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin.</p>	<p>breeding area of exceptional quality. It is relatively unaffected by drainage and intensive agriculture so its vegetation structure is very interesting. It contains rare species of bird and plant and probably also of invertebrates. Formerly had the largest known population of Podiceps Nigricollis in the country a few pairs may still nest.</p>	<p>significant extent every year and occasionally dries out entirely. However in most years an extensive area of reed-filled water persists which provides excellent cover for wildfowl especially breeding species. The lake is fed by springs and a small catchment to the west. It is mesotrophic in quality with some marl (CaCo3) deposition and is surrounded by pastures.</p>
000634	Lough Nabrickkeagh Bog SAC	<p>Douglas C. Garvey L. Kelly L. O'Sullivan A. and Van Doorslaer L. (1989). A Survey to Locate Blanket Bogs of Scientific Importance in County Kerry and County Sligo. Unpublished report to the Wildlife Service Dublin.</p>	<p>This site holds one of a small number of good quality blanket bogs in the Ox Mountains. It supports a good diversity of vegetation communities and has a well-developed microtopography. Areas of intact blanket bog and actively revegetating old cutover occur. The site supports an excellent Sphagnum flora both in terms of cover and number of species. Other</p>	<p>This site comprises two areas separated by a block of coniferous plantation. Active blanket bog covers most of the site and includes a large area of intact bog as well as areas of hand-cut revegetating cutaway. This highland blanket bog site includes a range of habitat</p>

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			<p>than in cutover areas the site is very little damaged. Lough Nabrickeagh Bog is a good example of a highland blanket bog a habitat which is becoming increasingly rare in Ireland.</p>	<p>and vegetation community types. There are several interconnecting pool systems areas of good quality Sphagnum hummocks wet flats and Sphagnum lawns. Numerous flushes occur on the site and upland areas found on the site have a good cover of Calluna vulgaris Eriophorum vaginatum and Sphagnum species. A small rock-bottomed lake with aquatic and emergent vegetation occurs. The site is underlain by metamorphic schist and gneiss; this bedrock outcrops in upland parts of the site.</p>
000637	Turloughmore (Sligo) SAC	<p>Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin. Coxen C.E. (1986). A Study of the Hydrology and Geomorphology of Turloughs. Unpublished Ph.D. Thesis Trinity College Dublin.</p>	<p>The habitat is rather uniform though the vegetation that is there is well developed and not currently overgrazed. The importance of the site stems largely from its northerly location and the sand content of the</p>	<p>A turlough basin bordered by pasture and cutover bog. The outlines are smoothed by glacial drift with a small outcrop of the bedrock at the eastern end. The</p>

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			soil which is fairly unusual. There is little if any precipitation of calcium carbonate.	floor is flat with a number of depressions which may take water movement. Much of the upper vegetation has a heathy character reflecting the proportion of sand in the local drift.
000638	Union Wood SAC	Curtis T. Goodwillie R. and Young R. (1978). Areas of Scientific Interest in County Sligo. Unpublished report An Foras Forbartha Dublin.	A typical western oakwood of the Blechno-Quercetum type but ecological interest lowered by the presence of conifers and other exotics. Also regeneration may be low. Nevertheless one of the best remaining oakwoods in the region and has good prospects as it is state owned.	Situated on a slope on the eastern side of the Ballysadare River the acidic soils are underlain by gneiss. In places the woodland has a fairly natural open character and a typical flora. There is a rich epiphytic flora. There is however much inter- and under-planting with commercial conifers. Habitat diversity is created by an area of heath which is dominated by <i>Calluna vulgaris</i> at Union Rock.
000668	Nier Valley Woodlands SAC	Young R. (1972). A report on areas of scientific interest in Co. Waterford. An Foras Forbartha Dublin. McCracken E. (1971). The Irish Woods since Tudor times. David & Charles Newton Abbott (see page 49).	Woodlands show both primary and secondary successions in development towards an	Site comprises a series of non-contiguous deciduous

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			oak-dominated climax. Quality of woods diminished by regular grazing and regeneration is poor.	woodlands along the R. Nier and its tributaries. <i>Betula</i> spp. <i>Corylus avellana</i> and <i>Quercus</i> spp. are main species with <i>Ilex aquifolium</i> and <i>Sorbus aucuparia</i> . Parts of site are of heath and scrub. Dry grassland and wet grassland also occur. Good representation of Irish mammals and birds. Valley has amenity value and is a popular tourist destination.
000707	Saltee Islands SAC	Bell A. (1919). Fossil shells from Wexford and Manxland. <i>Irish Naturalist</i> 28: 109-114. Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. <i>Irish Birds</i> 5: 1-10. Cotton A.D. (1913). Notes on the flora of the Saltees II. Marine algae. <i>Irish Naturalist</i> 22: 195-198. Creme G.A. Walsh P.M. O'Callaghan M & Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. <i>Biology and Environment. Proceedings of the Royal Irish Academy</i> 97B: 149-156. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. <i>Irish Wildlife Manuals</i> No. 11. National Parks & Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp. Fahy E. (1981). The Wexford commercial sea bass <i>Dicentrarchus labrax</i> (L.) fishery. <i>Fisheries Bulletin</i> 3: 1-10. Gardiner P.R.R. & Brenchley P.J. (1970). The Pre-Cambrian and lower Palaeozoic geology of Co. Wexford. <i>Irish Naturalists' Journal</i> 16: 371-379. Gibson F.A. (1953). Movements of salmon around Ireland. II. From Baginbun County Wexford (1949 to 1951). <i>Proceedings of the Royal Irish Academy</i> 55B: 195-208. Goodwillie R. (1979). A preliminary report on areas of scientific interest in County Wexford. <i>An Foras Forbartha Dublin</i> . Guiry M.D. Cullinane J.P. & Whelan P.M. (1979). Notes on Irish marine algae - 3. New records of	The exposed reef communities of the Saltee Islands are extremely species rich and contain rare or scarce species. In the shallow infralittoral zone there are extremely species rich kelp parks (79-124 species) and tideweed <i>Halidrys siliquosa</i> and mixed kelp communities (78-100 species). The lower infralittoral communities dominated by red algae are also extremely species rich (79-117	The site comprises the Saltee Islands and a large area of the surrounding seas. There are two islands (Great Saltee and Little Saltee) and a constellation of islets and rocks. The islands are situated between 4 and 5 km off the south Wexford coast. As a group they constitute a broken reef that protrudes from a seabed of

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Rhodophyta from the Wexford coast. Irish Naturalists' Journal 19: 304-307. Hallisey T. (1912). On the superficial deposits off the county of Wexford. Irish Naturalist 21: 175-179. Hart H.C. (1883). Report on the Flora of the Wexford and Waterford coasts. Scientific Proceedings of the Royal Dublin Society 4: 117-146. Healy B. (1979). Marine fauna of County Wexford 1 - Littoral and brackish water Oligochaeta.. Irish Naturalists' Journal 19:418-422. Healy B. &amp; McGrath D. (1982). Marine fauna of county Wexford - 4. Littoral and brackish water fish. Irish Naturalists' Journal 20: 429-435. Healy B. &amp; McGrath D. (1988). Marine fauna of Co. Wexford - 10. The Crustacea Decapoda of intertidal and brackish water habitats. Irish Naturalists' Journal 22: 470-473. Hunt J. Derwin J. Coveney J. &amp; Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath &amp; M.I. Evans eds. Important Bird Areas in Europe: Priority sites for conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hurley J. (1994). The south Wexford coast Ireland - A natural heritage coastline. Grange Kilmore Co. Wexford SWC Promotions. Keegan B.F. McGrath D. O'Foighil D. O'Connor B. &amp; Konnecker G. (1988). Marine fauna of Co. Wexford 8 - Bivalve molluscs from the 'Lough Beltra' dredging programme. Irish Naturalists' Journal 22: 378-385. Kiely O. Lidgard D.C. McKibben M. Baines M.E. and Connolly N. (2000). Grey Seals: Status &amp; Monitoring in the Irish &amp; Celtic Seas. Maritime Ireland/Wales INTERREG report No. 3. Marine Institute 80 Harcourt St. Dublin. Kinahan G.H. (1879). Sea beaches especially those of Wexford and Wicklow. Proceedings of the Royal Irish Academy Series 2:3: 191-208. Knowles M.C. (1913). Notes on the flora of the Saltees. IV. Lichens. Irish Naturalist 22: 199-202. Lidgard D.C. Kiely O. Rogan E. and Connolly N. (2001). The status of breeding grey seals (<i>Halichoerus grypus</i>) on the east and south-east coast of Ireland. Mammalia 65(3): 283-294. Lloyd C. (1981). The seabirds of Great Saltee. Irish Birds 2: 1-37. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Lloyd C. (1983). The status of landbirds breeding on Great Saltee Co. Wexford. Irish Naturalists' Journal 21: 97-103. Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Naturalists' Journal 15: 136-143. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. McGrath D. (1984). Marine fauna of Co. Wexford - 6. The Mysidacea of inshore marine and brackish water habitats. Irish Naturalists' Journal 21: 251-255. Norton M. &amp; Healy B. (1984). Marine fauna of County Wexford - 7. Observations on the ecology and reproductive biology of <i>Sphaeroma hookeri</i> Leach (Isopoda). Irish Naturalists' Journal 21: 257-262. Norton T.A. (1970). A survey of the seaweeds of county Wexford. Irish Naturalists' Journal 16: 390-391. Norton T.A.</p>	<p>species). Rare and notable species of sponge anthozoan brittlestar and hydroid live in these areas. Circalittoral communities are also distinguished by consistently extremely high species richness (average 76 species). There are four notable and scarce sponge species 6 species of scarce or notable hydroid a scarce anemone two scarce nudibranchs and two scarce ascidian species. Perhaps more important than the high number of notable species in the Saltee Islands area is the fact that the populations of ten of those species have extremely high conservation value because they represent a high proportion of the total population in the national territory: these are the sponge <i>Tethyspira spinosa</i>; the hydroids <i>Halecium muricatum</i> <i>Aglaophenia acacia</i> and <i>Gymnangium montagui</i>; the anemone <i>Cataphellia brodricii</i> the nudibranchs <i>Okenia aspersa</i> and <i>Aeolidiella</i></p>	<p>sand and shell. The reef has a north-east/south-west orientation and is typically strewn with boulders cobbles and patches of sand and gravel. Bedrock is metamorphic schist and gneiss. The islands are exposed to prevailing wind and swells from the west. Tidal streams tend to be moderate but are strong in some areas particularly where the reef is shallow. The islands were inhabited and farmed in the past but are now abandoned although some sheep grazing occurs on Little Saltee. A community dominated by <i>Pteridium aquilinum</i> is the main vegetation type on the islands. Dry grassland occurs within the old field boundaries.</p>

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		<p>(1970). The marine algae of county Wexford Ireland. British Phycological Journal 5: 257-266. Ó Cadhla O. Strong D. O'Keeffe C. Coleman M. Cronin M. Duck C. Murray T. Dower P. Nairn R. Murphy P. Smiddy P. Saich C. Lyons D. and Hiby A.R. (2007). An assessment of the breeding population of grey seals in the Republic of Ireland 2005. Irish Wildlife Manuals No. 34. National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 60pp. Ó Cadhla O. and Strong D. (2007). Grey seal moult population survey in the Republic of Ireland 2007. Report to the National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 22pp. O Ceidigh P. &amp; McGrath D. (1981). Marine fauna of Co. Wexford: 3 - The first record of the adult of Caridion steveni Lebour (Crustacea: Decapoda) from the Irish coast. Irish Naturalists' Journal 20: 208. O'Connor B. (1980). Marine fauna of county Wexford 2 - littoral and brackish water Polychaeta. Irish Naturalists' Journal 20: 85-93. O'Connor B.D.S. (1988). Marine fauna of Co Wexford 9 - littoral and benthic Echinodermata and Sipunculida. Irish Naturalists' Journal 22: 385-388. Orford J.D. &amp; Carter R.W.G. (1982). Geomorphological changes on the barrier coast of south Wexford. Irish Geography 15: 70-84. Parkes H.M. &amp; Scannell M.J.P. (1969). A list of marine algae from the Wexford coast. Irish Naturalists' Journal 16: 15. Perry. K.W. &amp; Warburton S.W. (1976). The Birds and Flowers of the Saltee Islands. Perry &amp; Warburton Belfast. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484 - 488. Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Praeger R.L. (1913). Notes on the flora of the Salties. I: Phanerogamia. Irish Naturalist 22: 181-191. Roche R. &amp; Merne O.J. (1977). Salties: Islands of birds and legends. O'Brien Press Dublin. Ruttledge R.F. (1965). Migrant and other birds of Great Saltee Co. Wexford. Proceedings of the Royal Irish Academy. 63 Section B: No. 4: 71-86. Stelfox A.W. (1922). Botanical notes from south-east Wexford. Irish Naturalist 31: 100-102. Summers C.F. (1983). The grey seal Halichoerus grypus in Ireland. Unpublished report to the Minister of Fisheries Forestry &amp; Wildlife Dublin.</p>	<p>glauca; and the ascidians Pycnoclavella aurilucens Distomus variolosus and Stolonica socialis. The sediment communities are also important. The littoral sediment communities present at Kilmore Quay are characteristic of many similar beaches around the coast. The sublittoral sediment characterized by the sea cucumber Neopendactyla mixta is one of only seven such communities recorded by Biomar. Good examples of vegetated cliff habitat on both islands with a typical south-eastern flora. Has sea caves though marine communities not yet investigated. A long established breeding population of Halichoerus grypus and the only significant population in the south-east region. The Saltee Islands are amongst the most important seabird colonies in the country for populations and species diversity. Internationally important for Uria aalge and Alca torda and nationally</p>	<p>Habitats with a minor presence are springs flushes and scrub. The shorelines vary from rocky cliffs of moderate height to shingle sand and boulder shores. Small sections of boulder clay cliffs are exposed in places.</p>

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			<p>important for a further seven seabird species including Sula bassana Phalacrocorax corax Phalacrocorax aristotelis Larus fuscus Rissa tridactyla and Fratercula arctica. The islands have long-established seabird monitoring programmes. Pyrrhocorax pyrrhocorax occurs at the eastern edge of its Irish range and Falco peregrinus breeds. Great Saltee is a major site for spring and autumn landbird migration.</p>	
000714	Bray Head SAC	<p>Brunker J.P (1950). Flora of the County Wicklow. Dundalgan Press Dundalk. Curtis T.G.F. (1989). Flora of Bray. In: O'Sullivan J. Dunne T. &amp; Cannon S. (eds.) The Book of Bray. pp. 7-10. Blackrock Teachers Centre Dublin. Dublin Naturalists' Field Club Newsletters (1998). Reports on trips to Bray Head on 3rd August and 26 October 1998 by R. Goode and M. Peelo. Dunne T. (1989). The physical geography of North County Wicklow. In: O'Sullivan J. Dunne T. &amp; Cannon S. (eds.) The Book of Bray. pp.3-6. Blackrock Teachers Centre Dublin. Goodwillie R.(1979). A Provisional List of Areas of Scientific Interest in County Wicklow. Unpublished report for Wicklow County Council. Madden B. Merne O.J. &amp; Newton S. (1998). Black Guillemot National Population Census 1998-2001. Interim Report on Year 1 1998: Louth to East Cork. Duchas the Heritage Service/BirdWatch Ireland Dublin. Merne O.J. (1988). Recent changes in breeding seabird population in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987 69-77. Merne O.J. (1989). Fauna of Bray and seabirds of Bray Head. In: O'Sullivan J. Dunne T.&amp; Cannon S. (eds.) The Book of Bray. pp.11-15. Blackrock Teachers Centre Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin.</p>	<p>Site supports a fine diversity of maritime habitats and is particularly important for vegetated sea cliffs and dry heath. Both of these are good representatives of the types which occur in eastern Ireland and are generally of good quality. Four Red Data Book plant species occur within site. Has breeding Falco peregrinus and a significant seabird colony especially for Rissa tridactyla and Cepphus grylle (both nationally important). Site is noted for the presence of the</p>	<p>Site is situated in the north-east of Co. Wicklow between the towns of Bray and Greystones. Bedrock geology is Cambrian quartzites and shales (with mudstones and greywackes). Bray Head consists of a plateau of high ground with five prominent quartzite knolls and a maximum height of 241 m. The more exposed higher ground has a</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			fossil <i>Oldhamia radiata</i> which is of Cambrian age. Owing to its proximity to urban areas site has important educational potential.	covering of shallow acidic soils with protruding bedrock and scree. Elsewhere deeper soils are formed by drift deposits calcareous in character. In addition to heath and cliff habitats the site supports calcareous grassland some native woodland and scrub and a sandy/shingle beach. An area of shallow marine water is included for ornithological reasons. Main landuse within site is recreation especially walking.
000781	Slaney River Valley SAC	An Foras Forbartha (1975). AFF County Report for Co. Carlow. An Foras Forbartha (1979). AFF County Report for Co. Carlow. Bowman K.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency. Wexford. Brunker J.P. (1950). Flora of the County Wicklow. Dundalgan Press Dundalk. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a> : February 2001. Central Fisheries Board (2002). Irish Salmon Catches. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a> : January 2003. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks & Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of	Estuaries and intertidal sand and mud flats are particularly well represented in this site with salinity ranging from full freshwater to full seawater. The quality of these habitats is generally good. The Slaney River and its tributaries display good examples of floating river vegetation. An important	This site comprises almost the entire Slaney system from the headwater streams in the Wicklow Mountains to the extensive estuarine area of Wexford Harbour. The main river tributaries included are the Bann Glasha Clody Derry



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139.Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Wicklow. Curtis T.G.F. and Mc Gough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Government Publications Stationery Office. Dublin.Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104.Delany S. (1996). Waterfowl Counts in Ireland 1994/95: a summary of the first winter of the Irish Wetlands Bird Survey (I-WeBS). Irish Birds 5:423-432.Delany S. (1997). IWeBS Report 1995-1996: Results from the second winter of the Irish Wetlands Bird Survey. IWC BirdWatch Ireland Dublin.Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Eastern Regional Fisheries Board (2003) web: <a href="http://www.fishingireland.net/wexford/wxgame.htm">http://www.fishingireland.net/wexford/wxgame.htm</a>Falvey J.P. Costello M.J. and Dempsey S. (1997) Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin.Farrell L. (1982). The distribution of <i>Leucojum aestivum</i> L. in Ireland. Irish Nat. J. 20 11:483-489.Glynn D. Tyrell L. McHugh B. Rowe A. Costello J. and McGovern E. (2003). Trace Metal and Chlorinated Hydrocarbon Concentrations in Shellfish from Irish Waters 2000. Marine Environment and Health Series N. 7 2003. Marine Institute Dublin.Herries Davies G.L. and Stephens N. (1978). The Geomorphology of the British isles: Ireland. Methuen and Co. Ltd. London.Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath &amp; M.I. Evans (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8).Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin.Jeffrey D.W. and Wilson J.G. (1985). A Manual for the Evaluation of Estuarine Quality. 2nd edition. Environmental Sciences Unit. Trinity College Dublin.Jones M. (1986). Coppice wood management in the eighteenth century : an example from County Wicklow. Irish Forestry 43: 15-31. Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and the Environment Proceedings of the Royal Irish Academy 97B: 1-32. King Jimmy. Personal Communication with EcoServe. February 2003.King J.J. (2002). Investigations on shad species in Irish waters paper presented at Royal Irish Academy National Commission for Hydrobiology Annual Meeting 2002. Kurz I. and Costello M.J. (1996). Proposed Special Areas of Conservation for Lampreys and Shads. Internal report to National Parks and Wildlife.Kurz I. and Costello M.J. (1996b). Current Knowledge on the Distribution of Lampreys and some other Freshwater Fish Species listed in the Habitats Directive. Internal report to National Parks and Wildlife.Brunker J.P. (1950). Flora of the County Wicklow. Dundalغان Press Dundalk.Kurz I and Costello</p>	<p>area of alluvial forest is found at Macmine while old oak woodlands occur at Toomnafinnoge the latter being a remnant of the ancient oak woods of Shillelagh. The site is of high importance for the conservation of fish species notably <i>Salmo salar</i> <i>Petromyzon marinus</i> <i>Lampetra fluviatilis</i> L. <i>planeri</i> and the very localised <i>Alosa fallax fallax</i>. <i>Lutra lutra</i> is well distributed throughout while a significant population of <i>Margaritifera margaritifera</i> occurs on the Derreen River. The site provides year-round haul-out habitat for the Annex II species <i>Phoca vitulina</i> and includes regionally significant breeding and moulting sites. The site has high ornithological importance especially for wintering waterfowl with internationally important populations of <i>Branta bernicla</i> <i>hrota</i> <i>Cygnus olor</i> <i>Limosa limosa</i> and <i>Limosa lapponica</i>. There is at least a further 14 species of wintering waterfowl which occur in</p>	<p>Derreen Douglas and Carrigower Rivers. The tidal influence extends upriver as far as Enniscorthy. In the upper and central regions the geology consists of granite. Above Kilcarr Bridge the Slaney has cut a gorge into the granite plain. The Derry and Bann Rivers are bounded by a narrow line of uplands which corresponds to schist outcrops. South of Kildavin the Slaney flows through an area of Ordovician slates and grits. The river is often fringed by woodland and/or swamp vegetation. Other habitats which occur alongside the river include wet grassland scrub and in higher areas heath and bog. Improved grassland and arable land is included alongside the river for water quality reasons. Salt</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>M.J. (1999). An outline of the biology distribution and conservation of lampreys in Ireland. Irish Wildlife Manuals No. 5. 27pp. Dublin. Dúchas - The Heritage Service. Lelek A (1980). Threatened Freshwater Fishes in Europe. Nature and Environment Series No. 18. Council of Europe. Strasbourg. Lucey J. (1993). The Distribution of Margaritifera margaritifera (L.) in Southern Irish Rivers and Streams. J. Conch. Lond. 34: 301-310. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (Phoca vitulina) and grey seals (Halichoerus grypus) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Maitland P.S. (1996). Threatened Fishes of the British isles with special reference to Ireland in: The Conservation of Aquatic Systems. ed. J.D Reynolds. Royal Irish Academy. Maitland P.S. (1980). Review of the ecology of lampreys in northern Europe. Canadian Journal of Aquatic Sciences 37: 1944 - 1952. Marine Institute (1999). Ireland's Marine and Coastal Areas and Adjacent Seas: An Environmental Assessment. Marine Institute Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. &amp; Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Moorkens E. A. (1995). Mapping of Proposed SAC Area for Margaritifera margaritifera on the Derreen River Counties Wicklow and Carlow. Report for National Parks and Wildlife Service. Dublin. Moorkens E. A. (1996). Studies on the Biology and Ecology of Margaritifera in Ireland. PhD. Thesis. Trinity College Dublin. Neill M. (1999). Water Quality in the Slaney Estuary and Wexford Harbour Summer 1998. Environmental Protection Agency Regional Inspectorate Kilkenny. Unpublished. Neill M. (2000). Water Quality in Wexford Harbour Summer 2000. Environmental Protection Agency Regional Inspectorate Kilkenny. Unpublished. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an anglers guide. Merlin Unwin Books London. O' Sullivan W.M. (1994). Summer Diet of Otters on part of the River Blackwater Catchment. Ir. Nat. J. Vol. 24 No. 9:349-354. Purvis O.W. Coppins B.J. Hawksworth D.L. James P.W. and Moore D.M. (1992). The Lichen Flora of Great Britain and Ireland. Natural History Museum Publications Cromwell Rd. London. Quigley D.T.G. and Flannery K. (1994). Endangered Freshwater Fish in Ireland. Presented at Symposium on Endangered Freshwater Fish in Europe in Bern Switzerland September 1994. J. Aquatic Science. Quigley D.T.G. (1996). Status and conservation of euryhaline fish in Irish waters. Aquatic Conservation: Marine and Freshwater Ecosystems Vol. No. 6. pp 313-318. Quigley D.T.G. and Flannery K. (1996). Endangered freshwater fish in Ireland in Kirchhofer A. and Hefti D. (Eds) Conservation of Endangered Freshwater Fish in Europe Birkhauser Verlag Basel Switzerland. Reynolds J. (1998). Ireland's</p>	<p>numbers of national importance. Wintering Larus gulls are well represented especially Larus ridibundus and Larus fuscus. A nesting colony of Egretta garzetta has recently become established within the site and birds are present in the area throughout the year. The site supports one of the best breeding concentrations of Acrocephalus scirpaues in the country. A range of flora and fauna species listed as Red Data Book species occur within the site.</p>	<p>marshes are a feature of the lower estuarine area of the site.</p>

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		<p>Freshwaters. The Marine Institute Dublin 1998. Roche W. (1998). Monitoring of juvenile salmonid stocks in the Slaney Catchment 1997. Central Fisheries Board. 32 pp. Unpublished. Rowe D. and Wilson C.J. (eds) (1996). High Skies - Low Lands. An Anthology of the Wexford Slobs and Harbour. Duffry Press Wexford. Scannell J.P. and Synnott D.M. (1987). Census Catalogue of the Flora of Ireland. Government Publications. The Stationery Office. Dublin. Sharrock J.T.R. (1976). The Atlas of Breeding Birds in Britain and Ireland. Poyser Berkhamstead. Sheppard R. (1993). Ireland's Wetland Wealth: the Birdlife of the Estuaries Lakes Coasts Rivers Bogs and Turloughs of Ireland. Irish Wildbird Conservancy. Smiddy P. and O' Sullivan O. (1996). Forty-third Irish Bird Report 1995. Irish Birds 5:445-474. Smiddy P. and Duffy B. (1997). Little Egret <i>Egretta garzetta</i>: a new breeding bird for Ireland. Irish Birds 6:55-56. Smiddy P. and O' Mahony B. (1997). The status of the Reed Warbler <i>Acrocephalus scirpaceus</i> in Ireland. Irish Birds 6:23-28. Warner P.J. (1983). An assessment of the breeding populations of common seals (<i>Phoca vitulina vitulina</i> L.) in the Republic of Ireland during 1979. Ir. Nat. J. 21: 24-26. Warner P.J. (1984). Report on the census of common seals (<i>Phoca vitulina vitulina</i>) in the Republic of Ireland during 1984. Unpublished report to the Forestry &amp; Wildlife Service. Webb R. and Goodwillie R. (1987). Tomnafinnoge Wood Coolatin Co. Wicklow. An addition to the preliminary report on areas of scientific interest in County Wicklow. Unpublished report for Wicklow County Council. An Foras Forbartha Dublin. Webb D.A. Parnell J. and Doogue D. (1996). An Irish Flora. Dundalgan Press. Dundalk. Went A.E.J. and Kennedy M. (1976). List of Irish Fishes. 3rd Edition. Stationery Office. Dublin. Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO. Belfast.</p>		
000849	Spahill and Clomantagh Hill SAC	<p>FitzGerald R. (1990 - 94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to the National Parks and Wildlife Service Dublin. Ó'Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin.</p>	<p>The importance of the site lies in the variety of natural and semi-natural grassland communities found; these are generally rare in the south midlands. The site is also important for the small population of the rare and protected species <i>Orchis morio</i> that it supports.</p>	<p>This site comprises three separate areas of which two are dominated by dry grassland the third by broad-leaved deciduous woodland. The site is underlain by limestone and in places shales and sandstone. Soils on the site are generally quite thin and rock outcrops</p>

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				<p>are scattered throughout. A small limestone cliff is found in one area of the site. Vegetation on the site generally varies with rock type and both calcicole and calcifuge species are found.</p>
000925	The Long Derries Edenderry SAC	<p>Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin. Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A preliminary report. National Parks and Wildlife Service Dublin.</p>	<p>This is an important site for several reasons. It supports good quality dry calcareous esker grassland in which occurs a substantial population of the rare and protected Orchis morio. An interesting transition between this habitat and acid peaty grassland is found on the eastern side of the site. Gravel quarries on the site support other rare plant species: Acinos arvensis (a protected species) and Erigeron acer as well as the uncommon introduced Minuartia hybrida. The site is an important ornithological site; the most notable species Caprimulgus europaeus (Nightjar) of which only about thirty pairs are known to breed</p>	<p>The site forms part of a low esker ridge which primarily consists of glacial gravels interspersed with loam and peat soils. The site comprises a mosaic of dry esker grassland (calcareous) Cretaegus scrub gravel quarries (used and disused) and humid grassland. The north-eastern side of the site grades into peatland and here an interesting mixture of acid and base loving plants occurs. Much of the western half of the site was previously used as a golf course. A wide</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			in Ireland breeds on the site. Several other important bird species also occur.	variety of activities occur on the site and the western half is the most disturbed.
000939	Silvermine Mountains SAC	Nash D. (1991). Plant records: New vice-county records for North Tipperary (H10). Irish Naturalists' Journal 23: 9. 385-386. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Wildlife Service Dublin. Fitzgerald R. (1991). Survey To Locate Red Data Book Species. Internal report to National Parks and Wildlife Service Dublin.	Though small the site is important for the presence of the priority habitat Nardus grassland and also for the nationally important population of the Red Data Book species Pseudorchis albida within this habitat. A small but intact example of wet heath is also present. A typical upland fauna occurs with Lagopus lagopus and Lepus timidus hibernicus.	This small site is situated on the northern slopes of the Silvermine Mountains. The site is underlain by sandstone. The dominant habitat is heath which occurs with upland grasslands and scrub. The site is longest on its north/south axis. It rises 150m from north to south and has a maximum altitude of 409m. Grazing is the main land use. A road cuts through the N/S axis of the site.
000994	Ballyteige (Clare) SAC	Curtis T.G.F. (undated). Schedule for Proposed Nature Reserve at Ballyteige Co. Clare. National Parks and Wildlife Service Dublin. Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin.	Though small in extent this site supports a good example of a habitat that in Ireland is in urgent need of conservation. Many such species-diverse wet meadows have been radically altered through drainage re-seeding and	This small site lies over carboniferous shales over which a poorly-draining acid gley soil has developed. The principal habitat on the site is wet grassland of the Junco acutiflori-

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			fertilization and examples such as this in which traditional management practices have been continued are becoming much rarer.	moliniatum type in which grass and rush species predominate. A noteworthy feature of the site is the great abundance of the marsh orchid <i>Dactylorhiza majalis</i> . The fauna of the site has not been studied but it is liable to be quite rich.
000996	Ballyvaughan Turlough SAC	Webb D.A. and Scannell. M.J.P. (1983). Flora of Connemara and The Burren. Royal Dublin Society Dublin and Cambridge University Press Cambridge. Goodwillie R. (1972). A Provisional List of Areas of Scientific Interest in Co. Clare. Unpublished report to Clare County Council. An Foras Forbartha Dublin.	The main interest in this small turlough site is the abundance of the Red Data species <i>Potentilla fruticosa</i> . Good diversity of habitat in a small area and noted for its plant species diversity. Relatively undisturbed and could benefit from regular light grazing. Good representation of some of the habitats of the burren region.	Site is situated in a depression with frequent limestone outcrops. It is a rather dry turlough and dominated by shrubs. A small pond marks the location of a spring which occasionally floods the whole site. The drier areas of limestone paving have a typical flora including orchids. Surrounded by Hazel scrub which merges into low woodland in places. Relatively undisturbed.
001061	Kilkeran Lake and Castlefreke Dunes SAC	Barnes R.S.K. (1989). Coastal lagoons of Britain: an overview and conservation appraisal. Biological Conservation 49: 295-313. Costello M.J. Holmes J.M.C. McGrath D.	This relatively small site has a fine diversity of	This site comprises a sand dune system

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>and Myers A.A. (1989). A review and catalogue of the Amphipoda (Crustacea) in Ireland. Irish Fisheries Investigations Series B (Marine) 33: 3-70. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. FitzGerald R. (1992-93). Rare Plant Survey of Co. Cork. Unpublished report to National Parks and Wildlife Service Dublin. Galvin P. (1992). The Ecology of the Brackish-water Lagoons of Wexford and East Cork. M.Sc. thesis University College Dublin. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Dúchas. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. Biogeogr. Soc. 21: 21-66. Goodwillie R. (1986). Report on Areas of Scientific Interest in Co. Cork. Unpublished report prepared for Cork County Council. Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. Bull. Ir. Biogeogr. Soc. 21: 2-21. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol 1 Part 1. Dúchas. Healy B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bull. Ir. Biogeogr. Soc. 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal Lagoons in the Republic of Ireland. Vol. 2. Inventory of Lagoons and Saline Lakes. Report to the National Parks and Wildlife Service Dublin. Nelson B. Foster G. Weyl R. and Anderson R. (1998). The distribution of aquatic Coleoptera in Northern Ireland. Part 2: Families Hydraenidae Helophoridae Hydrochidae Hydrophilidae Elmidae and Dryopidae. Bull. Ir. Biogeogr. Soc. 22: 128-193. Oliver G.A. (1999). Irish Coastal Lagoon Survey 1998. Vol IV. Dúchas. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. Biogeogr. Soc. 21: 66-115. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III. Dúchas.</p>	<p>coastal and wetland habitats. The main importance is Kilkeran Lake which is the best example of a sedimentary (percolation) lagoon in south-west Ireland. The lagoon suffers from eutrophication but nevertheless supports an interesting fauna and flora with a large proportion of lagoonal specialists and several rare invertebrate species (<i>Allomelita pellucida</i> <i>Hydrometra gracilenta</i> <i>Notonecta viridis</i> <i>Helophorus fulgidicollis</i>). The sand-shingle barrier is of geomorphological value. The dune system is of importance as it is one of the few in the south-west region. Shifting white dunes are well represented with small areas of fixed dunes and embryonic dunes. Management will increase the quality of the dunes in the long-term.</p>	<p>a natural lagoon and extensive areas of wetland habitats. Kilkeran Lake is a shallow (&lt;3 m) lagoon with a 400 m outlet to the sea. The outlet is blocked for most of the year by a sand/shingle barrier which is breached occasionally both naturally and deliberately. An inflowing stream to the lagoon is surrounded by marsh and swamp vegetation. Lough Rahavarrig occurs at the western end of the site and is totally overgrown by swamp vegetation. The sand dune section of the site comprises a complex of dune habitat types. A sandy beach with a shingle element extends along the seaward side of the site. The surrounding landuse is mainly intensive</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				agriculture which has contributed to the eutrophication of the lagoon.
001125	Dunragh Loughs/Pettigo Plateau SAC	Merne O. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (Eds). Important Bird Areas in Europe. ICBP Technical Publication Number 9 Cambridge.Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-Fronted Goose in Ireland and Britain. Irish Birds 1 : 293-363.Douglas C. Dunnells D. Scally L. and Wyse Jackson M.B. (1990). A Survey to Locate Lowland-Highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the Wildlife Service Office of Public Works Dublin.Young R. (1973). A report on areas of biological and geological interest in County Donegal. Unpublished report to Donegal County Council An Foras Forbartha Dublin.Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94 - the first twelve years of international conservation monitoring. Greenland White-Fronted Goose study and the National Parks and Wildlife Service Office of Public Works Dublin.	The site includes large areas of good quality blanket bog and wet heath. It is largely intact and many of the most important areas are protected as a nature reserve. Several nationally rare bird species use the site and several locally rare plant species are found. The blanket bog found on the site comprises one of the very few remaining extensive areas of intact bog in County Donegal. Additional areas are included in the site under EU LIFE funded restoration projects.	A remote area of extensive blanket bog and wet heath bounded by extensive conifer plantations and areas of turbary and agricultural land. In this area of low hills and broad basins small and medium-sized oligotrophic lakes occur commonly. Plant communities found include those of lowland and highland blanket bogs flushes wet heath dry heath rocky gorges streams oligotrophic lakes and pools. The site is underlain by metamorphic gneiss and schist.
001197	Keeper Hill SAC	Crundwell A.C. (1980). The Irish meeting August 1979. An account of a field trip to Keeper Hill. In Proceedings of the British Bryological Society. Bulletin of the British Bryological Society. No. 36.Stewart N. (undated). A List of Rare Bryophytes in Ireland. National Parks and Wildlife Service Dublin.Praeger R.L. (1934) The Botanist in Ireland. Hodges Figgis & Co. Dublin.	The site supports a significant representation of intact blanket bog which has a varied topography and occurs in association	A small to medium upland site in the midlands underlain by Old Red Sandstone. The dominant habitats



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			with wet heath. Falco peregrinus and Lagopus lagopus breed within the site. Several rare bryophytes occur within the site.	are heath blanket bog and upland wet grassland. The site is almost completely surrounded by coniferous woodland. With access easy along forest roads at the trackway to the summit the site is a popular amenity area and vantage point.
001251	Cregduff Lough SAC	Quinn A.C.M. (1971). Areas of Scientific Interest in County Galway. Unpublished preliminary report for Galway County Council An Foras Forbartha Dublin. Heuff H. (1984). The Vegetation of Irish Lakes. Unpublished report to the Wildlife Service Dublin.	A fine example of an infilling lake currently in a very undisturbed condition supporting an abundance of Najas flexilis in the deeper water and surrounded by transition mire with one of the largest populations of the nationally rare Eriophorum glaucum in Ireland. Species-rich coastal heath and the inclusion of rocky shore and intertidal marine habitats adds diversity to the site.	A small coastal lake occupying a hollow in the undulating granite terrain surrounded by transitional mire vegetation which has developed since lake water levels were lowered by drainage. The site also includes some wet grassland typical coastal dry heath and some intertidal marine habitats.
001309	Omev Island Machair SAC	Bassett J.A. & Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar survey of Irish machair sites 1996. Vol. 1: Site Information. Irish Wildlife Manuals No. 3. Dúchas Dublin. Crawford I. Bleasdale A.	The site is one of the few remaining machair sites in Co. Galway that has not experienced severe	This small island site located off the west coast of Co. Galway is separated

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>and Conaghan J. (1998). Biomar Survey of Irish Machair Sites 1996 Vol. 2: Plant Communities. Irish Wildlife Manuals No. 4. Dúchas Dublin. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Leake B.E. and Tanner P.W.G. (1994). The Geology of the Dalradian and Associated Rocks of Connemara. The Geological Survey of Ireland Dublin. Lockhart N. (1998). Report on Survey of Petalophyllum ralfsii at Omev Machair Co. Galway. Unpublished report to Duchas The Heritage Service National Parks and Wildlife Dublin. Roden C.M. (1999). A Survey of Coastal Lakes in Counties Galway Mayo Sligo and Donegal. Report prepared for the Heritage Council Kilkenny.</p>	<p>erosion by the sea. Because of this and despite its small size the machair is considered to be one of the best examples in the county. The presence of a shallow lake Fahy Lough adjacent to the machair adds to its overall value. Fahy Lough is a good example of a hard water lake. It has a diverse charophyte community including Chara rudis and a dwarf form of C. contraria. This combination of machair and lake is a relatively rare feature on small machair systems. The site has a recently discovered population of Petalophyllum ralfsii. The site supports feeding Pyrrhocorax pyrrhocorax while the intertidal sands provide habitat for a range of waterfowl notably Charadrius hiaticula and Calidris alba both of which occur in nationally important numbers. Pluvialis apricaria is a regular visitor in autumn and winter.</p>	<p>from the mainland by an area of intertidal sand flats approximately 300 m in width. The bedrock geology of the island consists of granite which frequently outcrops through the shallow sandy soil. The site is primarily of interest for the machair habitat present in the middle part of the island. Other habitats present include dune grassland on a shallow sandy substrate rocky shoreline intertidal sand flats a shallow freshwater lake which at times may be brackish and small areas of freshwater marsh Plantago grassland and sand dune. Grazing mainly by cattle is the predominant landuse over most of the island. The island is becoming increasingly popular with tourists and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				visitors.
001312	Ross Lake and Woods SAC	Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part 1. E.R.O. Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co. Dublin. O'Sullivan P.J. (1994). Bats in Ireland. Special Zoological Supplement. Irish Naturalists' Journal. 21pp. Connolly B. and McCarthy T.K. (1993). Mayflies (Ephemeroptera) of the Corrib Catchment Ireland. In: Costello M.J. and Kelly K.S. (eds.) Biogeography of Ireland: Past Present and Future. Occasional publication of the Irish Biogeographical Society. No. 2.	The lake is a good example of a hard water marl lake with well developed charophyte communities including a red data species Chara curta. A diverse wetland vegetation adds to the interest of the site. The breeding population of Rhinolophus hipposideros is of international importance. Site has Lutra lutra	A medium sized marl lake in the Corrib catchment. The shoreline is of limestone boulders or marl silt. Lake is fringed by a diverse vegetation including reedbeds fen wet grassland and wet woodland. A small lake Lough Parkyflaherty is separated from the main lake by an overgrown railway embankment. The former deciduous woodlands of Ross Demesne have been replaced almost entirely by coniferous plantation though parts still retain a deciduous character. These woods are included in site as they are important for maintaining the population of Rhinolophus hipposideros. An outbuilding adjacent to Ross House is used as a

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				breeding site by the bats.
001313	Rosturra Wood SAC	Cross J.P. (1977). Conservation Report on Woodford Forest. Unpublished report to the Forest & Wildlife Service Dublin. Cross J.P. (1979). Schedule for Proposed Nature Reserves at Pollnacknockaun Rosturra and Derrycrag Wood Woodford Co. Galway. Unpublished report to the Forest & Wildlife Service Dublin. Kelly D.L. (1975). Native Woodland in Western Ireland with Especial Reference to the Region of Killarney. Ph.D. Thesis Trinity College Dublin. McCracken E. (1971). The Irish Woods Since Tudor Times - Their Distribution and Exploitation. David & Charles Newton Abbot.	The site is important because the Quercus stands are remnants of an ancient woodland which was amongst the largest in Ireland until the 1940s. It also provides a refuge for species of flora and fauna which are otherwise scarce in the locality most notably the Red Data Book species <i>Cephalanthera longifolia</i> . Unfortunately only a small portion of the site remains under deciduous woodland.	This site consists of two separate areas the southern one of which is a nature reserve. The northern area is dominated by conifers while in the southern area the conifers have mostly been clear-felled. Oak woodland occurs mostly as a fringe around both areas. The underlying rock is Old Red Sandstone. The soils vary from thin acid podzols to deeper gleyed brown-earths.
001371	Mucksna Wood SAC	Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Kerry. Unpublished report prepared for Kerry County Council An Foras Forbartha Dublin. Standen R. (1898). Mollusca. In: Report of the Kenmare conference. Irish Naturalist 7 218-226.	Although mixed with planted exotics this woodland still retains the essential structural and floristic elements of old oak wood. The damp ground layer supports a typical and diverse range of herbs and bryophytes and the site is locally important for birds.	A small oak wood mixed with planted conifers developed on glacial drift and located on the coast at the mouth of the Kenmare River.
001387	Ballynafagh Lake SAC	Asher J. Warren M. Fox R. Harding P. Jeffcoate G. and Jeffcoate S. (2001). The Millennium Atlas of Butterflies in Britain and Ireland. Oxford University Press. Oxford.	Alkaline fen is a main habitat at this site	The site comprises a former reservoir

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Delany R. (1973). The Grand Canal of Ireland. David and Charles. Newton Abbot. Dromey M. and Associates (1997). An Ecological Study of Blackwood Reservoir and Feeder Canal Co. Kildare in Relation to a Proposed Possible Raising of the Water Level. Unpublished report prepared for the Inland Waterways Association Kildare Branch. Goodwillie R. (1972). A preliminary report on areas of scientific interest in County Kildare. An Foras Forbartha Dublin. Moorkens E.A. (1998). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and <i>V. geyeri</i>. Unpublished report National Parks &amp; Wildlife Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>occurring in mosaic with a range of swamp and transitional bog communities as well as fen woodland. The fen is well-developed and of good quality and represents one of the best examples in eastern Ireland. The site also contains a relict population of <i>Vertigo moulinsiana</i>. Confirmed record for 1997 and noted to be a large population. All recently surveyed sites with confirmed populations of this species are considered important. The site supports a population of <i>Euphydryas aurinia</i> and contains a number of other rare invertebrate species some of which are good wetland indicator species including the mollusc <i>Pisidium pseudosphaerium</i> the lepidopterans <i>Ectoedemia argyropeza</i> and <i>Apomyelois bistratella subcognata</i> and the coleopterans <i>Chlaenius tristis</i> and <i>Philonthus corvinus</i>. Of some local importance</p>	<p>(generally called Ballynafagh Lake) and an associated canal feeder (Blackwood feeder) the latter now disused and mostly dry. The lake is shallow and is now very overgrown with various wetland vegetation types with only a small area of open water remaining. Fen is the predominant habitat with reed-swamp wet grassland and some bog or heath also occurring. A strip of deciduous woodland occurs on some drier ground. The main habitats along the canal feeder are dry grassland (partly improved) wet grassland swamp vegetation and scrub.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			for wintering waterfowl.	
001482	Clew Bay Complex SAC	<p>Aquafact International. (1999). A Survey of Selected Littoral and Sublittoral Sites in Clew Bay. A report to Dúchas - The Heritage Service Department of Arts Heritage Gaeltacht and the Islands Dublin. DeBurgh M. and J. Smart. (1969). Report on the hydrography of Lough Furnace and its planktonic and littoral organisms. Ann. Rep. Salmon Res. Trust of Ireland. No. 15 appendix 1 35-47. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Costello M.J. Holmes J.M.C. McGrath D. and Myers A.A.. (1989). A review and catalogue of the Amphipoda (Crustacea) in Ireland. Irish Fisheries Investigaiton Series B (Marine) 33: 1-70. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Foss P.J. Doyle G.J. and Nelson E.C. (1987). The distribution of Erica erigena R. Ross in Ireland. Watsonia 16: 311-327. Gaynor K. and Browne A. (1999). Survey of Irish Links Golf Courses. Unpublished report for Dúchas The Heritage Service Dublin. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Dúchas The Heritage Service Dublin. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bulletin of the Irish Biogeographical Society 21: 21-26. Goss-Custard S. Jones J. Kitching J.A. and Norton T.A. (1979). Tide pools of Carrigathorna and Barloge Creek. Philosophical Transactions of the Royal Society. Series B. Biological Sciences 287: 1-44. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Harrington R. (1990). 1989 survey of breeding herds of common seal Phoca vitulina with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp. Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. Bulletin of the Irish Biogeographical Society 21: 2-21. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol. I Part I. Background Description and Summary of the 1996 and 1998 surveys. Dúchas The Heritage Service Dublin. Healy B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bulletin of the Irish Biogeographical Society 21: 116-</p>	<p>The geomorphological structure of this bay is unique in Ireland. This site is important as it has a good range of representative shallow bay communities reflecting the range of sediment types from boulders and cobbles on mixed sediment to mud and maerl beds. A number of marine species were recorded from this bay that were not recorded at any other site during the BioMar survey. The site includes a large area of tidal mud/sand flats. Clew Bay has the most significant shingle reserves in the country and has the only examples of incipient gravel barriers in Ireland. Associated with the shingle (and dunes) are excellent examples of annual vegetation of drift lines. Atlantic salt meadows are very well represented throughout the site and two dune systems also occur. Lough Furnace is a good example (and one of the</p>	<p>Clew Bay is a wide west facing bay on the west coast. It is open to the Atlantic westerly swells and winds with Clare Island giving only a small amount of protection. Geomorphologically the bay is a classic example of a drowned drumlin landscape with numerous small islands which have been created since the last glacial period. The geomorphology of the bay has also resulted in a complex series of interlocking bays creating a wide variety of marine and terrestrial habitats. The shores of the drumlin islands and the inner part of the bay are a mixture of boulders cobbles pebbles and gravel but there are extensive areas of intertidal sand and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>151.Healy B. Oliver G.A. Hatch P. and Good G.A. (1997). Coastal Lagoons in the Republic of Ireland. Vol 2. Inventory of Lagoons and Saline Lakes. Report to the National Parks and Wildlife Service Dublin.Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forestry and Wildlife Service Dublin.Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. The Irish Naturalists' Journal 15: 136-143. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp.Merne O.J. (1989) Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A.(eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin.Murphy K.P. and Fairley J.S. (1985b). Food and sprainting places of otters on the west coast of Ireland. The Irish Naturalists' Journal 21: 477-479. Oliver G.A. (1999). Irish Coastal Lagoon Survey. 1998. Vol. IV. Aquatic fauna. Dúchas The Heritage Service Dublin. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bulletin of the Irish Biogeographical Society 21: 66-115.Parker M.M. (1977). Lough Furnace Co. Mayo: Physical and Chemical Studies of an Irish Saline Lake with Reference to the Biology of <i>Neomysis integer</i>. Ph.D. Thesis Dublin University.Parker M. and West A.B. (1978). The natural history on <i>Neomysis integer</i> (Leach) in Lough Furnace Co. Mayo a brackish lough in the west of Ireland. Estuarine and Coastal Marine Science 8: 157-167.Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. The Irish Naturalists' Journal 21: 484-488.Poole W.R. (1994). A Population Study of the European Eel (<i>Anguilla anguilla</i> (L.)) in the Burrishoole System Ireland with Special Reference to Growth and Movement. Ph.D. Thesis Dublin University.Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin.Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol. III Dúchas The Heritage Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Southern R. (1914). Archiannelida and Polychaeta. Clare Island Survey Part 47. Proceedings of the Royal Irish Academy 31B: 1-160.Southern R. (1915). Marine Ecology. Clare Island Survey Part 67. Proceedings of the Royal Irish Academy Volume 31B: 67-110.Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. and Flynn J. (1980). An assessment of the status of the common seal (<i>Phoca vitulina vitulina</i>) in Ireland. Biological Conservation 17: 115-123. Walsh A. and Merne O.J. (1988). Barnacle Geese in Ireland spring 1988. Irish Birds 3: 539-550. Warner P. (1983). An assessment of the breeding populations of common seal (<i>Phoca vitulina vitulina</i> L.) in the Republic of Ireland during 1979. The Irish Naturalists' Journal 21: 24-26. Warner P. (1984). Report</p>	<p>largest in the country) of a deep stratified saline lake lagoon in a natural state of which there are very few in Ireland. A fine stand of old oak woodland occurs within the site near Newport. The legally protected plant <i>Hammarbya paludosa</i> occurs within site and there is a large population of <i>Erica erigena</i> around Lough Furnace. The site has important resident populations of <i>Lutra lutra</i> and <i>Phoca vitulina</i>. The site also includes a population of <i>Vertigo geyeri</i>. The relict mysid <i>Neomysis integer</i> occurs in Lough Furance. Clew Bay is a traditional breeding site for <i>Sterna hirundo</i> <i>Sterna paradisaea</i> and <i>Sterna albifrons</i> and has a breeding colony of <i>Phalacrocorax carbo</i>. The bay supports a range of wintering waterfowl with nationally important populations of <i>Branta leucopsis</i> <i>Mergus merganser</i> and <i>Charadrius hiaticula</i>.</p>	<p>mud flats. Lough Furnace a large deep stratified saline lake lagoon is included in the site along with some of the surrounding area of bog and heath.</p>

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		on the Census of Common Seals ( <i>Phoca vitulina vitulina</i> ) in the Republic of Ireland during 1984. Unpublished document to the Forest and Wildlife Service Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Wyse Jackson P.N. (1991). Distribution of Irish marine Bryozoa together with biographical notes relating to the chief researchers in the group. Bulletin of the Irish Biogeographical Society 14: 129-184.		
001497	Doogort Machair/Lough Doo SAC	Bassett J.A. & Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar survey of Irish machair sites 1996. A report submitted to the National Parks & Wildlife Service Dublin. Holyoak D.T. (1999). Report on Surveys of <i>Petalophyllum ralfsii</i> in Co. Mayo and Co. Galway Western Ireland 16-22 April 1999. Unpublished report to Duchas The Heritage Service National Parks and Wildlife Dublin. Lockhart N. (1998). Report on Survey of <i>Petalophyllum ralfsii</i> at Murvey Machair Co. Galway. Unpublished report to Duchas The Heritage Service National Parks and Wildlife Dublin. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6 177-190. Nairn R.G.W. and Sheppard J.R. (1985). Breeding birds of sand dune machair in north-west Ireland. Irish Birds 3: 53-70. Praeger R.L. (1904). The Flora of Achill Island. Irish Naturalist 13: 265-289. Stewart N. (1993). Unpublished report to the National Parks & Wildlife Service on the location of rare bryophytes in Ireland.	This site is primarily of interest because of the presence of machair a priority Annex I habitat. The condition and representativity/diversity of this habitat is good especially when compared with other sites in Co. Mayo. A small population of the Annex II liverwort <i>Petalophyllum ralfsii</i> occurs within the machair. The site is also important for a large number of nationally rare or scarce bryophyte species which include <i>Leiocolea gillmanii</i> (the only Irish site) <i>Pohlia walhenbergii</i> <i>Catocopium nigratum</i> and <i>Fossombronia incurva</i> . The site supports breeding <i>Vanellus vanellus</i> and <i>Calidris alpina</i> the latter a Red Data Book species.	This small coastal site is located along the northern coast of Achill Island Co. Mayo. The terrestrial areas of the site are covered by wind-blown sand which has led to the formation of machair surfaces on a number of different levels. These surfaces slope back to two freshwater lakes (Loughs Doo and Nambrack) which are themselves of considerable ecological interest. The main habitat within the site is machair grassland (both dry and damp) with small areas of sandy beach rocky/shingle shore lake and freshwater marsh. Grazing and recreational



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				activities are the main land uses within the site and in surrounding areas. Unlike many areas of machair in Co. Mayo the site has not been damaged by the subdivision and subsequent fencing of the land.
001547	Castletownshend SAC	Fahy E. (1972). A Preliminary Report on Areas of Scientific Interest in County Cork. Unpublished report to Cork County Council. An Foras Forbartha Dublin. Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to the National Parks and Wildlife Service Dublin. Ní Dhúill E. Smyth N. Waldren S. & Lynn D. (2015). Monitoring methods for the Killarney Fern ( <i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland.	The site holds what is probably the largest population of <i>Trichomanes speciosum</i> in Ireland with over 500 fronds being recorded here in 1993. As well as being very numerous these fronds are very luxuriant and often unusually large.	A small site situated on the western side of a narrow sea inlet and underlain by old red sandstone. Most of the site comprises <i>Quercus petraea</i> woodland with several native and non-native broadleaf tree species scattered throughout. A stream bisects the site from east to west and flows through a rocky ravine on the higher western side of the site. A large population of <i>Trichomanes speciosum</i> occurs in this ravine growing on and under fallen

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				branches and trees on sheltered rock and under leaves of <i>Luzula sylvatica</i> .
001673	Lough Arrow SAC	Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Goodwillie R. Buckley P. and Douglas C. (1992). Owenmore River - Proposed Arterial Drainage - Environmental Impact Assessment. Unpublished report to National Parks and Wildlife Service Dublin. Champ T. and King J.J. (1987). Lough Arrow: Water Quality and Trophic Status. Central Fisheries Board Dublin. Riund F.E. and Brook A.J. (1959). The Phytoplankton of some Irish loughs and an assessment of their trophic status. Proceedings of the Royal Irish Academy. 60 B(4): 167-191. Sheppard R. (1993). Ireland's Wetland Wealth. I.W.C. Dublin. Hutchinson C.D. (1989). Birds in Ireland. Poyser Ltd. Calton Staffordshire.	This is a good example of a fairly large naturally mesotrophic lake which has changed little in the last 40 years. Although supplied by groundwater in a limestone area it is not a marl lake like others in the region. Its aquatic vegetation is diverse. Has a Red Data chara species. Has some nationally important winter bird populations. Good fish stocks including <i>Salmo trutta</i> and <i>Anguilla anguilla</i> .	A large limestone lake sheltered on three sides by hills. Has a small catchment (6255 ha) and is fed largely by springs on lake bed. Average depth is 9m and maximum 33m. Nutritional status is mesotrophic. In most years the water stratifies. Charophyte algae are widespread with seven Chara species identified. Well-developed marginal vegetation occurs especially at north end.
001680	Streedagh Point Dunes SAC	Cawley M. (1996). Notes on some non-marine mollusca from Co Sligo and Co Leitrim including a new site for <i>Vertigo geyeri</i> Lindholm. Irish Naturalists? Journal 25: 183-185. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T. Goodwillie R. and Young R. (1978). A preliminary report on areas of scientific interest in County Sligo An Foras Forbartha Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings	Sand dunes are part of an interesting tombolo formation. Fixed dunes are well represented and are notably species-rich. Also good development of shifting marram dunes and both Atlantic and Mediterranean salt meadows. Extensive	Situated on the north Co. Sligo coastline this site comprises a fine diversity of coastal habitats. A shingle/stony spit is overlaid by a well developed sand dune system

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Moorkens E.A. (1997). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and <i>V. geyeri</i>. Unpublished report National Parks &amp; Wildlife Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>intertidal sand flats of good quality. The Annex II mollusc <i>Vertigo angustior</i> recently confirmed at site. Supports moderate populations of wintering waterfowl. Site of importance for both ecological geological and geomorphological reasons.</p>	<p>fronted by a boulder beach. The spit provides shelter for the formation of salt marshes which fringe extensive intertidal sand flats. The River Grange flows into the site. Underlying geology is limestone (Glencar formation) shale (Benbulbin formation) and sandstone (Mullaghmore formation). The fossilised remains of corals and brachiopods are locally abundant. Site also has a number of National Monuments. Main landuses within site are grazing and recreational activities.</p>
001683	Liskeenan Fen SAC	<p>Goodwillie R. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin.</p>	<p>The site supports a good though small example of <i>Cladium mariscus</i> fen. It occurs in association with alkaline fen and <i>Phragmites</i> reed beds. Cutover raised bog scrub and woodland add diversity to the site and</p>	<p>This site is located approximately 7 km north-east of Borrisokane in north Co. Tipperary. It comprises a shallow wet basin dominated by fen vegetation which is</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>the close proximity of the fen and bog habitats is of ecological interest. The site supports a stand of <i>Orchis morio</i> a Red Data Book species. Fen habitats such as at this site are nowadays scarce in Co. Tipperary.</p>	<p>adjacent to cutover raised bog. While the fen still floods somewhat in winter it may have been more 'turlough' in character in the past - a former inflow has been diverted to a major drainage channel which drains the western part of the basin. A swallow hole does not appear to be active. The substrate of the wetland area is peat over marl. The cutover bog is quite wet and has a good Sphagnum cover. Scrub occurs over part of the cutover bog while a stand of mixed woodland occurs at the eastern end of the site. Improved grassland occurs around the west and south-west margins of the site along with some wet grassland and unimproved dry grassland.</p>
001741	Kilmuckridge-	Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin Section 277.Site	An interesting and little	A 4km long coastal

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
	Tinnaberna Sandhills SAC	Survey Card National Parks and Wildlife Service Dublin.	disturbed example of an east of Ireland shoreline. Some of the dunes support an excellent example of fixed or grey dune vegetation including a very rich cryptogam flora. An Equisetum sp. hybrid is common along the clay cliffs it does not occur elsewhere in Ireland outside Wexford and Wicklow. One parent E. ramosissimum is not found in the British Isles. The Red Data Book species <i>Mathiola sinuata</i> used to grow here.	site on the south east coast overlooking the Irish Sea. The coast consists of eroding cliffs of glacial clay in the south and sand dunes in the north. Shingle and sandy beaches form the eastern site boundary. A stream bordered by <i>Salix</i> scrub crosses the north end of the site. Some small derelict fields lie along the top of the cliffs. The area is quite isolated with few access roads.
001742	Kilpatrick Sandhills SAC	Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co Dublin.	Despite its small size this site is important as an example of a relatively intact sand dune system which shows the various development stages of dunes with embryonic dunes white dunes grey fixed dunes and decalcified fixed dunes all represented. The presence of decalcified dune heath is of particular importance owing to its rarity in Ireland generally and particularly on the east	Situated on the north Co. Wexford coast this site comprises a mature dune system which extends south from Kilmichael Point for a distance of about 2 km. There is a fine transition from a sandy beach through various types of dune types including dune heath. Behind the dunes there is an area of freshwater

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			coast. The dunes are mostly intact and of good quality.	marsh a small area of wet woodland and some wet grassland. Part of this area floods at times. At Kilmichael Point there are low cliffs (<15 m) covered by boulder clay and a sandy grassland. A bedrock shoreline occurs below the cliffs.
001776	Pilgrim's Road Esker SAC	<p>Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin. Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin. Tubridy M. (Ed.) (1984). Creation and Management of a Heritage Zone at Clonmacnoise Co Offaly Ireland. Unpublished report to E.E.C. contract No. 6611/12. Environmental Sciences Unit Trinity College Dublin. Cross J.R. (1992). The distribution character and conservation of woodlands on esker ridges in Ireland. Proceedings of the Royal Irish Academy 92B: 1-19. Tubridy M. (Ed.) (1987). The Heritage of Clonmacnoise. Environmental Sciences Unit Trinity College Dublin.</p>	The importance of the site lies in the relatively large area of high quality species-rich calcareous grassland that occurs. This grassland supports a suite of orchid species including <i>Orchis morio</i> of which this site holds probably the largest population of the species in the country. The occurrence of woodland on the site is notable; esker woodland is becoming increasingly rare in Ireland.	The site comprises an impressive steep-sided esker ridge which is composed of glacial sands and gravels and situated on the north side of Mongan raised bog and to the east of the River Shannon. Species-rich calcareous grassland is the dominant vegetation of the site; areas of <i>Corylus avellana</i> / <i>Fraxinus excelsior</i> woodland scrub improved grassland and gravel pit are also included in the site.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
001810	White Lough Ben Loughs and Lough Doo SAC	Reynolds J.D. (1982). Notes on the Irish distribution of the freshwater crayfish. Bulletin Of The Irish Biogeographical Society. No. 6. 18-24. Young R. (1972). Areas Of Scientific Interest In Co. Meath. Unpublished report. An Foras Forbartha Dublin. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality In Ireland 1987-1990. Environmental Research Unit Dublin. Reynolds J.D. (1988). Crayfish extinctions and crayfish plague in Ireland. Biological Conservation 45: 279-285.	Although small this is a good example of an oligotrophic system which is not showing any obvious signs of eutrophication. Noted for its diversity of marginal wetland vegetation. Interest of site is increased by presence of <i>Austropotamobius pallipes</i> and <i>Lutra lutra</i> .	Site is on the headwaters of the River Deel and close to Loughs Bane and Lene. It is situated in a narrow poorly drained valley. Comprises a chain of interlinked lakes of which White Lough is the largest. Lakes are surrounded by wetland vegetation which includes Phragmites swamp Cladium swamp and wet woodland. Some dry broad-leaved woodland is within the site.
001873	Derryclogher (Knockboy) Bog SAC	Mooney E. and Goodwillie R.N. (1991). Mountain Blanket Bog Survey. Draft report to the National Parks and Wildlife Service Dublin.	A fine example of a mountain blanket bog which occurs in association with other upland habitats. The site is apparently intact and is largely untouched by anthropogenic influences.	Situated on the south-eastern slopes of Knockboy Mountain (707m) this site contains the headwaters of the Cumberdarrig River and the Derryduff Stream which flow east and south to the head of Bantry Bay. The site is an undulating complex of blanket bogs heath upland grassland and rock outcrops. Small

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>loughs and numerous streams are a feature. Most of the bogs are small (1-3 ha) but they occur with a regularity on a series of gently sloping shelves across the mountain side. Lagopus lagopus occurs on site. Sheep grazing occurs but at a low density - otherwise there are no landuse activities.</p>
001880	Meenaguse Scragh SAC	Mooney E.P. Goodwillie R.N. and Douglas C. (1991). Survey Of Mountain Blanket Bogs Of Scientific Interest. Unpublished report to National Parks and Wildlife Service Dublin.	<p>(1) Site contains a fairly typical example of upland wet heath which is largely of good quality. (2) Areas of blanket bog on the site are small in extent largely degraded and low in scientific importance. (3) A feature of the site is Lough Anarget which supports an extensive floating mat or scragh of Sphagnum accompanied by Carex rostrata and several other species. (4) Flush acid grassland and cliff vegetation provide diversity. The presence of breeding peregrine</p>	<p>The site encloses the catchment area of Lough Anarget including the slopes and summits of Silver Hill Binnacally and Lavagh Beg in its northern half. It is bounded to the south by a line of cliffs. Lough Anarger which is overgrown by an extensive floating mat of Sphagnum is situated in the centre of the site and surrounded on three sides by mountains covered</p>



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			falcon ( <i>Falco peregrinus</i> ) on the cliffs at the southern end of the site is of interest.	in acid grassland and heath. Blanket bog both active and eroded occurs on the lower slopes and valley bottom. The site contains many streams with associated flushes and small lakes. The site is underlain by metamorphic schist gneiss and quartzite.
001881	Maulagowna Bog SAC	Mooney E. and Goodwillie R.N. (1991). Mountain Blanket Bog Survey 1991. Draft report to the National Parks and Wildlife Service Dublin.	A small headwater blanket bog in an apparently natural state. Surface fairly uniform with few hummocks and no pool systems. No known rare plants recorded from site. There are few examples of this type of blanket bog in County Kerry.	This site is located in the Caha Mountains in the extreme south-west of County Kerry. The underlying geology is sandstone. The site lies beneath a series of rocky crags which partly surround Lough Cumber. The blanket bog occurs in association with upland heath and grassland. Small streams and exposed rock create habitat diversity.
001898	Unshin River SAC	Browne A. Dunne F. and Roche N. (2000). A Survey of Broadleaf Woodlands in three SACs: Barrow-Nore River Unshin and Lough Forbes. Unpublished report to National Parks and Wildlife Dublin. Central Fisheries Board (2001). Irish Salmon Catches 2000.	The Unshin River is an excellent example of a pristine unmanaged	The Unshin River has a spring-fed lake Lough Arrow as

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p><a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001.Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford.Goodwillie R.N. Buckley P. and Douglas C. (1992). Owenmore River Proposed Arterial Drainage Environmental Impact Assessment. Botanical and Ornithological Surveys. Unpublished report to the National Parks and Wildlife Service Office of Public Works Dublin.Holmes N.T.H. (1996). River Unshin - Macrophyte Community. Notes of Records Made During May 1996 RHS Surveys. Unpublished report.O'Reilly P. (1991). Trout and Salmon Rivers of Ireland: An Anglers Guide. Merlin Unwin Books London.</p>	<p>undrained lowland limestone river and is extremely important as it represents one of only four remaining undrained limestone rivers in Ireland. Such rivers as this are otherwise almost unknown in Europe. It is unpolluted for almost its entire length and supports a species-rich diverse aquatic flora several important bird species fish and several rare riverbank plant species including <i>Poa palustris</i>. Of particular importance is the population of <i>Salmo salar</i>. The site is used by <i>Lutra lutra</i>. A good diversity of adjacent habitats is found along its length including alluvial woodland.</p>	<p>its source and flows north-westwards for some 24 km to reach the sea at Ballysadare Bay. The river supports a rich aquatic and emergent flora and runs beside or through a wide variety of habitats. The site also includes the Ballysadare and Owenboy/Owenbeg rivers. The whole site is underlain by Carboniferous limestone.</p>
001932	Mweelrea/Sheeffry/Erriff Complex SAC	<p>Barnes R.S.K. (1989). Coastal lagoons of Britain: an overview and conservation appraisal. <i>Biological Conservation</i> 49: 295-313.Bassett A. (1983). Report on the Conservation Value of Irish Coastal Sites: Machair in Ireland. Unpublished report to the Forest &amp; Wildlife Service Dublin.Bekkers A. Brock T. &amp; Klerkx J. (1976). A Vegetation Study of Some Parts of Dooaghtry Co. Mayo Republic of Ireland. Report for Geobotany Catholic Univeristy Nijmegen. Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. &amp; Coveney J.A. (1992). The 2nd International Cough Survey: Ireland. Unpublished report to the IWC Dublin and RSPB Belfast. Central Fisheries Board. (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001.Crawford I. Bleasdale A. &amp; Conaghan J. (1996). The Western Coastal Survey. Unpublished report to the National Parks &amp; Wildlife Service Dublin.Curtis T.G.F.</p>	<p>This is a large upland site of great scenic value which also contains a particularly good area of coastal habitat along its westernmost boundary. The upland areas contain extensive areas of blanket bog heath grassland cliff lake and river habitats. Blanket</p>	<p>The geology of the site is dominated by sandstones shales and slates of Ordovician and Silurian age. Steep-sided mountains dominate most of the site and the tallest of these is Mweelrea which</p>

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		<p>&amp; McGough H.N. (1988). The Irish Red Data Book 1. Vascular Plants. Stationery Office Dublin. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. &amp; Lehane M. Eds. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data Environmenta Protection Agency. Douglas C. Garvey L. Kelly L. O'Sullivan A. &amp; Van Doorslaer L. (1989). A Survey to Locate Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to the Forest &amp; Wildlife Service Dublin. Foster G.N. Nelson B.H. Bilton D.T. Lott D.A. Merritt R. Weyl R.S. and Eyre M.D. (1992). A classification and evaluation of Irish water beetle assemblages. Aquatic Conservation: Marine and Freshwater Ecosystems 2: 185-208. Foss P.J. &amp; McGee E. (1987). A Survey to Locate Blanket Bogs of Scientific Interest in Co. Mayo. Unpublished report to the Forest &amp; Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.N. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. G.W.F.G. Study Research Report no. 8. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Dúchas. Good J.A. and Butler F.T. (1998). Coastal Lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland Bull. Ir. Biogeogr. Soc. 21: 21-16. Hatch P. and Healy B. (1998). Aquatic vegeration of Irish coastal lagoons. Bull. Ir. Biogeogr. Soc. 21: 2-21. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Bol. 1 Part 1. Background Description and Summary of the Surveys. Dúchas. Healy B. (1994). Lagoons and other Enclosed Brackish Waters in the Republic of Ireland. Unpublished report to the National Parks &amp; Wildlife Service Dublin. Healy B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey Bull. Ir. Biogeogr. Soc. 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good G.A. (1997). Coastal Lagoons in the Republic of Ireland. Vol. 2. Inventory of Lagoons and Saline Lakes. Report to the National Parks and Wildlife Serevice Dublin. Heuff H. (1987). The Vegetation of Irish Rivers. Unpublished report to the Forest &amp; Wildlife Service Dublin. Holyoak G. (2003). Vertigo geyeri and V. angustior sites in Co. Mayo. Memo dated 9 November 2003 to NPWS. Holyoak G. (2005). Widespread occurence of Vertigo geyeri (Gastropoda: Vertiginidae) in north and west Ireland. Irish Naturalists' Journal 28: 141-150. Kerney M.P. (ed.) (1976). Atlas of Non-Marine Mollusca of the British Isles. Conchological Society of Great Britain and Ireland and the Biological Records Centre Huntington. Madden B. Cooney T. O' Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190. Moorkens E.A. (1995). Mapping of Proposed SAC Area for Margaritifera margaritifera on the Bundorragha River Co. Mayo. Unpublished report to the National Parks &amp; Wildlife Service Dublin. Nelson B. Foster G. Weyl R. and Anderson R. (1997). The distribution of aquatic Coleoptera in Northern Ireland. Part 1: Families Haliplidae Hygrobiidae Dytiscidae and Gyrididae. Bull. Ir. Biogeogr. Soc. 20: 179-296. O'Farrell M.M. Whelan K.F. Joyce T. and Whelan B.J. (1990). The performance of the River Erriff salmon fisheries (1984-1988). In Cross T. and Ottway B. (eds.)</p>	<p>bog is also well developed in the lowland areas and here depressions on peat substrates (Rhynchosporion) is well represented. Some of the bog heath and grassland habitats are suffering from overgrazing at present. The coastal area of Dooaghtry contains a range of different coastal habitats in a relatively small area - these include sand-dune machair lagoon calcareous fen heath and woodland. Overall the site has an outstandingly high number of habitats which are listed on Annex I of the Habitats Directive. In addition there are seven Annex II species of flora and fauna and four Annex I Bird Directive species.</p>	<p>reaches an altitude of 814 m. Lowland blanket bog over flat ground occurs in patches along the northern and eastern sides of the site. Particularly fine examples of corrie lakes occur in this site. The site is drained by a number of well developed base poor river systems e.g. the Erriff the Glenummera and the Bundorragha. Some of the blanket bog adjacent to the site has been planted with coniferous trees.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Proceedings of the Institute of Fisheries Management 20th annual study course 12-14th September 1989 RTC Galway. Oliver G.A. (1999). Irish Coastal Lagoon Survey 1998. Vol IV. Dúchas. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. Biogeogr. Soc. 21: 66-115. O'Reilly P. (1991). Trout and Salmon Rivers of Ireland: An Anglers Guide. Merlin Unwin Books London. Roden C.M. (1986). A survey of the flora of some mountain ranges in the West of Ireland. Irish Naturalists' Journal 22: 52-59. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III Dúchas. Roden C. (2000). A survey of Coastal Lakes in Counties Galway Mayo Sligo and Donegal. Unpubl. report to The Heritage Council. Stewart N. (undated). A List of Rare Bryophytes in Ireland. Unpublished report to the National Parks &amp; Wildlife Service Dublin. Western Regional Fisheries Board. (2001). Historical Catches on the Galway Fishery. <a href="http://www.wrfb.ie/">http://www.wrfb.ie/</a>: January 2001.</p>		
001952	Comeragh Mountains SAC	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. &amp; Coveney J.A. (1992). The 2nd International Cough Survey : Ireland. Unpublished report to the IWC Dublin and RSPB Belfast. Heuff H. (1984). The Vegetation of Irish Lakes. Unpublished report to the Forest &amp; Wildlife Service Dublin. McGrath D. &amp; Walsh P. (1990). Where to Watch Birds in Waterford. Irish Wildbird Conservancy Waterford. Mooney E. &amp; Goodwillie R. (1992 draft). Mountain Blanket Bog Survey. Report to National Parks &amp; Wildlife Service Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co. Dublin. Stewart N. (undated). List of Rare Irish Bryophytes. National Parks &amp; Wildlife Service Dublin. Young R. (1972). Areas of Scientific Interest in Co. Waterford. An Foras Forbartha Dublin. Whilde A. (1993). Irish Red Data Book 2. Vertebrates. H.M.S.O. Belfast.</p>	<p>This is the most south-easterly upland area in the country and supports a diverse range of upland habitats and species. Habitats of particular note are the oligotrophic lakes dry heaths and alpine heath. Many rare bryophytes are present including Drepanocladus vernicosus. Three bird species listed on Annex I of the EU Birds Directive breed within the site - Falco peregrinus Circus cyaneus and Pyrrhocorax pyrrhocorax. The Red Data Book fish Salvelinus alpinus occurs in the lakes.</p>	<p>A medium sized upland site with a diversity of habitats including various heath types oligotrophic lakes in coombs backed by extensive cliff faces upland grassland a variety of rocky habitats and rivers with well developed aquatic flora. The blanket bog at this site is not considered a good example of the habitat. There is a small area of coniferous forestry present within the site. Roads have been developed near Mahon River for tourism purposes.</p>

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001992	Tamur Bog SAC	Douglas C. Scally L. Wyse Jackson M. and Dunnells D. (1990). A Survey to Locate Blanket Bogs of Scientific Interest in Counties Donegal Leitrim Cavan and Roscommon. Unpublished report to National Parks and Wildlife Service Dublin. Fox A.D. Norriss A.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. GWFG study research report No. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin.	This site contains good examples of lowland blanket bog with well developed hummock lawn and pool systems. The interest of the site is increased by the presence of wet heath and Rhynchosporion vegetation as well as dry heath and oligotrophic lakes. Four Annex I Bird Directive species occur including wintering Anser albifrons flavirostris. Lutra lutra is present. The rare moss Sphagnum pulchrum is found on wet lawns within blanket bog. Lagopus lagopus a candidate Red Data Book species is found on the bogs.	This site adjoins the border with Northern Ireland. Its topography is predominantly undulating over a bedrock of acid gneiss with some basic intrusions. The site occurs over a number of separate blocks and is made up mainly of blanket bog heath lakes and rivers. The blocks are separated by conifer plantations intensive peat cutting and agricultural land. The blanket bog displays variety in type micro-topography and vegetation. Sphagnum lawns pools and larger lakes are a feature of the bog surface. Reed-beds marsh and scrub fringe the larger lakes.
002008	Maumturk Mountains SAC	Bleasdale A.J. (1995). The Vegetation and Ecology of the Connemara uplands with Particular Reference to Sheep Grazing. Ph.D. Thesis National University of Ireland Galway. Bowman J.J. (1991). Acid Sensitive Surface Waters in Ireland. Environmental Research Unit Dublin. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part One General	This extensive upland site contains examples of the Annex I habitats active blanket bog depressions on peat	An extensive mountain range composed mostly of quartzite forming impressive peaks

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		<p>Assessment. Environmental Research Unit Dublin. Central Fisheries Board (1989). Preliminary Survey of the Lough Inagh Catchment and Recommendations for the Enhancement of the Juvenile Salmonid Stock. Central Fisheries Board unpublished 1989. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Conaghan J.P. (1995). The Ecology of Eriophorum gracile and Eriophorum latifolium in Ireland. Ph.D. Thesis National University of Ireland Galway. Doris Y. Clabby K.J. Lucey and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Douglas C. Garvey L. Kelly L. and O'Sullivan A. (1989). A Survey to Locate Blanket Bogs of Scientific Interest in Counties Galway and Clare. Unpublished report to the National Parks and Wildlife Service Dublin. Gargan P.G. O'Grady M.F. Delanty K. Igoe F. and Byrne C. (2002). The effectiveness of habitat enhancement on salmon and trout stocks in streams in the Corrib Catchment. In: O'Grady M.F. (ed): Proceedings of the 13th International Salmonid Riverine Enhancement Workshop. Westport Ireland September 2002. pp 220-233. Lucey J. Bowman J.J. Clabby K.J. Cunningham P. Lehane M. MacCarthaigh M. McGarrigle. and M.L. Toner P.F. (1999). Water Quality in Ireland 1995-1997. Environmental Protection Agency. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. McKee A.M. (1995). The Effects of Different Grazing Pressures on Vegetation in the Connemara Uplands. B.Sc. (Hons) Thesis National University of Ireland Galway. O'Grady M.F. Gargan P.G. Delanty K. Igoe F. and Byrne C. (2002). Observations in relation to changes in the physical and some biological features of the Glenlosh River following bank stabilisation. In O'Grady M.F. (ed): Proceedings of the 13th International Salmonid riverine Enhancement Workshop. Westport Ireland September 2002. pp 220-233. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London. Quinn A.C.M. (1971). A Preliminary Report on Areas of Scientific Interest in County Galway. Unpublished report prepared for Galway County Council An Foras Forbartha Dublin. Roden C.M. (1986). A survey of the flora of some mountain ranges in the west of Ireland. The Irish Naturalists' Journal 22: 52-59. Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and the Burren Royal Dublin Society Dublin and Cambridge University Press Cambridge.</p>	<p>substrates wet heath          Alpine and sub-alpine          heath lowland          oligotrophic lakes and          chasmophytic vegetation          on siliceous rocky slopes.          Although the quality of          many of these habitats          has been reduced          somewhat by recent peat          erosion the site still          constitutes one of the          best examples of an          upland habitat system in          the country and there          are good prospects of          recovery. These habitats          support a range of plant          and animal species which          are rare in both an Irish          and European context. It          is notable for the          conservation of Salmo          salar with excellent          spawning and nursery          rivers and small lakes all          being characterised as          having high water          quality. The site also          supports Salvelinus          alpinus and has breeding          Falco peregrinus. Najas          flexilis Eriophorum          gracile and Lycopodiella          inundata all legally          protected plant species          occur. The site is also one          of the most scenic          upland areas in the west</p>	<p>and inland cliffs in          the south with          shales and slates in          the northern area          and occasional          bands of          metamorphosed          limestone. Heath          and acid grassland          dominate the          mountain slopes          with lowland          blanket bogs and          several oligotrophic          lakes in the          surrounding          lowland areas.          Several streams and          rivers descend from          the mountains          notably the          Bealanabrack River          which flows into          Lough Corrib. A          series of small to          medium sized lakes          occur in the          southern section of          the site.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			of Ireland and thus is highly important from a general landscape point of view.	
002036	Ballyhoura Mountains SAC	National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. Norriss D.W. (2001). Study of Hen Harrier Habitat Selection in Mullaghareirks and Ballyhouras. Unpublished report. National Parks & Wildlife Dublin. Norriss D.W. Marsh J. McMahon D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers Circus cyaneus in Ireland 1998-2000. Irish Birds 7: 1-10. Lynch R. (1999). Heathland and Heather - Their Status in the Ballyhoura Mountains. Irish Wildlife Trust.	This site has been selected for the presence of the Annex 1 habitats wet heath dry heath and active blanket bog. The heath habitats are the dominant habitats and are generally of high quality. Blanket bog covers a smaller area though is still well represented. Although the flanks of the mountain range has been extensively afforested with conifers the quality of the remaining upland area is good with relatively low levels of disturbance from potentially damaging operations such as grazing and burning. The site provides crucial foraging habitat and potential nesting habitat for the important population of Circus cyaneus that nests in the Ballyhoura mountain range. The site also supports breeding Falco peregrinus.	Ballyhoura Mountains is located on the border between counties Cork and Limerick. The site comprises the unafforested summit ridges within the mountain range extending from Carron Mountain east towards Long and Seefin Mountinas and including outliers at Coolfree Mountain. These areas are dominated by heath and blanket bog habitats. The flanks of this mountain range have been intensively afforested in the past 40 years. Old Red Sandstone dominates the bedrock geology of the site.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
002081	Ballinafad SAC	O' Sullivan P. (1994) Bats in Ireland. The Irish Naturalists' Journal. Special Zoological Supplement. 21pp.	Although this site contains a small number of Lesser Horseshoe Bats ( <i>Rhinolophus hipposideros</i> ) in summer it is the most northerly point in Europe where this species is known to breed.	The site consists of a large former training college south-west of Castlebar in County Mayo which is used as a breeding site by approximately 40 Lesser Horseshoe Bats each summer. The bats gain access through broken doorways that lead directly into the extensive roof space and hang directly from the roof timbers in the darkest section of the roof. The building is now used only as a private dwelling resulting in certain unused areas falling into disrepair.
002091	Newhall and Edenvale Complex SAC	Mc Aney C.M. (1994). The Lesser Horseshoe Bat in Ireland - past present and future. <i>Folia Zoologica</i> 43 (4) 387-392. O' Sullivan P. (1994). Bats in Ireland. The Irish Naturalists' Journal. Special Zoological Supplement. 21pp. Self C.A. (1981). Caves of County Clare. University of Bristol Speleological Society. 22pp.	This is a good example of natural fossil limestone caves which are well covered. Together these sites rank as some of the most important Lesser Horseshoe ( <i>Rhinolophus hipposideros</i> ) sites in Europe containing over 4% of the Irish population.	Newhall and Edenvale Caves are natural fossil limestone caves. Newhall is a narrow dry passage formed along an inclined joint. The main passage of Edenvale Cave runs into a cliff for 15 m and is



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				crossed by a number of other passages. The side passages run in two directions at acute angles to each other forming many intersections hence the local name 'The Catacombs'. The two caves are used by > 500 Lesser Horseshoe Bats as winter hibernation sites while a two storey farm outbuilding in the grounds of Newhall House is used as a summer breeding site. All three sites used by the bats are surrounded by mature woodland which provides essential foraging habitat and shelter.
002124	Bolingbrook Hill SAC	N/A	The main importance of this site lies in the presence of good examples of typically upland habitats namely species rich Nardus grassland wet heath and dry heath. Some blanket bog also occurs but this is small in extent and mostly degraded. A good	This is a small to medium sized upland site on the lower slopes of Mother Mountain. It is in two separate parts. The eastern section is dominated by dry heath on higher ground with upland

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			diversity of native fauna occurs.	grassland on mineral soils on the lower slopes. Some of this grassland is improved further areas are maintained by grazing and to the north under-grazing leads to scrub invasion. A small area of bog is present in a depression. The western portion of the site consists mainly of wet heath and acidic grassland.
002135	Lough Nageage SAC	Reynolds J.D. (1998). Conservation management of the White-clawed Crayfish <i>Austropotamobius pallipes</i> . Part 1. Irish Wildlife Manuals. No. 1 Dúchas. Dublin. French Mullen P. & Lucey J. (1992). Crayfish in Donegal. Ir. Nat. J. Vol: 24 No: 23 132-133. Blair R. (1998). Crayfish Report. Environment and Heritage Service Belfast. Unpublished Report.	This site holds important populations of <i>Austropotamobius pallipes</i> . The most recent records of this species at this site were recorded in 1998 (J. Reynolds). Abundant populations were noted to occur in two of the lakes in the site. The altitude of these two lakes is worthy of comment as the Crayfish rarely occur at altitudes above 150m. Lough Nageage is 165m and Lough Veenagreane lies at an altitude of 181.5m. The site also represents	Lough Nageage is situated to the east of Lough Derg approx. 5km north-east of Pettigo in Co. Donegal. This site contains three lakes - two of which support populations of the White-clawed Crayfish <i>Austropotamobius pallipes</i> . The lakes lie in a basin surrounded by gently sloping ground. The bed rock of the lakes comprise lower

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>one of the most northerly locations for the crayfish in Ireland. Ireland is thought to hold some of the best european stocks of this species under least threat from external factors.</p>	<p>avonian shales and sandstones. The soil are predominantly thin peats on the sloping ground with a greater depth of peat on flatter areas. Wet heath accounts for 60% of the site although 40% of this area has recently been afforested (within the last 2-4 years). A small amount of blanket bog and scrub are also present. Wet grassland occurs on lands which have some mineral influence. Improved pasture also occurs.</p>
002165	Lower River Shannon SAC	<p>Anonymous (1996). Limerick Main Drainage EIS: Flora and Fauna Nature Conservation and Fisheries. A report to Limerick Corporation by Natural Environmental Consultants. Anonymous (1997). Fisheries Conservation Report: Jan. 1996 - April 1997. ESB Dublin. Berrow S.D. Holmes B. and Kiely. O.R. (1996). Distribution and abundance of Bottlenose Dolphins <i>Tursiops truncatus</i> (Montagu) in the Shannon Estuary. <i>Biology and Environment: Proceedings of the Royal Irish Academy</i> 96B 1:1-9. Berrow S.D. Mackie K.L. O' Sullivan O. Shepherd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. <i>Irish Birds</i> 5: 1-10. Berrow S.D. and Holmes B. (1999). Tour boats and dolphins: A note on quantifying the activities of whale watching boats in the Shannon estuary Ireland. <i>Journal of Cetacean Research and Management</i> 1(2): 199-200. Berrow S.D. McHugh B. Glynn D. McGovern E. Parsons K. Baird R.W. and Hooker S.K. (2002). Organochlorine concentrations in resident bottlenose dolphins (<i>Tursiops truncatus</i>) in the Shannon estuary Ireland. <i>Marine Pollution Bulletin</i> 44: 1296-1313. Berrow S. (2003). Developing sustainable whalewatching in the Shannon estuary. In <i>Marine Ecotourism: Issues and</i></p>	<p>The site contains many Annexed habitats including the most extensive area of estuarine habitat in Ireland. A good range of Annexed species are also present including the only known resident population of <i>Tursiops truncatus</i> in Ireland all three Irish species of lamprey and a good population of <i>Salmo salar</i>. A number of birds</p>	<p>A very large long site approximately 14 km wide and 120 km long encompassing: the drained river valley which forms the River Shannon estuary; the broader River Fergus estuary plus a number of smaller estuaries e.g. Poulnasherry Bay; the freshwater</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Experiences. Eds. Garrod B and Wilson. J. Channel View Publications. ISBN 1-853150-42-3. p198-203. Berrow S.D. O'Brien J. and Holmes B. (2006). Whistle production by Bottlenose Dolphins <i>Tursiops truncatus</i> in the Shannon Estuary. Irish Naturalists' Journal. 28(5): 208-213. Bowman J.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991 - 1994. Environmental Protection Agency Wexford. Brennan P. (1990). Loop Head 1989/1990. Report on bird sightings and ringing. Brennan B.M. and Wilson J.G. (1993). Spatial and temporal variation in sediments and their nutrient concentrations in the unpolluted Shannon Estuary Ireland Arch. Hydrobiol./Suppl.: 75: 4551-486. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Environmental Research Unit Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book: 1 Vascular Plants. Stationery Office Dublin. Delany S. (1996). I-WeBS Report 1994-94: Results of the first winter of the Irish Wetlands Bird Survey. BirdWatch Ireland Dublin. Delany S. (1997). I-WeBS Report 1995-1996: Results of the second winter of the Irish Wetlands Bird Survey. BirdWatch Ireland Dublin. de Valera M. (1962). Some aspects of the problem of the distribution of <i>Bifurcaria bifurcata</i> (Velley) Ross on the shores of Ireland north of the Shannon Estuary. Proceedings of the Royal Irish Academy 62B: 77-99. Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Englund A. Ingram S. and Rogan E. (2007). Population status report for bottlenose dolphins using the Lower River Shannon SAC 2006-2007. Final Report to the National Parks and Wildlife Service 1-35. Englund A. Ingram S. and Rogan E. (2008). An updated population status report for bottlenose dolphins using the Lower River Shannon SAC in 2008. Final Report to the National Parks and Wildlife Service 1-34. Falvey J.P. Dempsey S. and Costello M.J. (1997). Survey of Estuarine Intertidal Sites in Ireland. Unpublished report to NPWS by ESU Trinity College Dublin. Farrell L. (1982). The distribution of <i>Leucojum aestivum</i> L. in Ireland. The Irish Naturalists' Journal 20: 483-489. Farrell K.J. and Cawley A.M. (1996). Hydrographic tracking and oil weathering model for contingency planning and emergency response in the Shannon Estuary Ireland. Pp. 617-625 in: Keegan B.F. and O'Connor R. (eds). Irish Marine Science 1995. Galway University Press Galway. FitzGerald R. (1993). <i>Scirpus triquetus</i> on the Shannon. Unpublished notes on survey carried out in July 1993. NPWS Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Ecological and Geological Interest in Co. Kerry. An Foras Forbartha Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Ecological and Geological Interest in Co. Clare. An Foras Forbartha Dublin. Hannon C. Berrow S.D. and Coveney J. (In press). 1995 All-Ireland Tern Survey. IWC/RSPB. Healy B. (1995). Lagoons and Other Enclosed Brackish Waters</p>	<p>listed on the EU Birds Directive either winter or breed in the site. The site is internationally important for waterfowl with more than 50000 individuals occurring in winter. Several species listed in the Irish Red Data Book are present perhaps most notably the only known Irish populations of <i>Scirpus triquetus</i>.</p>	<p>lower reaches of the Shannon River between Killaloe and Limerick plus the freshwater stretches of much of the Feale and Mulkear catchments; a marine area at the mouth of the Shannon estuary with high rocky cliffs to the north and south; ericaceous heath on Kerry Head and Loop Head; and several lagoons. The underlying geology ranges from Carboniferous limestone (east of Foynes) to Namurian shales and flagstones (west of Foynes) to Old Red Sandstone (at Kerry Head). The salinity of the system varies daily with the ebb and flood of the tide and with annual rainfall fluctuations seasonally.</p>

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		<p>in the Republic of Ireland. Dept. of Zoology UCD. Healy B. Oliver G. Hatch P. and Good J. (1997). Inventory of Lagoons and Saline lakes. Report prepared for NPWS Dublin. Hutchinson C. (1979). Ireland's Wetlands and their Birds. IWC Dublin. Hutchinson C.D. (1989). Birds in Ireland. Poyser Calton. Ingram S. D. (2000). The ecology and conservation of bottlenose dolphins in the Shannon Estuary Ireland University College Cork. PhD thesis. 213pp. Ingram S. Englund A. and Rogan E. (2001). An extensive survey of bottlenose dolphins (<i>Tursiops truncatus</i>) on the west coast of Ireland. Report to the Heritage Council. WLD/2001/42. 17pp. Ingram S.N. and Rogan E. (2002). Identifying critical areas and habitat preferences of bottlenose dolphins (<i>Tursiops truncatus</i>). Marine Ecology Progress Series 244: 247-255. Ingram S.N. and Rogan E. (2003). Estimating abundance site fidelity and ranging patterns of bottlenose dolphins (<i>Tursiops truncatus</i>) in the Shannon Estuary and selected areas of the west-coast of Ireland. Report to the National Parks and Wildlife Service 1-28. Kurz I. and Costello M.J. (1996). Current Knowledge on the Distribution of Lampreys and Some Other Freshwater Fish Species Listed in the Habitats Directive in Ireland. Unpublished report ESU Trinity College Dublin. Kurz I. and Costello M.J. (1996). Proposed Special Areas of Conservation for Lampreys and Shad. Unpublished report ESU Trinity College Dublin. Leahy P. (1986). Oceanographic cruises off the Clare and Galway coasts and in the Shannon Estuary. Pp. 50-63 in: O'Sullivan G. (ed.). Lough Beltra - 1985. Proceedings of the 1985 Lough Beltra Workshop Dublin 26th March 1986. National Board for Science and Technology Dublin. Lewarne Sheehan G.C. (?) The Geology of Loop Head Co. Clare. Leaflet in Field Guide Series No. 4 Irish Geological Association Dublin. Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. The Irish Naturalists' Journal 15: 136-43. Lunnon R. (1996). Otter distribution in Ireland. In: Reynolds J.D. (ed.) The Conservation of Aquatic Systems Pp. 111-116. Royal Irish Academy. Lysaght L. (1988?). Westfields Marsh Limerick. Unpublished report NPWS files. Mansfield M.J. and Stapleton L. (1978). Water quality predictions and waste disposal in the Shannon Estuary - a case study. Pp. 76-92 in: Downey W.K. and Ní Uid G. (eds). Coastal Pollution Assessment - Development of Estuaries Coastal Regions and Environmental Quality. Proceedings of a Seminar held in Cork Ireland April 20-21 1978. National Board for Science and Technology. McCarthy T.K. Fitzgerald J. Cullen P. Doherty D. and Copley L. (1997). Zebra Mussels in the River Shannon: Their Present Distribution Their Probable Ecological Effects Economic Impact and Prospects for Controlling Their Spread to other Irish River Systems. Report by Zoology Dept. UCG for ESB Fisheries Conservation Ardnacrusha. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. McMahon T. (1989). Hydrographic and chemical observations on the Shannon Estuary during 1987. Pp. 88-103 in: O'Sullivan G. and Gillooly M. (eds). Lough</p>		

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		<p>Beltra - 1987. Proceedings of the 4th Annual Lough Beltra Workshop Dublin 23rd March 1988. Fisheries Research Centre Department of the Marine. McMahon T.G. Raine R.C.T. Fast T. Kies L. and Patching J.W. (1992). Phytoplankton biomass light and attenuation and mixing in the Shannon Estuary Ireland. Journal of the Marine Biological Association of the United Kingdom 72: 709-720. Merne O.J. (1977). The changing distribution of the Bewick's Swan in Ireland. Irish Birds 1: 3-15 Merne O.J. (1985). The infauna of the Shannon and Fergus estuarine mudflats as a food resource for shorebirds. M.Sc. Thesis Trinity College Dublin. Moore D. and Wilson F. (1999). The National Shingle Survey of Ireland. Unpublished report to National Parks and Wildlife Dublin. Office of Public Works (1997). Mulkear River (Cappamore) Certified Drainage Scheme: E.I.A. OPW Dublin. O'Grady M. (1992). An Environmental Impact Assessment Study of Proposed Drainage Works in the Mulkear Catchment from the Fisheries Perspective: Part 1. Central Fisheries Board Dublin. O'Leary C. and Breen J. (1995). Heavy metal variations in the organs of <i>Mytilus edulis</i> from the Shannon Estuary. In: Fifth Environmental Researchers' Colloquium University College Cork January 1995. Biology and Environment: Proceedings of the Royal Irish Academy 95B: 123-168. O Maoileidigh N. Browne J. McDermott T. Cullen A. Bond N. McEvoy B. O'Farrell M. and O'Connor W. (1995). Exploitation and Survival of River Shannon Reared Salmon. Fishery Leaflet 164. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an anglers guide. Merlin Unwin Books London. O'Sullivan G. (1983). The intertidal fauna of Aughinish Island Shannon Co. Limerick. The Irish Naturalists' Journal 21: 62-69. O'Sullivan G. (1984). Seasonal changes in the intertidal fish and crustacean populations of Aughinish Island in the Shannon Estuary. Irish Fisheries Investigations Series B (Marine) 28: 1-15. Quigley D.T.G. (1996). First record of Smelt <i>Osmerus eperlanus</i> L. from the River Suir together with a review of Irish records. Bulletin of the Irish Biogeographical Society 19: 189-194. Raine R. (1992). The Irish-German Shannon-Elbe Project. In: Gillooly M. and O'Sullivan G. (eds). Lough Beltra 1988. Proceedings of the 5th Annual Lough Beltra Workshop Galway 5th and 6th April 1989. Dublin Fisheries Research Centre Department of the Marine. Rogan E. Ingram S. Holmes B. and O'Flanagan C. (2000). A survey of bottlenose dolphins (<i>Tursiops truncatus</i>) in the Shannon Estuary. Marine Institute Marine Resource Series No. 9 46pp. Ross E.D. (1988). The Reproductive Biology of Freshwater Mussels in Ireland with Observations on Their Distribution and Demography. Ph.D. Thesis University College Galway. Shannon Regional Fisheries Board unpublished data. Sharrock J.T.R. (1976). The Atlas of Breeding Birds in Britain and Ireland. Poyser Berkhamstead. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Southern R. and Gardiner A.C. (1926). The seasonal distribution of the Crustacea of the plankton in Lough Derg and the River Shannon. Fisheries Ireland Scientific Investigation 1926 part 1. Stapleton L. (Ed.) (1975). Birds of Clare and Limerick IWC Munster Branch Limerick. Stewart N.F. and Church J.M.</p>		

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		<p>(1992). Red Data Book of Britain and Ireland: Stoneworts. JNCC Petersborough. Whelan K.F. and Roche W.K. (1986). The Biology and Management of Bunlickey and Cooperhill Lakes. Unpublished report to Irish Cement Ltd. by Central Fisheries Board Dublin. Whilde A. (1985). The 1984 All-Ireland Tern Survey. Irish Birds 1: 370-376. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO Belfast. Whitton B.A. (1984). Shannon pp.345-362. In: Ecology of European Rivers. Blackwell Scientific Publications Oxford. Whittow J.B. (1975). Geology and Scenery in Ireland. Pelican Books Harmondsworth. Wilson J.G. Brennan M. and Brennan B. (1993). Horizontal and vertical gradients in sediment nutrients on mudflats in the Shannon Estuary Ireland. Netherlands Journal of Aquatic Ecology 27: 173-180. Young R. (1971). Report on Areas of Scientific Interest in Co. Limerick. An Foras Forbartha Dublin.</p>		
002171	Bandon River SAC	<p>Bowman K.J. Clabby K.J. Lucey J. McGarrigle M.. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency. Wexford. Cairns Ltd RPS. (1996). Bandon River (Dunmanway) Drainage Scheme. Environmental Impact Statement - Second Draft. RPS Cairns Ltd. Cork. Curtis T.G.F. and Mc Gough H.N. (1988). The Irish Red Data Book 1 : Vascular Plants. Government Publications Stationery Office. Dublin. Gibbons D.W. Reid J.B. and Chapman R.A. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. Poyser. London. Goodwillie R. (1986). Report on Areas of Scientific Interest in County Cork. An Foras Forbartha. Dublin. Kelly D.L. and Iremonger S.F. (1997). Irish Wetland Woods: The Plant Communities and their Ecology. Biology and Environment: Proceedings of the Royal Irish Academy. Vol. 97B No. 1 1-32. Royal Irish Academy. Dublin. Kurtz I. and Costello M.J. (1996). Current Knowledge on the Distribution of Lampreys and some other Freshwater Fish Species listed in the Habitats Directive in Ireland. Internal report to National Parks and Wildlife. Kurtz I. and Costello M.J. (1996b). Proposed Special Areas of Conservation for Lampreys and Shads. Internal report to National Parks and Wildlife. Lelek A (1980). Threatened Freshwater Fishes in Europe. Nature and Environment Series No. 18. Council of Europe. Strasbourg. Lucey J. (1993). The Distribution of Margaritifera margaritifera (L.) in Southern Irish Rivers and Streams. J. Conch. Lond. 34: 301-310. Maitland P.S. (1972). Key to British Freshwater Fishes. Freshwater Biological Association Scientific Publication No. 27. Freshwater Biological Association. Ambleside. Moorkens E.A. (1996). Studies on the Biology and Ecology of Margaritifera in Ireland. PhD. Thesis. Trinity College Dublin. Moorkens E.A. Costello M.J. and Speight M.C.D. (1992). Status of the Freshwater Pearl Mussel Margaritifera margaritifera and M.M. Durrovensis in the Nore Barrow and Suir River tributaries South east Ireland. Ir. Nat. J. 24: 127-131. Morgan G. (1982). The Chironomidae of the River Bandon. An unpublished MSc thesis from the National University of Ireland. O'</p>	<p>The site is important as it contains the Annex I priority habitat Alluvial Forests and the Annex I habitat Floating River Vegetation. The Annex I Bird - Alcedo at this breeds within the site as do the Annex I animal species Lampetra planeri and Margaritifera margaritifera. Water quality is very good and the site supports a large population of Margaritifera margaritifera. Cork Co. Council are considering designating the Bandon a salmonid River.</p>	<p>Geologically the predominant rock formations are Old Red Sandstone to the North with Carboniferous slate in the southern half of the site. The northern section of the site is dominated by a mosaic of exposed rock heath upland wet grassland and scrub with small pockets of improved grassland throughout. The area below Long Bridge supports a rare form of wet woodlands on braided channel edges and islands. The southern section of the site</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Sullivan W.M. (1941). Summer Diet of Otters on part of the River Blackwater Catchment. Ir. Nat. J. Vol. 24 No. 9: 349-354. Rodwell J.S. (1991). British Plant Communities. Vol. I - Woodlands and Scrub. Cambridge University Press. Scannell J.P. and Synnott D.M. (1987). Census Catalogue of the Flora of Ireland. Government Publications. The Stationery Office. Dublin. Smiddy P and O' Halloran J. (1991). The January 1991 Swan Census in Co. Cork. Cork Bird Report 1990:85-89. Smith A.J.E. (1978). The Moss Flora of Britain and Ireland. Cambridge University Press. Smith A.J.E. (1990). The Liverworts of Britain and Ireland. Cambridge University Press. Webb D.A. Parnell J. and Doogue D. (1996). An Irish Flora. Dundalgan Press. Dundalk. Went A.E.J. and Kennedy M. (1976). List of Irish Fishes. 3rd Edition. Stationery Office. Dublin. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO. Belfast. White J. (1985). The Gearagh Woodland Co. Cork. Ir. Nat. J. Vol. 21:391-396.</p>		<p>has been reclaimed into grassland.</p>
002181	Drummin Wood SAC	N/A	<p>This oak woodland is classified as Blechno-Quercetum petraeae var. coryletosum. While of only moderate size it a good example of the type and generally of good quality. Typical structure Regeneration is good and is occurring in previously cut areas. Has the rare and Red Data Book species Cephalanthera longifolia. Both Martes martes and Meles meles occur. Similar woods of this quality are scarce in this part of country.</p>	<p>Site is situated in the foothills of the Slieve Aughty Mountains almost 3 km east of Lough Cutra. Area drains into the Owendalulleagh River. Over 60% of the site is wooded the remainder being mainly heath habitat with colonising Betula and Quercus trees. Small areas of wet grassland and marsh vegetation also present along with a stream and small lake. Woodland has been managed in past. Light grazing occurs. Surrounding</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				areas are used for afforestation and rough grazing.
002189	Farranamanagh Lough SAC	<p>Barnes R.S.K. (1989). Coastal lagoons of Britain: an overview and conservation appraisal. Biological Conservation 49: 295-313. Costello M.J. Holmes J.M.C. McGrath D. and Myers A.A. (1989). A review and catalogue of the Amphipoda (Crustacea) in Ireland. Irish Fisheries Investigations Series B (Marine) 33: 3-70. Galvin P. (1992). The ecology of the brackish-water lagoons of Wexford and East Cork. M.Sc. thesis University College Dublin. Good J.A. (1999). Irish coastal lagoon survey 1998. Vol V. Dúchas. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. biogeogr. Soc. 21: 21-66. Hartog C. den (1974). Brackish-water classification its development and problems. Hydrobiological Bulletin 8: 15-28. Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. Bull. Ir. biogeogr. Soc. 21: 2-21. Healy B. (1999). Irish coastal lagoon survey 1998. Vol 1 Part 1. Dúchas. Healy B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bull. Ir. biogeogr. Soc. 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. 2. Inventory of lagoons and saline lakes. Report to the National Parks and Wildlife Service Dublin. Oliver G.A. (1999). Irish coastal lagoon survey 1998. Vol IV. Dúchas. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. biogeogr. Soc. 21: 66-115. Roden C. (1999). Irish coastal lagoon survey 1998. Vol III. Dúchas. Moore D. &amp; Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks &amp; Wildlife Service Dublin.</p>	<p>Although small the lagoon habitat is almost completely natural and is representative of a type of lagoon (sedimentary with inlet) of which there are only six known in the country. <i>Ruppia</i> sp. is abundant. The fauna is relatively poor but typically brackish (<i>Palaemonetes varians</i> <i>Neomysis integer</i> <i>Jaera nordmanni</i>) with two rare species (<i>Allomelita pellucida</i> <i>Stenus lustrator</i>). This is a good example of a lagoon in miniature situated in an area of varied habitats. The site also displays a good and sizeable example of a cobble and boulder curved barrier. This stony bank is well vegetated on the plateau and landward side and long-term stability is indicated by the presence of lichens.</p>	<p>Farranamanagh Lough is a small shallow (2 m) sedimentary lagoon situated on the south side of the Sheep's Head peninsula in west Co. Cork. It is separated from the sea by a stony ridge. Seawater enters through a narrow outlet by percolation and overtopping the stony barrier at high tide and during storms. Salinity varies considerably (2-25 ppt) depending on rainfall and seawater incursions. Bedrock is Old Red Sandstone and soils are generally peaty podzols and acid brown earths. Land surrounding the lagoon is a mix of rocky heath wet grassland marsh vegetation and wet</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				scrub. Salt marsh fringes the lagoon along the eastern shore.
002197	Derrinlough (Cloonkeenleananode) Bog SAC	<p>Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/</a></p> <p>Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project. Unpublished report NPWS Dublin.</p> <p>Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin.</p> <p>Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.</p> <p>Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin.</p> <p>Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.</p> <p>Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at: <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a></p> <p>The Interpretation Manual of European Union Habitats – EUR 27 (2007) <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a></p> <p>Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at: <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a></p> <p>NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin.</p> <p>NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.</p> <p>Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatabosbeheer The Netherlands.</p> <p>Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland: <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	Degraded Raised Bog in Derrinlough (Cloonkeenleananode) Bog SAC is of conservation significance as it has the potential for restoration to Active Raised Bog which is a priority habitat in the EU and one that is scarce and under threat in Ireland. Restoration actions have resulted in active redevelopment of the habitat towards Active Raised Bog which add to the diversity and scientific value of the site. The SAC is located within the raised bog Derrinlough Bog NHA (001254) and its conservation and restoration will support the conservation of the significant area of Active and Degraded Raised Bog habitat in the NHA. The site is being actively managed for conservation as part of a Coillte EU LIFE Project. Overall there is good restoration potential and	The raised bog SAC at Derrinlough (Cloonkeenleananode) Bog SAC consists of 61.10 ha of high bog (46.62 ha) and cutover (14.48 ha). It occurs within Derrinlough Bog NHA (001254) which is a medium-sized raised bog site that comprises a mosaic of uncut high bog previously afforested high bog and marginal cutover and is divided into three domes by a stream and an esker. The SAC occurs in all three sections and in each of these sections the SAC adjoins areas of open intact high bog. All the conifers were removed by 2012 and all the intensive drainage system associated with it were blocked by 2013 as

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>most of the required restoration measures have already been carried out however some significant threats remain.</p>	<p>part of an EU funded LIFE project so as to raise the water table and restore Active Raised Bog (ARB) on the site. This restoration work has resulted in the regeneration of raised bog vegetation. Two large high bog areas covering 4.75 ha have been identified by hydrological modelling as Degraded Raised Bog (7120) habitat (DRB). One of these a small wet quaking area of about one hectare occurs in the south-east of the site and is dominated by the bog species Hare's-tail Cottongrass (<i>Eriophorum vaginatum</i>) and <i>Sphagnum cuspidatum</i> with a high water table present for the majority of the year. The nationally rare bog moss <i>Sphagnum</i></p>

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				<p>pulchrum has also been recently recorded from this area. It is considered that this area will develop into Active Raised Bog within 10 years. In addition the SAC comprises several other habitats resulting from the felling of the conifer plantations such as: developing Rich fen Wet Birch woodland and Wet Willow-Alder woodland on the north east of the northern SAC section; Wet Alder woodland along the western cutover in the northern SAC section; developing Wet woodland dominated by Willow along the northern cutover of the eastern SAC section and Oak-Ash woodland on a mineral ridge across the middle and eastern sections of the eastern SAC section. Further Wet Bog woodland</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				and Wet Willow woodland are anticipated to develop in other areas currently described as cutover with birch along the northwest of the eastern SAC section. The Rich fen occurs in a mosaic with scrubby wet woodland which is dominated by Grey willow ( <i>Salix cinerea</i> ) and Downy birch. It is estimated that restoration works carried out on this site will benefit the conservation of 1 ha of Degraded Raised Bog in the adjacent area of Derrinlough Bog NHA (001254).
002199	Ballygar (Aghrane) Bog SAC	Department of Arts Heritage and the Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/</a> Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project. Unpublished report NPWS Dublin. Derwin, J et al (2002). Raised Bog Natural Heritage Area Survey. Unpublished Report NPWS Dublin 2. Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. & Smith G. (2014). Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin	The Active Raised Bog (ARB) habitat in Ballygar (Aghrane) Bog SAC is of considerable conservation significance as it is a priority habitat in the EU and one that is scarce and under threat in Ireland. Despite the	The raised bog SAC at Ballygar (Aghrane) Bog (002199) consists of 27.98 ha of high bog and cutover bog which occupy the north-west corner of Ballygar

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Ireland.Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at:  <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a>The Interpretation Manual of European Union Habitats – EUR 27 (2007)  <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a>Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at:  <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a>NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin.NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatabosbeheer The Netherlands.Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland:  <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>small areas of Active (7110) and Degraded (7120) Raised Bog habitats present the restoration actions undertaken with EU LIFE funding have resulted in active redevelopment of the habitat with regenerating raised bog microhabitats including hollows and wet flats which is adding to the diversity and scientific value of the site. It supports a good range of bog mosses characteristic of Active Raised Bog including Sphagnum fuscum and S. austinii (both species are characteristic of intact Irish raised bogs; recently it has been determined that most S.fuscum is likely to be S.beothuk). Ballygar bog has not been burnt in over ten years and as a result of this it supports a good range of lichens. The site is being actively managed for conservation as part of the Coillte EU LIFE Project. There are few significant threats to the high bog. The SAC is located along the north-</p>	<p>Bog NHA (000299). Most of the SAC was until recently covered by coniferous plantation forestry which was planted in 1973-75 and covered 95% of the site. The plantation was clear-felled by 2012 and the intensive drainage system associated with the plantation blocked in 2013 as part of an EU funded LIFE project so as to raise the water table and maintain and restore Active Raised Bog (7110) (ARB) on the site. A wide variety of vegetation/habitat types occur within the site. The main ones are open high bog at the east of the site which includes a small area (0.37ha) of Active Raised Bog recently cleared forestry on high bog which now includes 1.75 ha of Degraded Raised</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>western margins of the raised bog Ballygar Bog NHA (00299) and is considered to constitute supporting habitat for the adjacent areas of Active and Degraded Raised Bog habitat in the NHA. It is estimated that restoration works carried out on this site will benefit the conservation of 2.5 ha of high quality Active Raised Bog and 0.5 ha of Degraded Raised Bog in the adjacent Ballygar Bog NHA (000299). Ireland has a high proportion of the total EU resource of this habitat type (over 50%) and so has a special responsibility for its conservation at an international level.</p>	<p>Bog 7120 (DRB) recently cleared plantation on cutover bog and an area of lagg-type woodland (0.79 ha). This lagg woodland consists of a band of mixed woodland dominated by Downy birch (<i>Betula pubescens</i>) and Alder (<i>Alnus glutinosa</i>) with Lodgepole Pine (<i>Pinus contorta</i>) and occurs along the northern margin of the site. Wet lagg woodland development in the marginal areas of raised bogs is a very rare occurrence in Ireland. Another smaller (0.23ha) section of Wet Birch woodland is developing along the very north section of the site. The site is bordered by open high bog on its eastern and south-eastern margins by forestry on cutover bog on its northern margin and by agricultural</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				grassland on its western and south-western side. Young trees of Lodgepole Pine are encroaching onto the adjacent high bog to the southeast and east of the site through the germination and establishment of windblown seeds from the former plantation.
002203	Girley (Drewstown) Bog SAC	<p>Department of Arts Heritage and Gaeltacht (2014a). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/Department%20of%20Arts%20Heritage%20and%20Gaeltacht">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/Department of Arts Heritage and Gaeltacht (2014b)</a>. Review of Raised Bog Natural Heritage Area Network. This is available at: <a href="http://www.npws.ie/sites/default/files/general/Final%20NHA%20Review%2017%20January%202014.pdf">http://www.npws.ie/sites/default/files/general/Final%20NHA%20Review%2017%20January%202014.pdf</a></p> <p>Denyer J. (2014). Girley Bog Ecotope mapping. Unpublished report for Action for Biodiversity project (Monaghan &amp; Meath). Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project: A Continuation of the Investigation into the Conservation and Restoration of Selected Raised Bog sites in Ireland. Unpublished report NPWS Dublin. Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin. Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland. Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin. Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS. Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This</p>	The Degraded Raised Bog in Girley (Drewstown) Bog SAC is of conservation significance as it has the potential for restoration to Active Raised Bog which is a priority habitat in the EU and one that is scarce and under threat in Ireland. Despite the relatively small area of Degraded Raised Bog present the restoration actions have resulted in active redevelopment of the habitat towards Active Raised Bog which add significantly to the diversity and scientific value of the site. The site is being actively managed for	Girley (Drewstown) Bog (002203) consists of 32.26 ha of raised bog (15.05 ha of high bog and 17.21 ha of cutover bog) which occupies the south-western part of Girley Bog NHA (001580). Girley Bog is a Midland type raised bog developed in a basin. The SAC is bounded by open high bog on its northern and eastern sides by agricultural land on its western side and by cutover bog with forestry on its southern side. Most



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>is available at:  <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a> Flynn R. &amp; Regan S.(2012). Hydrological Baseline Assessment. Girley Bog Co. Meath. Unpublished report for Action for Biodiversity (Monaghan &amp; Meath).The Interpretation Manual of European Union Habitats – EUR 27 (2007)  <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a> Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at:  <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a> NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin.NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatsbosbeheer The Netherlands.Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland: <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>conservation as part of the Coillte EU LIFE Project and most of the required restoration measures have already been carried out. However some significant threats remain and an After LIFE management plan is being developed for the future conservation management of the SAC. The SAC is located within the raised bog Girley Bog NHA (001580) the conservation management of which should support the maintenance and improvement of Degraded Raised Bog in the SAC. It is estimated that restoration works carried out on the SAC will in turn benefit the conservation of 0.5 ha of Active Raised Bog and the restoration of 0.5 ha of Degraded Raised Bog in the adjacent area of Girley Bog NHA (001580).</p>	<p>of the SAC and all of the high bog included in the SAC was completely covered by coniferous forestry which has been recently clear-felled as part of the restoration program for the site. Most of the conifers in the SAC were removed and the associated intensive drainage system was blocked by 2013 as part of an EU LIFE funded Coillte project (Demonstrating Best Practice in Raised Bog Restoration in Ireland) so as to raise the water table and restore Active Raised Bog (ARB) on the site. With the clear-felling of conifers and blocking of drains water-levels have risen and remain high throughout most of the year. As a consequence raised bog vegetation</p>

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				<p>including typical sphagnum species has returned to the wetter areas of the high bog. Overall the high bog appears to be re-wetting with limited areas of wet flats and hummock/hollows. However the majority of the restored areas have not yet developed vegetation characteristic of the wettest conditions and there is a considerable amount of conifer and birch regeneration occurring in these areas. Two areas in the north-east of the site covering 2.28 ha have been identified by hydrological modelling as Degraded Raised Bog (7120) (DRB) habitat. They now have standing surface water in the hollows and pools for most of the year with considerable</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>                     areas of rapidly regenerating bog mosses. These wet areas with regenerating Sphagnum moss are expected to develop into Active Raised Bog habitat within 20 years. However to ensure that these areas reach their full potential it will be necessary to block the boundary drains in consultation with other stakeholders. The cutover bog to the south of the site is generally drier and is developing into wet and dry woodland dominated currently by Downy Birch scrub with occasional conifers from the former plantation. Cherry Laurel Rhododendron and conifers are regenerating strongly in this area and are subject to ongoing control programs.                 </p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
002213	Glenloughaun Esker SAC	N/A	Although small in area this is an excellent example of dry calcareous grassland which is largely unimproved. Of particular note is the species diversity. The orchid interest lies in the occurrence of a large population of <i>Orchis morio</i> a Red Data Book plant species. <i>Orchis mascula</i> also occurs.	This small site is situated on an esker ridge approximately 5 km south-west of Ballinasloe in Co. Galway. It comprises mostly unimproved dry grassland. A feature of the site is the somewhat unusual mixture of calcicole and calcifuge species. Leaching of the base-rich substrate of the esker is likely to have given rise to soil conditions suitable for colonisation by calcifuge species. Some scrub and hedgerows are also present within site along with a small area of deciduous woodland. Main landuse is grazing.
002243	Clare Island Cliffs SAC	Barlee J. and Ruttledge R.F. (1945). Notes on the present status of birds on Clare Island. <i>The Irish Naturalists' Journal</i> 8: 311-313. Borrow S. D. Mackie K.L. O Sullivan O. Sheppard R. B. Mellan C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. <i>Irish Birds</i> 5: 1-10. Brodie J. (1991). Some observations on the flora of Clare Island Western Ireland. <i>The Irish Naturalists' Journal</i> 23: 376. Curtis T.G.F. and McGough H. (1988). <i>The Irish Red Data Book 1: Vascular Plants</i> . Stationary Office Dublin. D'Arcy G. (1992). Fauna observed on Clare Island Co. Mayo. <i>Irish Wildbird Conservancy</i> . Dublin. Doyle G.J. and Foss P.J. (1986). A resurvey of the Clare Island	The site holds fine examples of the Annex I Habitats vegetated sea cliffs siliceous rocky and calcareous rocky slopes. These habitats support interesting alpine vegetation communities	Clare Island lies 5km from the mainland. The geology of the site is diverse consisting of Dalradian sandstones and shore

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Flora. Irish Naturalists' Journal 22: 85-89. Foss P.J., Doyle G. J. and Nelson E.C. (1987). The distribution of <i>Erica erigena</i> R. Ross in Ireland. <i>Watsonia</i> 16: 311-327. Goodwillie R. (1979). Field Survey of Clare Island Cliffs. Unpublished AFF Dublin. Lloyd C.S. (1984). The birds of Clare Ireland Co. Mayo in June 1982. <i>Irish Naturalists' Journal</i> 5: 212-216. Merne O. (1989). Important bird areas in the Republic of Ireland. In: Grimmet R.F.A. and Jones T.A. (Eds). <i>Important Bird Areas in Europe</i>. I.C.B.P. Technical Publication No. 9. Cambridge. Praeger R. L1. (1903). The flora of Clare Island. <i>Irish Naturalist</i> 12: 277-294. Praeger R. L1. (1911). Clare Island Survey 10. <i>Phanerogamia and Pteridophyta</i>. Proceedings of the Royal Irish Academy 31B: 1-47. Praeger R. L1 (1934). <i>The Botanist in Ireland</i>. Hodges Figgis Dublin. Ruttledge R.E. (1994). <i>Birds in Counties Galway and Mayo</i>. Irish Wildbird Conservancy Dublin. Stewart N. (undated). <i>Rare Bryophytes in Ireland</i>. Unpublished National Parks and Wildlife Dublin. Synnott D. 1982. An outline of the flora of Mayo. <i>Glasra</i> 9: 13-114.</p>	<p>and include a number of Red Data Book species. In addition <i>Falco peregrinus</i> a species listed on Annex I of the EU Birds Directive occur on the site. The site supports important colonies of seabirds.</p>	<p>Carboniferous sandstones shales and conglomerates and a variety of silurian rocks. The dominant feature of the site is a high ridge that attains a height of 462m at Knockmore mountain and forms precipitous sea cliffs (400m high) along the northern side of the island. Vegetated sea cliff rocky slope and heathy vegetation dominate this area of the site. Elsewhere in the site areas of lower cliffs shingle and salt marsh are found.</p>
002244	Ardrahan Grassland SAC	<p>Curtis T.F.G. &amp; McGough H.N. (1988) <i>The Irish Red Data Book</i>. Curtis T. &amp; Wilson F. (2014) <i>Orchid Ireland Survey 2014 – Final Report</i>. Unpublished report for National Parks and Wildlife Service Dublin. Fossitt J.A. (2000) <i>A guide to habitats in Ireland</i>. The Heritage Council Kilkenny. Goodwillie R. (1995). <i>South Galway Flood Relief Study</i>. Martin J.R., O'Neill F.H. &amp; Daly O.H. (2018) <i>The monitoring and assessment of three EU Habitats Directive Annex I grassland habitats</i>. <i>Irish Wildlife Manuals</i> No. 102. National Parks and Wildlife Service Department of Culture Heritage and the Gaeltacht Ireland. O'Neill F.H., Martin J.R., Devaney F.M. &amp; Perrin P.M. (2013) <i>The Irish semi-natural grasslands survey 2007-2012</i>. <i>Irish Wildlife Manuals</i> 78. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin. O'Neill F.H. &amp; Martin J.R. (2018) <i>The Irish Juniper Monitoring Survey 2017</i>. <i>Irish Wildlife Manuals</i> No. 101. National Parks and Wildlife Service Department of</p>	<p>The site is important as it contains excellent examples of the Annex I habitat Alpine heath along with frequent areas of Juniper scrub formations throughout the site. Small examples of the Annex I priority habitat of Limestone Pavement are found. The site also supports an</p>	<p>Geologically the overdominant rock formations are of flat carboniferous limestone. Southwest of Brackloon Lough the land rises slightly to form low calcareous hills with a frequent cover of Juniper heath.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Culture Heritage and the Gaeltacht Ireland. Webb D.A. Parnell J. and Doogue D. (1996). An Irish Flora. Dundalgan Press. Dundalk.	interesting example of a shallow marl lake. Although small it is of high scientific interest due to its relatively natural state good quality Chara communities and given the rarity of this habitat type in the locality.	Much of the site is dominated by species rich limestone grassland merging northwards into a rich mosaic of alpine heath limestone pavement calcareous grassland and scrub. Some areas of reclamation occur at the northern and north western edges of the site.
002261	Magharee Islands SAC	Goodwillie R. (1976). A preliminary report on areas of scientific interest in County Kerry An Foras Forbartha Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. & Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath & M.I. Evans eds. Important Bird Areas in Europe: Priority sites for conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland. Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Parnell J.N. Wyse Jackson P.S. & Akeroyd J.R. (1983). The flora of the Magharee Islands Co. Kerry. Bulletin of the Irish Biogeographical Society 7: 45-54. O'Connor B.D.S. (1987). The benthic communities off the west coast of Ireland. Lough Beltra 1986 Proceedings of the 3rd Annual Lough Beltra Workshop Galway 25 February 1987. Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.	Site has important examples of infralittoral reef communities. These are varied being exposed to wave action on the west coasts of the islands and more sheltered on the east coasts with tideswept areas due to the currents between the islands. Site is of national importance for breeding terns. Has Sterna paradisaea (2.2% of national total in 1995) and Sterna hirundo (1.5% of national total in 1995). Cepphus grylle occur in nationally important numbers.	This marine site lies about 2 km north of the Magharee Peninsula and is centred around the Magharee Islands a group of seven main islands. The site includes two of the smaller islands Illaunabarnagh and Mucklaghmore which lie about 5 km to the north-east of the main group of islands. The islands are exposed on their west coasts and more sheltered on

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				their east coasts with moderately strong currents between them. The islands are composed of Carboniferous limestone. A maritime grassy sward occurs on the islands.
002263	Kerry Head Shoal SAC	<p>Emblow C.S. Picton . Sides E.M. B.E. Morrow C.C and Costello M.J. (1995). Marine communities of the Bantry Bay area and an assessment of their nature conservation importance. Biology and Environment. Proceedings of the Royal Irish Academy Dublin. Morrow C.C. and Picton B.E. (1996). An aplysillid sponge <i>Hexadella racovitzai</i> Topsent 1896 new to the British Isles with notes on its habitat and distribution Irish Naturalists' Journal 25: 218 - 221. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488. Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Stephens J. (1915). Sponges of the coast of Ireland I. - The Triaxonida and part of the Tetraxonida. Fisheries Ireland Scientific Investigations 1914 Part IV.</p>	<p>The Kerry Head reef has extremely high conservation value. It contains a rich and diverse flora and fauna that is characterized by rare erect and encrusting sponges. Several species occur in associations that are unique in Ireland and the axinellid sponge community is considered to be Ireland's best example (pers. comm. B.Picton). Two sponge species were not recorded anywhere else in Ireland by BioMar (<i>Tetilla cranium</i> and <i>Quasillina brevis</i>). The populations of nine other rare and notable species (<i>Tetilla zetlandica</i>, <i>Thymosia guernei</i>, <i>Axinella damicornis</i>, <i>Axinella flustra</i>, <i>Spongionella pulchella</i>)</p>	<p>The Kerry Head Shoal is a deep (20 - 52 m) limestone reef running in a north-east / south-west direction. The reef is situated on the west coast of Ireland to the north of Tralee Bay and to the west of Kerry Head. It is exposed to the full force of swells from the Atlantic. The infralittoral and circalittoral reef communities of the Kerry Head Shoal are extremely exposed to wave action and subject to weak tidal streams. The circalittoral reef topography ranges from big relatively</p>

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			Hexadella racovitzae Terebratulina retusa Diazona violacea and Aldisa zetlandica) represent a very high proportion of the total populations in the national territory. Four other species have conservation importance (Gymnangium montagui Eunicella verrucosa Isozoanthus sulcatus and Carpomitra costata).	flat terraces cut by gullies to ridged bedrock and angular boulders.
002264	Kilkee Reefs SAC	Byrne P. (2002). Marine Life at Kilkee. Leaflet published by The Heritage Council and Dúchas The Heritage Service. <a href="http://www.tempoweb.com/diveireland/kilkee.htm">http://www.tempoweb.com/diveireland/kilkee.htm</a> Cunnington W.H. (1900). The crabs of our sea-shore. The Irish Naturalists' Journal 9: 120-127Farran G.P. (1949). Stenoteuthis pteropus (Steenstrup) on Co. Clare shore. Irish Naturalists' Journal 9: 277-278. McGrath D. and King P.A. (1991). Settlement of mussels Mytilus edulis L. on wave-exposed shores in Irish waters: a survey. Proceedings of the Royal Irish Academy 91B: 49-58.O'Loughlin E.F.M. (1989). Notes on the distribution of Calliostoma zizyphinum (L.) (Mollusca) on the shores and shallow waters of the Irish coast. Bulletin of the Irish Biogeographical Society 12: 22-30.Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488.Picton B.E and Costello M.J. (eds). (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin.(Compact Disc).Ryland J.S. and Nelson-Smith A. (1975). Littoral and benthic investigations on the west coast of Ireland - IV. (Section A: faunistic and ecological studies.) Some shores on counties Clare and Galway. Proceedings of the Royal Irish Academy 75B: 245-266. de Valera M. (1962). Some aspects of the problem of the distribution of Bifurcaria bifurcata (Vellay) Ross on the shores of Ireland north of the Shannon Estuary. Proceedings of the Royal Irish Academy 62B: 77-99.	Kilkee has good examples of exposed reef communities that contain species worthy of conservation. The purple sea urchin Paracentrotus lividus is abundant in shallow pools on the shore. In the infralittoral zone there are scarce species of sponge sea fan and nudibranch. The erect and encrusting sponges anthozoans and nudibranchs in the circalittoral are of particular interest. Species richness can be high: 86 species were recorded by BioMar in the upper infralittoral reef north-east of Ilaunonearaun and 76	This site is situated on the south-west coast of Co. Clare. It stretches for approximately 12 km from Ballard Bay to Castle Point. It is exposed to the full force of Atlantic swells from the west and slopes steeply. A small shallow bay Moore Bay offers some shelter from wave action. Bedrock is Carboniferous Millstone Grit and Flagstone. A few small islands and islets are included the largest being Bishop's Island.



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			<p>species were recorded in the lower eulittoral reef at Duggerna Rock. While poorly documented the site has examples of submerged marine caves that are presumed of good quality and largely undisturbed. Exposed littoral sediment communities and sheltered infralittoral reef communities add habitat diversity to the area.</p>	
002265	Kingstown Bay SAC	<p>Picton B.E and Costello M.J. (eds). (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc).</p>	<p>The sublittoral sediment communities of Kingstown Bay are of extremely high conservation importance. They are composed of three maerl-forming coralline algal species: Lithothamnion corallioides Lithophyllum dentatum and Lithophyllum fasciculatum. Lithothamnion corallioides is listed under Annex V of the EU Habitats Directive. Lithophyllum fasciculatum and Lithophyllum dentatum are not listed perhaps because they are less</p>	<p>Kingstown Bay is a small narrow bay situated about 7 km north-west of Clifden on the west coast of Ireland. It is an unusually shallow (approximately 1 m) bay that is about 3 km long and 500m wide at the mouth. Its north-westerly aspect and the offshore islands of Omey Inishturk and Turbot at the mouth afford shelter from Atlantic swells. Conditions become even more sheltered towards</p>

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			<p>common than Lithothamnion corallioides and therefore make a smaller contribution to maerl habitats. Whereas Lithophyllum fasciculatum is present in Ireland the UK and Brittany the status and distributional limits of Lithophyllum dentatum are uncertain. Lithophyllum dentatum at Kingstown Bay is fertile and currently under study. There are only three known sites in Ireland where these three species occur together (the other two being at Kilkieran slip and Kinvarra Bay both also in Co. Galway. Of these three sites Kingstown Bay is by far the best example in terms of plant density and plant size. There are extensive seagrass beds in the bay that sometimes coincide with the maerl. The association of these two habitats appears to be unusual. Several epiphytic algae occur in the area that were not recorded by the BioMar survey. Of particular</p>	<p>the head of the bay where the sediment is muddy. Currents can be moderately strong as the bay fills and empties with the rising and falling tide. The sublittoral sediments are dominated by mixed maerl-forming species and dense sea grass. Bedrock is metamorphic schist and gneiss. Hog Island a small grassy island is included in the site.</p>

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			<p>interest is Gelidiella calcicola thought to be endemic to maerl and the common coralline alga Corallina officinalis which grows in unattached balls at Kingstown Bay. The beaches or 'Coral Strands' at Kingstown Bay are composed of dead maerl debris and are biologically and geologically very interesting. They have not been surveyed. The oyster Ostrea edulis is known to occur in Kingstown Bay. Sheltered rocky shores dominated by Ascophyllum nodosum add habitat diversity to the area. The structure and quality of the habitats is excellent.</p>	
002279	Askeaton Fen Complex SAC	<p>Goodwillie R. (1981). Areas of Scientific Interest in Ireland. An Foras Forbartha Dublin. Reynolds S. (1997). Report for Co. Limerick (v.c.H8). 1996. Irish Botanical News 7 39-42. The Committee for Ireland Botanical Society of the British Isles. Wann J. (1999). Some botanical observations in Co. Limerick (v.c. H8) for the Atlas 2000 Project. Irish Botanica News 9 32-35. The Committee for Ireland Botanical Society of the British Isles. Young R. (1971). Report on Areas of Scientific Interest in County Limerick. Unpublished Report for An Foras Forbartha Dublin.</p>	<p>The site is most important for the presence of the Annex I habitat Cladium fen and also for the presence of Alkaline fens. Small areas of species-rich dry grassland are also found. The site supports a diversity of habitats and species.</p>	<p>The site consists of a number of separate small fen areas north east and south of Askeaton in an area of undulating ground underlain by Carboniferous Limestone. The fen is predominantly the Cladium type though alkaline fens</p>

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				<p>are found around the landward margins. Adjacent to the fens are associated habitats such as freshwater marsh wet grassland and open water. On higher ground dense scrub is found. Occasionally at the south of the site cliffs are present. Diverse dry grassland is found also at the south of the site though this is further fragmented by agricultural improvement.</p>
002281	Reen Point Shingle SAC	Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin.	While small in area the site contains an important example of a vegetated shingle spit in association with a small lagoon. It supports a typical flora including lichens and is of high quality.	The site is located in Dunmanus Bay in the extreme south-west of Co. Cork. It comprises a small headland the inner part of which is improved grassland and not part of the site. Shingle bars occur on both sides of the headland and merge with heath salt marsh and a small lagoon. On the seaward side

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				the shingle is associated with bedrock shore.
002294	Cahermore Turlough SAC	Jennings O'Donovan & Partners and Southern Water Global (1997). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Volumes 1 & 2. Unpublished report prepared for the Office of Public Works Dublin. Madden B. and Heery S. (1999). Census of Wintering Wetland Birds in South Galway (Gort-Ardrahan Catchment) Winter (1998/1999). Unpublished report prepared for Dúchas The Heritage Service Dublin.	Cahermore turlough is considered to be of regional importance. While the vegetation is not particularly diverse the amount and quality of the native scrub and developing woodland within the turlough zone is of note. The overall quality is reduced by close grazing and agricultural improvements in parts. When flooded it can support locally important concentrations of wintering waterfowl including <i>Cygnus cygnus</i> .	The site is situated in the limestone lowlands of South Galway. It occupies a shallow basin that is mostly covered by glacial drift. There are rock outcrops in the northern part and a low mound of limestone pavement in the eastern sector. The turlough is a dry type and there is no standing water in summer apart from a few ponds dug for cattle. Some collapse features occur in the drift in the southern part including a swallow hole. The turlough appears to flood largely from the southern side.
002298	River Moy SAC	Bracken J. J. and O'Grady M. E. (1992). A review of freshwater fisheries research in Ireland. In Feehan J. (ed.) Environment and Development in Ireland pp 499-510. The Environmental Institute UCD Dublin. Central Fisheries Board (1994). A Fishery Survey of the Moy Catchment and a Draft Development Plan for this Resource. Central Fisheries Board unpublished report. Central Fisheries Board 2001. Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a> ; February 2001. Central Fisheries Board 2003. Irish Salmon Catches	This extensive site contains good examples of the Annex 1 habitats active raised bog degraded raised bog Rhynchosporion	This site comprises almost the entire freshwater element of the Moy and its tributaries including both Lough Conn

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>2001. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2003. Champ W.S.T. and King J.J. (1988). The Trophic Status of Lough Conn: An Extended Study. Central Fisheries Board Dublin.</p> <p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance Dublin. Stationery Office Dublin.</p> <p>Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas -The Heritage Service Dublin.</p> <p>Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford.</p> <p>Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Unpublished report Forest and Wildlife Service Dublin.</p> <p>Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994) Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin.</p> <p>Gittings T. and Delany S. (1996). A pre-breeding census of Common Scoters in Ireland in 1995. Irish Birds 5: 413-422.</p> <p>Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin.</p> <p>Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1.</p> <p>Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath and M.I. Evans (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8).</p> <p>Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report. National Parks and Wildlife Dublin.</p> <p>Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge.</p> <p>Kurz I. and Costello M.J. (1999). An outline of the biology distribution and conservation of lampreys in Ireland. Irish Wildlife Manuals No. 5. 27pp. Dúchas - The Heritage Service Dublin.</p> <p>Lucey J. and McGarrigle M.L. (1987). The distribution of the freshwater crayfish in Ireland. Irish Fisheries Investigations 29A: 1-13.</p> <p>Lunnon R. (1996). Otter distribution in Ireland. In: Reynolds J.D. (ed.) The Conservation of Aquatic Systems pp. 111-116. Royal Irish Academy Dublin.</p> <p>Maitland P.S. (1980). Review of the ecology of lampreys in northern Europe. Canadian Journal of Aquatic Sciences 37: 1944 - 1952.</p> <p>McGarrigle M.L. Champ T. Norton R. Moore M. and Larkin P. (1993). The Trophic Status of Lough Conn. 89pp. Mayo County Council.</p> <p>McGarrigle M.L. Kilmartin L. and Hallissey R. (1997). Phosphorus loss from agriculture to water- a twin-catchment analysis in the Lough Conn catchment. In Collins J. (ed.) Proceedings of the Irish Soil Science Association Univeristy College Dublin April 1997.</p> <p>McGarrigle M.L. and Champ W.S.T. (1999). Keeping pristine lakes clean: Loughs Conn and Mask western Ireland. Hydrobiologia</p>	<p>vegetation alkaline fen alluvial woodland and old oak woodlands. The raised bog areas present constitute the most north-westerly examples of raised bog in Ireland with the most important examples occurring at Derrynabrock and Tawnaghbeg. Alkaline fen is particularly well developed at Mannin and Island Lakes an excellent example of old oak woodland is to be found just east of Pontoon along the shores of Loughs Conn and Cullin. This represents one of the largest stands of oak woodland in western Ireland. Water quality of the river channels is generally good and the majority is classified as unpolluted. The open waters of Loughs Conn and Cullin are moderately hard with relatively low colour and good transparency. Lough Conn with a surface of 50km<sup>2</sup> is classified as a mesotrophic system while Lough Cullin (surface of 11 km<sup>2</sup>) is</p>	<p>and Lough Cullin. The system drains a catchment area of 805 km<sup>2</sup>. Most of the site is in Co. Mayo though parts are in west Sligo and north Roscommon. The underlying geology is Carboniferous Limestone for the most part though Carboniferous Sandstone is present at the extreme west of the site with Dalradian Quartzites and schists at the south west. The river and its various tributaries rise in a number of locations some of which are upland areas dominated by blanket bog and heath. Throughout most of its course however the river flows through low-lying countryside where most of the adjoining land consists of agricultural grassland. The river eventually reaches</p>

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		<p>395/396: 455-469. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. O'Grady M. (1992). A review of fish stocks in Lough Conn 1978-1990. In: The Future of the Moy Fisheries Integrated Management and Development Plan for the River Moy System. North Western Fisheries Board Ballina Dublin. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co Dublin. Reynolds J.D. (1982). Notes on the Irish distribution of the freshwater crayfish. Bulletin of the Irish Biogeographical Society 6: 18-24. Ruttledge R.F. (1987). The breeding distribution of the Common Scoter in Ireland. Irish Birds 3: 417-426. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Tierney T.D. Dunne J. and Callanan T. (2000). The Common Scoter <i>Melanitta nigra nigra</i> breeding in Ireland range expansion or site relocation ? Irish Birds 6: 447-452.</p>	<p>classified as an oligotrophic system. The rivers and lakes support important populations of <i>Lutra lutra</i> <i>Austropotamobius pallipes</i> <i>Lampetra planeri</i> and <i>Petromyzon marinus</i>. The Moy system is one of the most important in Ireland for <i>Salmo salar</i> and is an internationally renowned fishery. It also has important stocks of <i>Salmo trutta</i>. Lough Conn supports a nationally important population of <i>Anser albifrons flavirostris</i> and has regionally important numbers of <i>Cygnus cygnus</i> and <i>Pluvialis apricaria</i> (all Annex I Bird Directive species). The lakes support a range of other wintering waterfowl notably nationally important populations of <i>Aythya fuligula</i> and <i>Bucephala clangula</i>. Lough Conn / Cullin represents one of only 4 breeding sites in Ireland for <i>Melanitta nigra</i> which in Ireland is at the south-west end of its European range. The population however has seriously</p>	<p>the sea at Ballina where it flows into Killala Bay. To the west of Lough Cullin the river passes through areas where the bedrock is dominated by silicious rocks such as granite and here the character of the adjoining land changes to one where blanket bog and heath are important components of the landscape. In addition to river and lake habitats the site contains adjoining habitats of ecological interest such as raised bogs heath wet grassland and deciduous woodland. Small pockets of conifer plantations close to the lakes and along parts of the rivers are included. Improved grassland is also included where it occurs along the river channels.</p>

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			<p>declined in recent years. A range of mammals listed in the Red Data Book occur within the site including <i>Martes martes</i> and <i>Myotis daubentoni</i>. At least five Red Data Book plant species occur including <i>Cephalanthera longifolia</i> and <i>Spiranthes romanzoffiana</i>.</p>	
002312	Slieve Bernagh Bog SAC	<p>Biosphere Environmental Services (2001). Assessment of Impacts on Flora and Fauna of a Proposed Wind Farm Development at Slieve Bearnagh Co. Clare. Report prepared for O'Loughlin Environmental Services. Norriss D.W. Marsh J. McMahon D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 1998-2000. Irish Birds 7: 1-10. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co. Dublin.</p>	<p>This extensive upland site has been selected for the presence of the Annex 1 habitats active blanket bog dry heath and wet heath. The quality of these habitats is generally very good due to low levels of recent disturbance. The occurrence of <i>Vaccinium oxycoccus</i> is of note. The site ranks as one of the most extensive high quality upland areas in the mid-west of Ireland and is of high importance. Areas of conifer plantation have been included within the site. The site is used as foraging habitat by a small population of <i>Circus cyaneus</i> which nests in the Slieve Bernagh mountain range.</p>	<p>This is a large upland site located in the south-east of county Clare. The site comprises three distinct blocks of land separated by extensive conifer plantations which dominate the mountain slopes. The dominant bedrock within the site is base-poor Silurian sedimentary rocks and Old Red Sandstone. These rocks support a rather shallow peat soil which give rise to the dominant heath habitats. Where peat is deeper especially on plateau areas</p>



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			Lagopus lagopus occurs within the site.	blanket bog has developed. Small areas of conifer plantations have been retained within the site area as well as some areas of cutover blanket bog
002315	Glanlough Woods SAC	Kelleher C. (2000). Lesser Horseshoe Bat Summer Roost Survey Cork/Kerry Region Ireland 2000. Internal Report to The Vincent Wildlife Trust unpublished.O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp.	This site supports an internationally important summer roost of lesser horseshoe bats. The site is in poor condition but provides undisturbed roosting conditions for the bats. Exact foraging areas and winter hibernation sites have not yet been established.	The site consists of an old disused farmhouse located in a fairly isolated area in south Kerry. Adjacent habitats include improved grassland and broadleaved woodland. The woodland provides suitable foraging areas for the bats.
002316	Ratty River Cave SAC	O'Mahony C. (1999). Lesser horseshoe bat roost survey South Clare Ireland 1998/99. Internal report to The Vincent Wildlife Trust unpublished.O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp.	The cave is small (5-10 m) but in excellent condition. Cave habitats include rock roof and walls and stalactites. The cave provides stable and undisturbed winter hibernating conditions for an internationally important number of lesser horseshoe bats. The nearest known summer roost of lesser horseshoe bats is also included in the site.	This site includes a natural fossil limestone cave situated in the bank of the Ratty or Owenogarney River. A section of the river and accompanying bankside vegetation is also included in the site. An old disused cottage situated approximately 500

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				m from the cave is included in the site as it is used as a summer roost by the bats. . The surrounding habitat consists of unimproved pasture and scrub woodland. Castle Lake occurs a few hundred metres upstream of the site.
002317	Cregg House Stables Crusheen SAC	O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp.	Cregg House stables support an internationally important summer roost of lesser horseshoe bats. The site is in reasonably good condition and provides relatively undisturbed roosting conditions for the bats.	This site consists of an old stone-built stable block that is still used for horses. It is situated approximately 10 km south of Gort. The surrounding landscape consists of improved pasture with hedgerow boundaries. There are several small lakes with fringing woodland in the vicinity of the roost thus providing some foraging habitat for the bats.
002320	Kildun Souterrain SAC	O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp.	Kildun souterrain is an internationally important hibernaculum for lesser	The site consists of a man-made stone-built underground

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>horseshoe bats. The souterrain is in good condition and the site includes the area immediately surrounding the site entrance along with some agricultural land and scrub.</p>	<p>structure and surrounding land. The souterrain is composed of a single main chamber which is accessed by crawling through an entrance passageway. Another chamber may have been present but collapsed prior to the discovery of the hibernaculum. The souterrain entrance is surrounded by improved agricultural land with hazel scrub on limestone.</p>
002332	Coolrain Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report for the Minister of State at the Department of Finance. Stationery Office Dublin. Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas The Heritage Service Dublin. Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Laois. Unpublished report An Foras Forbartha Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Midland Raised Bogs of Scientific Interest. Unpublished report Forest and Wildlife Service Dublin.</p>	<p>This site is one of the most southerly relatively intact raised bogs in the country. Although pool systems are absent the bog surface is relatively wet and flat and a significant proportion is classified as active bog. There is a high Sphagnum cover which includes the relatively rare species <i>S. imbricatum</i> and <i>S. fuscum</i>. Four small wet flushes dominated by</p>	<p>The site is located 9 km south-west of the village of Mountrath Co. Laois. The bog overlies Old Red Sandstone bedrock in contrast to most Irish raised bogs which overlie Carboniferous limestone. Uncut high bog occupies almost half the site area and a high proportion of this is</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>Pinus contorta occur in the active bog area. The area of degraded raised bog is small in extent though shows a typical range of plant communities. Rhychosporian vegetation is represented mainly in the area of active bog. The location of this site close to the southern limits of raised bog distribution in Ireland makes it of high biogeographical interest.</p>	<p>classified as active bog. Substantial areas of the surrounding cutover bog have been afforested with conifers and a portion of this area has been included within the site for to preserve the integrity of the high bog. Other areas of cutover have been converted to pasture grassland of varying quality.</p>
002339	Ballynamona Bog and Corkip Lough SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas -The Heritage Service Dublin. Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Unpublished report Wildlife Service Dublin. Duignan C.A. (1988). The Cladocera of Lough Ree and neighbouring waterbodies. Bulletin of the Irish Biogeographical Society 11: 100-113. Fahy E. and Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Roscommon. An Foras Forbartha Dublin. Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>This site displays an excellent diversity of bog and wetland habitats. While the uncut high bog is mainly classified as degraded raised bog there is a small area of active raised bog within a central wet flush zone. Rhynchosporion vegetation is also represented with the presence of the scarce Rhynchospora fusca of some note. However the presence of bog woodland is of particular note as it is considered as one of the best-formed and most extensive areas of bog</p>	<p>Ballynamona Bog and Corkip Lough is a diverse site situated in Co. Roscommon some 8 km west of Athlone. The site and surrounding land overlies limestone bedrock and the soils present are derived from limestone drift. The western half of the site is dominated by a turlough while the eastern half is dominated by a small raised bog complex a significant part of</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>woodland in the country. Corkip Lough constitutes a good example of a turlough system containing both a permanent water area and an extensive area of seasonally inundated turlough grassland. In addition there are areas of species-rich calcareous grassland and fen which are of ecological interest. Overall the quality of the habitats occurring at this site is generally good with the areas of bog woodland and turlough being of particularly high ecological value. A number of relatively rare plant and animal species occur these include the rare aquatic invertebrate <i>Eurycercus glacialis</i> and the wetland plant <i>Teucrium scordium</i>. In general this site ranks as one of the most diverse and species-rich small sites in Co. Roscommon.</p>	<p>which is uncut high bog. Much of the site is surrounded by low esker ridges which contain areas of species-rich calcareous grassland and scrub. Corkip Lough fluctuates markedly throughout the year and during the summer the water level drops revealing a species-rich wetland flora.</p>
002346	Brown Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Unpublished report Forest and Wildlife Service Dublin. Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Longford. Unpublished report An Foras Forbartha Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An Investigation</p>	<p>Brown Bog is one of the best examples of a small relatively intact midland raised bog in Ireland at present. The active bog is characterised by flat quaking areas with</p>	<p>Brown Bog is a small midland raised bog situated approximately 7 km west of Longford town. Uncut high bog accounts for a</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>frequent pools and with a wet flush. Sphagnum cover is high and includes the relatively rare <i>S. imbricatum</i> and <i>S. fuscum</i>. Lichen cover mainly <i>Cladonia</i> spp. is high. The degraded area of high bog is relatively undisturbed and considered a good example of the habitat. It is possible that a significant portion of the degraded bog could be re-wetted in the future. Rhynchosporion vegetation is well-developed and of good quality. <i>Lagopus lagopus</i> a threatened and Red listed species in Ireland has been reported from the site. In general this small bog is of good quality and has been relatively free of damaging activities such as peat-cutting and drainage.</p>	<p>relatively high proportion (c.70%) of the site though the largest part of this is classified as degraded bog. The high bog is surrounded by a rim of cutover bog much of which has been invaded by <i>Betula pubescens</i> scrub. Other habitats in the cutover zone are broad-leaved woodland a small stand of planted conifers and some wet grassland. A large area of cutover bog to the east of the site has recently been planted with conifers.</p>
002353	Redwood Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Fahy E. (1972). A Preliminary Report on Areas of Scientific Interest in County Tipperary (N). Unpublished report An Foras Forbartha Dublin. Fox A.D. Norris D.W. Stroud D.A. and Wilson H.J. (1994) Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation</p>	<p>This extensive site contains good examples of active raised bog degraded raised bog and Rhynchosporion vegetation. The area of active raised bog present is one of the largest in</p>	<p>Redwood Bog is a large raised bog site located along the eastern banks of the River Shannon in the most northerly corner of Co. Tipperary. The</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.	counties Tipperary and Offaly. The location of the bog within the floodplain of the Shannon and Little Brosna rivers adds to its interest. Redwood Bog is a feeding site for the Little Brosna flock of Anser albifrons flavirostris though its usage nowadays appears to be low. Overall this site part of which is a state-owned nature reserve is considered as one of the most important relatively intact raised bogs along the banks of the River Shannon.	bog is a good example of a floodplain bog lying at the confluence of the Shannon and Little Brosna rivers. Approximately one-third of the site is uncut high bog though much of this is classified as degraded bog. Cutover bog accounts for approximately 55% of the site area. Commercial peat-cutting still continues within this site dominating the western half. Small parts of the cutover have been invaded by Betula pubescens scrub while other parts have been converted to wet pasture grassland.
003000	Rockabill to Dalkey Island SAC	Andersen L.W. Ruzzante D.E. Walton M. Berggren P. Bjørge A. & Lockyer C. (2001). Conservation genetics of harbour porpoises Phocoena phocoena in eastern and central North Atlantic. Conserv.Gen. 2: 309–324. Anon. (2006). Small Cetaceans in the European Atlantic and North Sea (SCANS-II). Final Report covering the project activities from 01.04.2004 to 31.12.2006 under Life Project Number LIFE04NAT/GB/000245. Sea Mammal Research Unit University of St. Andrews UK. 54 pp. Baines M.E. & Evans P.G.H. (2009). Atlas of the marine mammals of Wales. CCW Marine Monitoring Report No. 68. Countryside Council for Wales. 89pp. Berrow S.D. Whooley P. & Ferriss S. (2002). Irish Whale and Dolphin Group cetacean	The area selected for designation represents a key habitat for the Annex II species - harbour porpoise within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets	The selected site forms a strip of dynamic inshore and coastal waters in the western Irish Sea extending approximately 40 km in length and encompassing a

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>sighting review (1991-2001). Irish Whale and Dolphin Group. 34pp. Berrow S. O'Brien J. O'Connor I. &amp; McGrath D. (2007). Abundance estimate and acoustic monitoring of harbour porpoise <i>Phocoena phocoena</i> in the Blasket Islands candidate Special Area of Conservation. Report to the National Parks &amp; Wildlife Service November. 23pp. Berrow S. Hickey R. O'Brien J. O'Connor I. &amp; McGrath D. (2008a). Harbour porpoise survey 2008. Report to the National Parks &amp; Wildlife Service October. 33pp. Berrow S. Hickey R. O'Connor I. &amp; McGrath D. (2008b). Small cetacean site survey investigations 2008. Report to the National Parks &amp; Wildlife Service October. 24pp. Berrow S. O'Brien J. O'Connor I. &amp; McGrath D. (2009). Abundance estimate and acoustic monitoring of harbour porpoises (<i>Phocoena phocoena</i> (L.)) in the Blasket Islands' candidate Special Area of Conservation. <i>Biology and Environment: Proc. Royal. Ir. Acad.</i> 109B: 35-46. Berrow S. (2009). Abundance estimates of harbour porpoises in Irish waters. In Berrow S.D. &amp; Deegan B. (eds.) <i>Muc Mhara – Ireland's smallest whale</i>. Proceedings of the 2nd Irish Whale and Dolphin Group International Whale Conference 19-21 Sept 2008 Killiney Co. Dublin. p19-22. Hammond P.S. Benke H. Berggren P. Borchers D.L. Buckland S.T. Collet A. Heide-Jørgensen M.P. Heimlich-Boran S. Hiby A.R. Leopold M.F. &amp; Øien N. (1995). Distribution &amp; abundance of the harbour porpoise and other small cetaceans in the North Sea and adjacent waters. Final Report for Life Project Number LIFE 92-2/UK/027. Sea Mammal Research Unit University of St. Andrews UK. 239 pp. Hammond P.S. Berggren P. Benke H. Borchers D.L. Collet A. Heide-Jørgensen M.P. Heimlich S. Hiby A.R. Leopold M.F. &amp; Øien N. (2002). Abundance of harbour porpoise and other cetaceans in the North Sea and adjacent waters. <i>J. Appl. Ecol.</i> 39: 361-376. Hammond P.S. &amp; MacLeod K. (2006a). Quarterly newsletter for project SCANS-II: Small Cetaceans in the European Atlantic and North Sea (SCANS-II). Issue 7: June 2006. 3pp. Hammond P.S. &amp; MacLeod K. (2006b). Quarterly newsletter for project SCANS-II: Small Cetaceans in the European Atlantic and North Sea (SCANS-II). Issue 8: September 2006. 2pp. I.W.D.G. (2009). Published and online Irish Whale and Dolphin Group sources were included in the review of available harbour porpoise data. These included all Survey Reports delivered via the PReCast &amp; ShOPS ship survey programmes in addition to information gathered to date in the ISCOPE (2003-2005) and ISCOPE II (2006-2009) projects. Leopold M.F. Wolf P.A. &amp; Van der Meer J. (1992). The elusive harbour porpoise exposed: Strip transect counts off southwestern Ireland. <i>Neth. J. Sea Res.</i> 29(4): 395-402. MERC Consultants Ltd. (2010). Project Report: Irish Sea Reef Survey. Unpublished report to the National Parks &amp; Wildlife Service of the Department of the Environment Heritage &amp; Local Government. 36pp. NPWS (2009). Conservation Plan for Irish Cetaceans – Public consultation draft. National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin. 99pp. Northridge S.P. Tasker M.L. Webb A. &amp; Williams J.M.</p>	<p>suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e. calves) are observed at favourable typical reference values for the species. Casual and effort-related sighting rates from coastal observation stations are significant for the east coast of Ireland and the latter appear to be relatively stable across all seasons. The selected site contains a wide array of habitats believed to be important for harbour porpoise including inshore shallow sand and mud-banks and rocky reefs scoured by strong current flow. The site also contains two Annex II seal species – Harbour seal (<i>Phoca vitulina vitulina</i>) Grey seal (<i>Halichoerus grypus</i>) for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenose dolphin (<i>Tursiops truncatus</i>) has</p>	<p>range of comparatively shallow marine habitats including diverse seabed structures reefs islets and islands. It borders existing designated sites for Annexed species and habitats and is adjacent to a wide array of coastal features e.g. mudflats lagoons estuaries coastal cliffs sea caves several of which are also designated. Extending east from Dublin Bay towards the offshore Kish Bank the site contains the entire Burford Bank a sedimentary seabed structure (i.e. fine sand) at the mouth of Dublin Bay that on its north side is flanked by gravel and coarse sand deposits. The site also contains the northern segment of the Frazer Bank (i.e. fine sand) off Dalkey Island and Killiney Bay. Reef</p>



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		<p>(1995). Distribution and relative abundance of harbour porpoises (<i>Phocoena phocoena</i> L.) white-beaked dolphins (<i>Lagenorhynchus albirostris</i> Gray) and minke whales (<i>Balaenoptera acutorostrata</i> Lacepède) around the British Isles. ICES J. Mar. Sci. 52: 55-66. Pollock C.M. Reid J.B. Webb A. &amp; Tasker M.L. (1997). The distribution of seabirds and cetaceans in the waters around Ireland. JNCC Report No. 267. Joint Nature Conservation Committee Peterborough. 167pp. Reid J.B. Evans P.G.H. &amp; Northridge S.P. (2003). Atlas of cetacean distribution in north-west European waters. Joint Nature Conservation Committee Peterborough. 76pp. Walton M. (1997). Population structure of harbour porpoises <i>Phocoena phocoena</i> in the seas around the UK and adjacent waters. Proc. R. Soc. Lond. B. 264: 89-94.</p>	<p>also occasionally been recorded in the area. Along the eastern seaboard the habitat type Reef is uncommon due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. A detailed survey of selected suitable islands has shown areas with typical biodiversity for this habitat both intertidally and subtidally. These Reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges anemones and echinoderms.</p>	<p>habitats within the site occur at Dalkey Island Maiden Rock and Muglins in the southern portion off Howth Head Ireland's Eye and Lambay Island in the central portion and Rockabill in North Dublin.</p>
004002	Saltee Islands SPA	<p>Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Creme G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. Biology and Environment. Proceedings of the Royal Irish Academy 97B: 149-156. Gardiner P.R.R.</p>	<p>The Saltee Islands support one of the most important seabird colonies in the country (for populations and species diversity) and</p>	<p>The site comprises the two Saltee Islands (Great Saltee and Little Saltee) which are situated between 4</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>and Brenchley P.J. (1970). The Pre-Cambrian and lower Palaeozoic geology of Co. Wexford. Irish Naturalists' Journal 16: 371-379. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hurley J. (1994). The South Wexford Coast Ireland - A Natural Heritage Coastline. Grange Kilmore Co. Wexford SWC Promotions. Lloyd C. (1981). The seabirds of Great Saltee. Irish Birds 2: 1-37. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. (1983). The status of landbirds breeding on Great Saltee Co. Wexford. Irish Naturalists' Journal 21: 97-103. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Naturalists' Journal 15: 136-143. Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Nelson B. (1978). The Gannet. Poyser Berkhamsted. Perry K.W. and Warburton S.W. (1976). The Birds and Flowers of the Saltee Islands. Perry and Warburton Belfast. Praeger R.L. (1913). Notes on the flora of the Saltees. I: Phanerogamia. Irish Naturalist 22: 181-191. Roche R. and Merne O.J. (1977). Saltees: Islands of Birds and Legends. O'Brien Press Dublin. Ruttledge R.F. (1965). Migrant and other birds of Great Saltee Co. Wexford. Proceedings of the Royal Irish Academy 63B : 71-86. Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. Unpublished report to the Minister of Fisheries Forestry and Wildlife Dublin.</p>	<p>hold the most important colony in the south-east for populations and species diversity. The site is nationally important for eleven seabird species: Fulmarus glacialis Sula bassana Phalacrocorax carbo Phalacrocorax aristotelis Larus fuscus Larus marinus Larus argentatus Uria aalge Alca torda Rissa tridactyla and Fratercula arctica. The islands especially Great Saltee have a long-established seabird monitoring programme and in particular the growth of the Sula bassana colony since its establishment in the 1920s has been well documented. There is a long-term seabird ringing programme in operation. Pyrrhocorax pyrrhocorax occurs at the eastern edge of its Irish range and Falco peregrinus breeds. Great Saltee is a major site for spring and autumn landbird migration and the island formerly had a bird observatory. Ringing of migrants still takes place. The site has a long</p>	<p>and 5 km off the south Wexford coast. The bedrock is metamorphic schist and gneiss. The islands are exposed to prevailing wind and swells from the west. The islands were inhabited and farmed in the past but are now abandoned although some sheep grazing occurs on Little Saltee. A community dominated by Pteridium aquilinum is the main vegetation type on the islands. Dry grassland occurs within the old field boundaries. Good examples of vegetated cliff habitat with a typical south-eastern flora occur on both islands. The shorelines vary from rocky cliffs of moderate height to shingle sand and boulder shores.</p>

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			<p>established breeding population of <i>Halichoerus grypus</i> which is the only significant population in the south-east region.</p>	<p>Small sections of boulder clay cliffs are exposed in places. Sea caves are found in several parts of the site. Other habitats present include springs flushes and scrub. The site includes an area of the surrounding seas to a distance of 500 m from the shoreline where seabirds feed bathe and socialise.</p>
004004	Inishkea Islands SPA	<p>Cabot D.B. (1963). The breeding birds of Inishkea Islands Co. Mayo. Irish Naturalists' Journal 14: 113-115. Cabot D. and West B. (1983). Studies on the populations of Barnacle Geese wintering on the Inishkea Islands Co. Mayo. I. Population Dynamics 1961-1983. Irish Birds 2: 318-337. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997) The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-191. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co.</p>	<p>The site is the main wintering ground for the largest population of <i>Branta leucopsis</i> in the country which is of international importance. A range of wintering waders associated with exposed shorelines occur notably <i>Charadrius hiaticula</i> <i>Calidris alba</i> <i>Calidris maritima</i> and <i>Arenaria interpres</i> all of which have populations of national importance. A regionally important population of <i>Pluvialis apricaria</i> also occurs. The Inishkeas is a traditional site for breeding terns</p>	<p>The Inishkea Islands is a group of very exposed low-lying islands which lie approximately 5 km off the Mullet peninsula in north-west Mayo. In addition to the two main islands the site includes various smaller islands and islets (chiefly Carrickawilt Carrigee Carrickmoyleenacurh oga Pluddany Rocks Carrickfad Carrickgormal Carricklaur Carrickalaveen) and</p>

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		<p>Dublin. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. An Account of Their Status and Distribution. Irish Wildbird Conservancy Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy. Dublin. Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. Unpublished report to the Minister for Fisheries Forestry and Wildlife Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>with particularly important populations (i.e. &gt;5% of national totals) for <i>Sterna paradisaea</i> and especially <i>Sterna albifrons</i>. Other seabirds which have important breeding populations are <i>Phalacrocorax aristotelis</i> <i>Larus canus</i> <i>Larus fuscus</i> <i>Larus argentatus</i> <i>Larus marinus</i> and <i>Cephus grylle</i>. A small colony of <i>Hydrobates pelagicus</i> occurs on Inishkea North. The islands hold important concentrations of breeding waders especially <i>Haematopus ostralegus</i> <i>Charadrius hiaticula</i> <i>Vanellus vanellus</i> and <i>Calidris alpina</i>. It is a breeding site for <i>Falco peregrinus</i> though birds do not nest in every year. <i>Crex crex</i> formerly were frequent and single pairs appeared from 1998-2000 but not since. The Inishkeas form part of a larger group of islands which hold one of the largest breeding populations of <i>Halichoerus grypus</i> in Ireland a species listed</p>	<p>associated reefs. The surrounding seas to a distance of 200 m from the shoreline where seabirds forage bathe and socialise are included in the site. Inishkea North is a ridge of gneiss rising to 30 m on the western edge where there are cliffs. The island is dominated by machair and includes a small lake. The south island is higher (rising to 70 m) and has machair vegetation in the northern part and maritime heath on the higher ground in the south. Some of the smaller islands and islets have a permanent area with a grassy sward above the tide line. The islands were populated until 1932 and there remains the houses clustered in two villages. Today grazing is the main</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>on Annex II of the E.U. Habitats Directive. A further Annex II species the liverwort <i>Petalophyllum ralfsii</i> is also found. The machair habitat which occurs on the two islands is considered an important example of the habitat.</p>	<p>landuse on the islands.</p>
004005	Cliffs of Moher SPA	<p>Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10.          Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8).          Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin.          Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London.          Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002.          Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge.          Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland.</p>	<p>The site is one of most important seabird colonies in Ireland with the largest populations of <i>Rissa tridactyla</i> and <i>Alca torda</i> in the country and the second largest population of <i>Fulmarus glacialis</i>. The population of <i>Alca torda</i> is of international importance. The site also had nationally important populations of <i>Uria aalge</i> and <i>Fratercula arctica</i>. Small numbers of several other seabird species also breed including <i>Larus argentatus</i> L. <i>marinus</i> and <i>Corvus corax</i>. The cliffs have breeding <i>Falco peregrinus</i> and <i>Pyrhocorax pyrrhocorax</i> both species being listed on Annex I of the E.U. Birds Directive. Habitat in the site is of excellent</p>	<p>This cliff site extends a distance of some 8 km along the north Clare coast from Cancregga Point to just south of Luogh Point. The cliffs which rise to 203 m in height are formed of horizontal beds of coal measure sandstones and shales. Cleavage in the rock is so good that the term flagstone has been applied. The line of cliffs shows faulting and slumping to good effect but these are difficult to observe from the cliff top. The sheer cliffs are largely unvegetated though some wide</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			quality. Part of the site is a designated Refuge for Fauna.	slopes are vegetated with a Festuca sward. The site includes some cliff-top vegetation (a typical maritime sward) and the adjacent sea area to a distance of 500 m from the cliff base.
004006	North Bull Island SPA	<p>Brunton M. Convery F.J. and Johnson A. (eds) (1987). Managing Dublin Bay. Resource &amp; Environmental Policy Centre University College Dublin. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Grant J.D. (1982). A Study of the Wader Feeding Ecology of Common Wading Species of North Bull Island Dublin Bay. BSc. Thesis. National University of Ireland. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Hutchinson C.D. and Key J.M. (1973). The numbers of wildfowl on the North Bull Island Co. Dublin. Irish Bird Report 20: 35-43. Hutchinson C.D. and Rochford J.M. (1974). The numbers of waders on the North Bull Island Co. Dublin. Irish Bird Report 21: 68-77. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Jeffrey D.W. (1977). (general editor) North Bull Island Dublin Bay - a modern coastal natural history. Royal Dublin Society Dublin. Jeffrey D.W. Pitkin P.H. and West A.B. (1978). Intertidal environment of northern Dublin Bay. Estuarine and Coastal Marine Science 7: 163-171. Jeffrey D.W. Madden B. Rafferty B. Dwyer R. Wilson J.W. and Allott N. (1992). Algal Growths and Foreshore Quality. Technical Report No. 7. Dublin Bay Water Quality Management Plan. Environmental Research Unit Dublin. Kennedy P.G. (1953). An Irish Sanctuary - Birds of the North Bull. Three Candles Press Dublin. Madden B. (1984). The nitrogen and phosphorus turnover of the</p>	The site is among the top ten sites for wintering waterfowl in the country. It supports internationally important populations of Branta bernicila hrota and Limosa lapponica and is the top site in the country for both of these species. A further 14 species have populations of national importance with particular notable numbers of Tadorna tadorna (8.5% of national total) Anas acuta (11.6% of national total) Pluvialis squatarola (6.9% of national total) Calidris canutus (10.5% of national total). North Bull Island SPA is a regular site for passage waders such as Philomachus pugnax Calidris ferruginea and Tringa erythropus. The site	The North Bull Island sand spit is a relatively recent depositional feature formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5km long and 1km wide and runs parallel to the coast between Clontarf and Sutton. The sediment which forms the island is predominantly glacial in origin and siliceous in nature. A well-developed dune system runs the length of the island with good examples of embryonic shifting marram and fixed dunes as well as excellent examples

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Salicornia flat at North Bull Island Dublin Bay. Unpublished BA (Mod) thesis Trinity College Dublin. Madden B. Jeffrey D.W. and Jennings E. (1993). Distribution and ecology of Zostera in County Dublin. Irish Naturalists' Journal 24: 303-309. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Wilson J.G. (1982). The littoral fauna of Dublin Bay. Irish Fisheries Investigations Series B (Marine) No. 26. Wilson J.G. (1982). Distribution biomass and production of bivalves in Dublin Bay. Malacologia 22: 377-384. Wilson J.G. and Parkes A. (1998). Network analysis of the energy flow through the Dublin Bay ecosystem. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 179-190. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>supports <i>Asio flammeus</i> in winter. Formerly the site had an important colony of <i>Sterna albifrons</i> but breeding has not occurred in recent years. The site provides both feeding and roosting areas for the waterfowl species. Habitat quality for most of the estuarine habitats is very good. The site has a population of the rare <i>Petalophyllum ralfsii</i> which is the only known station away from the western seaboard as well as five Red Data Book vascular plant species and four bryophyte species. It is nationally important for three insect species. Wintering bird populations have been monitored more or less continuously since the late 1960s and the other scientific interests of the site have also been well documented. Future prospects are good owing to various designations assigned to site.</p>	<p>of humid dune slacks. Extensive salt marshes also occur. Between the island and the mainland occur two sheltered intertidal areas which are separated by a solid causeway constructed in 1964. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site. Part of the interior of the island has been converted to golf courses. The proximity of the North Bull Island to Dublin City results in it being a very popular recreational area. It is also very important for educational and research purposes. Nature conservation is a main landuse within the site.</p>
004007	Skelligs SPA	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Cramp S.</p>	<p>The Skelligs site is one of the most important</p>	<p>The site comprises Great Skellig and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Evans P.G.H. and Lovegrove R.R. (1974). The birds of the south west Irish islands. Irish Bird Report 21: 33-64. Fisher J. (1952). The Fulmar. Collins London. GrayN. Thomas G. Treby M. and Newton S. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Harris M.P. (1984). The Puffin. Poyser Calton. Harrop J.M. (1959). Notes on a visit to the Great Skellig Rock. Irish Naturalists' Journal 15: 17-18. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lavelle D. (1976). Skellig - Island Outpost of Europe. O'Brien Press Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Lovegrove R.R. Byrne E.J. and Rear D. (1965). Notes on a visit to the Great Skellig rock Co. Kerry. Irish Naturalists' Journal 15: 47-49. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished Report to NPWS Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird populations of Britain and Ireland. Poyser UK. Nelson B. (1978). The Gannet. Poyser Berkhamsted. Newell R.G. Merne O.J. and Evans P.G.H. (1969). B.O.U. supported survey of seabirds off south-west Ireland August 1968. Ibis 111: 279-280. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Walsh A. and Merne O.J. (2002). Swinhoe's Petrel <i>Oceanodroma monorhis</i> in County Kerry - an addition to the Irish list. Irish Birds 7: 135-137.</p>	<p>seabird colonies in the country for populations and species diversity. It has internationally important populations of <i>Hydrobates pelagicus</i> and <i>Sula bassana</i>. For <i>Sula bassana</i> it is the largest colony in Ireland and one of the largest in the world. It also supports nationally important populations of <i>Fulmarus glacialis</i> <i>Puffinus puffinus</i> <i>Rissa tridactyla</i> <i>Uria aalge</i> and <i>Fratercula arctica</i>. References to breeding seabirds date back to the 1700s. It is a traditional site for <i>Pyrrhocorax pyrrhocorax</i> and <i>Falco peregrinus</i>.</p>	<p>Little Skellig islands and the surrounding seas to a distance of 500 m from the shorelines. These highly exposed and isolated islands are located in the Atlantic ocean some 14 km and 11 km (respectively) off the County Kerry mainland. The geology of the islands is Old Red Sandstone with a little slate. Both islands are precipitous rocky stacks Great Skellig rising to 218 m and Little Skellig to 134 m. Little Skellig is largely unvegetated though Great Skellig supports a sparse maritime flora on shallow soils. The remains of an early Christian monastic settlement present on Great Skellig make it a very important archaeological site. Great Skellig has a lighthouse.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
004009	Lady's Island Lake SPA	<p>Cabot D. (1996). Performance of the Roseate Tern population breeding in north-west Europe - Ireland Britain and France 1960-94. Biology and Environment Proceedings of the Royal Irish Academy 96B: 55-68. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Galvin P. (1992). The Ecology of the Brackish-water Lagoons of Wexford and East Cork. M.Sc. thesis University College Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Healy B. (1997). Long-term changes in a brackish lagoon Lady's Island Lake south-east Ireland. Biology and Environment Proceedings of the Royal Irish Academy 97B: 33-51. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol 1 Part 1. Background Description and summary of the surveys. Dúchas the Heritage Service Dublin. Healy B. Bates R. and McGrath D. (1982). Marine fauna of Co. Wexford - 5. Lady's Island Lake. Irish Naturalists' Journal 20: 509-526. Healy B. and McGrath D. (1982). Marine fauna of County Wexford - 4: Littoral and Brackish Water Fish. Irish Naturalists' Journal 20: 10 429-435. Healy B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bulletin of the Irish Biogeographical Society 21: 116-151. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hurley J. (1994). The South Wexford Coast Ireland - A Natural Heritage Coastline. Telecom Eireann Kilmore. Hurley J. (1999). Water Level at Lady's Island Lake 1997. SWC Promotions Kilmore. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. (1980). Ornithological Study of Carnsore Point Area Co. Wexford. Report for 1980. Forest and Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. Newton S.F. and Crowe O. (2001). Lady's Island Lake Tern Report 2001. BirdWatch Ireland Conservation Report No. 01/8. Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Neill M. (1994). Water Quality in Lady's Island Lake and its Feeder Streams July 1994.</p>	<p>Lady's Island Lake is by far the largest and best example of a sedimentary lagoon in the country and one of the best in Europe. It supports an excellent range of birds typical of lagoonal systems. In winter there is a good diversity of waterfowl species though most occur in relatively low numbers. The population of Anas strepera is of national importance though part of the population is resident. There are regionally important populations of Aythya marila Cygnus cygnus and Pluvialis apricaria. In summer Circus aeruginosus is a regular visitor and nesting is a possibility. Lady's Island has an excellent diversity of breeding wildfowl and is one of the few sites in Ireland where Anas querquedula is considered to breed. The very localised Anas clypeata also breeds and it is one of the principal sites in Ireland for breeding Anas strepera. The site is an</p>	<p>Situated in the extreme south-east of Ireland this site comprises a shallow coastal lagoon separated from the sea by an impressive sandy-gravel barrier. The lagoon is up to 5 m deep though mostly shallower. Salinity of the lagoon is generally oligo-mesohaline but it is periodically tidal when the barrier is breached. The flora is typically brackish and includes Ruppia spp. and a range of charophyte species. The fauna of the lagoon is rich with at least 13 lagoonal specialist species recorded. Swamp and marsh vegetation is particularly well developed at Ring Marsh in the south-east of the site. Elsewhere the lagoon is fringed by marsh or wet grassland. Dune vegetation occurs over much of the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Unpublished report by E.P.A. to Wexford County Council. Newton S.F. and Berridge D. (1999). Lady's Island Lake Tern Report 1999. BirdWatch Ireland Conservation Report No. 99/14. Dublin. Newton S.F. and Crowe O. (2000). Roseate Terns - the Natural Connection. Maritime (Ireland/Wales) INTERREG Report No. 2. Marine Institute Dublin. Orford J.D. and Carter R.W.G. (1982). Geomorphological changes on the barrier coasts of South Wexford. Irish Geography 15: 70-71. Praeger R.L (1934). The Botanist in Ireland. Hodges and Figgis Dublin. Ruz M.- H. (1989). Recent evolution of the southeast barrier coast of Ireland. Journal of Coastal Research 5: 523-539. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Stammers B. and Newton S.F. (1998). Lady's Island Lake Tern Report 1998. BirdWatch Ireland Conservation Report No. 98/8. Dublin. Stewart N. and Church I. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>internationally important site for breeding terns and is the largest tern colony in the country with four species of tern present. It has the largest colony of <i>Sterna sandvicensis</i> in the country. The population of <i>Sterna dougallii</i> is the second largest after Rockabill. The <i>Sterna paradisaea</i> and <i>Sterna hirundo</i> populations are of national importance. It also supports one of the largest colonies of <i>Larus ridibundus</i> in the country. <i>Larus melanocephalus</i> has bred at the site since the late 1990s the only known breeding site in the country. The terns have been studied since the 1960s and National Parks and Wildlife and BirdWatch Ireland have co-managed the colonies since 1993 as part of a long-term conservation programme. This programme includes wardening habitat management thorough monitoring of breeding parameters and ringing of chicks. Lady's Island is an important site for</p>	<p>barrier. Several small islands within the lagoon where terns breed are included in the site. Surrounding land is low-lying agricultural land.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>passage waders including <i>Philomachus pugnax</i> <i>Calidris ferruginea</i> <i>Tringa ochropus</i> and the very scarce <i>Tringa glareola</i>. The lagoon supports two Red Data Book charophyte species <i>Lamprothamnion papulosum</i> and <i>Chara canescens</i>. The site includes a designated Refuge for Fauna.</p>	
004013	Drumcliff Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Sligo. An Foras Forbartha Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). <i>Water Quality in Ireland 1998-2000</i>. Environmental Protection Agency Wexford. Merne O.J. (1989). <i>Important bird areas in the Republic of Ireland</i>. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). <i>Barnacle Geese in Ireland spring 1993 and 1994</i>. <i>Irish Birds</i> 5: 151-156. Merne O.J. and Walsh A. (2002). <i>Barnacle Geese in Ireland spring 1999</i>. <i>Irish Birds</i> 7: 53-56. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. IWC Dublin.</p>	<p>Drumcliff Bay SPA is of importance for the diversity of wintering waterfowl and is an integral part of the larger unit of Sligo Bay. Its principal importance however is that it supports an internationally important population of <i>Branta leucopsis</i> which is one of the two most important flocks in the country (ca. 21% of the national total). It also supports nationally important populations of <i>Calidris alba</i> (4.0% of the national total) and populations of <i>Clangula hyemalis</i> and <i>Limosa lapponica</i> that are close to national importance as well as a population of</p>	<p>Drumcliff Bay is the most northerly sector of Sligo Bay's three estuarine inlets. It extends from the village of Drumcliff as far west as Raghly Point a distance of over 9 km. The innermost part of the site is well sheltered and at low tide extensive intertidal flats are exposed. The flats support <i>Zostera noltii</i>. The outer part of the site is shallow marine water. Sandy beaches are well represented along with some salt marsh and stony</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Cygnus cygnus of local/regional importance. More intensive survey may show that higher numbers of some species occur. Drumcliff Bay has a population of Phoca vitulina.	shoreline. The site includes goose-feeding fields of improved grassland at Ballygilgan and Ballintemple. Some mixed woodland is also included.
004014	Rockabill SPA	<p>Barrington R.M. (1900). The Migration of Birds as Observed at Irish Lighthouses. London and Dublin. Cabot D. (1996). Performance of the Roseate Tern population breeding in north-west Europe - Ireland Britain and France 1960-94. Biology and Environment Proceedings of the Royal Irish Academy 96B: 55-68. Casey S. Moore N. Ryan L. Merne O.J. Coveney J.A. and del Nevo A. (1995). The Roseate tern conservation project on Rockabill Co. Dublin: a six year review 1989-1994. Irish Birds 5: 251-264. Crowe O. Jones V. and Newton S.F. (1999). Rockabill Tern Report 1999. BirdWatch Ireland Conservation Report No. 99/6. Dublin. Crowe O. Maljkovic A. and Newton S.F. (2000). Rockabill Tern Report 2000. BirdWatch Ireland Conservation Report No. 00/2. Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Tern <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Hayes H. Newton S.F. and Cormons G. (2002). Rockabill Roseate Terns <i>Sterna dougallii</i> sighted in west Atlantic colony. Irish Birds 7: 133-134. Hayes H. Newton S.F. Lima P. and Crowe O. (2000). Rockabill Roseate Terns recaptured in Brazil. Irish Birds 6: 585-586. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Madden B. Merne O.J. and Newton S. (1988). East coast Black Guillemot survey 1998. Irish East Coast Bird Report 1999: 82-86. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Newton S.F. and Crowe O.</p>	Rockabill is an internationally important tern colony and the most important in Ireland. It supports the largest colony of <i>Sterna dougallii</i> in Ireland (c.88% of national total) and in north-west Europe plus the largest colony of <i>Sterna hirundo</i> in the country (c.35% of national total) and a significant colony of <i>Sterna paradisaea</i> . Since 1989 the site has been wardened each breeding season. With management for the benefit of the terns numbers of all three species have steadily increased. Detailed research is carried out including studies on breeding behaviour productivity and feeding. A ringing programme has been in operation since	The Site consists of two small low-lying granitic islets situated c.7 km off the Dublin coast. The islands are separated by a narrow channel though are connected at low spring tides. A lighthouse manned until 1989 is situated on the main island. The main island known as the Lighthouse Island is vegetated by a scrubby sward of <i>Lavatera arborea</i> with a range of other maritime species such as <i>Matricaria maritima</i> <i>Silene maritima</i> <i>Rumex</i> spp. <i>Cochlearia officinalis</i> <i>Atriplex</i> spp. and

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>(2000). Roseate Terns - the natural connection. Maritime (Ireland/Wales) INTERREG Report no. 2. 60pp. Marine Institute Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>the 1980s and this has produced important information on the movement of the birds in an international context. Rockabill also supports a nationally important population of Cephphus grylle and a small colony of Rissa tridactyla. The site is a known location for the observation of bird migration. Owing to its importance Rockabill is a designated Refuge for Fauna.</p>	<p>Spergularia rupicola. Some exotic plants are present notably Hebe speciosa and Carpobrotus edulis. The smaller island known as the Bill is very exposed and is sparsely vegetated. The site includes all of the rocky shores to the low tide mark.</p>
004015	Rogerstown Estuary SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Fahy E. Goodwillie R. Rochford J. and Kelly D. (1975). Eutrophication of a partially enclosed estuarine mudflat. Marine Pollution Bulletin 6: 29-31. Farrelly P. (1993). Irish east coast Little Tern Survey 1992 and 1993. Irish East Coast Bird Report 1992: 60-64. Goodwillie R. (1988). A Preliminary Report on Areas of Scientific Interest in County Dublin. 2nd Edition. An Foras Forbartha Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Kavanagh P. (1989). Assessment of Copper Lead and Zinc Levels in Rogerstown Estuary. Unpublished BA (Mod) thesis Trinity College Dublin. Kirk McClure Morton / MarEnCo. (1993). Mathematical Modelling Study and Environmental Survey of Rogerstown Estuary County Dublin. A report for Dublin County Council. Madden B. Jeffrey D.W. and Jennings E. (1993). Distribution and ecology of Zostera in County Dublin. Irish</p>	<p>Rogerstown Estuary is a typical eastern estuary with fairly extensive intertidal sand and mud flats. Of high importance for wintering waterfowl with an internationally important population of Branta bernicla hrota that accounts for 5.9% of the national total. It supports nationally important populations of a further 15 species and notably Calidris canutus (8.6% of national total) Tadorna tadorna (5.3% of national total) and Pluvialis squatarola (4.5% of national total). It is an important and regular site for a range of</p>	<p>The site comprises a relatively small estuarine system in north County Dublin. It receives freshwater from the Ballyboghil and Ballough rivers both of which flow through an intensive agricultural catchment. It is a funnel shaped estuary extending for about 6 km from east to west and up to 2 km at its widest. It has a wide salinity range from full sea water to near full fresh</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Naturalists' Journal 24: 303-309. McManus F. McNally J. and Cooney T. (1992). The wildfowl and waders of Rogerstown Estuary. Irish East Coast Bird Report 1991 : 54-72. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. O'Reilly H. and Pantin G. (1957). Some observations on the salt marsh formation in Co. Dublin. Proceedings of the Royal Irish Academy 58: 89-128. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>autumn passage migrants especially <i>Calidris minuta</i> <i>Calidris ferruginea</i> <i>Philomachus pugnax</i> and <i>Tringa ochropus</i>. <i>Sterna albifrons</i> has bred in the past but not recently. It includes populations of three Red Data Book plant species. Wintering birds are well monitored.</p>	<p>water. The estuary is bisected by a causeway and bridge which carries the Dublin-Belfast railway line. A sandy peninsula stretches across the outer part of the estuary restricting water flow to a channel of c.200 m. In addition to salt marsh and sand dune habitats some agricultural fields which adjoin the estuary are included in the site as these have ornithological or botanical interests. A section of shallow marine water is included in the site.</p>
004016	Baldoyle Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Goodwillie R. (1988). A Preliminary Report on Areas of Scientific Interest in County Dublin. 2nd Edition. An Foras Forbartha Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern</p>	<p>Baldoyle Bay is a typical eastern estuarine system with fairly extensive intertidal sand and mud flats which have <i>Zostera</i> spp. It also has good salt marsh fringes where birds roost. The quality of habitats present is variable but generally good. The site supports a good diversity of wintering waterfowl and</p>	<p>The site comprises a relatively small estuarine system in north County Dublin. It receives the flows of the Mayne and Sluice rivers both of which drain an agricultural / suburban catchment. Much of the estuary is sheltered from the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lovatt J.K. Madden B. and O'Donnell M. (1985). The birds of Portmarnock sand dune system and Baldoyle Estuary. Irish East Coast Bird Report 1985: 58-62. Lovatt J.K. Madden B. and O'Donnell M. (1986). The birds of Portmarnock sand dune system and Baldoyle Estuary : Part 2: Spring 1986 to January 1987. Irish East Coast Bird Report 1986: 46-50. Madden B. Jeffrey D.W. and Jennings E. (1993). Distribution and ecology of Zostera in County Dublin. Irish Naturalists' Journal 24: 303-309. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. O'Reilly H. and Pantin G. (1957). Some observations on the salt marsh formation in Co. Dublin. Proceedings of the Royal Irish Academy 58 B: 89-128. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>notably an internationally important population of <i>Branta bernicla hrota</i>. It has nationally important populations of <i>Tadorna tadorna</i> <i>Anas acuta</i> <i>Charadrius hiaticula</i> <i>Pluvialis apricaria</i> <i>Pluvialis squatarola</i> and <i>Limosa lapponica</i>. At high tide the shallow waters regularly attract species such as <i>Podiceps cristatus</i> and <i>Mergus serrator</i>. <i>Sterna albifrons</i> formerly bred at the site but not since the early 1990s.</p>	<p>sea by a large sand dune peninsula (now mostly a golf course). Sediments in the inner sheltered areas are mostly muds or muddy sands often with a high organic content. Towards Portmarnock Point the sediments are predominantly well-aerated sands. In addition to the intertidal flats and salt marsh habitats a small area of sand hills and sandy beach at Portmarnock Point is included in the site.</p>
004021	Old Head of Kinsale SPA	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1992). The second International Cough Survey : Ireland. Report to the Irish Wildbird Conservancy and Royal Society for the Protection of Birds. Unpublished. Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002. McGrath D. and Walsh P. (1996). The breeding population of Kittiwakes on the south coast of Ireland 1985-95. Irish Birds 5: 375-380. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP</p>	<p>The Old Head holds the largest seabird colony on the south coast between the Bull Rock and the Saltee Islands. It supports nationally important populations of <i>Rissa tridactyla</i> and <i>Uria aalge</i> (c. 2% of the all-Ireland totals of each) as well as smaller numbers of <i>Fulmarus glacialis</i> and <i>Alca torda</i>. Populations of both <i>Rissa tridactyla</i> and <i>Alca torda</i> have declined</p>	<p>The Old Head of Kinsale is a 5 km long headland formed of steeply inclined beds of rock. These are of geological interest as they show a cross section of the transition between the Devonian and Carboniferous periods. The SPA site comprises a section of the cliffs</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Technical Publication No. 9 Cambridge. Poyser London. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Shorten M.G.M. (1992). Areas of Scientific Interest for Birds in Cork. A submission to Cork County Council on the review of the Cork County Development Plan 1991 from the Irish Wildbird Conservancy.</p>	<p>since the late 1980s. <i>Pyrrhocorax pyrrhocorax</i> and <i>Falco peregrinus</i> which breed elsewhere on the Head are regularly seen within the SPA site. The seabird populations are well monitored and the site is a designated Refuge for Fauna.</p>	<p>on the western side of the narrow isthmus leading to the Head. These are vertical rock cliffs providing optimum habitat for ledge nesting seabirds. Maritime grassland and heath occurs above the steep cliffs though part of this has now been converted to amenity grassland as a golf course. The site includes the adjacent marine area to a distance of 200 m from the cliff base.</p>
004024	Sandymount Strand/Tolka Estuary SPA	<p>Brunton M. Convery F.J. and Johnson A. (eds) (1987). Managing Dublin Bay. Resource and Environmental Policy Centre University College Dublin. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Jeffrey D.W. Madden B. Rafferty B. Dwyer R. Wilson J.W. and Allott N. (1992). Algal Growths and Foreshore Quality. Technical Report No. 7. Dublin Bay Water Quality Management Plan. Environmental Research Unit Dublin. Madden B. (1987). The Mediterranean Gull in Ireland 1956-1985. Irish Birds 3: 363-376. Madden B. Jeffrey D.W. and Jennings E. (1993). Distribution and ecology of <i>Zostera</i> in County Dublin. Irish Naturalists' Journal 24: 303-309. Newton S.F. and Crowe O. (1999). Kish Bank : a Preliminary Assessment of its Ornithological Importance. BirdWatch Ireland Conservation Report No. 99/8.</p>	<p>The site possesses extensive intertidal flats which support wintering waterfowl which are part of the overall Dublin Bay population. It regularly has an internationally important population of <i>Branta bernicla hrota</i> which feeds on <i>Zostera noltii</i> in the autumn. It has nationally important numbers of a further 6 species: <i>Haematopus ostralegus</i> <i>Charadrius hiaticula</i> <i>Calidris canutus</i> <i>Calidris alba</i> <i>Calidris</i></p>	<p>This site comprises a substantial part of Dublin Bay. It includes virtually all of the intertidal area in the south bay as well as much of the Tolka Estuary to the north of the River Liffey. A portion of the shallow bay waters is also included. In the south bay the intertidal flats extend for almost 3 km at their widest.</p>



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		<p>Dublin. O'Briain M. (1991). Use of a Zostera bed in Dublin Bay by Light-bellied Brent Geese 1981/82 to 1990/91. Irish Birds 4: 299-316. Pettitt R.G. (1973). Movements of terns observed in August 1972. Dublin and Wicklow Bird Report 1972: 27-34. Quinn J.L. and Kirby J.S. (1993). Oystercatchers feeding on grasslands and sandflats in Dublin Bay. Irish Birds 5: 35-44. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Wilson J.G. (1982). The littoral fauna of Dublin Bay. Irish Fisheries Investigations Series B (Marine) No. 26. Wilson J.G. (1982). Distribution biomass and production of bivalves in Dublin Bay. Malacologia 22: 377-384.</p>	<p>alpina and Limosa lapponica. It is an important site for wintering gulls especially Larus ridibundus and Larus canus. South Dublin Bay is the premier site in Ireland for Larus melanocephalus with up to 20 birds present at times. Is a regular autumn roosting ground for significant numbers of terns including Sterna dougallii S. hirundo and S. paradisaea.</p>	<p>The sediments are predominantly well-aerated sands. The sands support the largest stand of Zostera noltii on the East Coast. Several permanent channels exist the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates while some bedrock shore occurs near Dun Laoghaire. The landward boundary is now almost entirely artificially embanked. Sediments in the Tolka Estuary vary from soft thixotropic muds with a high organic content in the inner estuary to exposed well aerated sands off the Bull Wall. The proximity of the site to Dublin City results in it being a very popular recreational area. It is also important for educational and research purposes.</p>

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004026	Dundalk Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Fahy E. (1972) A preliminary Report on Areas of Scientific Interest in County Louth. An Foras Forbartha Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. White J. (1981). Notes on Irish vegetation: No. 1 The vegetation of shingle in Co. Louth. Bulletin of the Irish Biogeographical Society 5: 1-4.</p>	<p>Estuaries and particularly intertidal sand and mud flats are very well represented at this site and support the largest concentration of wintering waterfowl on the east coast (regularly in excess of 20000 wintering waterfowl). The bay has internationally important populations of Branta bernicla hrota Calidris canutus Limosa limosa and Limosa lapponica. It is the top site in the country for Calidris canutus with over 38% of the national total. A further 13 species have populations of national importance with particular notable numbers for Haematopus ostralegus (12.4% of national total) Calidris alpina (8.4% of national total) and Vanellus vanellus (7.4% of national total). Dundalk Bay is an important roost site for Anser anser and small numbers of Anser albifrons flavirostris. Shallow bay waters support divers grebes and diving duck with</p>	<p>The site is a large bay-like estuarine complex extending c.15 km from north to south and on average of 4-5 km in width. It contains the estuaries of a number of moderately sized rivers principally the Castletown the Flurry the Fane and the Glyde/Dee. These rivers drain fairly intensive agricultural catchments and the Castletown flows through Dundalk town and serves the port. The site contains the largest expanse of intertidal flats on the east coast and has a very marked tidal range. The sediments are predominantly sands though fine muds or muddy sands occur in the sheltered areas at Dundalk and Ballymascanlan. Salt marshes are well represented especially in the</p>

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			nationally important populations of Podiceps cristatus and Mergus serrator. This bay is a regular site for passage waders such as Philomachus pugnax Calidris ferruginea and Tringa erythropus. It is also an important site for wintering gulls especially Larus ridibundus and Larus canus. The site provides both feeding and roosting areas for the waterfowl species and habitat quality for most of the estuarine habitats is very good. Wintering bird populations have been well monitored in recent years.	more sheltered areas such as the estuaries of the Castletown and Flurry rivers. Spartina is frequent in parts. Post-glacial raised beaches are a feature of the shoreline.
004027	Tramore Back Strand SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGrath D. (2001). A Guide to Tramore: Bay Dunes and Backstrand. Waterford. McGrath D. and Walsh P. (1990). Where to Watch Birds in Waterford. Irish Wildbird Conservancy Waterford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin.	An important estuarine site which has an internationally important population of Branta bernicla hrota. It supports a further six species in numbers of national importance including Pluvialis apricaria Pluvialis squatarola Limosa limosa and Limosa lapponica The population of Pluvialis squatarola is of particular note as it	The site is situated approximately 1 km east of Tramore Co. Waterford on the south-east coast. It comprises a shallow and sheltered intertidal area known as the Back Strand enclosed by a substantial sand spit Tramore Burrow. At low tide substantial areas of sand and mud flats

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		<p>Scannell M.J.P. and Ferguson I.K. (1969). Zostera in Co. Waterford. Irish Naturalists' Journal 16: 176-177. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Smiddy P. and O'Sullivan O. (1998). The status of the Little Egret <i>Egretta garzetta</i> in Ireland. Irish Birds 6: 201-206. Walsh P. and McGrath D. (1988). Waterford Bird Report 1976-1986. Irish Wildbird Conservancy Waterford. Young R. (1972). A Preliminary Report on Areas of Scientific Interest in County Waterford. An Foras Forbartha Dublin.</p>	<p>represents 4% of the national total. <i>Egretta garzetta</i> breeds locally and the Tramore Back Strand is their main feeding area. The site provides very good feeding areas for wintering waterfowl. High tide roosting sites however are limited. Wintering bird populations have been well monitored since the 1970s.</p>	<p>are uncovered. <i>Zostera</i> is present and <i>Spartina</i> is well established. The intertidal flats merge in places with salt marsh vegetation. The main rivers which flow into the site are the Keiloge and Glendudda. The land to the north and east of the site is fairly intensive agricultural land while to the west the town of Tramore encroaches with the city landfill close to the site.</p>
004031	Inner Galway Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albigrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Macdonald R.A. (1987). The breeding population and distribution of the cormorant in Ireland. Irish Birds 3: 405-416. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell</p>	<p>Galway Bay is one of the most important ornithological sites in the western region. It supports internationally important wintering populations of <i>Gavia immer</i> and <i>Branta bernicla hrota</i> and regularly occurring nationally important populations of an additional 16 species most notably <i>Mergus serrator</i> (6.7% of national total) <i>Charadrius</i></p>	<p>Galway Bay SPA is a very large marine-dominated site situated on the west coast of Ireland. The inner bay is protected from exposure to Atlantic swells by the Aran Islands and Black Head. Subsidiary bays and inlets (e.g. Poul-na-clough Auginish and Kinvarra Bays) add</p>

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		<p>B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Nairn R.G.W. ten Cate M.E. and Sharkey N. (2000). Long-term monitoring of wintering waterbirds in Inner Galway Bay 1980/81 to 1999/00. Irish Birds 6: 453-468. O'Connor B. McGrath D. Konnecker G. Keegan B.F (1993). Benthic macrofaunal assemblages of Greater Galway Bay. Biology and Environment Proceedings of the Royal Irish Academy 93B: 127-136. Ruttledge R.F. (1993). Birds in Counties Galway and Mayo: An account of their status and distribution. Irish Wildbird Conservancy Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1983). The winter bird population of Inner Galway Bay. Irish Birds 2: 278-292. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>hiaticula (3.3% of total) Anas clypeata (2.9% of total) and Limosa lapponica (2.5% of total). It supports the largest and the most regular population of Gavia arctica in the country. The bay is an important wintering site for gulls and is of national significance for at least Larus canus. Breeding birds of note are Phalacrocorax carbo Sterna sandvicensis and Sterna hirundo. The site provides both feeding and roost sites for most of the species though some birds commute to areas outside of the site. The birds of Galway Bay have been monitored annually since 1980/81. The site has one of the largest populations of Phoca vitulina in the country.</p>	<p>texture to the patterns of water movement and sediment deposition which lends variety to the marine habitats and communities. The terraced Carboniferous (Viséan) limestone platform of the Burren sweeps down to the shore and into the sublittoral. The long shoreline is noted for its diversity with complex mixtures of bedrock shore shingle beach sandy beach and fringing salt marshes. Intertidal sand and mud flats occur around much of the shoreline with the largest areas being found on the sheltered eastern coast between Oranmore Bay and Kinvarra Bay. Seagrass beds lie off Finavarra Point. A number of small islands composed of glacial deposits are included such as</p>

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				Deer Island along with some rocky islets.
004038	Killarney National Park SPA	<p>Anonymous (1990). Killarney National Park Management Plan. Office of Public Works Dublin. Batten L.A. (1976). Bird communities of some Killarney woodlands. Proceedings of the Royal Irish Academy 76B: 285-313. Carruthers T.D. (1991). Greenland White-fronted Goose studies in the Killarney National Park: A Progress Report 1991-1992. Unpublished report to NPWS Dublin. Carruthers T.D. and Gosler A.G. (1994). Distribution of breeding birds in relation to habitat in the Muckcross Yew wood Killarney. Irish Birds 5: 157-164. Carruthers T.D. and Gosler A.G. (1995). The breeding bird communities of the Killarney yew Wood. Irish Birds 5: 308-318. Carruthers T. and Larner J. (1993). The Birds of Killarney National Park. Stationery Office Dublin. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norris D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Kelly D. (1975). Native Woodland in Western Ireland with Especial Reference to the Region of Killarney. Unpublished Ph.D. Thesis Trinity College Dublin. Kelly D. (1981). The native forest vegetation of Killarney south-west Ireland: An ecological account. Journal of Ecology 69:437-472. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. MhicDaeid C. (1976). A Phytosociological and Ecological Study of Vegetation of Peatlands and Heaths in the Killarney Valley. Unpublished Ph.D. Thesis Trinity College Dublin. Ni Shuilleabhain A. (1993). The Ecology of Waterfowl on Lough Leane Co. Kerry Ireland. Unpublished Ph.D. thesis National University of Ireland. Ni Shuilleabhain A. (2000). Association between spatial distribution of waterfowl on Lough Leane Co. Kerry Ireland and limnological characteristics of the Lake. Irish Birds 6: 469-485. Ni Shuilleabhain A. O'Connor J. and O'Shea B. (1998). Activity time budget of Tufted Duck <i>Aythya fuligula</i> on Lough Leane Co. Kerry Ireland. Irish Birds 6: 277-282. O Maoileidigh N. (1990). A Study of Fish Populations in the Killarney Lakes.</p>	<p>The site is of importance as it supports a good diversity of upland and woodland birds as well as wintering waterfowl. It is a traditional site for a population of Anser albifrons flavirostris - while the numbers are now low the population is still of importance as it is the most southerly in the country and also feeds entirely on bogs. Upland species which breed within the site include Falco peregrinus Falco columbarius Lagopus lagopus and Turdus torquatus - the latter two species are Red-listed in Ireland. The extensive woodlands support some scarce breeding birds notably Phoenicurus phoenicurus Phylloscopus sibilatrix and Sylvia borin. Several research programmes have been carried out including studies on the bird communities associated with the woodlands and the wildfowl associated with</p>	<p>This large site encompasses the lakes and part of the Macgillycuddy's Reeks in the vicinity of Killarney. The underlying geology is Old Red Sandstone although Carboniferous limestone occurs on the eastern shores of Lough Leane. Lough Leane is the most important and largest (8.6 km along its long axis) of the lakes and is classified as a mesotrophic system. Muckcross Lake and the Upper Lake are both high quality oligotrophic systems. Killarney National Park is perhaps best known for its Oak woodlands. They form the most extensive area of native woodland remaining in Ireland and include Derrycunihy Wood</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Unpublished Ph.D. Thesis National University of Ireland University College Dublin. Platts E.A. and Speight M.C.D. (1988). The taxonomy and distribution of the Kerry slug <i>Geomalacus maculosus</i> Allman 1843 (Mollusca: Arionidae) with a discussion of its status as a threatened species. <i>Irish Naturalists' Journal</i> 22: 417-430. Quirke B. (ed.) (2001). Killarney National Park - A Place to Treasure. The Collins Press. Quirke W. (1986). A Study of Factors Influencing the Distribution of Macroinvertebrates in Ross Bay Lough Leane Co. Kerry with Particular Reference to the Effects of Sewage Contamination. Unpublished M.Sc. thesis. National University of Ireland. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. <i>Irish Birds</i> 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Twomey H. Quirke B. and Allott N. (1998). A Report on the Monitoring of the Killarney Lakes 1967-1997 and Other Related Studies. Report to the Lough Leane catchment monitoring and management system project.</p>	<p>the lakes. A range of other notable animal and plant species are associated with this site including <i>Salvelinus alpinus</i>.</p>	<p>described as perhaps the most natural Sessile Oak wood in the country. The woods are typically dominated by <i>Quercus petraea</i> with an understorey of <i>Ilex aquifolium</i>. <i>Arbutus unedo</i> is a notable component of the woods. The site supports the largest <i>Taxus baccata</i> woodland in Ireland. An extensive area of wet woodland or carr occurs within the flood plain of Lough Leane. The higher areas of the site are dominated by blanket bog and wet heath. Outcropping rock cliffs and crags are features of the site.</p>
004040	Wicklow Mountains SPA	<p>Brunker J.P. (1950). Flora of County Wicklow. Dundalgan Press Dundalk. Coombes R.H. (1995). Goosanders breeding in County Wicklow. <i>Irish East Coast Bird Report</i> 1994. 74-76. Haine J.C. (1990). The breeding status of the Peregrine Falcon in County Wicklow in 1989. <i>Irish East Coast Bird Report</i> 1991: 60-65. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C. (ed.) (1975). <i>The Birds of Dublin and Wicklow</i>. Irish Wildbird Conservancy Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M.</p>	<p>The site supports good examples of both upland and woodland bird communities. It has breeding <i>Falco columbarius</i> and <i>Falco peregrinus</i> as well as <i>Turdus torquatus</i> and <i>Lagopus lagopus</i> both of</p>	<p>This is an extensive upland site comprising a substantial part of the Wicklow Mountains. The underlying geology of the site is mainly of Leinster granites</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Noonan G. (1988). The changing status of breeding merlins in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Wilson H.J. (1977). Some breeding bird communities of Sessile Oak (<i>Quercus petraea</i>) woodlands in Ireland. Polish Ecological Studies 3 (4): 245-256.</p>	<p>the latter being Red-listed in Ireland. It is the only site in Ireland where <i>Mergus merganser</i> breeds regularly. It is important for rare breeding passerines of oakwoods notably <i>Phoenicurus phoenicurus</i> and <i>Phylloscopus sibilatrix</i>. It also has <i>Sylvia borin</i> and <i>Sylvia atricapilla</i>.</p>	<p>flanked by Ordovician schists mudstones and volcanics. The area was subject to glaciation and features fine examples of glacial lakes deep valleys and moraines. Most of site is over 300 m with much ground over 600 m and the highest peak of Lugnaquilla at 925 m. The substrate over much of site is peat with poor mineral soil occurring on the slopes and lower ground. Exposed rock and scree are features of the site. The dominant habitats present are blanket bog heaths and upland grassland. Fine examples of native Oak woodlands are found in the Glendalough area. The site which is within the Wicklow Mountains National Park is fragmented into about 20 separate parcels of</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				land.
004041	Ballyallia Lough SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lysaght L. Mee T. and Tarpey T. (1994). Birds of Clare and Limerick 1982-1991. A Ten Year Report. Irish Wildbird Conservancy Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Robinson J.A. Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swan <i>Cygnus cygnus</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>The site supports a good diversity of wintering waterfowl including swans dabbling duck diving duck and some waders. Habitat quality is good and the site provides both feeding and roost sites for the birds. Seven of the species have populations of national importance: <i>Anas penelope</i> <i>Anas strepera</i> <i>Anas crecca</i> <i>Anas platyrhynchos</i> <i>Anas clypeata</i> <i>Fulica atra</i> and <i>Limosa limosa</i>. The <i>Anas clypeata</i> population is the largest in the country (9.6% of all-Ireland total) while that of <i>Anas strepera</i> is also very notable (10.3% of all-Ireland total). There is a regularly occurring flock of <i>Cygnus cygnus</i>. Some of the birds especially <i>Limosa limosa</i> commute to the nearby River Fergus-River Shannon estuary. The site is a Wildfowl Sanctuary.</p>	<p>Ballyallia Lake is a relatively small naturally eutrophic lake set in Carboniferous limestone. The site is located on the River Fergus a little north of Ennis town. It is a shallow system but can rise substantially during winter floods. A low-lying flood plain of wet grassland and rough pasture grazing to the west is included within the site. Substantial areas of improved grassland used by feeding waterfowl are also included. Intensively farmed land occurs to the north and south. The lake is used for a range of recreational activities.</p>
004051	Lough Carra SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series</p>	<p>Lough Carra is an important site for wintering waterfowl with nationally important</p>	<p>Lough Carra which extends for over 9 km along its long axis lies to the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. King J.J. and Chano W.S.T (2000). Baseline water quality investigations on Lough Carra western Ireland with reference to water chemistry phytoplankton and aquatic plants. Biology and Environment Proceedings of the Royal Irish Academy 100B: 13-26. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Poyser London. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1978). A survey of gulls breeding inland in the west of Ireland in 1977 and 1978 and a review of the inland breeding habit in Ireland and Britain. Irish Birds 1: 134-160. Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A repeat survey of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p>	<p>populations of <i>Anas strepera</i> and <i>Anas clypeata</i> occurring. A range of other species occur including diving duck though all are in relatively low numbers. The site supports important breeding colonies of <i>Larus canus</i> and <i>Larus ridibundus</i> representing over 6% and 2.5% of the respective national totals. However considerably higher numbers of both of these species have been recorded in the past.</p>	<p>north-east of Lough Mask in the Corrib catchment. It is one of the best examples in Ireland of a hard water marl lake. It is a shallow (mean depth 1.5 m max depth 18 m) predominantly spring-fed lake with only a few streams flowing into it. It is connected to Lough Mask via the Keel River. The water has an alkaline pH and negligible amounts of iron and manganese. Sodium and chloride are present in relatively high concentrations. Lough Carra is classified within the mesotrophic category. Its well-known pellucid green colour is due to calcareous encrustations. It has well-developed stonewort communities in the submerged zones. The lake has a highly indented</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>shoreline (69 km total length) and is fringed by a diverse complex of limestone and wetland habitats. There is a good scattering of small islands within the lake.</p>
004056	Lough Cutra SPA	<p>Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Jennings O'Donovan &amp; Partners and Southern Water Global (1997). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Volumes 1 &amp; 2. Unpublished report prepared for the Office of Public Works Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Macdonald R.A. (1987). The breeding population and distribution of the Cormorant in Ireland. Irish Birds 3: 405-416. Merne O.J. (1989) Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland.</p>	<p>Lough Cutra is a long-established breeding site for <i>Phalacrocorax carbo</i>. The colony is of regional importance though has been of national importance in the past. The lake supports wintering waterfowl including <i>Cygnus cygnus</i> though numbers are relatively low.</p>	<p>Lough Cutra is a large oligo-mesotrophic lake lying on limestone but with much sediment washed down from the sandstone hills to the east (Slieve Aughty Mountains). The Owendalulleagh River is the main inflowing river. The shoreline is often stony or sandy though in places it is peat fringed. Marginal wetland vegetation includes well-developed reed beds in sheltered bays as well as localised patches of swamp and fen vegetation. Woodland occurs around much of the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				lake shore. Much of this is planted though wet woodland with native species is also represented. The lake has a number of islands some of which are wooded. The surrounding land is mostly agricultural mainly pasture grassland. Lough Cutra Castle which supports hibernating Rhinolophus hipposideros is adjacent to the site.
004064	Lough Ree SPA	<p>Bowman J.J. (1996). Lough Ree: an investigation of eutrophication and its causes. Environmental Protection Agency Wexford. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Gittings T. and Delany S. (1996). A pre-breeding census of Common Scoters in Ireland in 1995. Irish Birds 5: 413-422. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Heery S. (1996). Birds in Central Ireland - Mid Shannon Bird Report 1992-1995. Birdwatch Ireland Dublin. Heery S. (2000). Birds in Central Ireland - Mid Shannon Bird Report 1996-1999. Birdwatch Ireland Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch</p>	Lough Ree is one of the most important Midland sites for wintering waterfowl with nationally important populations of Anas penelope Anas crecca Anas acuta Anas clypeata Aythya fuligula and Bucephala clangula. Nationally important populations of Pluvialis apricaria and Vanellus vanellus are also associated with the lake. Regionally important numbers of Cygnus cygnus and Anser	Situated on the River Shannon between Lanesborough and Athlone Lough Ree is the third largest lake in the Republic of Ireland. It lies in an ice-deepened depression in Carboniferous Limestone. Some of its features (including the islands) are based on glacial drift. The main inflowing rivers are the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Ireland Dublin. Levinge D.E.S. (1977). A general description of Lough Ree and surroundings. Bulletin of the Irish Biogeographical Society 1: 4-6. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lovatt J.K. (1997). Occurrence of the Garden Warbler <i>Sylvia borin</i> around Lough Ree and County Cavan 1995-1997. Irish Birds 6: 58-60. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Minchin D. Maguire C. and Rosell R. (2003). The zebra mussel (<i>Dreissena polymorpha</i> Pallas) invades Ireland: human mediated vectors and the potential for rapid intra-national dispersal. Biology and Environment Proceedings of the Royal Irish Academy 103B: 23-30. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Poyser London. Ruttledge R.F. (1987). The breeding distribution of the Common Scoter in Ireland. Irish Birds 3: 417-426. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Tierney T.D. Dunne J. and Callanan T. (2000). The Common Scoter <i>Melanitta nigra nigra</i> breeding in Ireland range expansion or site relocation? Irish Birds 6: 447-452.</p>	<p>albifrons flavirostris are also found in the vicinity of the lake. The site supports a nationally important population of <i>Sterna hirundo</i>. <i>Larus ridibundus</i> breeds (nationally important) and <i>Larus fuscus</i> and <i>Larus canus</i> have bred in the past (recent census information is poor). Lough Ree is an important site for breeding duck and grebes with <i>Aythya fuligula</i> and <i>Podiceps cristatus</i> having populations of national importance. Of particular note is that it is one of the two main sites in the country for breeding <i>Melanitta nigra</i> a Red Data Book species. The woodland around the lake is a stronghold for <i>Sylvia borin</i> and this scarce species probably occurs on some of the islands within the SPA. <i>Lutra lutra</i> is frequent within the site and the fish <i>Coregonus autumnalis pollan</i> occurs.</p>	<p>Shannon Inny and Hind and the main outflowing river is the Shannon. The greater part of Lough Ree is less than 10 m in depth but there are six deep troughs running from north to south reaching a maximum depth of about 36 m just west of Inchmore. The lake has a very long indented shoreline and hence has many sheltered bays. It also has a good scattering of islands most of which are included in the site. The lake is classified as a mesotrophic system. The water of Lough Ree tends to be strongly peat-stained restricting macrophytes to depths of less than 2 m. Swamp vegetation especially of <i>Phragmites australis</i> occurs in the sheltered areas around the lake. The swamp often</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				grades to species-rich calcareous fen or freshwater marsh. Lowland wet grassland some of which floods in winter is found in abundance around the shore. Some of the islands are wooded.
004065	Lough Sheelin SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>Despite very variable water quality in recent decades Lough Sheelin remains a very important site for wintering waterfowl and especially diving duck. It supports nationally important populations of four species: Podiceps cristatus Aythya ferina Aythya fuligula and Bucephala clangula. A range of other species occur in relatively low numbers including Cygnus olor Anas platyrhynchos and Fulica atra.</p>	<p>Lough Sheelin is a medium- to large-sized lake with a maximum length of 7 km. The lake lies at the top of the Inny River a main tributary of the River Shannon. It is a typical limestone lake and is fairly shallow (maximum depth 14 m). The trophic status of the lake has varied greatly since the 1970s due to pollution from mainly agricultural sources. It was recently (1998-2000) classified as a highly eutrophic system. Swamp vegetation occurs along parts of the shoreline. There are</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				some very small offshore islands which are mostly wooded. The lake was formerly one of the top trout fisheries in the country.
004076	Wexford Harbour and Slobs SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Cummins S. O'Halloran J. Wilson C. and Norriss D. (2000). An assessment of the diet of nestling Tree Sparrows <i>Passer montanus</i> in southeast Ireland. <i>Irish Birds</i> 6: 507-512. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). <i>Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01</i>. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). <i>Water Quality in Ireland 1998-2000</i>. Environmental Protection Agency Wexford. Merne O.J. (1989). <i>Important bird areas in the Republic of Ireland</i>. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9. Cambridge. Rowe D. and Wilson C.J. (eds) (1996). <i>High Skies - Low Lands. An Anthology of the Wexford Slobs and Harbour</i>. Duffry Press Wexford. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. <i>Irish Birds</i> 1: 293-363. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. IWC Dublin.</p>	<p>This site is of international importance for several species of waterfowl but also because it regularly supports well in excess of 20000 waterfowl. It is one of the top three sites in the country for numbers and diversity of wintering birds. Of particular importance is that it is one of the two most important sites in the world for <i>Anser albifrons flavirostris</i>. It also has internationally important populations of <i>Branta bernicla hrota</i> <i>Cygnus columbarius bewickii</i> and <i>Limosa lapponica</i> and is now one of the few sites in the country which supports a regular flock of <i>Cygnus columbarius bewickii</i>. There is at least a further 22 species of wintering waterfowl which occur in numbers of national</p>	<p>Wexford Harbour is the lowermost part of the estuary of the River Slaney a major river that drains much of the south-east region. The site is divided between the natural estuarine habitats of Wexford Harbour and the reclaimed polders known as the north and south 'slobs'. The seaward boundary extends from the Rosslare peninsula in the south to the area just west of The Raven Point in the north while the inner boundaries of the site extend to Ferrycarrig bridge and towards Castlebridge. Shallow marine water is a principal</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>importance. Several of these represent substantial proportions of the national totals especially <i>Anas penelope</i> (3.1%) <i>Anas platyrhynchos</i> (3.6%) <i>Anas acuta</i> (3.3%) <i>Aythya marila</i> (4.9%) <i>Mergus serrator</i> (4.1%) <i>Pluvialis apricaria</i> (3.7%) <i>Pluvialis squatarola</i> (11.3%) <i>Vanellus vanellus</i> (5.1%) and <i>Limosa limosa</i> (3.6%). Numbers of wintering birds are often swelled by hard-weather movements from Europe notably <i>Pluvialis apricaria</i> and <i>Vanellus vanellus</i>. The site is a regular location for <i>Philomachus pugnax</i> during passage and in winter and is regularly visited by a range of other passage waders most notably <i>Tringa glareola</i> <i>Tringa erythropus</i> and <i>Tringa ochropus</i>. <i>Asio flammeus</i> is a regular visitor in small numbers to the slob during winter. A nesting colony of <i>Egretta garzetta</i> has recently become established within the site and birds are present in the area throughout the year.</p>	<p>habitat but at low tide extensive areas of intertidal flats are exposed. These vary from rippled sands in exposed areas to sandy-muds in the more sheltered areas especially at Hopeland and the inner estuary to the west of Wexford bridge. Salt marshes fringe the intertidal flats especially in the sheltered areas. The slob is two flat areas of farmland mainly arable and pasture grassland empoldered behind 19th century sea-walls. The lands are drained by a network of channels which flow into two central channels in parts several hundred metres in width. Water from the channels is pumped into the sea with electric pumps. The channels often support swamp</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>Passer montanus a Red Data Book species breeds. Part of the North Slob is a Nature Reserve and much of the slob is managed for the benefit of the wintering geese. Monitoring of the wintering birds of the slobs extends back to the 1960s and nowadays there is an ongoing monitoring and research programme. The North Slob has a wildfowl collection and an interpretative centre. The site supports Puccinellia fasciculata a Red Data Book species and has a good population of Lepus timidus hibernicus.</p>	<p>vegetation. Several conifer plantations are included especially on the south slob.</p>
004077	River Shannon and River Fergus Estuaries SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lysaght L. Mee T. Murphy J. and Tarpey T. (1994). Birds of Clare and Limerick 1982-1991. A Ten Year Report. Irish Wildbird Conservancy Limerick. McGarrigle M.L.</p>	<p>This is the most important coastal wetland site in the country and regularly supports in excess of 50000 wintering waterfowl. It has internationally important populations of Calidris alpina Limosa limosa and Tringa totanus. A further 16 species have populations of national importance. The site is particularly significant for</p>	<p>The River Shannon and River Fergus Estuaries form the largest estuarine complex in Ireland. The site comprises all of the estuarine habitat west from Limerick City and south from Ennis extending west as far as Killadysert and Foynes on the north and south shores of the</p>

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		<p>Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1985). The Infauna of the Shannon and Fergus Estuarine Mudflats as a Food Resource for Shorebirds. Unpublished M.Sc. thesis Trinity College Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>Calidris alpina (11% of national total) Pluvialis squatarola (7.5% of total) Vanellus vanellus (6.5% of total) Tringa totanus (6.1% of total) and Tadorna tadorna (6.0% of total). It has Cygnus cygnus Pluvialis apricaria and Limosa lapponica in significant numbers. The site was formerly frequented by a population of Anser albifrons flavirostris but these have now abandoned the area. The site provides both feeding and roosting areas for the wintering birds and habitat quality for most of the estuarine habitats is good.</p>	<p>Shannon respectively (a distance of some 25 km from east to west). Also included are several areas in the outer Shannon estuary notably Clonderalaw Bay and Poulmarsherry Bay. The site has vast expanses of intertidal flats. The main macro-invertebrate community is a Macoma-Scrobicularia-Nereis community which provides a rich food resource for the wintering birds. Eelgrass (Zostera spp.) is present in places. The intertidal flats are often fringed with salt marsh vegetation areas which provide important high tide roost sites for the birds. In the innermost parts of the estuaries the tidal channels or creeks are fringed with species such as Phragmites australis</p>

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				and Scirpus spp. Spartina anglica is frequent in parts.
004078	Carlingford Lough SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fahy E. (1972). A Preliminary Report on Areas of Scientific Interest in County Louth. An Foras Forbartha Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	The site supports part of a nationally important population of wintering Phalacrocorax carbo. A range of other waterfowl species occur notably Branta bernicla hrota and Limosa lapponica though all in relatively low numbers. The intertidal habitat within the site provides feeding for the wintering birds but there are no high tide roosts within the site.	The site comprises part of the southern sector of Carlingford Lough extending from Greenore Point to the harbour at Carlingford. It includes all of the intertidal sand and mud flats to the low tide mark. Much of the shoreline is already artificially embanked.
004081	Clonakilty Bay SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Goodwillie R. (1986). Areas of Scientific Interest in Co. Cork. Report prepared for Cork County Council. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. and O'Halloran J. (1994). The ecology of Black-tailed Godwits at an Irish south coast estuary. Irish Birds 5: 165-172. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	Clonakilty Bay SPA supports an internationally important population of Limosa limosa and nationally important numbers of Tadorna tadorna Charadrius hiaticula and Tringa nebularia. A range of other species occur in numbers of regional importance including Anas penelope Pluvialis apricaria Pluvialis squatarola Vanellus vanellus Calidris alpina and Numenius arquata. A small population of Limosa lapponica is	Clonakilty Bay is a wetland complex that stretches from the town of Clonakilty to the open sea. It comprises two small estuarine bays Clonakilty Harbour and Muckcross Strand separated by Inchydoney Island. Several small rivers flow into the site notably the Fealge River. At low tide substantial areas of sand and mud flats

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>present. The site is visited by passage waders with regular concentrations of <i>Calidris minuta</i> and <i>Calidris ferruginea</i>. In recent years <i>Egretta garzetta</i> has become regular at the site. <i>Asio flammeus</i> is a regular winter visitor. The site provides both feeding and roosting areas for the waterfowl species and habitat quality is generally good. Wintering bird populations have been well monitored since the 1970s and there have been specific studies on the <i>Limosa limosa</i> population. A substantial part of the site is now state-owned.</p>	<p>are exposed. The construction of a causeway across the inner part of Muckcross Strand created an extensive wetland complex with brackish characters known as Cloheen Strand Intake. The site includes a well-developed sand dune system.</p>
004089	Rahasane Turlough SPA	<p>Buckley P. and McCarthy T.K. (1987). Bird Communities in the Dunkellin/Levally Catchment. Unpublished report to the Wildlife Service Dublin. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Goodwillie R. (1992). Turloughs over 10 ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical</p>	<p>Rahasane is considered to be the most important turlough in the country for wintering waterfowl. It is a traditional site for <i>Anser albifrons flavirostris</i> and supports a population of national importance. It also has nationally important populations of <i>Cygnus cygnus</i> <i>Anas penelope</i> <i>Anas acuta</i> <i>Anas clypeata</i> <i>Vanellus vanellus</i> and</p>	<p>Lying in gently undulating land of limestone outcropping Rahasane is a very large turlough which consists of two basins that are connected at times of flood but separated as the waters decline. It is fed by a large catchment</p>

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		<p>Publication No. 9. Cambridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. Irish Wildbird Conservancy Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>Limosa limosa. The Anas penelope and Pluvialis apricaria populations are of particular note as they each represent approximately 4% of the respective national totals of these species. The site has the largest inland population of Calidris alpina in the country. As at all turlough sites numbers of birds present can vary a lot owing to water level height. The site has long been known as an important waterfowl site and has been monitored annually in recent years.</p>	<p>(Dunkellin River) and is naturally eutrophic and productive. The substrate consists largely of silty clay. Locally in the main basin there are signs of marl but peat is absent everywhere. The vegetation of Rahasane is divided between dry and wet communities. In places with outcropping limestone the vegetation is predominantly dry grassland among a generally calcicole community. The wet communities are all associated with the river channels and pools. There are small areas of scrub on the southern and north-western sides of the turlough.</p>
004095	Kilcolman Bog SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe:</p>	<p>Kilcolman Bog is an important site for wintering waterfowl with nationally important populations of Cygnus cygnus Anas crecca and</p>	<p>Kilcolman Bog is situated on the southern foothills of the Ballyhoura Mountains. It occupies a glacially</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. O'Halloran J. Ridgeway M. and Hutchinson C.D. (1993). A Whooper Swan <i>Cygnus cygnus</i> population wintering at Kilcoman Wildfowl Refuge Co. Cork Ireland: trends over 20 years. <i>Wildfowl</i> 44: 1-6. Ridgeway M. and Hutchinson C. (eds) (1990). <i>The Natural History of Kilcolman</i>. Kilcolman. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. IWC Dublin.</p>	<p><i>Anas clypeata</i>. The <i>Anas clypeata</i> population is of particular note as it comprises over 6% of the national total. Other species with important populations include <i>Anas penelope</i> <i>Fulica atra</i> and <i>Vanellus vanellus</i>. The site formerly supported a small population of <i>Anser albifrons flavirostris</i> but the flock has now abandoned the area. The site is a Nature Reserve and is managed for the benefit of birds. The bird populations have been intensively monitored since the 1970s. The site supports <i>Rumex maritimus</i> a Red Data Book species.</p>	<p>eroded hollow in Carboniferous limestone. The site comprises a quaking fen fed by calcareous groundwater with areas of reedswamp freshwater marsh and wet grassland. There is a small permanent lake but in winter a large flooded area is usual. The site has been managed for conservation since the 1970s. The surrounding landuse is mostly intensive agriculture.</p>
004114	Illaunonearaun SPA	<p>Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). <i>Inventory of Seabird Breeding Colonies in Republic of Ireland</i>. Unpublished report Forest and Wildlife Service Dublin. Lysaght L. Mee T. Murphy J. and Tarpey T. (1994). <i>Birds of Clare and Limerick 1982-1991</i>. Irish Wildbird Conservancy Limerick. Merne O.J. and Walsh A. (1994). <i>Barnacle Geese in Ireland spring 1993 and 1994</i>. <i>Irish Birds</i> 5: 151-156. Merne O.J. and Walsh A. (2002). <i>Barnacle Geese in Ireland spring 1999</i>. <i>Irish Birds</i> 7: 53-56. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). <i>Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland</i>. Poyser London. Walsh A. and Merne O.J. (1988). <i>Barnacle Geese in Ireland spring 1988</i>. <i>Irish Birds</i> 3: 539-550.</p>	<p>The site is of importance as a haunt for the wintering population of <i>Branta leucopsis</i> which frequents the west Clare coastline (Mutton Island being the main site). Numbers vary though at times exceed the threshold for national importance. This is near the southern limit of the range of <i>Branta leucopsis</i> in Ireland. The site is also of note as a breeding site</p>	<p>Illaunonearaun is a small island located approximately 300 m off the west Clare coast. It is a low-lying island surrounded by low cliffs and a rocky shore. Several islets occur off the north-west shore. The sea surrounding the island to a distance of 200 m where seabirds forage</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			for seabirds with populations of Phalacrocorax carbo Larus fuscus and Larus marinus.	bathe and socialise is included in the site. The island is dominated by a maritime grassland sward.
004120	Rathlin O'Birne Island SPA	Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1989). Birds in Ireland. Poyser London. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.	Rathlin O'Birne has a long-established though relatively small colony of Hydrobates pelagicus. Oceanodroma leucorhoa has been recorded on the island but is not considered to breed. Other seabirds which breed are Phalacrocorax aristotelis Larus fuscus Larus argentatus Larus marinus and Cepphus grylle. In winter the island provides feeding and refuge for a flock of Branta leucopsis which at times exceeds the threshold for international importance.	Rathlin O'Birne Island is a small uninhabited island situated on the north-west coast of Ireland off Malin Beg Head north of Donegal Bay. It is fully exposed to extremely powerful wave action from the Atlantic ocean on its south and west coasts. Bedrock is igneous intrusive granite and other rocks rich in silica which rise steeply off the deep ocean floor (charted as 50 - 80 m just offshore). The main habitat on the island is maritime grassland. Low cliffs (rising to 26 m) occur on the southern side of the island. The site includes surrounding seas to a distance of 200 m

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>from the shoreline where seabirds feed bathe and socialise. The seas have good examples of submerged reef communities that are extremely exposed to wave action and which support a rich flora and fauna that is characterized by several rare and notable species. The island has an automated lighthouse.</p>
004121	Roaninish SPA	<p>Cabot D.B. (1961). Birds on Roaninish Co. Donegal. Irish Naturalists' Journal 13: 238-239. Fitter R.S.R. (1948). Birds on Roaninish Co. Donegal. Irish Naturalists' Journal 9: 128. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>Roaninish is an important breeding site for seabird species. Of particular note is a long-established colony of <i>Hydrobates pelagicus</i> which is of regional importance. Terns have long been associated with the island but nowadays only <i>Sterna paradisaea</i> breeds in low numbers. Other seabirds which breed are <i>Phalacrocorax carbo</i> (recently established) <i>Phalacrocorax aristotelis</i> <i>Larus argentatus</i> <i>Larus marinus</i> and <i>Cephus grylle</i>. The <i>Larus</i></p>	<p>Roaninish is situated in the outer part of Gweebarra Bay approximately 3 km north-west of Dunmore Head. The site comprises a tight group of small flat low-lying islets surrounded by extensive intertidal rocks. The highest point is 9 metres above sea level. The site includes the surrounding seas to a distance of 200 m where seabirds</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>argentatus population is of national importance. Somateria mollissima a localised breeding species in Ireland nests in substantial numbers on the islands. The site is also of importance as it provides feeding and refuge for a wintering flock of Branta leucopsis which at times exceeds the threshold for international importance.</p>	<p>forage bathe and socialise. The main island supports lush maritime grassland and has two small ponds with some aquatic species.</p>
004122	Skerries Islands SPA	<p>Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1988). Recent changes in breeding seabird populations in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987: 69-77. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Pierce S. (1998). Birds of Shenick Island Skerries Co. Dublin. Irish Birds 6: 223-232. Pierce S. and McGough C. (1992). New cormorant breeding colony at St. Patrick's Island Skerries. Irish East Coast Bird Report 1991: 76.</p>	<p>The site has a nationally important breeding colony of Phalacrocorax carbo which became established in the early 1990s. When taken together with the breeding populations on nearby Lambay and Ireland's Eye (also SPAs) this concentration is of international importance. The site also has nationally important breeding populations of Phalacrocorax aristotelis Larus argentatus and Larus marinus. In winter the site is visited by a good diversity of waterfowl. It has an internationally important population of Branta</p>	<p>The Skerries Islands is a group of three small uninhabited islands situated between 0.5 km and 1.5 km off the north Dublin coastline. Shenick's Island and St. Patrick's Island are of similar size with Colt Island being somewhat smaller. Shenick's Island is of most interest geologically being composed of Ordovician volcanics siltstones and shales on the boundary between the Carboniferous and the Silurian. All</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>bernicla hrota and nationally important populations of Phalacrocorax carbo Calidris maritima and Arenaria interpres. Pluvialis apricaria occurs regularly but in relatively small numbers. Asio flammeus occurs regularly in winter. Bird populations have been well monitored in recent years.</p>	<p>are low-lying islands with maximum heights from 8 m to 13 m above sea level. St. Patrick's Island and Colt Island have low cliffs while Shenick's Island has more extensive expanses of intertidal rocky shore and sand flats. Shenick's also has a shingle bar and is connected to the mainland at low tides. The vegetation of the islands is dominated by rank grasses and Brambles (Rubus spp.). The seas surrounding the islands to a distance of 200 m are included in the site. Shenick's Island is a Bird Reserve managed by BirdWatch Ireland.</p>
004127	Wicklow Head SPA	<p>Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service</p>	<p>Wicklow Head SPA has a good diversity of breeding seabirds with nationally important populations of Rissa tridactyla and Cepphus</p>	<p>Wicklow Head is a rocky headland with extensive exposures of mica-schist. It is situated approximately 3 km</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Dublin.Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Madden B. Merne O.J. and Newton S. (2000). East coast Black Guillemot survey 1998. Irish East Coast Bird Report 1999: 82-86.Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002. Merne O.J. (1989). Seabirds and Waterfowl of the Irish Sea. In: Sweeney J.C. (ed.). The Irish Sea: a Resource at Risk. Geographical Society of Ireland Special Publications No.3. Merne O.J. (1988). Recent changes in breeding seabird population in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987: 69-77.Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland.	grylle and regionally important numbers of Fulmarus glacialis Uria aalge and Alca torda. This seabird colony has developed mostly since the 1970s and has been monitored regularly since. The site also supports a pair of breeding Falco peregrinus and has some typical heathland species including Sylvia communis.	south of Wicklow town. A lighthouse is located near the base of the cliffs. The cliffs which extend for about 3 km are highest immediately south of the lighthouse where they rise to about 60 m and it is here that most of the seabirds breed. The site comprises the cliffs and cliff-top vegetation as well as some heath vegetation. The marine area to a distance of 500 m from the base of the cliffs where seabirds forage bathe and socialise is included in the site.
004132	Illancrone and Inishkeeragh SPA	Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22.Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin.Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in	The site is one of the most important tern colonies in the region with nationally important populations of Sterna paradisaea S. hirundo and S. albifrons. Sterna sandvicensis breeds occasionally and Sterna dougallii has bred in the past. In winter it supports a regular flock	Inishkeeragh and Illancrone are the outermost islands in a group within the Rutland Sound. They are located within 5 km of the mainland and south of Aran Island. Inishkeeragh the larger of the two is low-lying and

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Merne O.J. and Walsh A. (2003). Barnacle Geese Branta leucopsis in Ireland spring 2003. Irish Birds 7: 173-176. Mitchell C. Walsh A. Hall C. and Crowe O. (2008). Greenland Barnacle Geese Branta leucopsis in Britain and Ireland: results of the International Census Spring 2008. WWT NPWS and Birdwatch Ireland Report. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>of Branta leucopsis that is of national importance. Several gull species have bred in the past but the recent status of these is unknown. Habitat quality for both terns and geese is excellent with no significant disturbance occurring.</p>	<p>surrounded by extensive reefs and rocks. Previous occupation has resulted in the island being divided into a system of enclosed fields which have now reverted to unimproved dry grassland. Illancrone is a very small grassy island also surrounded by rocky reefs. The islands are grazed by sheep. The site includes the surrounding and intervening marine waters.</p>
004134	Lough Rea SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. Birdwatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.A. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Crowe O. and Boland H. (2004). Irish Wetland Bird Survey: results of the Waterbird Monitoring in Ireland in 2001.2002. Irish Birds 7: 313-326. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2002/03. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's</p>	<p>Lough Rea is one of the most important waterfowl sites in the western region. It is of national importance for Anas clypeata and Fulica atra. It also supports a range of other wetland species including Anas penelope Aythya ferina and Aythya fuligula. Numbers of Anas clypeata had formerly been of international importance and those of Aythya fuligula of</p>	<p>Lough Rea is a medium-sized lake lying just south of Loughrea town. The lake which is underlain by Carboniferous limestone is moderately hard and has a high water transparency. It is fed by a stream and by springs and its outflow ultimately joins the Dunkellin River. It</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Wetland Wealth. IWC Dublin.	national importance. Habitat is of good quality with both feeding and roost areas present. The site has been well monitored in recent years. The site supports the Red Data Book charophyte <i>Chara tomentosa</i> .	reaches a maximum depth of 15 m. Lough Rea is classified as an oligotrophic system and has a benthic vegetation typical of hard oligo-mesotrophic waters. Charophytes are well-represented along with pondweeds and other aquatics. Reeds swamp wet grassland and wet woodland occur on the sheltered western and south-eastern shores. There are several very small islands. Apart from the northern shore towards the town the lake is surrounded by fairly intensive agricultural land.
004136	Clare Island SPA	Barlee J. and Rutledge R.F. (1945). Notes on the present status of birds on Clare Island. Irish Naturalists' Journal 8: 311-313. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second international Cough survey in Ireland 1992. Irish Birds 5: 1-10. Cussen R.E. Kelly T. Hartnett M. and Walsh P.M. (1999). Counts of Breeding Seabirds Clare Island Co. Mayo 1999. Report to the Royal Irish Academy for the New Survey of Clare Ireland. Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Doyle G.J. and Foss P.F. (1986). A resurvey of the Clare Island flora. Irish Naturalists' Journal 22: 85-	Clare Island is one of the most important seabird colonies in the country being notable for both the size of the populations and for the diversity of species (13 regular breeders). It is of	Clare Island is a large island situated approximately 5 km from the mainland. The geology of the island is diverse consisting of Dalradian

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>89.Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast.Fisher J. (1966). The Fulmar population of Britain and Ireland 1959. Bird Study 13: 5-76.Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002/03. Irish Birds 7: 147-156.Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin.Lloyd C.S. (1984). The birds of Clare Island Co. Mayo in June 1982. Irish Naturalists' Journal 21: 212-216.Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Nelson B. (1978). The Gannet. Poyser Berkhamsted. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The status and ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. Final Report of Birdwatch Ireland Chough Survey Team - Unpublished. Ussher R.J. (1912). A biological survey of Clare Island in the county of Mayo Ireland and the adjoining district. Proceedings of the Royal Irish Academy 31: Section 11 Part 20.</p>	<p>particular importance for Fulmarus glacialis (10% of the all-Ireland total and the largest population in the country) and Rissa tridactyla. It also has nationally important populations of Phalacrocorax aristotelis Larus canus Larus marinus Uria aalge and Alca torda. Nationally important numbers of Cepphus grylle (a non-migratory species) also occur at the site. Whilst the Morus bassanus (Sula bassana) colony has not grown to any extent since its establishment in the 1970s this is still of significance as it is one of the only 5 in Ireland and the only colony on the west coast. Other breeding species include Fratercula artica Phalacrocorax carbo (recently established) and Larus fuscus. Larus argentatus formerly bred in large numbers but the population has declined markedly in line with a national decrease. Hydrobates pelagicus has been suspected of breeding in the past but</p>	<p>sandstones and shales Carboniferous sandstones shales and conglomerates and a variety of Silurian rocks. The site comprises all of the cliffs on the island a length of approximately 10 km as well as the land adjacent to the cliff edge (inland to 300-350 m) and the adjacent marine waters (to distances of 200 m or 500 m depending on auk distribution). The cliffs on the northern coast consist of vertical precipices alternating with steep grassy slopes and huge blocks of rock. The vertical cliffs are up to 100m in places. The less sheer cliffs are well vegetated with a maritime heath above the high cliffs is included within the site in places. The cliffs in the south-west and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			there have been no recent surveys. Clare Island is an important stronghold for <i>Pyrrhocorax pyrrhocorax</i> with a nationally important population. <i>Falco peregrinus</i> also breeds. There is a long history of recording dating back to the 1909-11 Clare Island Survey.	eastern sectors of the site are low-lying.
004137	Dovegrove Callows SPA	Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. National Parks and Wildlife Service - Greenland White-fronted Goose Inventory. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. <i>Irish Birds</i> 1: 293-363.	Dovegrove Callows is of importance as a high water feeding site for the internationally important Little Brosna population of <i>Anser albifrons flavirostris</i> . Of particular significance is that it can support the entire flock when most other feeding sites are submerged by floodwater.	The site is situated on the Little Brosna River approximately 2 km downstream of Birr and 11 km from the confluence with the River Shannon. It is typical wet callow grassland that floods regularly. Grazing is the principal landuse.
004143	Cahore Marshes SPA	Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. <i>Bird Study</i> 55: 66-77. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox T. Francis I. and Walsh A. (2008). Report of the 2007/2008 International Census of Greenland White-Fronted Geese. Greenland White-fronted Goose Study and NPWS. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Healy B. (2002). The Cahore Drainage System. Report prepared for the Wexford Wetland Project. Unpublished. Hunt J. Derwin J. Coveney J. and Newton S. (2000).	The site of high ornithological importance for wintering waterfowl with nationally important populations of <i>Anser albifrons flavirostris</i> , <i>Anas penelope</i> , <i>Pluvialis apricaria</i> and <i>Vanellus vanellus</i> . The geese use the site as a feeding area commuting each day	Cahore Marshes SPA is located just south of Cahore Point on the north Co. Wexford coast. It comprises an area of polder grassland and some arable land interspersed by canals and drainage channels. The drainage canals

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		<p>Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Robinson J.A Colhoun K. McElwaine J.G. and Rees E.C. (2004a). Whooper Swan <i>Cygnus cygnus</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge. Robinson J.A Colhoun K. McElwaine J.G. and Rees E.C. (2004b). Bewick's Swan <i>Cygnus columbianus bewickii</i> (Northwest Europe population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>from Wexford Harbour. The <i>Pluvialis apricaria</i> population is over 3% of the all-Ireland total. The site also supports other species in smaller numbers including <i>Cygnus columbarius bewickii</i> and <i>Cygnus cygnus</i>. <i>Sterna albifrons</i> formerly bred on the beach but not in the recent past.</p>	<p>and sluices were installed in the mid-19th century to reclaim wetlands and land that flooded regularly behind the sand dunes. Seawater may occasionally enter the channels and create brackish conditions. The area is underlain by rocks of Cambrian age.</p>
004149	Falcarragh to Meenlaragh SPA	<p>Alcorn S. Donaghy A. and Moloney D. (2009). Corncrake Fieldwork in North and West Donegal 2009. Unpublished Report by Birdwatch Ireland for National Parks and Wildlife Service. Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Copeland A. (2002a). Corncrake Conservation on the Mayo and Donegal Mainland - Proposal for SPA Designation. Unpublished Birdwatch Ireland Report. Copeland A. (2002b). Delivering Corncrake <i>Crex crex</i> conservation in Ireland: Past present and future. Irish Birds 7: 33-42. Copeland A. and Madden D. (2002). Corncrake Fieldwork in the Shannon Callows 2002. Unpublished report BirdWatch Ireland. Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Sheppard R. and Green R.E. (1994). Status of the Corncrake in Ireland in 1993. Irish Birds 5: 125-138.</p>	<p>Falcarragh to Meenlaragh SPA supports a nationally important breeding population of <i>Crex crex</i> and is one of a suite of sites along the western seaboard that is regularly utilised by this species. <i>Crex crex</i> is listed on the 2010 International Union for Conservation of Nature (IUCN) Red List of Threatened Species. This is due to population and range declines of more than 50% in the last 25 years across significant parts of its range.</p>	<p>Falcarragh to Meenlaragh SPA is located on the eastern and western sides of Ballyness Bay on the north-west coast of Co. Donegal. This large site follows the coastline from Falcarragh to Meenlaragh and encompasses three areas of mixed agricultural grassland.</p>
004152	Inishmore SPA	<p>Armstrong E.A. (1957). Birds of the Aran Islands. Irish Naturalists Journal XII: 207-208. Barrett J.H. (1958). Birds seen on Inishmore Aran Islands 6th-9th November 1957. Irish Naturalists' Journal XII: 314-316. Berrow S.D. Mackie K.I. O'Sullivan O. Shephard</p>	<p>Inishmore Island is an important site for cliff nesting seabirds with</p>	<p>Situated approximately 8 km off the south coast</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. Irish Birds 5: 1-10. Cramp S. Bourne W.R. P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Fisher J. (1966). The Fulmar population of Britain and Ireland 1959. Bird Study 13: 5-76. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Hunt J. Derwin J. Coveney J. and Newton S.F. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Lysaght L. (2002). An atlas of Breeding Birds of the Burren and the Aran Islands. BirdWatch Ireland Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. Irish Wildbird Conservancy Dublin. Ussher R.J. and Warren R. (1900). The Birds of Ireland. Guerney &amp; Jackson London. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Whilde A. (1990). Birds of Galway. A Review of Recent Records and Field Studies. Irish Wildbird Conservancy Galway.</p>	<p>nationally important populations of <i>Rissa tridactyla</i> and <i>Uria aalge</i>. It is also of importance for breeding terns with nationally important populations of <i>Sterna paradisaea</i> and <i>Sterna albifrons</i>. The terns however do not breed on the island every year but alternate with sites on nearby Inishmann. Other breeding seabirds include <i>Fulmarus glacialis</i> <i>Phalacrocorax aristotelis</i> <i>Larus marinus</i> and <i>Larus argentatus</i>. <i>Hydrobates pelagicus</i> has been suspected of breeding in the past but there have been no recent surveys. Inishmore is an important stronghold for <i>Falco peregrinus</i> <i>Pyrrhocorax pyrrhocorax</i> also breeds.</p>	<p>of County Galway Inishmore (Árainn) is the largest of the three Aran Islands. Geologically an extension of the Burren County Clare the island is formed of Upper Carboniferous limestone strata interleaved with layers of shale and clay. The site comprises all of the cliffs and rocky shore along the entire southern side of the island part of the low cliffs/rocky shore at the west end and the low cliffs/rocky shore at the east end - a distance of over 17 km of coastline. Also included are the two islands west of Inishmore (Brannock Island and Rock Island) Straw Island at the east end of Inishmore the dune system at Barr na Coise and the adjacent seas. The cliffs vary in height being often less</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>than 20 m but rising to over 80 m near Dún Aonghasa where they are notably sheer. Littoral and sublittoral reef communities are well-developed within the site</p>
004154	Iveragh Peninsula SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. Irish Birds 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. British Birds 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish Birds 6: 333-344. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine <i>Falco peregrinus</i> breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs <i>Pyrrhocorax pyrrhocorax</i> in three Irish Chough Important Bird Areas.</p>	<p>The site supports a nationally important population of breeding Chough a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 106 breeding pairs were recorded from the site in the 1992 survey and 86 in the 2002/03 survey. Flocks of up to 42 birds were recorded in the 2002 to 2004 period. The site also supports an Peregrine population (5 pairs in 2002); this species is listed on Annex I of the E.U. Birds Directive. The site also holds nationally important populations of Guillemot (2860 pairs in 1999-2000) Fulmar (766 pairs in 1999-2000) Kittiwake (1150 pairs in 2000) Great Black-backed Gull (63 pairs in</p>	<p>The Iveragh Peninsula SPA is a large site situated on the west coast of Co. Kerry. The site encompasses the high coast and sea cliff sections of the peninsula from just west of Rossbehy in the north around to the end of the peninsula at Valencia Island and Bolus Head and as far east as Lamb's Head in the south. The site includes the sea cliffs the land adjacent to the cliff edge and also areas of sand dunes at Derrynane and Beginish. The high water mark forms the seaward boundary except at</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>1999-2000) and Black Guillemot (118 individuals in 1999) as well as smaller populations of other breeding seabirds: Razorbill (90 pairs in 1999-2000) Herring Gull (30 pairs in 1999-2000) Cormorant (33 pairs in 1999-2000) and Shag (11 pairs in 1999-2000).</p>	<p>Doulus Head/Killelan Mountain where the adjacent sea area to a distance of 500 m from the cliff base is included. The site is underlain by Devonian sandstones siltstones and mudstones. A small area of igneous rocks (dolerite and gabbro) occurs at Beginish and on the adjacent shore.</p>
004175	Deenish Island and Scariff Island SPA	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Biodiversity in Northern Ireland. Northern Ireland Species Action Plan Chough (2000). Environment and Heritage Service Belfast. Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Creme G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. Biology and Environment. Proceedings of the Royal Irish Academy 97B: 149-156. Davies J.C. (1980). The birds of Scariff Deenish and neighbouring Islands Co. Kerry. Irish Birds 1: 535-539. Gray N. Thomas G. Trewby M. and Newton S. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland. Irish Birds 7: 147-156. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Lloyd C. (1982). Inventory of Seabird Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird 2000: Seabird Populations of Britain and Ireland. Poyser London. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The status and ecology of the Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002-2005. Final Report of Birdwatch Ireland Chough Survey Team - Unpublished. Ussher R.J. and Warren R. (1900). Birds of Ireland. London.</p>	<p>The site supports an nationally important population of <i>Puffinus puffinus</i> (5.2% of all-Ireland total). The site has long been known as a breeding site for <i>Hydrobates pelagicus</i> but there is no recent survey data. Other seabird species which occur in all-Ireland important numbers are <i>Sterna paradisaea</i> <i>Fulmarus glacialis</i> and <i>Larus fuscus</i>. This site also has breeding <i>Phalacrocorax aristotelis</i> <i>Larus argentatus</i> and <i>Cephus grille</i>. Deenish Island and</p>	<p>These small to medium sized uninhabited islands are situated between 5 and 7 km west of Lamb's Head off the Kerry coast and thus are very exposed to the forces of the Atlantic. Scariff is the larger of the two. It is very steep sided all the way round rising to a peak of 252 m. The highest cliffs are on the south side. The island vegetation is a mix of maritime</p>

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			<p>Scariff Island provides excellent habitat for the seabirds. The islands also have a small breeding population of <i>Pyrrhocorax pyrrhocorax</i>.</p>	<p>grassland bracken and some heath type vegetation. There are ruins of a monastic settlement and a cottage in the north-east sector of the island. Deenish is less rugged than Scariff rising to 144 m in its southern half but the northern half is lower and flatter. The vegetation is mostly grassland with some heath on the higher ground. Old fields are overgrown with bracken and brambles. The sea area to 500 m around the islands is included within the site to provide 'rafting' areas for the Shearwaters.</p>
004177	Bills Rocks SPA	<p>Cobot D. (1967). The Birds of the Bills Rocks Co. Mayo. Irish Naturalists' Journal 15: 359-361. Coulson J.C. (1963). The status of the Kittiwake in the British Isles. Bird Study 10: 147-179. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Fitter R.S.R. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London.</p>	<p>The site supports nationally important population of <i>Fratercula arctica</i> (ca. 7.1% of the all-Ireland total). It also has a colony of <i>Hydrobates pelagicus</i> which is at least of regional importance.</p>	<p>Bills Rocks are a group of three rocks lying close together approximately 10 south of Moyteoge Head (Achill Island). The islands are composed of</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). The Status of Breeding Seabirds in Britain and Ireland. Poyser London. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. Irish Wildbird Conservancy Dublin. Thompson W. (1851). The Natural History of Ireland. Reeve and Benham London.	Other breeding seabird species are Fulmarus glacialis Phalacrocorax aristotelis Larus marinus Rissa tridactyla and Alca torda. The site is an excellent example of an isolated and highly exposed seabird colony.	metamorphic rock and are drift covered. They rise precipitously to a height of approximately 35 m. The two larger islands have flattish tops which are covered by swards of Armeria maritima. Rocky reefs surround the islands. The sea area to a distance of 500 m from the island is included for the benefit of the breeding auks.
004181	Connemara Bog Complex SPA	Cummins S. Swann M. and Newton S. (2004). Upland Bird Survey 2004: County Mayo & Connemara (West Galway). BirdWatch Ireland Conservation Report No. 04/7. Fernandez D. Carroll D. and Lusby J. (2010). Pilot Merlin Survey 2010. Unpublished Report prepared by Birdwatch Ireland for NPWS. Fox T. Francis I. and Walsh A. (2008). Report of the 2007/2008 International Census of Greenland White-fronted Geese. Greenland White-fronted Goose Study and NPWS. Gibbons D. W. Reid. J.B. and Chapman. R. A. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. T. & A. D. Poyser London. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Haworth P. (1986). An Upland Survey of West Galway. Unpublished Report to the World Wildlife Fund UK. Hillis P. (2000). Seabirds breeding on islands in lakes and sea inlets in Connemara in 2001. Irish Birds 6: 599-602. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London.	The Connemara Bog Complex SPA supports nationally important populations of four species. Of particular note are the populations of Pluvialis apricaria and Falco columbarius which represent 18% and 1.8-3.6% of the all-Ireland totals respectively.	The Connemara Bog Complex SPA is a large site encompassing the majority of the south Connemara lowlands Co. Galway. The site is bounded to the north by the Galway-Clifden road and stretches as far east as the Moycullen-Spiddal road. The site contains a wide range of habitats - extensive tracts of western blanket

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>bog form the core interest but there are also areas of heath woodland lakes rivers and streams. The Connemara Bog Complex SPA is underlain predominantly by various Galway granites with small areas along the northern boundary of Lakes Marble schist and gneiss.</p>
004191	Seven Heads SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. Irish Birds 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. British Birds 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish birds 6: 333-344. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and</p>	<p>The site supports a nationally important population of breeding Pyrrhocorax pyrrhocorax a Red Data Book species. Eleven breeding pairs were recorded from the site in the 1992 survey and 15 in the 2002/03 survey. In addition flocks of up to 47 birds were noted in the 1992 survey and up to 25 in the 2002/03 survey. The site is also used by Falco peregrinus and a variety of seabird species breed on the cliffs.</p>	<p>The Seven Heads SPA is situated to the south-west of the town of Courtmacsherry Co. Cork. It encompasses the sea cliffs of the Seven Heads peninsula north-east to Barry's Point and also the cliffs of Dunworly Bay and Barry's Cove. The site includes the sea cliffs which rise to over 50 m notably south of Barry's Point and the land adjacent to the cliff edge. The high water mark forms</p>

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		foraging behaviour of Choughs <i>Pyrrhocorax pyrrhocorax</i> in three Irish Chough Important Bird Areas.		the seaward boundary. Most of the site is underlain by Devonian sandstones siltstones and mudstones; similar rocks of Carboniferous age also occur at the eastern and western ends of the site. Sea cliffs are the predominant habitat of the site; these occur along its length and are generally well-vegetated by a suite of typical sea cliff species. Above the cliffs areas of heath improved grassland unimproved wet and dry grassland freshwater marsh and arable land occur. Landuse is predominately grazing by stock but some arable farming is also carried out particularly on the Seven Heads Peninsula. The grazing regime which results in a tight vegetation

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				sward is beneficial to Pyrrhocorax pyrrhocorax. Areas of semi-natural habitats occur in many places adjacent to the breeding cliffs interspersed between other areas of relatively intensive grass production.
004227	Mullet Peninsula SPA	<p>Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Copeland A. (2002a). Corncrake Conservation on the Mayo and Donegal Mainland - Proposal for SPA Designation. Unpublished Birdwatch Ireland Report. Copeland A. (2002b). Delivering Corncrake <i>Crex crex</i> conservation in Ireland: Past present and future. Irish Birds 7: 33-42. Copeland A. and Madden D. (2002). Corncrake Fieldwork in the Shannon Callows 2002. Unpublished report BirdWatch Ireland. Dublin. Gordon T. (2009). Corncrake Fieldwork in West Connaught 2009. Unpublished Report by Birdwatch Ireland for National Parks and Wildlife Service. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Sheppard R. and Green R.E. (1994). Status of the Corncrake in Ireland in 1993. Irish Birds 5: 125-138.</p>	<p>The Mullet Peninsula SPA supports a nationally important breeding population of <i>Crex crex</i> and is one of a suite of sites along the western seaboard that is regularly utilised by this species. <i>Crex crex</i> is listed on the 2010 International Union for Conservation of Nature (IUCN) Red List of Threatened Species. This is due to population and range declines of more than 50% in the last 25 years across significant parts of its range.</p>	<p>The Mullet Peninsula SPA comprises three separate areas situated on the Mullet peninsula in Co. Mayo. The peninsula is low-lying and exposed (rarely rising above 20 m) and is mostly underlain by metamorphic schist and gneiss although the southern tip is granite and rises to 103 m. The three areas that make up the site are located respectively 5 km north-west 2 km west and 15 km south-west of the town of Belmullet. The main habitat</p>



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				present is grassland which is managed in a relatively intensive manner.
004231	Inishbofin Omev Island and Turbot Island SPA	<p>Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Copeland A. (2002a). Corncrake Conservation on the Mayo and Donegal Mainland - Proposal for SPA Designation. Unpublished Birdwatch Ireland Report. Copeland A. (2002b). Delivering Corncrake <i>Crex crex</i> conservation in Ireland: Past present and future. Irish Birds 7: 33-42. Copeland A. and Madden D. (2002). Corncrake Fieldwork in the Shannon Callows 2002. Unpublished report BirdWatch Ireland. Dublin. Gordon T. (2009). Corncrake Fieldwork in West Connaught 2009. Unpublished Report by Birdwatch Ireland for National Parks and Wildlife Service. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Sheppard R. and Green R.E. (1994). Status of the Corncrake in Ireland in 1993. Irish Birds 5: 125-138.</p>	<p>The Inishbofin Omev Island and Turbot Island SPA supports a nationally important breeding population of <i>Crex crex</i> and is one of a suite of sites along the western seaboard that is regularly utilised by nationally important breeding numbers of this species. <i>Crex crex</i> is listed on the 2010 International Union for Conservation of Nature (IUCN) Red List of Threatened Species. This is due to population and range declines of more than 50% in the last 25 years across significant parts of its range.</p>	<p>Inishbofin Omev Island and Turbot Island SPA comprises parts of three islands lying off the coast of Connemara in Co. Galway. Inishbofin the largest of the three islands is situated c. 5 km from the mainland and some 20 km north-west of Clifden. It is composed of metamorphic schists and gneiss and rises to a maximum height of 89 m above sea level. The Special Protection Area (SPA) includes approximately one fifth of the island and mostly comprises agricultural grassland used for cattle and/or sheep pasture and fodder. Omev Island is a small island</p>

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				<p>situated 10 km west-north-west of Clifden. It is underlain by granite which is partly covered by blown sand. The area within the SPA is along the southern coast and takes in about one third of the island. The island is accessible from the mainland for a few hours at low tide. Turbot Island is a flat low-lying island situated less than 1 km off the coast and 8 km west of Clifden. The island is approximately 1.5 km in length and is underlain by granite. Almost all of the island is included within the SPA. The habitats on the island are mainly enclosed agricultural grassland - damp to wet peaty pasture with patches of Yellow Iris (<i>Iris pseudacorus</i>) and small areas of machair.</p>

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004234	Ballintemple and Ballygilgan SPA	Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Merne O.J. and Walsh A. (2003). Barnacle Geese Branta leucopsis in Ireland spring 2003. Irish Birds 7: 173-176. Mitchell P.I. Walsh A. Hall. C. and Crowe O. (2008). Greenland Branacle Geese Branta leucopsis in Britain and Ireland: Results of the International Census Spring 2008. Wildfowl & Wetlands Trust Slimbridge.	The fields at Ballintemple and Ballygilgan support an internationally important population of Branta leucopsis (1838 - 4 year survey mean for the period 1993-2003). The population of Branta leucopsis at the site has increased in recent years (3930 in 2008 and c. 5000 in 2011) and is now the most important site in the country for this species. The geese feed for much of the winter on fields at Ballintemple and Ballygilgan which are their core feeding sites and roost on the nearby island of Inishmurray.	Ballintemple and Ballygilgan SPA comprises two separate areas of fields supporting agriculturally-improved grassland situated on the north side of Drumcliff Bay Co. Sligo.
000006	Killyconny Bog (Cloghbally) SAC	Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Internal report to the Forest and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin.	Killyconny Bog is a rather small raised bog site located in the north-east of the country. The site contains good examples of the priority Annex I habitat active raised bog and the non-priority habitat degraded raised bog (capable of regeneration). The uncut high bog area is surrounded by extensive cutover surfaces and a portion of this cutover has been planted with conifers. Although the	The underlying geology of this site consists of lower paleozoic shales and grits which generally have a low permeability with clays and clayey limestone tills dominating the subsoils. The bog consists of two small peat basins which have fused over a low drumlin ridge.

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			<p>site is rather damaged at present due to drainage effects it remains one of the largest extant areas of relatively intact raised bog in the north-east of the country and thus is of considerable ecological and biogeographical importance.</p>	
000007	Lough Oughter and Associated Loughs SAC	<p>Allott N. Free G. Irvine K. Mills P. Mullins T.E. Bowman J.J. Champ W.S.T. Clabby K.J. and McGarrigle M.L. (1998). Land use and aquatic systems in the Republic of Ireland. In: Giller P.S. (ed.) Studies in Irish Limnology 1-18 Royal Irish Academy Dublin. Bowman J.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part One-General Assessment. Environmental Research Unit Dublin. Colhoun K. (1998). I-WeBS Report 1996-97; Results from the Third Winter of the Irish Wetland Bird Survey. IWC BirdWatch Ireland Dublin. Conaghan J. (1999). The Vegetation Ecology and Conservation of the Lough Oughter Lake System Co. Cavan. A report to the Heritage Council. Enviroscope Environmental Consultancy Galway. Cranswick P.A. Bowler J.M. Einarsson O. Gardarsson A. McElwaine J.G. Merne O.J. Rees E.C. and Wells J.H. (1996). Numbers of Whooper Swans <i>Cygnus cygnus</i> in Iceland Ireland and Britain in January 1995: results of the international Whooper Swan census. <i>Wildfowl</i> 47:23-36. Delany S. (1996). I-WeBS Report 1994-95: Results from the First Winter of the Irish Wetland Bird Survey. IWC BirdWatch Ireland Dublin. Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83-1993/94. Greenland White-fronted Goose Study Research Report No. 8. Hutchinson C. (1979). Ireland's Wetlands and their Birds. IWC Dublin. Lovatt J.K. (1988). Great Crested Grebe census in Co. Cavan summers 1986-1988. <i>Irish Birds</i> 3: 575-580. Lucey J. Bowman J.J. Clabby K.J. Cunningham P. Lohane M. MacCarthaigh M. McGarrigle M.L. and Toner P.F. (1998). Water Quality in Ireland 1995-1997. Environmental Protection Agency Wexford. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Nairn R. and Duff K. (1999). Bog Woodland Survey in the Lough Oughter Proposed Special Area of Conservation. Natural Environment</p>	<p>The site contains substantial areas of natural eutrophic lakes and bog woodland. Plant species of limited distribution in Ireland but which achieve local prominence include <i>Stratocites aloides</i> <i>Sagittaria sagittifolia</i> <i>Butomus umbellatus</i> <i>Rumex hydrolapathum</i> and two species of duckweed <i>Lemna gibba</i> and <i>Lemna polyrhiza</i>. The lake system provides optimum habitat for <i>Lutra lutra</i> and supports an important population. Part of the site is designated SPA. The Annex I <i>Cygnus cygnus</i> and <i>Anser albifrons flavirostris</i> are both very stable in their numbers here. Wildfowl Sanctuaries occupy approximately 5% of the</p>	<p>The Lough Oughter complex at over 5000 ha comprises a maze of small to medium sized lakes and river sections and is considered the best inland example of a flooded drumlin landscape. The River Erne is the main inflowing and outflowing river. The lakes are classified as naturally eutrophic. Most are relatively shallow (&lt;10 m) with well developed marginal vegetation including swamp marshes and wet woodland. There are many small islands within the lakes.</p>

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		Consultants Wicklow.Preston K. (1976). Census of Great Crested Grebes summere 1975. Irish Bird Report 1975 pp38-43.Scott D.A. and Rose P.M. (1996). Atlas of Anatidae Populations in Africa and Western Eurasia. Wetlands International Wageningen.Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	site. The area is also listed as a Ramsar Site. The Lough Oughter and Associated Loughs complex connects with the cross border Upper Lough Erne which is proposed as a SAC in Northern Ireland.	
000016	Ballycullinan Lake SAC	Knowles M.C. (1933). Moor balls. Irish Naturalists' Journal IV: 170-173. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Clare. An Foras Forbartha Dublin.	The site supports a typical example of Cladium mariscus fen in a calcareous lake system. The fen occurs in association with Phragmites swamp. The structure and functionality appear good. The occurrence of limestone pavement within the site adds to its conservation value. The lake is of interest for the alga Cladophora sauteri which forms spherical aggregations that sometimes become buoyant and float. The scarce Mercurialis perennis occurs in scrub woodland. The site supports wintering Gallinago gallinago and small numbers of wildfowl.	Ballycullinan Lough is a small and shallow calcareous lake with marl deposits. Also included in the site are three smaller lakes to the north-east - Cragmoher Drumcavan and Shanvally Loughs. Swamp vegetation surrounds almost the entire margin of Ballycullinan Lough and extends out into the shallows. The three smaller lakes have little open water being dominated by swamp. The swamp community merges with freshwater marsh and wet grassland in places. Limestone pavement and scrub woodland

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				with patches of calcareous grassland occupy the northern part of the site.
000032	Dromore Woods and Loughs SAC	<p>Cross J.R. (1975). Preliminary Conservation Report on Dromore Property Ennis Forest. Forest and Wildlife Service. Curtis T.G.F. and McGough H.N. (1981). A Survey of the Wetlands of the Fergus Catchment and Adjoining Areas. Internal report to National Parks and Wildlife Service Dublin. Dunne J. et al. (1999). The Dromore Bat Reserve: Background and Current Situation: Proceedings of the 2nd Irish Bat Conference. Heuff H. (1984). The Vegetation of Irish Lakes. Internal Report to the National Parks and Wildlife Service Dublin. Keane S. and Rule M. (1993). NHA Internal Report to the National Parks and Wildlife Service Dublin. O' Sullivan P. (1994). Bats in Ireland Irish Naturalists' Journal Special Zoological Supplement. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.</p>	<p>The great value of this area lies in the mosaic of vegetation types: scrub limestone pavement lakes lake shore communities reed beds and grassland. Between them there is a great wealth of plants and a variety of habitats for animals. 9% of the site consists of the Annex I priority habitat limestone pavement with 13% cover for naturally eutrophic lakes also Annex I. Eutrophic tall herb vegetation is also represented. Lutra lutra (Annex II) and Martes martes (Red Data Book) are both recorded within this site. The population of Rhinolophus hipposideros is of International Importance and one of the largest breeding sites in the country. Wintering waterfowl populations are of local importance.</p>	<p>Dromore Lough and surrounding woodland is situated on the southern edge of the Clare limestone. It is a continuation of the Burren landscape although at a lower elevation. The natural vegetation is Corylus avellana and Fraxinus excelsior wood but this has been interplanted with exotic conifers. There are small areas of limestone pavement and a series of naturally eutrophic lakes with extensive marginal grasslands fen and scrub. An outbuilding at Dromore House provides a summer breeding site for Rhinolophus hipposideros. The site plays host to an</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				important invertebrate fauna and provides ideal habitat for Martes martes and Meles meles both Red Data Book species.
000101	Roaringwater Bay and Islands SAC	<p>Akeroyd J.R. (1993). The distribution and status of Rumex pulcher L. in Ireland. Irish Naturalists' Journal 24: 284-285. Akeroyd J.R. and Clarke K. (1993). Dianthus Armeria L. new to Ireland and other rare plants in West Cork. Watsonia 19: 185-187. Akeroyd J.R. (ed.) (1996). The Wild Plants of Sherkin Cape Clear and adjacent islands of West Cork. Sherkin Island Marine Station Sherkin Island Co. Cork. Anon. (1981). Areas Of Scientific Interest In Ireland An Foras Forbartha. Anon. (1982). Porcupine expedition to Sherkin Island August 1982. Porcupine Newsletter December: 2: 127-130. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. Coveney J.A. (1993). The second International Cough Survey in Ireland 1992 Irish Birds 5: 1-10. Berrow S. D. and Rogan E. (1998). Incidental capture of cetaceans in Irish waters. Irish Naturalists' Journal 26: 22-31. Berrow S. D. Whooley P. and Ferriss S. (2002). Irish Whale and Dolphin Group Cetacean Sighting Review (1991-2001). 34pp. Irish Whale and Dolphin Group. Blanche E.D. (1915). Some marine algae of County Cork. Irish Naturalist 24: 54-56. Boyle D.P. (1996). A breeding survey of seabirds and other selected species on Cape Clear Island in 1995/96. Cape Clear Bird Observatory Report No. 24: 1995-96. 37-44. Brennan A.T. (1945). Notes on the distribution of certain marine algae on the west coast of Ireland. Irish Naturalists' Journal 8: 252-254. Collins S.P. (1978). Notes on the distribution and ecology of marine Polyzoa from shores in Cork and Kerry. Proceedings of the Royal Dublin Society Series A: 6: 373-383. Collins S.P. (1981). Notes on the distribution and ecology of marine Polyzoa from some shores in Cork and Kerry. Scientific Proceedings of the Royal Dublin Society Series A: 6: 373-383. Connor D.W. (1987). The sublittoral fauna of Long Island Bay south-west Ireland. Creme A.G. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull Larus fuscus in Ireland. Biology and Environment. 97B: 149-156. Cullinane J.P. (1970). Rare algae from the Cork coast. The Irish Naturalists' Journal 16: 278. Cullinane J.P. (1973). Phycology of the South Coast of Ireland. University College Cork Cork University Press. Cullinane J.P. and Whelan P.M. (1984). Marine algal records from the south coast of Ireland - 1. The Irish Naturalists' Journal 21: 302-304. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. de Grave S. (1990). Sublittoral Survey of Selected Sites in</p>	<p>Roaringwater Bay has a wide variety of reef and sediment habitats that are subject to a range of wave exposures and tidal streams. The littoral reef has many estuarine communities that are adapted to conditions of variable salinity. It also has the only recorded Fucus ceranoides community on estuarine mixed eulittoral rock. The infralittoral reef has good examples of the effects of sea urchin grazing on kelp forest with coralline algae. The circalittoral reef communities contain many rare plant and animal species. The cave community on Sherkin Island is home to the rare filamentous red alga Pterosiphonia pennata. The sedimentary communities in Roaringwater Bay are exceptional. Of particular</p>	<p>Roaringwater Bay is a wide shallow bay located in the south-west of Ireland. It is close to the continental shelf and is therefore fed by the clear nutrient-poor waters of the Gulf Stream. There are several offshore islands and rocks which protect inshore areas from the full force of the Atlantic and they are themselves exposed to the prevailing swell on their south-west coasts. Tidal streams are channelled by sounds and narrows such as at Gascanane Sound and tidal currents can be strong. Inner Roaringwater Bay is</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Roaringwater Bay Berehaven (Bantry Bay) and Kenmare River. (Contractor: Aquatic Services University College Cork.). Unpublished report BIM.Duggan C.B. Minchin D. and Gallagher A.F. (1988). T.B.T. Imposex of the dog-whelk from Co. Donegal to Cork to Louth. Irish Marine Science Association 16-17 December Marine Station Portaferry. Earll R.C. and Erwin D.G. (1979). The Species Recording Scheme - results of the 1977 season. Progress in Underwater Science 4: 105-120.Irish Whale and Dolphin Group (2002). IWDG Cetacean Sighting Scheme : Harbour Porpoise. Contract report to Dúchas. Unpublished.Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBT Technical Publication No. 9 Cambridge.Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National parks and Wildlife Service Dublin.Picton B.E. and Costello M.J. (eds.) (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0). Environmental Sciences Unit Trinity College Dublin. (Compact Disc).Polunin O. (1950). Notes and additions to the flora of islands of S.W. Cork. <i>Watsonia</i> 1: 359-363.Praeger R.L. (1934). <i>The Botanist in Ireland</i>. Hodges Figgis Dublin. Raine R. O'Mahony J. McMahon T. and Roden C.M. (1990). Hydrology and Phytoplankton of waters off Southwest Ireland. <i>Est. Coast. Shelf. Science</i> 30: 579-592.Sharrock J.T.R. (1973). (ed.) <i>The Natural History of Cape Clear Island</i>. Poyser Berkhamsted.Site Survey Cards of National Parks and Wildlife Service Dublin. Smyth M. Berrow S. Nixon E. and Rogan E. (2000). Polychlorinated biphenyls and organochlorines in by-caught harbour porpoises <i>Phocoena phocoena</i> and common dolphins <i>Delphinus delphis</i> from Irish coastal waters. <i>Biology and Environment</i> 100B: 85-96.Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. Unpublished report to the Minister of Fisheries Forestry and Wildlife Dublin.van Soest R.W.M. Guiterman J.D. and Sayer M. (1981). Sponges from Roaringwater Bay and Lough Ine. <i>Journal of Sherkin Island</i> 1: 35-49.van Soest R.W.M. and Weinberg S. (1991). Preliminary quantitative assessment of the marine hard substrate communities of Roaringwater Bay. <i>Journal of Sherkin Island</i> 1: 10-26.Wilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. <i>Irish Wildlife Manuals</i> No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp.Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. <i>Irish Wildlife Manuals</i> No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp.Ó Cadhla O. Strong D. O'Keeffe C. Coleman M. Cronin M. Duck C. Murray T. Dower P. Nairn R. Murphy P. Smiddy P. Saich C. Lyons D. and Hiby A.R.</p>	<p>interest is the extensive bed of <i>Lithophyllum dentatum</i> which is the largest in the country and typically contains specimens that are very large and uniquely flattened in form. There are also other maerl communities that are listed under Annex V of the E.U. species and Habitats Directive. There are several seagrass beds (<i>Zostera marina</i>) in Roaringwater Bay including a superb bed in Horseshoe Bay a glacial corrie on Sherkin Island. The bay contains the only reef recorded by BiomMar of the Peacock Worm <i>Sabella pavonina</i> and a wide range of other sediment communities. Steep cliffs with well-developed vegetation occur along the south sides of Clear and Sherkin Islands. Dry Atlantic <i>Erica-Ulex</i> heaths are particularly well developed on the various islands and along sections of the mainland. There is a distinct southerly element in the associated flora. At least nine Red Data Book plant</p>	<p>shallow and sheltered and the seabed is composed of sediments. Bedrock is composed of a series of Devonian Old Red Sandstone reefs that run parallel to troughs of Devonian Carboniferous marine clastics in a north east/south west direction. The bay's south east side is formed by a sublittoral reef emergent as Clear Sherkin and Spanish Islands. Three subsidiary sublittoral reefs within the bay are emergent firstly as the Calf Island archipelago and Hare Island secondly as Carthy's Island and the Skeams and thirdly as the Goat Island/Long Island/Castle Island/Horse Island chain. The effect is one of considerable complexity and diversity. In</p>



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		<p>(2007). An assessment of the breeding population of grey seals in the Republic of Ireland 2005. Irish Wildlife Manuals No. 34. National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 60pp.</p> <p>Ó Cadhla O. and Strong D. (2007). Grey seal moult population survey in the Republic of Ireland 2007. Report to the National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 22pp.</p> <p>Berrow S.D. Hickey R. O'Brien J. O'Connor I. and McGrath D. (2008). Harbour Porpoise Survey 2008. Report to the National Parks and Wildlife Service. Irish Whale and Dolphin Group. 33pp.</p> <p>Leeney R.H. (2007). Distribution and abundance of harbour porpoises and other cetaceans in Roaringwater Bay Co. Cork. Report to the National Parks and Wildlife Service. 23pp.</p> <p>Pollock C. Reid J.B. Webb A. and Tasker M.L. (1997). The distribution of seabirds and cetaceans in the waters around Ireland. JNCC Report No. 267.</p> <p>Reid J.B. Evans P.G.H. and Northridge S.P. (2003) Atlas of Cetacean distribution in north-west European waters. Joint Nature Conservation Committee. 75pp.</p> <p>Rogan E. and Berrow S.D. (1996). Review of Harbour porpoises Phocoena phocoena L. in Irish waters. Report of the International Whaling Commission 46: 595-605.</p> <p>Tregenza N.J.C. Berrow S.D. Leaper R. and Hammond P.S. (1997). Harbour porpoise Phocoena phocoena L. bycatch in set gill nets in the Celtic Sea. ICES Journal of Marine Science 54: 896-904.</p>	<p>species occur five of which are also legally protected. Dianthus armeria occurs at its only known Irish station. The site has a significant breeding population of Halichoerus grypus and Lutra lutra is well distributed. The site is of significance for the occurrence of Phocoena phocoena with relative high abundances recorded and presents high quality habitat for this marine mammal. There is a nationally important breeding population of Pyrrhocorax pyrrhocorax and several pairs of Falco peregrinus. Seabirds breed on the islands with nationally important populations of Fulmar glacialis Phalacrocorax carbo Larus fuscus and Cepphus grylle. Sterna terns have bred in the past and potential habitat still exists. Clear Island has Ireland's only manned bird observatory (established in 1959) and there is a marine research station on Sherkin Island.</p>	<p>addition to cliff and heath vegetation the islands support dry grassland humid grassland some swamp and marsh vegetation and small areas of shingle salt marsh and sand dune. Small lakes occur on Clear and Sherkin Islands.</p>

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000108	The Gearagh SAC	<p>Braun-Blanquet J. and Tuxen R. (1952). <i>Irische Pflanzengesellschaften</i>. Veroff. Gedbot. Inst. Zurich 25 : 224-415. Hewetson and O'Rourke. (1960). The dragonflies of The Gearagh near Cork. <i>Proceedings of the Royal Irish Academy</i> 61(B) : 177. Hickey T. (1982). <i>An Ecological Study to Save The Gearagh</i>. Aer Lingus Young Scientist Competition 1982. (Unpublished). McGough H.N. (1984). Field trip to The Gearagh Macroom Co. Cork 19-21 August 1983. <i>Bulletin of the Irish Biogeographical Society</i> 7 : 55-57. O'Reilly H. (1955). Survey of The Gearagh an area of wet woodland on the River Lee near Macroom Co. Cork. <i>Irish Naturalists' Journal</i> 11 : 274-286. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. I.W.C. Dublin. White J. (1985). The Gearagh woodland Co. Cork. <i>Irish Naturalists' Journal</i> 21 : 391-396. Cross J. (1984). Schedule for Proposed Nature Reserve at The Gearagh Co. Cork. Forest and Wildlife Service Dublin. (Unpublished) Flanagan P.J. and Larkin P.M. (1992). <i>Water Quality in Ireland 1987 - 1990. Part 2 : River Quality Data</i>. Environmental Research Unit Dublin. Shorten M. et al (Eds) (1993-95). <i>Cork Bird Report 1992 1993 1994</i>. I.W.C. Brown A.G. Stone P. and Harwood K. (1995). <i>The Biogeomorphology of a Wooded Anastomosing River: The Gearagh on the River Lee in County Cork Ireland</i>. Occasional Paper (no. 32) for the Department of Geography University of Leicester. McMillan N. (1977). <i>Limosella aquatica</i> L. at the Gearagh West Cork; an addition to the County flora. <i>Irish Naturalists' Journal</i> 19: 53. Goodwillie R. (1986). Report on Areas of Scientific Interest in County Cork. Unpublished report for Cork County Council.</p>	<p>Despite the fact that about half of the original area has been destroyed The Gearagh still represents the only extensive alluvial forest in Ireland or Britain or indeed western Europe west of the Rhine. The aquatic riverine vegetation is also well-developed. The wet woodland is complemented by a fine though small example of an intact oak woodland. The flooded areas are important for wintering waterfowl. <i>Lutra lutra</i> occurs throughout the site.</p>	<p>Site comprises a 7km section of the River Lee and includes the confluence with the River Toon. It is situated in a wide flat valley on a bed of limestone the adjacent valley sides being Old Red Sandstone. The eastern part of the site has been flooded by a dam and is subject to artificial fluctuations in water levels. The most natural remnants of alluvial forest exist upstream of Toon Bridge. Alluvial grassland is frequent at the margins and the site includes some dry woodland cutaway bog and <i>Ulex</i> scrub. Semi-improved grassland is also included as it is used by the waterfowl attracted to the reservoir. At low water levels within the reservoir a spectacular</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				ephemeral mud flora develops.
000111	Aran Island (Donegal) Cliffs SAC	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. &amp; Coveney J.A. (1993). The second international chough survey in Ireland 1992. Irish Birds 5: 1-10.</p> <p>Curtis T.G.F. &amp; McGough H.N. (1988). The Irish Red Data Book 1. Vascular Plants. Stationery Office Dublin.</p> <p>Hart H.C. (1881). On the plants of (North) Aran Island Co. Donegal. Journal of Botany January 1881.</p> <p>Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report to the Forest &amp; Wildlife Service Dublin.</p> <p>NPWS (2010). Desk study of Submerged or partly submerged sea caves features along the Donegal coast. Unpublished report.</p> <p>Praeger R.L. (1932). On the flora of Arranmore Co. Donegal. Irish Naturalists' Journal IV. 50-54.</p> <p>Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co. Dublin.</p> <p>Webb D.A. (1950). A revision of the saxifrages of north-western Europe. Proceedings of the Royal Irish Academy LIII. B: 33.</p> <p>Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. Unpublished An Foras Forbartha Dublin.</p>	<p>The site supports an excellent example of rocky cliff sea cave and cliff associated chasmophytic vegetation habitats in a very exposed situation. The cliff vegetation shows good gradation into alpine heath of Arctostaphylos-Juniperus-Empetrum type. All these are of good quality. It is the only known site for <i>Saxifraga rosacea</i> ssp. <i>hartii</i> a legally protected species. Important populations of <i>Pyrrhocorax pyrrhocorax</i> are found. The site also has <i>Falco peregrinus</i> and breeding seabirds notably <i>Fulmarus glacialis</i>.</p>	<p>Aran Island is a large island approx. 18 km sq situated 2-3 km from the low-lying Donegal mainland. The site comprises the northern and western cliffs and includes a fringe of heath and part of the sea below the cliffs. The cliffs which rise to 150 m are exposed precipitous and continuous. They are well indented with a predominantly north or west facing aspect. Partly immersed sea caves occur along the entire length of the cliffs at regular intervals. Numerous rocks and islets occur off the cliffs. The main landuse of the island is sheep grazing which is causing some damage to the heath and dry grassland</p>

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				communities. The cliffs are composed of Ards quartzite with some igneous intrusions.
000133	Donegal Bay (Murvagh) SAC	<p>Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Falvey J.P. Costello M.UJ. and Dempsey S. (1997). Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National parks &amp; Wildlife Service Dublin. Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp. Lockley R. M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Nat. J. 15: 136-143. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. and Flynn J. (1980). An Assessment Of The Status Of The Common Seal <i>Phoca vitulina vitulina</i> In Ire land. Biological Conservation 17: 115-123. Warner P. (1983). An Assessment Of The Breeding Populations Of Common Seal (<i>Phoca vitulina vitulina</i> L.) In The Republic Of Ireland During 1979. Irish Naturalist's Journal 21: 24-26. Warner P. (1984). Report On The Census Of Common Seals (<i>Phoca vitulina vitulina</i>) In The Republic Of Ireland During 1984. Unpublished report to the Forest and Wildlife Service. Dublin.</p>	<p>The site is a good example of a sheltered estuarine system with extensive intertidal sand and mud flats mostly of good quality. The Murvagh peninsula still has some areas of fixed dunes and humid dune slacks though these dune habitats are only of moderate quality. The population of <i>Phoca vitulina</i> is one of the largest in the country. The site is of some importance for estuarine birds and is visited by <i>Anser albifrons flavirostris</i>. <i>Pyrola rotundifolia</i> a Red Data Book species is found on the site.</p>	<p>This site comprises the extreme inner part of Donegal Bay. Several large rivers notably the River Eske enter the site. It is typically estuarine in character with large expanses of intertidal sand and mud flats channels saltmarsh sand dunes and sandy and shingle beaches. Several grassy islands occur in the site. The site provides habitat for a diversity of estuarine bird species and the islands are used by <i>Anser albifrons flavirostris</i>. The area is underlain by limestone and shale bedrock from the carboniferous era.</p>

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000168	Magheradrumman Bog SAC	Douglas C. Dunnells D. Scally L. and Wyse Jackson M. (1990). A Survey to Locate Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the National Parks and Wildlife Service Dublin.	An excellent example of highland blanket bog including extensive areas of high quality pools and hummocks flush communities wet quaking flats and humid grasslands. Contains a diverse flora including Sphagnum teres S. fuscum and S. imbricatum. Lough Fad contains a population of Salvelinus alpinus. The site has breeding Pluvialis apricaria Caldris alpina and possibly Gavia stellata. Lagopus lagopus and Lepus timidus hibernicus occur on the site. Wet heath vegetation on high ground in southern section of the site is of good quality. Site is of conservation importance as the most northerly example of intact blanket bog in Ireland.	Areas of highland blanket bog and wet heath underlain by metamorphosed sandstone occupying a plateau with gently sloping sides. Situated on the Inishowen peninsula about 4km from the sea the site is probably relatively sheltered from prevailing winds. It is the larger of two blanket bog sites on the peninsula and is probably the most northerly example of this habitat in Ireland. The site also contains oligotrophic lakes.
000185	Sessiagh Lough SAC	Young R. (1973). A Report on Areas of Biological and Geological Interest in County Donegal. Unpublished report to Donegal County Council. An Foras Forbartha Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report to the Wildlife Service Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report Galway. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2 : Vertebrates. HMSO Belfast. Whilde A. (1978). A survey of gulls breeding inland in the west of Ireland in 1977 and 1978 and a review of the inland breeding habitat in Ireland and Britain. Irish Birds 1 (2) : 134-160. Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A repeat survey	A diverse site that supports a range of rare or notable plants (Najas flexilis) birds (Falco peregrinus Anser albifrons flavirostris Sterno hirundo Larus ridibundus) mammals (Lutra lutra) and fish	Situated approximately 0.5km from the sea to the north this site comprises an acid deep stony-bottomed lake with grassy heathy cliffs to the south

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		<p>of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5 : 67-72.kennedy M. and Fitzmaurice P. (1971). Growth and food of Brown Trout Salmo trutta in Irish waters. Proceedings of the Royal Irish Academy 71B No. 18.Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.</p>	<p>(Salvelinus alpinus Salmo trutta). Sessiagh Lough itself contains a number of species characteristic of oligotrophic lakes but also supports several species more usually associated with mesotrophic situations; its trophic status appears to be in a state of flux.</p>	<p>blanket bog to the south-west and improved and humid grassland and scrub to the west. The margins of the lake support little emergent vegetation however a number of aquatic species do occur. The site includes a small rocky islet in the lake with gull and tern colonies. The site is underlain by quartzite.</p>
000189	Slieve League SAC	<p>Birks H.J.B. Birks H.H. and Ratcliffe D.A. (1969). Mountain plants on Slieve League Co Donegal. The Irish Naturalists' Journal 16:203-204.Douglas C. Dunnells D. Scally L. and Wyse Jackson M.B. (1990). A Survey to Locate Lowland-Highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the Wildlife Service Office of Public Works Dublin.Goodwillie R.N. (1981). An Evaluation of the Ecological Importance of Areas of Bogland Adjacent to Slieve League Co Donegal. Unpublished report to Donegal County Council. Conservation and Amenity Advisory Service Dublin.Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report to the Wildlife Service Dublin.Mooney E.P. Goodwillie R.N. and Douglas C. (1991). Survey of Mountain Blanket Bogs of Scientific Interest. Unpublished report to the National Parks and Wildlife Service Dublin.Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488Picton B.E. and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.) Environmental Sciences Unit Trinity College Dublin. (Compact Disc).Young R. (1973). A Report on Areas of Biological and Geological Interest in County Donegal. Unpublished report to Donegal County Council. An Foras Forbartha Dublin.</p>	<p>Slieve League supports good quality lowland and mountain blanket bog and excellent quality alpine heath and sea cliff vegetation. The cliffs above Lough Agh support a very rich and diverse montane flora which includes some very rare vascular plant and bryophyte species. Wet heath is well represented and is notable for the presence of Empetrum nigrum. The site has important examples of infra littoral reefs which support two rare biotopes and a number of uncommon species</p>	<p>Slieve League mountain and the spectacular high sea cliffs which form its southern flank dominate the site. The site supports large areas of both upland and lowland heath and blanket bog as well as smaller areas of dry coastal and damp grassland inland and sea cliffs scree lakes streams shingle sand beach coastal rocks and marine water. The site has a complex geology: the sea</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>including the recently described red alga <i>Schmitzia hiscockiana</i>. The site holds good numbers of several breeding seabird species as well as important populations of <i>Pyrhocorax pyrrhocorax</i> and <i>Falco peregrinus</i>. The site is an important feeding site for <i>Branta leucopsis</i> and <i>Anser albifrons flavirostris</i>.</p>	<p>cliffs are composed of quartzite capped by carboniferous sandstones and conglomerates while the cliffs above Lough Agh are mainly siliceous but with an intrusive outcrop of calcareous schistose rocks. Limestone occurs in the south-western section of the site.</p>
000191	St. John's Point SAC	<p>Costelloe J. and Keegan B.F. (1984). Littoral and benthic investigations on the west coast of Ireland - XIX. Synonymy diagnostic morphology distribution and life-style of <i>Aslia lefevrei</i> (Barrois 1882) (Holothurioidea: Echinodermata). Proceedings of the Royal Irish Academy 84B: 29-35. Holmes J.M.C. McGrath D. Picton B.E. and Mulligan N. (1983). Records of some interesting crabs from the coast of Ireland. Irish Naturalists' Journal 21: 79-81. Nunn J. (1990). Recording Mollusca in Ireland: Sea Area 34. Conchologists' Newsletter 115: 330-333. Nunn J. (1990). The marine Mollusca of Ireland: Donegal June 1989. Conchologists' Newsletter 114: 308-312. Nunn J. (1990). The occurrence of the rare nudibranch <i>Hancockia uncinata</i> (Hesse 1872) at St John's Point Co Donegal. Irish Naturalists' Journal 23: 341-342. Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin. Picton B.E. (undated). Underwater at St John's Point. The Living Countryside 167: 3334 - 3337. Picton B.E. and Brown G.H. (1978). A new species of <i>Cuthona</i> (Gastropoda: Opisthobranchia) from the British Isles. Journal of Conchology 29: 345-348. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488. Southward A.J. and Crisp D.J. (1954). The distribution of certain intertidal animals around the Irish coast. Proceedings of the Royal Irish Academy 57B: 1-29. Young R. (1973). A Report on Areas of Biological and Geological Interest in County Donegal. Unpublished report to Donegal County Council. An Foras Forbartha Dublin.</p>	<p>The site is important for both terrestrial and marine habitats. It contains areas of species-rich limestone pavement. This is a rare habitat in Ireland and particularly so in the north-west. The associated dry calcareous grassland is of high quality and in places rich in orchid species. Several areas of species-rich unimproved wet <i>Molinia</i> meadows are found. This habitat is becoming increasingly rare in Ireland through grassland improvement. Small calcareous marshes and an alkaline fen are found on the site.</p>	<p>A narrow peninsula of carboniferous limestone projecting south-west into Donegal Bay. These limestone rocks are particularly rich in fossils. St. John's Point is exposed to prevailing wind and swells from the west. It drops steeply and in vertical cliffs to 40 m BCD. The predominant vegetation of the site is dry calcareous grassland but limestone pavement</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>St John's Point has very good examples of circalittoral rock communities that are exposed to wave action and contain a number of rare and uncommon species. Most notable are the shallow circalittoral communities that are characterized by the sea fan <i>Eunicella verrucosa</i> and its associated ophistobranch <i>Tritonia nilsodhneri</i> which are common although both are close to the northern limits of their range. Rare species include the sponge <i>Bienna variantia</i> the anemone <i>Aureliania heterocera</i> and the red alga <i>Odontalia dentata</i>. Additional interesting records for the area include the seaslug <i>Hancockia uncinata</i> the nocturnal crab <i>Bathynectes longipes</i> and the anthozoans <i>Paraerythropodium coralloides</i> and <i>Parazoanthus anguicomus</i>. Recent survey suggests that a series of small caves stretches along the south-east coast of the</p>	<p>calcareous marshes lakes coastal heath and unimproved wet grassland also occur. Reef occurs around much of the site but is particularly well developed near the end of the peninsula. Here sea caves are also found.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>infralittoral and circalittoral reef from Black Rock to Portnagh Rock. These also shelter rare species and deserve further exploration. The shallow bay sediment communities in the site range from being sheltered from and exposed to wave action. They are principally composed of maerl gravel formed by Lithothamnion corallioides and populated by rare burrowing anemones (Aureliania heterocera) and starfish (Luidia sarsi). The site is remarkably undisturbed.</p>	
000197	West of Ardara/Maas Road SAC	<p>Bassett A. (1983). Report on the Conservation Value of Irish Coastal Sites: Machair in Ireland. Unpublished report to the Forest and Wildlife Service Dublin. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar survey of Irish machair sites 1996. A report submitted to the National Parks &amp; Wildlife Service Dublin. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139. Curtis T.G.F. (1991). The Flora and Vegetation of Sand Dunes in Ireland. PP. 42-46 in: Quigley M.B. (Ed.) A Guide to the Sand Dunes of Ireland. European Union for Dune Conservation and Coastal Management. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality</p>	<p>An exceptionally diverse large site with a wide range of marine coastal and inland habitats many of which are of very high quality. The site holds several rare or scarce plant and animal species including <i>Najas flexilis</i> which has been recorded from two stations on the site <i>Petalophyllum ralfsii</i> populations of <i>Margaritifera margaritifera</i> <i>Vertigo geyeri</i> <i>Lutra lutra</i> <i>Salmo</i></p>	<p>The site comprises most of the peninsula situated west of the Ardara/Maas road an area of blanket bog lakes and heath to the east of this road two large bays to the north and south of the peninsula the lower section of the Gweebarra River and the island of Inishkeel situated</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Douglas C. Dunnells D. Scally L. and Wyse Jackson M.B. (1990). A Survey to Locate Lowland-Highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the Wildlife Service Office of Public Works Dublin. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-Fronted Geese in Ireland and Britain 1982/83-1993/94 - The First Twelve Years of International Conservation Monitoring. Greenland White-fronted Goose Study and National Parks and Wildlife Service Office of Public Works Dublin. Gallagher K.A. Wheeler A.J. and Orford J.D. (1996). An assessment of the heavy metal pollution of two tidal marshes on the north-west coast of Ireland. Biology and the Environment Proceedings of the Royal Irish Academy 96B: 177-188. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1 : Northern Europe Cambridge UK : BirdLife International (BirdLife Conservation Series No. 8). Lavery T.A. (1993). A review of the distribution ecology and status of the Marsh Fritillary <i>Eurphydryas auriiuia</i> Rottemburg 1775 (Lepidoptera: Nymphalidae) in Ireland. The Irish Naturalists' Journal 24: 192-199. Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Naturalists' Journal 15: 136-143. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Madden B. Cooney T. O' Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6. 177-190. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (Eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland Spring 1999. Irish Birds 7: 53-56. Moorkens E.A. (1998). An inventory of Mollusca in Potential SAC sites with special reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and V. <i>geyeri</i> unpublished report to National Parks and Wildlife Dublin. McCarthy D.T. (1972). The ecology of brown trout and juvenile salmon in the River Owenea Co. Donegal. Irish Fisheries Investigations Series A No 9. O'Reilly P. (1991). Trout and Salmon Rivers of</p>	<p>salar <i>Phoca vitulina</i> and a large population of <i>Eurphydryas aurinia</i>. The site is notable for the many important bird populations that occur including nine species listed on Annex I of Council Directive 79/409/EEC.</p>	<p>1km to the north of the peninsula. Much of the marine component of the site comprises shallow bays estuaries sand and sandflats. A large area of the site comprises a mosaic of blanket bog heath exposed rock lakes and other wetlands and humid grassland but coastal habitats such as sand dunes machair and salt marshes are well represented. Small areas of scrub and broad-leaved deciduous woodland are scattered throughout the site. Many of the coastal sections of the site are underlain by metamorphic rocks and limestone; most of the inland section of the site is underlain by intrusive igneous granodiorites.</p>

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		<p>Ireland: an angler's guide. Merlin Unwin Books London. Rutledge R.F. and Ogilvie M.A. (1979). The Past and Current Status of the Greenland White-Fronted Goose in Ireland and Britain Irish Birds 1:293 -363. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Sheppard R. and Sheppard E. (1985). Neotinea maculata (Desf.) Stearn in County Donegal The Irish Naturalists' Journal 21:534-535. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. and Flynn J. (1980). An assessment of the status of the common seal (Phoca vitulina vitulina) in Ireland. Biological Conservation 17: 115-123. Warner P. (1983). An assessment of the breeding populations of common seal (Phoca vitulina vitulina L.) in the Republic of Ireland during 1979. Irish Naturalists' Journal 21: 24-26. Warner P. (1984). Report on the census of common seals (Phoca vitulina vitulina) in the Republic of Ireland during 1984. Unpublished document to the Forest &amp; Wildlife Service Dublin. Way L.S. Grice P. MacKay A. Galbraith C.A. Stroud D.A. and Pienkowski M.W. (1993). Ireland's Internationally Important Bird Sites. Unpublished report. Joint Nature Conservation Committee Peterborough. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Young R. (1973). A Report on Areas of Biological and Geological Interest in County Donegal. Unpublished report to Donegal County Council. An Foras Forbartha Dublin.</p>		
000202	Howth Head SAC	<p>Anon. (1981). Areas of Scientific Interest in Ireland. An Foras Forbartha Dublin. Akeroyd J.R. (1984). Parapholis incurva a grass overlooked in Ireland. Irish Naturalists' Journal. 21: 5. Merne O. (1988). Sea birds and waterfowl of the Irish Sea. In: The Irish Sea A Resource At Risk. Sweeney C. (ed.) Geographical Society of Ireland Special Publication 3 89-98. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin. Section 231. Speight M.C.D. (1974). Phaonia exoleta new to Ireland. Entomological record 86: 246. Goodwillie R. Ni Lamhna E and Webb R. (1988). A Second Report on Areas of Scientific Interest in County Dublin. Unpublished Report prepared for Dublin Country Council. Goodwillie R. and Fahy E. (1973). A Preliminary Report on Areas of Scientific Interest in County Dublin. Unpublished Report prepared for An Foras Forbartha Dublin. Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. The Dublin Naturalists' Field Club Dublin.</p>	<p>The climate and landforms of Howth combined with proximity to Dublin have resulted in a site of great scientific and education interest. The flora is very diverse with several Red data book species and species of very restricted Irish distribution. The dry heath and sea cliff vegetation is extensive and well developed. A wide variety of seabirds nest on the marine cliffs. Many important scientific studies of the area have been</p>	<p>Howth is a peninsula of cambrian quartzite and slate linked to the mainland by a raised beach. Most of the coast is sheer with many 30m or higher cliffs. Its climate is dry and warm by Irish standards and this is reflected in it's flora and fauna. The proposed SAC occupies the eastern portion and summit of Howth. Much of the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			published.	remaining area is urbanized or used for amenity. The greater part of the site consists of heathland and cliff.
000206	North Dublin Bay SAC	<p>Brunton M. Convery F.J. &amp; Johnson A. (eds) (1987). Managing Dublin Bay. Resource &amp; Environmental Policy Centre University College Dublin. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Doogue D. Nash D. Parnell J. Reynolds S. &amp; Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Jeffrey D.W. (1977). (general editor) North Bull Island Dublin Bay - a modern coastal natural history. Royal Dublin Society Dublin. Jeffrey D.W. Pitkin P.H. &amp; West A.B. (1978). Intertidal environment of northern Dublin Bay. Estuarine and Coastal Marine Science 7: 163-171. Jeffrey D.W. Madden B. Rafferty B. Dwyer R. Wilson J.W. &amp; Allott N. (1992). Algal Growths and Foreshore Quality. Technical Report No. 7. Dublin Bay Water Quality Management Plan. Environmental Research Unit Dublin. Kennedy P.G. (1953). An Irish Sanctuary - Birds of the North Bull. Three Candles Press Dublin. Madden B. (1984). The nitrogen and phosphorus turnover of the Salicornia flat at North Bull Island Dublin Bay. Unpublished BA (Mod) thesis Trinity College Dublin. Madden B. Jeffrey D.W. &amp; Jennings E. (1993). Distribution and ecology of Zostera in County Dublin. Irish Naturalists' Journal 24: 303-309. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Wilson J.G. (1982). The littoral fauna of Dublin Bay. Irish Fisheries Investigations Series B (Marine) No. 26. Wilson J.G. (1982). Distribution biomass and production of bivalves in Dublin Bay. Malacologia 22: 377-384. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>Site possesses an excellent diversity of coastal habitats. The North Bull Island dune system is one of the most important systems on the east coast and is one of the few in Ireland that is actively accreting. It possesses extensive and mostly good quality examples of embryonic shifting marram and fixed dunes as well as excellent examples of humid dune slacks. Both Atlantic and Mediterranean salt marshes are well represented and a particularly good marsh zonation is shown. The salt marshes grade into mudflats and sandflats some of which are dominated by annual Salicornia species. Petalophyllum ralfsii occurs at its only known station away from the western seaboard. The site has five Red Data</p>	<p>The North Bull Island sand spit is a relatively recent depositional feature formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5km long and 1km wide and runs parallel to the coast between Clontarf and Sutton. The sediment which forms the island is predominantly glacial in origin and siliceous in nature. Between the island and the mainland there occurs two sheltered intertidal areas which are separated by a solid causeway constructed in 1964. The seaward side of the island has a fine sandy beach. A substantial area of shallow</p>

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			<p>Book vascular plant species and four Red Data Book bryophyte species. This is one of the most important sites for wintering waterfowl in Ireland with internationally important populations of <i>Branta bernicla horta</i> <i>Calidris canutus</i> and <i>Limosa lapponica</i> plus nationally important numbers of a further 14 species. 20% of the national total of <i>Pluvialis squatarola</i> occurs here. Formerly it had important colony of <i>Sterna albifrons</i>. North Dublin Bay is nationally important for three insect species. The scientific interests of the site have been well documented and future prospects are good owing to the various designations assigned to site.</p>	<p>marine water is included in the site. The interior of the island is excluded from the site as it has been converted to golf courses. The proximity of the North Bull Island to Dublin City results in it being a very popular recreational area. It is also very important for educational and research purposes. Nature conservation is a main landuse within the site.</p>
000210	South Dublin Bay SAC	<p>Brunton M. Convery F.J. &amp; Johnson A. (eds) (1987). Managing Dublin Bay. Resource &amp; Environmental Policy Centre University College Dublin. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Doogue D. Nash D. Parnell J. Reynolds S. &amp; Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Jeffrey D.W. Madden B. Rafferty B. Dwyer R. Wilson J.W. &amp; Allott N. (1992). Algal Growths and Foreshore Quality. Technical Report No. 7. Dublin Bay Water Quality Management Plan. Environmental Research Unit Dublin. Madden B. Jeffrey D.W. &amp; Jennings E. (1993). Distribution and ecology of <i>Zostera</i> in County Dublin. Irish Naturalists' Journal 24: 303-309. O' Brian M. (1991).</p>	<p>Site possesses a fine and fairly extensive example of intertidal flats. Sediment type is predominantly sand with muddy sands in the more sheltered areas. A typical macro-invertebrate fauna exists. Has the</p>	<p>This intertidal site extends from the South Wall at Dublin Port to the West Pier at Dun Laoghaire a distance of c. 5 km. At their widest the intertidal flats</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Use of a Zostera bed in Dublin Bay by Light-bellied Brent Geese 1981/82 to 1990/91. Irish Birds 4: 299-316. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Wilson J.G. (1982). The littoral fauna of Dublin Bay. Irish Fisheries Investigations Series B (Marine) No. 26. Wilson J.G. (1982). Distribution biomass and production of bivalves in Dublin Bay. Malacologia 22: 377-384.</p>	<p>largest stand of Zostera on the east coast. Supports part of the important wintering waterfowl populations of Dublin Bay. Regularly has an internationally population of Branta bernicila horta plus nationally important numbers of at least a further 6 species including Limosa lapponica. Regular autumn roosting ground for significant numbers of Sterna terns including S. dougallii. The scientific interests of the site have been well documented.</p>	<p>extend for almost 3 km. The seaward boundary is marked by the low tide mark while the landward boundary is now almost entirely artificially embanked. Several permanent channels exist the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates while some bedrock shore occurs near Dun Laoghaire. A number of small streams and drains flow into the site. The proximity of the site to Dublin City results in it being a very popular recreational area. It is also important for educational and research purposes.</p>
000261	Derrycrag Wood Nature Reserve SAC	<p>Cross J.R. (1977). Conservation Report on Woodford Forest. Unpublished report to the Forest &amp; Wildlife Service Dublin. Cross J.R. (1979). Schedule for proposed nature reserves at Pollnaknockaun Rosturra and Derrycrag Wood Woodford Co. Galway. Forest &amp; Wildlife Service Dublin. Kelly D.L. (1975). Native Woodlands in Western Ireland with Especial Reference to the Killarney Region. Ph.D. thesis Trinity College Dublin. McCracken E. (1971). The Irish Woods since Tudor Times. David &amp; Charles Netwton Abbot.</p>	<p>The site is of importance since it contains fragments of an ancient oak woodland which until the 1940s was one of the most extensive in Ireland. The relatively fertile soils support the</p>	<p>This site is dominated by a coniferous plantation which contains fragments of old oak woodland. The original ground</p>

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			<p>Coryletosum subassociation of the Blechno-Quercetum a community type which is uncommon in Ireland. The site acts as a refuge for flora and fauna which are otherwise scarce in the locality. The banks of the Woodford River support the Irish Red Data Book species <i>Frangula alnus</i> as well as a number of relatively rare herbs. The site provides an excellent opportunity to re-create an oak woodland.</p>	<p>flora persist beneath the conifers especially where mature <i>Pinus sylvestris</i> occurs. The Woodford River traverses the north-eastern part of the site. The underlying rock is Old Red Sandstone overlain in places by drift. The soils vary from thin acidic podzols to deeper gleyed brown earths.</p>
000278	Inishbofin and Inishshark SAC	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. &amp; Coveney J.A. (1993). The second international Chough survey in Ireland 1992. <i>Irish Birds</i> 5: 1-10.          B.I.M. (2001). Grey seal interactions with fisheries in Irish coastal waters. Report to the European Commission DG XIV. Study 95/40. An Bord Iascaigh Mhara (The Irish Sea Fisheries Board) Dún Laoghaire Co. Dublin. Ireland. 74pp.          Brodie J. &amp; Sheehy-Skeffington M. (1990). Inishbofin : a resurvey of the flora. <i>Irish Naturalists' Journal</i> 23: 293-298.          Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. <i>Irish Wildlife Manuals</i> No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp.          Curtis T.G.F. &amp; McGough H.N. (1988). The Irish Red Data Book 1. Vascular Plants. Stationery Office Dublin.          Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Unpublished Report Dúchas the Heritage Service Dublin.          Grimmert R.F.A. &amp; Jones T.A. (1989). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Hannon C. Berrow S.D. &amp; Coveney J. (in prep.). The All-Ireland 1995 Tern Survey. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol I Part 1. Background Description and Summary of the 1996 and 1998 Surveys. Unpublished Report Dúchas the Heritage Service Dublin.          Hutchinson C.D. &amp; Ruttledge R.F. (1978). The birds of Inishbofin and Inishshark Co. Galway. <i>Irish Birds</i> 1: 211-223.          Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. <i>Irish Naturalists' Journal</i> 15: 136-</p>	<p>Lough Bofin is an excellent example of an isolated sedimentary lagoon with a cobble barrier. This type of lagoon is relatively rare in Ireland. The fauna of the lagoon is poor but this may be due to entirely natural 'island effects'. The flora however comprises a very interesting <i>Ruppia/Lamprothamnion</i> community with 4 lagoonal specialists including a Red Data charophyte. The habitat is in very natural condition well conserved</p>	<p>The site is situated c.5 km off the Galway coast. It comprises two main islands with several islets and stacks and the surrounding waters to 200 m are included. The islands are composed almost entirely of Silurian slates and shales and rise to heights of 89 m (Inishbofin) and 69 m (Inishshark). Inishbofin is inhabited Inishshark</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>142. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Merne O.J. &amp; Walsh A. (1994). Barnacle geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-164. Ó Cadhla O Strong D. and O' Donnell G. (2006). Exploratory surveys for grey seals on islands off northwest Galway and southwest Mayo 2004-05. Report to the National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. Coastal &amp; Marine Resources Centre University College Cork. 9pp. Ó Cadhla O. Strong D. O'Keeffe C. Coleman M. Cronin M. Duck C. Murray T. Dower P. Nairn R. Murphy P. Smiddy P. Saich C. Lyons D. and Hiby A.R. (2007a). An assessment of the breeding population of grey seals in the Republic of Ireland 2005. Irish Wildlife Manuals No. 34. National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 60pp. Ó Cadhla O. and Strong D. (2007). Grey seal moult population survey in the Republic of Ireland 2007. Report to the National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 22pp. Oliver G.A. (1999). Irish Coastal Lagoon Survey. 1998. Vol IV. Aquatic Fauna. Unpublished Report Dúchas the Heritage Service Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co. Dublin. Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. A report to the Minister of Fisheries Forestry and Wildlife. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III Flora. Unpublished Report Dúchas the Heritage Service Dublin. Walsh A. &amp; Merne O.J. (1988). Barnacle geese in Ireland spring 1988. Irish Birds 3: 539-550. Webb D.A. &amp; Hodgson J. (1968). The flora of Inishbofin and Inishshark. Proceedings of the Botanical Society of the British Isles 7: 345-363.</p>	<p>and prospects for maintenance of structure appear excellent. The site supports examples of lowland oligotrophic lakes. A significant population of <i>Halichoerus grypus</i> occurs the fourth largest in Ireland. The site supports regular populations of six Annex I Bird Directive species including breeding <i>Crex crex</i> and a large wintering flock of <i>Branta leucopsis</i>. <i>Calamagrostis epigejos</i> a legally protected plant species plus three other Red Data Book species - <i>Tuberaria guttata</i>, <i>Lycopodium inundatum</i> and <i>Lamprothamnion papulosum</i> occur. The quality of the terrestrial habitats is often poor due mainly to grazing pressures however good examples of wet &amp; dry heaths occur.</p>	<p>was abandoned in the 1960s. The main habitat of the islands is rocky heath. Pasture grassland of varying quality but often wet is frequent on Inishbofin less so on Inishshark. Several small lakes occur on Inishbofin the largest Lough Bofin having a brackish character. The shorelines of the islands vary from bedrock shore to low cliffs. Some sheer cliffs occur at Inishshark. Several sandy beaches occur. The main landuse is grazing by sheep and cattle.</p>
000297	Lough Corrib SAC	<p>Bowman K.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency. Wexford. Breathnach S. and Fairley J.S. (1993). The diet of otters <i>Lutra lutra</i> (L.) in the Clare River system. Biology and Environment 93B: 151-158. Byrne C. Igoe F. Cooke D. O'Grady M. &amp; Gargan P. (2000). The distribution of the brook lamprey (<i>Lampetra planeri</i> Bloch) in the Lough Corrib catchment in the west of Ireland and some aspects of its biology and ecology. Verhandlungen-Proceedings-Travaux: International Association of Theoretical and</p>	<p>The site is of immense importance for the occurrence of scarce and specialised habitats as well as animal and plant species. Lough Corrib is the second largest</p>	<p>Lough Corrib is situated directly north of Galway city and is the second largest lake in Ireland. The lake supports extensive</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Applied Limnology 27 (4): 2066-2070. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Curtis T.F.G. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Government Publications Stationery Office. Dublin. Delaney S. (1997). IWeBS Report 1995-96: Results from the second winter of the Irish Wetlands Bird Survey. BirdWatch Ireland Dublin. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. and Lehane M. (eds.). (1999). Water Quality in Ireland 1995-97. Statistical compendium of River Quality Data Environmental Protection Agency. Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. A.F.F. Dublin. Hannon C. (1997). The 1995 All Ireland Tern Survey. Unpublished Report BirdWatch Ireland. Heuff H. (1984). The Vegetation of Irish Lakes. Internal report Forest and Wildlife Service Dublin. Igoe F. O'Grady M. Byrne C. Gargan P. Roche W. and O'Neill J. (2001). Evidence for the recent extinctions of two Arctic charr <i>Salvelinus alpinus</i> (L.) populations in the west of Ireland Aquatic Conservation: Marine and Freshwater Ecosystems II : 77-92 Irish Fisheries (2001). Irish fisheries angling reports. <a href="http://www.irishfisheries.com/">http://www.irishfisheries.com/</a>: 18th January 2001. Kelly F.L. and King J.J. (2001). A review of the ecology and distribution of three lamprey species <i>Lampetra fluviatilis</i> (L.) <i>Lampetra planeri</i> (Bloch) and <i>Petromyzon marinus</i> (L.) : a context for conservation and biodiversity considerations in Ireland. <i>Biology and Environment</i> 101B: 165-185. Kelly L. Dromey M. and Doak M. (1995). Raised Bog Restoration Project: An investigation into the Conservation and Restoration of Selected Raised Bogs Sites in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Krause W.R. and King J.J. (1994). The ecological status of Lough Corrib Ireland as indicated by physiographic factors water chemistry and macrophytic flora. <i>Vegetatio</i> 110: 149-161. 1994. Kurz I. and Costello M.J. (1996). Current Knowledge on the Distribution of Lampreys and some other Freshwater Fish Species listed in the Habitats Directive in Ireland. Internal report to National Parks and Wildlife. Lucey J. Bowman J.J. Clabby K.J. Cunningham P. Lehane M. MacCarthaigh M. McGarrigle M.L. Toner P.F. (1999). Water Quality in Ireland 1995-97. Environmental Protection Agency. Lucey J. and McGarrigle M.L. (1987). The distribution of the Crayfish in Ireland. <i>Irish Fisheries Investigations. Series A (Freshwater)</i> No. 29. McFadden Y.T. and Fairley J.S. (1984). Food of otters <i>Lutra lutra</i> (L.) in an Irish limestone river system with special reference to the crayfish <i>Austropotamobius pallipes</i> (Lereboullet). <i>Journal of Life Sciences Royal Dublin Society</i> 5: 65-76. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002) Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Mooney E.P. and O'Connell M. (1990). The phytosociology and ecology of the</p>	<p>oligotrophic lake in the country and is a superb example of a hardwater system. The site holds 14 Annex I habitats 6 of these are priority Annex I habitats of the EU Habitats Directive 5 Red Data Book plant species also <i>Drepanocladus vernicosus</i> and <i>Lutra lutra</i> and a rare chironomid <i>Corynorera ambigua</i> good populations of <i>Margaritifera margaritifera</i> <i>Austropotamobius pallipes</i> <i>Petromyzon marinus</i> and <i>Lampetra planeri</i>. The site also supports an important population of <i>Salmo salar</i>. Important for wintering and breeding birds with <i>Anser albifrons flavirostris</i> <i>Sterna hirundo</i> and <i>Sterna paradisaea</i>.</p>	<p>Chara beds many wooded islands and large areas of swamp and fen in the shallow south-east section which lies on limestone. The north-west part is deeper wider and more oligotrophic. Shore is mainly karst bog and small areas of callow. The surroundings are farmland and holiday-home areas. Most of the main rivers and their tributaries which flow into the lake are included within the site including the Abbert Clare Cong Cornamona Dalgan Drimeen Grange Owenwee Owenriff and Sinking rivers. The River Corrib flows from the southern point of the lough into the sea at Galway city.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>aquatic and the wetland plant communities of the Lower Corrib Basin Co. Galway. Proceedings of the Royal Irish Academy 90B (5). Moorkens E. (1995). Mapping of proposed SAC rivers for <i>Margaritifera margaritifera</i>. An internal report for the NPW 1995. O'Reilly P. (1991). Trout and salmon rivers of Ireland: an angler's guide. Merlin Unwin Books London. Roden C. (1979). The vascular flora and vegetation of some of the Islands of Loch Corrib. Royal Irish Academy. Vol. 79 B No. 18. Sheppard R. (1993). Ireland's Wetland Wealth: the birdlife of the Estuaries Lakes Coasts Rivers Bogs and Turloughs of Ireland. Irish Wildbird Conservancy. Stewart N.F. and Church J.M. (1992). Red Data Book of Britain and Ireland: Stoneworts. Joint Nature Conservation Committee. Western Regional Fisheries Board (2001). Historical Catches on the Galway Fishery. <a href="http://www.wrfb.ie/">http://www.wrfb.ie/</a>: January 2001. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO. Belfast.</p>		
000304	Lough Rea SAC	<p>Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Lockhart N.D. (1984). A Report on the Wetland Vegetation of the Dunkellin/Lavelly River Catchment. Unpublished report to the Forest and Wildlife Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.</p>	<p>This marl-depositing calcium lake has a benthic vegetation which is typical of hard oligo-mesotrophic waters. Three Chara species characteristic of calcareous water have been recorded. The lake attracts large numbers of wildfowl including an internationally important population of <i>Anas clypeata</i>. The lake is an important brown trout fishery. Lough Rea is the only large lake in the Dunkellin/Lavelly River catchment.</p>	<p>Lough Rea is a medium-sized lake lying just south of Loughrea town. While lying on limestone the lake is only moderately hard though colour is almost absent and the transparency very high. The lake is fed by a stream and by springs and its outflow ultimately joins the Dunkellin River. Maximum depth is 12m. Reeds, wet grassland and wet woodland occur on the sheltered western and south-eastern shores. The lake is surrounded</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				by fairly intensive pasture farming.
000328	Slyne Head Islands SAC	<p>Berrow S.D. Whooley P. &amp; Ferriss S. (2002). Irish Whale and Dolphin Group cetacean sighting review (1991-2001). Irish Whale and Dolphin Group. 34pp. Berrow S.D. Whooley P. O'Connell M. &amp; Wall D. (2010). Irish cetacean review (2000-2009). Irish Whale and Dolphin Group. 60pp. Costelloe J. and Keegan B.F. (1984). Littoral and benthic investigations on the west coast of Ireland - XIX. Synonymy diagnostic morphology distribution and life-style of <i>Aslia lefevrei</i> (Barrois 1882) (Holothurioidea: Echinodermata). Proceedings of the Royal Irish Academy 84B: 29-35. Hannon C. Berrow S.D. and Coveney J. (in prep.). The All-Ireland 1995 Breeding Tern Survey. Report being prepared for the National Parks &amp; Wildlife Service and the Irish Wildbird Conservancy. Ingram S. Kavanagh A. Englund A. &amp; Rogan E. (2009). Site assessment of the waters of northwest Connemara. A survey of bottlenose dolphins (<i>Tursiops truncatus</i>). Report for the National Parks &amp; Wildlife Service of Ireland. University College Cork Cork. 33pp. I.W.D.G. (1990-2011). Various published and online Irish Whale and Dolphin Group sources. These included all Survey Reports delivered via the PReCast &amp; ShOPS ship survey programmes in addition to information gathered in the ISCOPE (2003-2005) and ISCOPE II (2006-2009) projects. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report to Forest &amp; Wildlife Service Dublin. Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Naturalists' Journal 15: 136-143. Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. Unpublished report to the Minister for Fisheries Forestry and Wildlife Dublin</p>	<p>This is a largely undisturbed site of good quality. It supports good examples of communities of both littoral and sublittoral reefs that are very exposed to moderately exposed to wave action. In addition the complexity of the coastline adds considerably to habitat diversity. The rocky shore has an excellent example of community zonation. Sublittorally the reefs vary in physical structure and extend to depths greater than 40 m giving rise to a diversity of communities. The presence of the red alga <i>Drachiella spectabilis</i> is a good indicator of clear water. Excellent examples of the Axinellid cup sponge community occur. Rare or uncommon species recorded are the red soft coral <i>Alcyonium glomeratum</i> the sea fan <i>Eunicella verrucosa</i> the rose 'coral' <i>Pentapora foliacea</i> the sea squirt</p>	<p>The site extends along the western shore of the Slyne Head peninsula and comprises an archipelago of islands islets rocks and reefs and the surrounding seas. The site is exposed to the full force of Atlantic storms and swells. Strong tidal streams are present along the coast. The shore is complex with a number of islets adjacent or very close to the shore which give rise to a complex set of intertidal reefs which range from being sheltered from wave action to moderately exposed to wave action. The sublittoral reefs range from being moderately sloping to steeply sloping to rugged rock and vertical bedrock and this in turn</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>Diazona violacea the rare sponge Phakellia vermiculata the sponge Lissodendoryx sp. that has not been recorded in Ireland in recent years the hydroid Tamarisca tamarisca Terebratulina retusa and the rare sea slug Aldisa zetlandica. The site also supports part of a significant breeding population of Halichoerus grypus which occurs in the waters off Slyne Head Peninsula. One of the largest colonies of Sterna paradisaea in Ireland (11.3% of national total) as well as c. 0.2% of the national population of Cepphus grylle are found here. Small numbers of other breeding seabirds including Hydrobates pelagicus are also found. The site also provides habitat for the Annex II cetacean species Tursiops truncatus and this includes use by groups of dolphins during the breeding season. Bottlenose Dolphins may be potentially vulnerable to intensification of regional fishing activity via the</p>	<p>reflects the communities present. The islands are mostly low-lying and some have a grassy maritime turf. Sandy coves and areas of shingle occur in places. The islands are uninhabited apart from an automated lighthouse on Illaunamid. Some of the islands are used for sheep grazing.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			removal of key biological resources and entanglement in fishing gear. Recreational boat use or marine tourism activity by the human population may cause disturbance to natural behaviours and impact negatively on the species within the site.	
000343	Castlemaine Harbour SAC	<p>Bracken J.J. (1998). The Killarney Valley. In: Studies of Irish Rivers and Lakes. Essays on the occasion of the XXVII of Societas Internationalis Limnologiae (SIL). Moriarty C. (ed.). Dublin Marine Institute pp. 145-167. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Doris B. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. &amp; Lehane M. (eds.). (1999). Water Quality in Ireland 1995-1997. Statistical compendium of River Quality Data Environmental Protection Agency. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Goodwillie R. (1976). A Preliminary Report on areas of Scientific Interest in County Kerry An Foras Forbartha Dublin. Gresson R.A.R. and O Dubhda S. (1974). The distribution of the Natterjack Toad Bufo calamita Laur in County Kerry. Irish Naturalists? Journal 18: 97-103. Hutchinson C. (1979). Ireland's Wetlands and their Birds Irish Wildbird Conservancy Dublin. Irish Fisheries. (2001). Irish Fisheries angling reports. <a href="http://www.irishfisheries.com/">http://www.irishfisheries.com/</a>: 18th January 2001. Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and Environment - Proceedings of the Royal Irish Academy Section B. 1-32. Kurz I. and Costello M.J. (1999). An outline of the biology distribution and conservation of lampreys in Ireland. Irish Wildlife Manuals No.</p>	Site is of major ecological importance for its diversity and range of coastal habitats and species. The Inch sand spit is the largest and arguably one of the best remaining ?intact? dune systems in the country. The dune systems are highly dynamic and possess very fine examples of embryonic dunes shifting marram dunes fixed dunes and dune slacks. Salt marshes both of the Atlantic and Mediterranean types are also particularly well developed and extensive in area. The site has one of the largest expanses of intertidal sand and mud flats in the country. A fine stand of native alluvial forests occurs on the River Laune. The	This is a large coastal site occupying the innermost part of Dingle Bay in Co. Kerry. The site comprises the estuaries of the Rivers Maine and Laune both substantial rivers and has very extensive areas of intertidal sand and mud flats. The site has a significant sand dune element in the form of Inch and Rosbehy sand spits. These spits which overlie shingle bars form the western boundary to the site and provide effective shelter for Castlemaine

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>5. 27pp. Dublin. Dúchas - The Heritage Service. Lucey J. Bowman JJ. Clabby K.J. Cunningham P. Lehane M. MacCarthaigh M. McGarrigle M.L. &amp; Toner P.F. (1999). Water Quality in Ireland 1995-1997. Environmental Protection Agency Wexford. Maitland P.S. (1980). Review of the ecology of lampreys in northern Europe. Canadian Journal of Aquatic Sciences 37: 1944-1952. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Praeger R.L (1934). The Botanist in Ireland. Hodges Figgis Dublin. O'Connor P.G. and Jeal F. (1984). Some notes on the distribution of Bufo calamita Laur. the natterjack toad in Ireland deriving from a survey conducted in 1975. Bulletin of the Irish Biogeographical Society: 8 30-41. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Went A.E.J. (1947). Irish Salmon 1945. Scientific Proceedings of the Royal Dublin Society 24(19): 165-178. Wymer E.D. (1984). The phytosociology of Irish saltmarsh vegetation. M.Sc. Thesis. National University of Ireland.</p>	<p>fixed dunes have Petalophyllum ralfsii and three Red Data Book vascular plant species are known from the site. Castlemaine Harbour supports important populations of wintering waterfowl with internationally important numbers of Branta bernicla hrota and nationally important populations of a further 16 species. Pluvialis apricaria and Limosa lapponica both listed on Annex I of the EU Birds Directive occur regularly. The site provides habitat for Bufo calamita a very localised species in Ireland and listed in the Red Data Book. The site is also utilized by Lutra lutra and supports important populations of Salmo salar Petromyzon marinus and Lampetra fluviatilis.</p>	<p>Harbour. The Inch sand spit c.5 km in length has a particularly well developed dune system which grades into salt marsh and Spartina swards on the sheltered east side. A further spit on shingle protrudes into the site at Cromane. Salt marsh fringes this spit and continues almost uninterrupted along the south shore to the mouth of the River Laune. All of the River Laune from the estuary to Lough Leane is included in the site. Other habitats which have a minor presence include wet grassland reedbeds heath scrub and wet woodland. Landuses include fishery and aquaculture activities grazing and recreational activities.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
000353	Old Domestic Building Dromore Wood SAC	McAney C.M. (1994). The Lesser Horseshoe Bat In Ireland - Past Present and Future. Folia Zoologica - 43 (4): 387-392. O'Sullivan P. (1994). Bats In Ireland. The Irish Naturalists' Journal. Special zoological supplement. 21pp.	This is the only artificial hibernation site in Ireland and is therefore of national importance. As >200 Lesser Horseshoe Bats ( <i>Rhinolophus hipposideros</i> ) hibernate in this site each year it is a site of international importance.	This site consists of a large three storey stone building situated in Dromore Wood outside Kenmare Co. Kerry. Part of the cellar section was modified in 1989 to create an artificial hibernation site which was soon colonised by small numbers of Lesser Horseshoe Bats. The numbers of bats using the site has now increased to >200 each winter. There is a small resident population of <50 bats all year round. The site is surrounded by woodland - providing both suitable foraging habitat and shelter for bats as they commute to the summer site - currently unknown.
000472	Broadhaven Bay SAC	Colhoun K. (2001). I-WeBS Report 1998-98. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii	Broadhaven Bay encompasses a range of marine and coastal habitats from extremely exposed bedrock at	Broadhaven Bay is a wide north-facing bay situated in the north-west of Ireland. It is

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Common S. hirundo Arctic S. paradisaea and Little Terns S.albifrons in Ireland in 1995. Irish Birds 6: 1-22.Hunt J. Derwin J. Coveney J. &amp; Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath &amp; M.I. Evans eds. Important Bird Areas in Europe: Priority sites for conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8).Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland. Unpublished report Forestry and Wildlife Service Dublin.Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A.(eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. O'Connor B.D.S. (1987). The benthic communities off the west coast of Ireland. Lough Beltra 1986 Proceedings of the 3rd Annual Lough Beltra Workshop GalwayPicton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc).Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>Benwee Head to sheltered sediments in the inner bay. There are good examples of wave-surfed cave communities in shallow water that contain the rare anemone Phellia gausapata. Deeper caves have the rare colonial anemone Parazoanthus anguicomus. There are exposed infralittoral reef communities at the mouth of the bay that are good examples of the progression with depth from kelp forest in shallow water to kelp park to foliose brown algal dominated communities in deeper water. Species richness in these areas can be high (72 species at one station) and there are two species of conservation importance present: the decapod crustacean Pirimela denticulata and the soft coral Alcyonium glomeratum. Axinellid sponge communities in the deep circalittoral reef contain seven species of sponge anthozoan hydroid and brachiopod that are notable. Oysters</p>	<p>approximately 10 km wide at the mouth and 8 km long. The town of Belmullet lies at the western head of the bay. Exposure to prevailing winds and swells at the mouth diminishes toward the head of the bay. Subsidiary inlets along the length of the bay provide further areas of additional shelter. The bedrock is mainly metamorphic schist and gneiss with an intrusion of metamorphic quartzite on the north-west coast. At the mouth of the bay bedrock is emergent among occasional boulders. The size of deposited material in which it is emergent then tends to diminish in size from cobbles and pebbles through gravel and finally to sand at the head of the bay. Sometimes the</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>are present in the seagrass beds north of Ballyglass pier. Other sublittoral sediments and littoral sediments add habitat diversity to the area. Two areas of Atlantic salt meadow of moderate quality occur in the sheltered innermost parts of the bay. The site supports an important population of <i>Sterna sandvicensis</i> and small numbers of <i>Sterna hirundo</i> and <i>Sterna paradisaea</i>. The site is of importance for wintering waterfowl with nationally important populations of <i>Charadrius hiaticula</i>, <i>Pluvialis squatarola</i>, <i>Calidris canutus</i>, <i>Calidris alpina</i>, <i>Calidris alba</i>, <i>Limosa lapponica</i> and at times <i>Branta bernicla hrota</i>.</p>	<p>bedrock is level with the seabed and sometimes stands proud of it forming ridges and gullies. A small island Inishderry occurs in the inner part of the bay. In addition to shoreline habitats there are marginal habitats such as cutaway bog dune grassland and machair and wet grassland.</p>
000474	Ballymaglancy Cave Cong SAC	<p>McAney C.M. (1994). West of Ireland Winter Hibernation Survey 1994. Unpublished report of the Vincent Wildlife Trust London. O'Sullivan P. (1994). Bats in Ireland. The Irish Naturalists' Journal. Special Zoological Supplement - 21pp. Parkes M. (1989). A Summary Guide to the Caves of the Cong and Outlying Caves in North Co. Galway and Co. Mayo with Complete Bibliography. Irish Speleology. No 13. 2-6</p>	<p>This is an excellent and fairly extensive (&gt;500 m) example of a natural limestone cave with associated water areas and flows. The cave is a hibernating site for <i>Rhinolophus hipposideros</i>. With approximately 50 bats</p>	<p>This is a linear stream cave situated outside Cong in County Mayo. It is unrelated to the main Lough Mask Lough Corrib hydrological system arising</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>the site is rated as of international importance. It is possible that bat numbers would increase at this site if disturbance could be reduced.</p>	<p>independently from a small stream flowing off Silurian Sandstone and conglomerates. The cave entrance is approximately 2m high and 3m wide but inside the cave widens and the first 50 m offers several possible routes that eventually converge. Near the entrance there is a good example of Carboniferous colonial coral in the floor next to a roof collapse covered in gour pools. The stream then descends in steps and the passageway is well decorated. There are excellent curtains and other forms.</p>
000479	Cloughmoyne SAC	<p>An Foras Forbartha. (1981). ASI report. Roden C. (1995). Wood bitter vetch <i>Vicia orobus</i> DC. on lake islands and limestone heath in Co.'s Galway (H16H17) and Mayo (H26). Irish Naturalists' Journal. Vol.25 No.4 Pgs 128-134. Loftus M. Keane S. &amp; Higgins J. (1995) SAC internal report to the National Parks and Wildlife Service.</p>	<p>As this site is the only recorded station for <i>Gymnocarpium robertianum</i> in Ireland it is of primary importance. It is also an important station for the legally protected (Flora Protection Order 1987) species <i>Vicia orobus</i>. The</p>	<p>This site lies on the south west slope of a low limestone ridge and spreads southward to include a fen and lake. Where outcrops occur soil cover is thin and supports a variety</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>overall quality of the site is good with a diverse range of habitats and species present within a relatively small area. <i>Rana temporaria</i> a Red Data Book species breeds within this site significantly adding to the overall importance of this site.</p>	<p>of flowering plants usually associated with western limestones which include <i>Gentiana verna</i>. The site also displays calcareous heath elements with <i>Juniper communis</i> <i>Sesleria albicans</i> and <i>Calluna vulgaris</i> locally abundant. <i>Schoenus nigricans</i> dominates the fen with occasional <i>Cladium mariscus</i>.</p>
000497	Flughany Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: Their Ecology Status and Conservation. Unpublished report to the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Internal report to the Forest and Wildlife Service Dublin. Goodwillie R. Buckley P. and Douglas C. (1992). Owenmore River Proposed Arterial Drainage. Environmental Impact Assessment. Botanical and Ornithological Surveys. A report for National Parks and Wildlife Service Office of Public Works Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites In Ireland. An internal report to the National Parks and Wildlife Service Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>Flughany bog is a small raised bog site which contains examples of the Annex I habitats active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). The bog is one of a series of small to medium-sized raised bogs which occur close to the north-westerly limit of raised bog formation along the border between counties Mayo and Sligo. The site supports a good range of raised bog habitats including well-developed pool and hummock area</p>	<p>This area is probably underlain by carboniferous limestone bedrock with low permeability tills with a clayey matrix. The southern section of the site fills a depression between two drumlin ridges while the northern section consists of a thin layer of peat overlying a drumlin ridge.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>flushed areas (including a swallow-hole) and an area with shallow peat overlying a drumlin ridge. The site provides good habitat for both breeding and wintering Gallinago gallinago and also breeding Numenius arquata. Other typical bog fauna includes Lagopus lagopus and Lepus timidus hibernicus.</p>	
000507	Inishkea Islands SAC	<p>Cabot D.B. (1963). The breeding birds of the Inishkea Islands Co Mayo. Irish Naturalists' Journal XIV: 113-115          Cabot D. and West B. (1983). Studies on the populations of Barnacle Geese wintering on the Inishkea Islands Co Mayo. I. Population dynamics 1961 - 1983. Irish Birds 2: 318-337.          Grimmet R.F.A. and Jones T.A. (1989). Important Bird Areas in Europe. ICBP technical publication No. 9 Cambridge.          Merne O.J. and Walsh A. (1994). Barnacle geese in Ireland Spring 1993 and 1994. Irish Birds 5: 151-156.          Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin.          Summers C.F. (1983). The Grey Seal Halicroerus grypus in Ireland. Unpublished report to the Minister for Fisheries Forestry and Wildlife Dublin.          Warner P. (1983). Grey Seal Census at the Inishkea Group and the Blaskets 1984. Unpublished report to the Forest and Wildlife Service Dublin.          Curtis T.G.F. (1991). An inventory of dunes in Ireland. In: Quigley M.B. (ed.) A Guide to the Sanddunes of Ireland. 10-17 European Union for dune conservation and coastal management.          Sheppard R. (1993). Irelands's Wetland Wealth. Irish Wildbird Conservancy.          Madden B. Cooney T. &amp; O'Donoghue A. (1997). Survey of Breeding Waders on Machair Sites in Ireland. Unpublished report to the National Parks and Wildlife Service.</p>	<p>The main habitat on the islands is machair which is considered of good quality and one of the best examples in Ireland. Petalophyllum ralfsii has recently been discovered here. Inishkea Islands together with Inishkeeragh and the Duvillauns hold 33% of the national population of Halichoerus grypus. Internationally important population of Branta leucopsis and nationally important populations of several wintering wader species including Pluvialis apricaria are present. Three breeding tern species (Sterna spp.) some breeding seabirds and important concentrations of</p>	<p>The Inishkea Islands are two low-lying exposed and wind-swept islands separated by a narrow channel. They lie 5km off the Mullet Peninsula. Site includes associated rocks and reefs as well as the surrounding seas. Inishkea North is a ridge of gneiss rising to 30m on the western edge where there are cliffs and gullies. This island is dominated by machair and includes a small lake. The south island is higher with machair on the low</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			breeding waders including <i>Calidris alpina</i> <i>harmatopus ostralagus</i> and <i>Charadrius Riaticula</i> also occur. The Inishkeas are a traditional breeding site of <i>Falco peregrinus</i> .	areas and heath on the higher levels. Both islands have a small sandy bay on the eastern side. The islands were populated until 1932 and the remains of two villages are still visible. Today grazing is the main landuse on the islands.
000575	Ferbane Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance. Stationery Office Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Raised Bogs of Scientific Interest. Internal report to the Forest and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An investigation into the conservation and restoration of selected raised bog sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.	Ferbane Bog is an example of a relatively small raised bog site which contains good examples of the Annex 1 habitats active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). Uncut high bog dominates the site and is surrounded by a narrow band of cutover. approximately 35% of the high bog surface consists of very wet active bog with the remainder degraded but capable of regeneration. Areas of poor-fen vegetation and birch woodland occur on cutover surfaces along the margins of the site	This site is underlain by low permeability Waulsortian limestone bedrock. The subsoils are predominantly low permeability clay rich tills. The bog developed in a basin. This site represents a range in the variation seen in geomorphological setting.

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			and add to the habitat diversity.	
000576	Fin Lough (Offaly) SAC	Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Offaly. Unpublished report prepared for Offaly County Council An Foras Forbartha Dublin. Tubridy M. (1984). Creation and Management of a Heritage Zone at Clonmacnoise County Offaly Ireland. Environmental Sciences Unit Trinity College Dublin. Kelly D.L. and Power V. (1987). Fin Lough. In: The Heritage of Clonmacnoise. Tubridy M. and Jeffrey D.W. (Eds.) Environmental Science Unit Trinity College Dublin.	A diversity of habitats showing the transition from open water fen fen carr and raised bog are exhibited at the site and give rise to a rich diversity of plants and animals. One of the few open water areas in the county the lake is of value for wintering waterfowl. Site supports a population of Vertigo Geyeri and is also important for Chrysogaster macquarti and Platycheirus perpallidus.	A limestone lake surrounded by fen marsh fen carr and grading into surrounding pasture grassland. Drainage works to facilitate peat milling activities adjoining the site have accelerated the seral development from open water to fen and raised bog with large areas of the former lake basin now overgrown by reedswamp and scrub woodland.
000585	Sharavogue Bog SAC	CEC (2007). The Interpretation Manual of European Union Habitats. Version EUR 27. European Commission DG Environment Brussels Nature and Biodiversity. <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a> Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Conaghan J.P. (1995). The ecology of Eriophorum gracile and Eriophorum latifolium in Ireland. Ph.D. thesis National University of Ireland. Conaghan J.P. (1998a). The vegetation and conservation of lagg zones associated with Sharavogue Bog Co. Offaly and Clonfinane Bog Co. Tipperary. Draft report prepared for the National Parks and Wildlife Service Dublin. Conaghan J.P. (1998b). A study of the Vegetation and Ecohydrology of Sharavogue Bog Co. Offaly. Internal report to the National Parks and Wildlife. Dúchas Dublin. Conaghan J.P. (2014). A resurvey of vegetation associated with a lagg area at Sharavogue Bog Birr Co. Offaly. Report prepared for the National Parks and Wildlife Service Dublin. Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014.	Sharavogue Bog SAC is a site of considerable conservation significance comprising two subsites: Sharavogue Bog and Cangort (Kilfrancis) Bog which contain raised bog a rare habitat in the EU and one that is becoming increasingly scarce and under threat in Ireland. It contains good examples of the EU Habitats Directive Annex I habitats Active Raised	Sharavogue Bog (SAC) (236.55 ha) is located about 8km south of Birr Co. Offaly in the Little Brosna Valley. It consists of 2 raised bog sites. The main area Sharavogue Bog covers 223.43 ha while a smaller outlier Cangort (Kilfrancis) Bog is located 4km further south and

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/</a> Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project: A Continuation of the Investigation into the Conservation and Restoration of Selected Raised Bog sites in Ireland. Unpublished report NPWS Dublin. Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin. Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland. Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin. Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS. Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at: <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a> Fossitt J. (2000). A Guide to Habitats in Ireland. The Heritage Council Ireland. Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at: <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a> Moorkens E.A. (1998). An inventory of Mollusca in potential SAC sites with special reference to <i>Vertigo angustior</i> V. <i>mouliniana</i> and <i>V. geyeri</i>. Unpublished report to Duchas The Heritage Service Dublin. NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin. NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin. NPWS (2015a). Sharavogue Bog SAC (site code 000585) Conservation objectives. National Parks and Wildlife Service Ireland. NPWS (2015b). Sharavogue Bog SAC (site code 000585) Conservation objectives supporting document - raised bog habitats. National Parks and Wildlife Service Ireland. NPWS (in prep.) Sharavogue Bog SAC (site code 000585) Draft Raised Bog Restoration Plan. National Parks and Wildlife Service Ireland. O'Connell C. and Mooney E. (1983). Survey to Locate Raised Bogs of Scientific Interest. Internal Report to the Forest and Wildlife Service Dublin. Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatsbosbeheer The Netherlands. Link(s): Coillte LIFE</p>	<p>Bog (7110) Degraded Raised Bog (7120) and Depressions on peat substrates of the Rhynchosporion (7150). The site already supports a good diversity of raised bog microhabitats including some hummock/hollow complexes and rewetted cutover bog. Ireland has a high proportion of the total EU resource of Atlantic raised bog (over 50%) and so has a special responsibility for its conservation at an international level. Along the eastern margins of Sharavogue there is upwelling of base-rich water into the lagg zone and these areas now support carr woodland and calcareous fen vegetation. Areas of wet lagg vegetation such as this are very rare in Western Europe and the lagg system at Sharavogue is one of the best developed in the country. The protected semi-aquatic plant species Slender Cottongrass (<i>Eriophorum gracile</i>) is growing in fen vegetation in the lagg</p>	<p>comprises 13.12 ha. Sharavogue Bog is situated between the River Little Brosna and an elevated ridge of Carboniferous limestone. Sharavogue includes 137 ha of uncut raised bog and 86.43 ha of surrounding areas which include cutover bog wet grassland semi-natural woodland and an area of wet lagg vegetation in the cutover along the eastern margin of the bog. The bog is underlain by low permeability limestone and limestone till. Groundwater upwells at the base of the ridge that occurs to the east of the bog. Cangort (Kilfrancis) Bog is the part of Cangort Bog NHA (000890) and it has been restored as part of an EU LIFE project. The site consists of 2.53 ha of high bog</p>

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		<p>Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland:  <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>zone while the nationally rare shrub Alder Buckthorn (<i>Frangula alnus</i>) occurs in dry bog woodland on cutaway. Although the Cangort (Kilfrancis) Bog subsite of the SAC is small (13.12 ha) and currently lacks annex habitats full restoration measures have been implemented and it has the potential to support the retention of Degraded Raised Bog in Cangort Bog NHA (000890).</p>	<p>and 10.59 ha of cutover most of which was afforested in the 1970s. The underlying geology is carboniferous limestone. Sharavogue Bog is one of the few remaining raised bogs in Ireland situated on a floodplain. It has a well-developed dome of uncut peat which is long and relatively narrow. Active Raised Bog (ARB) is confined to the more southern central part of the dome covers 25.8 ha but lacks any areas of central ecotope as a result of long-term drying out caused by peat cutting and marginal and river drainage. In addition drains were inserted across about 60% of the high bog dome in the early 1990s. All the drains on the high bog and many of the drains on the</p>



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				<p>           south eastern area of the cutover were dammed in the late 1990s as part of an EU Cohesion project to restore peat forming conditions on the high bog and cutover. The bog surface has also been damaged by burning in the past and there are invasive native and non-native species are present on the bog dome. The dominant micro-topography consists of Sphagnum hummocks and hollows. Pools are scarce and Sphagnum cuspidatum filled lawn-like depressions are very occasional. Rhynchosporion depressions (7150) are open pioneer type vegetation communities of wet depressions on acid peat in both natural and man modified situations. Rhynchosporion vegetation occurs         </p>

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				along pool edges (very scarce in Sharavogue Bog) on lawns and hollows underlain by deep wet and quaking peat. Cangort Bog NHA is a remnant of a larger area of bog much of which has now been cutover and reclaimed for forestry and agriculture. In the SAC section of the NHA all the afforested areas on the high bog and cutover were clear-felled and the associated drains blocked in 2014. Site specific conservation objectives have been set for Sharavogue Bog SAC for Active Raised Bog. One of the key targets is to restore the area of Active Raised Bog to 40.9 ha and it has been determined using modelling techniques that there is potential for 14.7 ha of

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				<p>Degraded Raised Bog to be restored to Active Raised Bog on the high bog following restoration measures. There is also long-term potential for 0.4 ha of Bog peat-forming habitats (BPFH) to develop if restoration measures are undertaken on cutover areas. A restoration plan has been developed to achieve these targets. Detailed objectives have yet to be developed for the Cangort (Kilfrancis) subsite of the SAC but will be produced as part of the restoration plan for the Cangort Bog NHA site. Cangort (Kilfrancis) Bog is being actively managed for conservation by the landowner Coillte as part of an EU LIFE Project and most of the required restoration</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				measures have already been carried out. Sharavogue Bog is part of the current NPWS Restoring Active Raised Bog in Irelands SAC Network 2016-2020 (LIFE NAT/IE/000032).
000597	Carrowbehy/Caher Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance Dublin. Douglas C. and Grogan H. (1985). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Part II. Internal report to the Forest and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report for the National Parks and Wildlife Service Dublin. Lavery T.A. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottenburg 1775 (Lepidoptera: Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-199. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. van Swaay C.A.M. and Warren M.S. (eds.) (2003). Prime Butterfly Areas in Europe - Priority Sites for Conservation. National Reference Centre for Agriculture Nature and Fisheries Ministry of Agriculture Nature Conservation and Fisheries the Netherlands.</p>	Carrowbehy/Caher Bog is an important example of a medium-sized raised bog site which contains examples of the Annex I habitats active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). Other important habitats which occur within the site include dry heath and alkaline fen. Along the south-eastern edge of the northern lobe there is an area of semi-natural lagg which supports alkaline fen and poor fen vegetation. Lagg areas such as this are of great interest in terms of hydrology and vegetation and are now very rare features of raised bog systems in Ireland. The relatively rare sedge	This site is probably underlain by lower carboniferous limestone with increasing shale content towards the top. The increasing shale corresponds to decreasing permeability. The subsoils are dominated by glacial till and fluvio-glacial deposits with a moderate to high permeability. An impermeable iron pan has been noted which probably allowed peat development. The bog has developed in a depression between drumlin ridges to the east. A

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Rhynchospora fusca has been recorded from wet pools within the site and Lagopus lagopus a Red Data Book species has also been noted.	thin layer of peat has developed over a drumlin ridge forming a heath. Part of the cutover bog has been converted to improved grassland but is included in the site for hydrological reasons.
000609	Lisduff Turlough SAC	Goodwillie R. & Fahy E. (1974). A Preliminary Report on Areas of Scientific Interest in Co. Roscommon. Unpublished report for Roscommon County Council. An Foras Forbartha.Hutchinson C. (1979). Ireland's Wetlands & their Birds. Irish Wildbird Conservancy Dublin.Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation survey and evaluation. Unpublished report to National Parks and Wildlife Service.Sheppard R. (1993). Irelands Wetland Wealth. Irish Wildbird Conservancy Dublin.	The turlough has a good zonation of oligotrophic vegetation which is unusual. It also is very little modified by grazing or drainage and lies in a thinly populated area. It has more breeding waders (including dunlin) than other sites of comparable size and in winter supports a good diversity and population of wildfowl.	Lisduff lies in a shallow basin among low hills of glacial drift and occasional rock outcrops (as on the north-east side). There is a semi-permanent inflow from the north-west arm and the site is relatively wet with good development of fen peat. Ground water is highly calcareous and there is precipitation of marl (CaCo3). The site is highly oligotrophic and not much grazed.
000612	Mullygollan Turlough SAC	Goodwillie R.N. & Fahy E. (1974). Preliminary Report on Areas of Scientific Interest in Co Roscommon. Unpublished report to Roscommon County Council. An Foras Forbartha.Bilton T.A. and Lott D.A. (1991). Further records of aquatic Coleoptera	The site has considerable diversity of habitat and intrinsic interest	The turlough lies in a shallow basin with rock outcrops along

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>from Ireland. Irish Naturalists' Journal 23(10) : 389-397. Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.</p>	<p>although it is relatively small. It is the only turlough known with Carex aquatilis. It is one of a group of similar sites around Castleplunket which share the winter bird populations described. It also supports four species of nesting waders.</p>	<p>its northern edge. A semi-permanent stream enters from the west and flows to a swallow hole in rock. The floor retains a high water table with ditches in summer and there is significant peat accumulation. Fen vegetation covers this peat: there is little formation of marl (CaCo3) at present.</p>
000614	Cloonshanville Bog SAC	<p>Cros J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Part I. Internal report to the Forest and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project. An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the Parks and Wildlife Service Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>Cloonshanville Bog is a medium-sized raised bog site which contains good examples of the Annex I habitats bog woodland active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). The area of bog woodland is dominated by Betula pubescens and has a wet Sphagnum-rich ground flora. This woodland has developed along an extensive linear drainage feature and ranks as one of the most extensive and well-preserved examples of wet bog woodland in the country.</p>	<p>This site is probably underlain by low permeability clayey carboniferous limestones. The sub-soil geology of the area is dominated by clayey tills and clays. The bog developed in a shallow basin in a ground water discharge zone. The regional water table has been lowered but evidence of ground water inputs are seen on and around the high bogs. Part of the cutover bog has</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			The ombrotrophic bog habitats present are of good quality and support large populations of the rather rare Sphagnum pulchrum. An area of calcareous fen which occupies the site of a former lake adds to the overall ecological interest of the site. The bog supports breeding Gallinago gallinago.	been converted to improved grassland but is included in the site for hydrological reasons.
000622	Ballysadare Bay SAC	Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Cawley M. (1996). Notes on some non-marine mollusca from Co Sligo and Co Leitrim including a new site for Vertigo geyeri Lindholm. Irish Naturalists' Journal 25: 183-185. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks & Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Gaynor K. and Browne A. (1999). Survey of Irish Links Golf Courses. Unpublished report for Dúchas the Heritage Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Sligo. An Foras Forbartha Dublin. Goodwillie R. Buckley P. and Douglas C. (1992). Owenmore River. Proposed Arterial Drainage Environmental Impact Assessment. Botanical and Ornithological Surveys. Unpublished report for National Parks & Wildlife Service Dublin.	This large site displays an excellent diversity of coastal habitats. The estuarine and intertidal sand and mud flat habitats are typical of the region and are extensive in area and of good quality. The sand dune system is highly dynamic with the tip of the peninsula actively growing and displaying a good though limited example of embryonic shifting dunes. The shifting marram dunes are fairly extensive in area and are also displaying signs of growth. An area of fixed dunes of moderate size also occurs which has a flora typical of western dunes. A small area of	Ballysadare Bay is the most southerly of the three inlets of Sligo Bay. It is the estuary of the Ballysadare River which receives the flows of the Unshin Owenboy and Owenbeg rivers. The Ballysadare River flows through the small town of Ballysadare before entering the bay. It is a large site extending along a 10 km south-east to west-north-west axis from Ballysadare town to the sea at Marley's Point. The bay has an average width of c.2 km. A sand dune

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		<p>Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Naturalists' Journal 15: 136-143. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge.</p> <p>Moorkens E.A. (1997). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and V. <i>geyeri</i>. Unpublished report National Parks &amp; Wildlife Service Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. and Flynn J. (1980). An assessment of the status of the common seal (<i>Phoca vitulina vitulina</i>) in Ireland. Biological Conservation 17: 115-123. Warner P. (1983). An assessment of the breeding populations of common seal (<i>Phoca vitulina vitulina</i> L.) in the Republic of Ireland during 1979. Irish Naturalists' Journal 21: 24-26. Warner P. (1984). Report on the Census of Common Seals (<i>Phoca vitulina vitulina</i>) in the Republic of Ireland during 1984. Unpublished document to the Forest and Wildlife Service Dublin.</p>	<p>humid dune slack remains. Actively developing dune systems are rare in western Ireland. Site is important for occurrence of the Annex II mollusc <i>Vertigo angustior</i>. A nationally important colony of <i>Phoca vitulina</i> also occurs. An excellent diversity of waterfowl winter at site including two Annex I Bird Directive species (<i>Pluvialis apricaria</i> <i>Limosa lapponica</i>). Six other species winter in nationally important numbers and there is an internationally important population of <i>Branta bernicla horta</i>. A number of localised insect species are known from the site.</p>	<p>spit extends into the outer bay at Culleenamore restricting the outlet to the sea to a width of c.700 m. Other habitats present include salt marshes small saline lakes or ponds dry grassland wet grassland reedbeds and scrub. Recreation is a main landuse within the site.</p>
000623	Ben Bulbin Gleniff and Glenade Complex SAC	<p>Goodwillie R.N. (1978). Areas of Scientific Interest in County Leitrim. Unpublished report to Leitrim County Council. An Foras Forbartha Dublin. Stelfox A.W. (1965). <i>Salix hibernica</i> Rechinger f. The Irish Naturalists' Journal 15:25-29. Barrington R.M. and Vowell R.P. (1885). Report on the flora of Ben Bulbin and the adjoining mountain range in Sligo and Leitrim Proceedings of the Royal Irish Academy. 2nd series. 4: 493-517. Synnott D.M. (1984). Notes on <i>Salix phylicifolia</i> L. and related Irish willows Glasra 7: 1-10. Corry T.H. (1884). On the heights attained by plants on Ben Bulbin Proceedings of the Royal Irish Academy. 2nd series. 4: 73-77. Kirby N. Lockhart N. and Synnott D.M. (1980). Bryological observations at Gleniff County Sligo (H28) Bulletin of the Irish Biogeographical Society 4: 30-32. Curtis T.G.F. Goodwillie R.N. and Young R. (1978). Areas of Scientific Interest in County Sligo. Unpublished report to Sligo County Council An Foras Forbartha Dublin.</p>	<p>The site holds the finest examples of limestone cliffs in the country. These and the scree slopes below are home to extremely species-rich and diverse montane vascular plant bryophyte and lichen floras which include many Red Data Book species and species known only from this or one or two other sites in</p>	<p>The site comprises a high plateau of carboniferous limestone capped by shale standing 300-650 metres above the surrounding country and sloping gently to the south-east. The edges of the plateau form steep high cliffs</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>the country. The site holds a large number of perifying springs an extensive area of dry heath and a small area of alpine heath; much of the blanket bog on the site is eroding and of rather low quality. Several populations of the rare mollusc <i>Vertigo geyeri</i> have recently been recorded from calcareous flushes within the site-these comprise the first records for Co. Leitrim. The occurrence of four pairs of <i>Falco peregrinus</i> breeding on the site is notable. The site is also utilised by <i>Lutra lutra</i>. The site has a little known but potentially interesting invertebrate fauna. The site is the type locality for the Ben Bulbin shale the Glencar limestone and the Dartry limestone.</p>	<p>below which is found a skirt of scree. The cliffs and scree hold a rich diversity of arctic-alpine plants; the plateau is less diverse but does have extensive areas of blanket bog and heath with rock outcropping frequently. A large number of streams drain the site many of which form waterfalls. Glencar Lough a medium-sized lake is found on the southern side of the site. Wet and dry grassland scrub broad-leaved deciduous flushes swallow holes and small areas of fen and limestone pavement are also found on the site. Disused barytes workings occur above Gleniff valley.</p>
000633	Lough Hoe Bog SAC	<p>Douglas C. Garvey L. Kelly L. O'Sullivan A. and Van Doorslaer L. (1989). A Survey to Locate Blanket Bogs of Scientific Importance in County Kerry and County Sligo. Unpublished report to the Wildlife Service Office of Public Works Dublin. Colgan N. (1896). On the Flora of the Ox Mountains Co. Sligo. Irish Naturalist 5 : 301-308. Cawley</p>	<p>The blanket bog on the site comprises a relatively intact example of the montane type. The</p>	<p>An area of undulating blanket bog and heath-covered rocky</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>M. (1996). Notes on some non-marine mollusca from Co Sligo and Co Leitrim including a new site for <i>Vertigo geyeri</i> Lindholm. Irish Naturalists' Journal 25: 183-185. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part One General Assessment. Environmental Research Unit Dublin. Whilde A. Cotton D.C.F and Shepperd J.R. (1993). A repeat survey of gulls breeding in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p>	<p>diversity of vegetation communities and plant species is comparatively low and microtopographical features of the blanket bog are generally quite poorly developed. Lough Talt and other areas of standing water on the site are good examples of unpolluted acidic oligotrophic lakes. Lough Talt holds a population of the rare Arctic Charr (<i>Salvelinus alpinus</i>) and a population of <i>Austropotamobius pallipes</i>. The rare Red Data Book species Oak Fern (<i>Gymnocarpium dryopteris</i>) has been recorded from the site and the rare snail <i>vertigo geyeri</i> occurs on its northern side.</p>	<p>ridges on a lake-studded plateau in the Ox Mountains. Lough Talt the largest lake on the site is situated on lower ground at the North-eastern end of the site. Many streams and rivers drain the site. Some 50% of the site supports wet and dry heath while blanket bog covers most of the rest of the site. The underlying geology is of granite gneiss and schist the latter giving rise to a small area of fen vegetation near Lough Talt.</p>
000641	Ballyduff/Clonfinane Bog SAC	<p>Conaghan J.P. (1998). A Study of the Vegetation and Ecohydrology of Clonfinane Bog Co. Tipperary. Internal report to National Parks and Wildlife Dublin. Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report for National Parks and Wildlife Service Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Raised Bogs of Scientific Interest. Internal report to the Forest and Wildlife Service Dublin. O'Connell C. and Doyle G.J. (1990). Local vegetation history of a pine woodland on Clonfinane Bog County Tipperary. Pp. 23-40 in: Doyle G.J. (ed.). Ecology</p>	<p>Ballyduff/Clonfinane Bog is a medium sized raised bog which contains good examples of the Annex I habitats active raised bog degraded raised bog depressions on peat substrates (<i>Rhynchosporion</i>) and bog woodland. The central parts of both sub-sites are very wet and</p>	<p>This site is underlain by low permeability Waulsortian limestones. Clayey tills black lake clays and laminated lake clays dominate the subsoils. The bog has developed in a number of former shallow laustrine</p>

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		and Conservation of Irish Peatlands. Royal Irish Academy Dublin.	there are very good pool complexes especially at Clonfinane. At Clonfinane there is some potential for the development of lagg vegetation along the northern margins of the site where the peat depth appears to be naturally shallow. Although parts of the site have been drained in the past there has been significant restoration of the high bog areas in the Clonfinane portion of the site. The nationally rare shrub <i>Frangula alnus</i> grows in tall <i>Betula pubescens</i> woodland along the northern margins of Clonfinane.	basins which coalesced over low ridges.
000647	Kilcarren-Firville Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance. Stationery Office Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Raised Bogs of Scientific Interest. Internal report to the Forest and Wildlife Service Dublin.	Kilcarren-Firville Bog is a relatively large raised bog site which contains good examples of the priority Annex I habitat active raised bog and the non-priority habitats degraded raised bog and depressions on peat substrates (Rhynchosporion). The quality of these habitats is good and in addition there is a large area of surrounding cutover which contains a number	This site is underlain by low permeability Waulsortian limestone bedrock with low permeability clayey limestone tills dominating the subsoil. Peat developed in a number of basins which coalesced over low ridges. This has led to the development of

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>of regenerating areas and some areas of well-developed scrub. These scrub areas provide habitat for a population of the nationally rare shrub <i>Frangula alnus</i>. Of particular hydrological note is the presence of infiltration zones along the margins of the site. These could potentially be developed into lagg areas in the future.</p>	<p>infiltration areas along the northern edges.</p>
000679	Garriskil Bog SAC	<p>CEC (2007). The Interpretation Manual of European Union Habitats. Version EUR 27. European Commission DG Environment Brussels Nature and Biodiversity. <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin.Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/</a>Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin.Douglas C. and Grogan H. (1986). Survey to locate raised bogs of scientific interest in Counties Longford Westmeath and Mayo. Unpublished report to the Forest and Wildlife Service Dublin.Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014a) Raised Bog Monitoring and Assessment Survey 2013 - Garriskil Bog – Site Report. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014b) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin.Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning</p>	<p>Garriskil Bog SAC is a site of considerable conservation significance comprising two subsites Garriskil Bog and Derrya Bog which contain raised bog a rare habitat in the EU and one that is becoming increasingly scarce and under threat in Ireland. It contains good examples covering significant areas of the EU Habitats Directive Annex I habitats Active Raised Bog (7110) Degraded Raised Bog (7120) which is being restored to the priority Annex 1 habitat Active raised bog (7110) and Depressions on peat substrates of the Rhynchosporion (7150).</p>	<p>Garriskil Bog SAC (347.71 ha) consists of two raised bog sites. The main area is Garriskil Bog which covers 324.81 ha and lies 3 km east of Rathowen in Co. Westmeath A small outlier Derrya Bog covers 22.90 ha and lies 2.2 km to the east of Garriskil on the northern shore of Lough Derravaragh. Both bogs are remnants of the large river floodplain bogs which developed where the River Inny enters and leaves Lough</p>

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		<p>M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at:  <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a></p> <p>Fossitt J. (2000). A Guide to Habitats in Ireland. The Heritage Council Ireland.</p> <p>Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin.</p> <p>Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at:  <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a></p> <p>National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p> <p>NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin.</p> <p>NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.</p> <p>NPWS (2008). Conservation Plan 2004-2009: Garriskil Bog cSAC and SPA. Draft 2. Department of Environment Heritage and Local Government.</p> <p>NPWS (2013). The Status of EU Protected Habitats and Species in Ireland. Version 1.0. Unpublished Report National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin Ireland.</p> <p>NPWS (2015a). Garriskil Bog SAC (site code 000679) Conservation objectives. National Parks and Wildlife Service Ireland.</p> <p>NPWS (2015b). Garriskil Bog SAC (site code 000679) Conservation objectives supporting document - raised bog habitats. National Parks and Wildlife Service Ireland.</p> <p>NPWS (in prep.) Garriskil Bog SAC (site code 000679) Draft Raised Bog Restoration Plan. National Parks and Wildlife Service Ireland.</p> <p>Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatsbosbeheer The Netherlands.</p> <p>Wilson H.J. (in prep.). Birds of Raised Bogs. Review document in preparation. National Parks &amp; Wildlife Dublin.</p> <p>Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland: <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>The site already supports a large area of high quality raised bog microhabitats which is unusual for a site in the east Midlands including some very well developed hummock/hollow complexes and has a large area with the potential for restoration to Active Raised Bog. Although the Derry Bog subsite of the SAC is small (22.3 ha) and lacks annex habitats it has been restored and has the potential to support the retention of Active Raised Bog and the restoration of Degraded Raised Bog to Active Raised Bog in Lough Derravaragh Bog NHA (000684). Ireland has a high proportion of the total EU resource of Atlantic raised bog (over 50%) and so has a special responsibility for its conservation at an international level.</p>	<p>Derravaragh. Garriskil Bog is considered to be an excellent example of a Midland raised bog and it includes 170.26 ha of uncut raised bog and 154.55 ha of surrounding hinterland which includes 109 ha of cutover bog. Derry Bog which is part of Lough Derravaragh Bog NHA (000684) has been restored as part of an EU LIFE project. The site consists of 2.5 ha of high bog and 20.4ha of cutover most of which was afforested in the 1970s. All the conifer plantations were recently clear-felled and restored by drain-blocking. The bedrock geology of both sites is carboniferous limestone. Garriskil Bog is a large raised bog with 51.7% of the original bog still present. It contains a large wet high</p>

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				<p>quality central core of Active Raised Bog (ARB) amounting to 50.87ha. There are extensive well developed systems of pools and hummocks present. Outside the Active Raised Bog area pool complexes are rare and where they do occur they tend to be dominated by shallow open water or algal mats. In a number of places the high bog is being invaded by Downy Birch (<i>Betula pubescens</i>) and pines. The large areas of old cutover bog provides an additional habitat where Purple Moor-grass and Heather dominate along with cottongrasses while in some parts Downy Birch woodland is developing. Along the north-east margin of the high bog a narrow band of fen-grassland</p>

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				<p>occurs. Past drainage of the bog associated with arterial drainage of the Inny and Riffey rivers and peat cutting has unfavourably impacted on the site and lead to widespread subsidence and drying out. The northern area of the site was also affected in the 1990s by intensive surface drainage which directly affected the area of Active Raised Bog reducing it from 71.23 to 45.12 ha. Those drains were blocked by NPWS in the late 1990s and by 2014 the area of Active Raised Bog had increased by 5.75 ha to 50.87 ha. There has been no turf cutting since the 1990s and though burning has caused damage in the past there has been no severe fire in recent years. Grazing cattle have</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>caused some local poaching damage to the bog surface. The Derrya outlier is within Lough Derravaragh Bog NHA (000684). Lough Derravaragh Bog is a remnant of a larger area of bog much of which has now been cutover and reclaimed for forestry and agriculture with only 48 ha (approximately 40%) of high bog remaining. A small area of Active Raised Bog habitat (4.61 ha) is present and based on hydrological modelling an area of 2.1 ha is considered to be Degraded Raised Bog. In Derrya Bog both the high bog and cutover were planted with a closed canopy plantation of Sitka Spruce (<i>Picea sitchensis</i>) in the 1980s. This conifer plantation was clear-felled in 2011</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>and the drains were blocked with peat dams in 2013 as part of an EU LIFE project. As a consequence water-levels have risen and some raised bog vegetation has returned to the wetter areas of the high bog. These areas contain Ling Heather Hare's tail Cotton-grass (<i>Eriophorum vaginatum</i>) Bilberry Purple Moor-grass and Tormentil (<i>Potentilla erecta</i>) with the Bog mosses <i>Sphagnum palustre</i> and in the wet drains <i>Sphagnum recurvum</i>. There is some scattered Birch and Sitka Spruce regenerating and these are being controlled. On the cutover now that the conifers have been clear-felled it is expected that most of this area will develop into dry native broadleaf</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>                     woodland but 4.5 ha may be wet enough to support Wet Birch                      woodland and 1.44 ha of Alder (<i>Alnus glutinosa</i>) - Willow (<i>Salix</i> spp.)                      woodland along the western cutover. A site specific restoration plan has been developed for Garriskil Bog SAC to help meet the national conservation objectives for raised bogs. One of the key objectives of that plan is to restore the area of Active Raised Bog to 84.9 ha. The area of Active Raised Bog was reported as 50.9 ha during the latest monitoring survey (Fernandez et al 2014a) and it has been concluded that there is 31.6 ha of Degraded Raised Bog on the high bog which can be restored to Active Raised Bog with the appropriate restoration                 </p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>measures. There is also long-term potential for 2.4 ha of bog peat-forming habitats (BPFH) to develop if restoration measures are undertaken on cutover areas. Detailed conservation objectives have yet to be developed for the Derrya Bog subsite of the SAC but will be produced as part of the restoration plan for the Lough Derravaragh Bog NHA site. Derrya Bog is being actively managed for conservation by the landowner Coillte as part of an EU LIFE Project and most of the required restoration measures have already been carried out. An After LIFE management plan is being developed by Coillte for the future conservation</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				management of that part of the SAC. Garriskil Bog is part of the current NPWS Restoring Active Raised Bog in Irelands SAC Network 2016-2020 (LIFE NAT/IE/000032).
000692	Scragh Bog SAC	Lavery T. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottemburg 1775 (Lepidoptera: Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-198. O'Connell M. (1980). The developmental history of Scragh Bog Co. Westmeath and the vegetation of its hinterland. New Phytologist 83: 301-309. O'Connell M. (1981). The phytosociology and ecology of Scragh Bog Co. Westmeath. New Phytologist 87: 139-187. Speight M.C.D. and Logan B. (1979). <i>Arcometopia wahlbergi</i> <i>Clusoides caledonica</i> and <i>Stigmella catharticella</i> : insects new to Ireland. Irish naturalists' Journal 19(11): 401-402. Speight M.C.D. and Legrand J. (1984). <i>Coenagrion lunulatum</i> . (Odonata): morphology of the female and notes on a second Irish colony. Irish Naturalists' Journal 21 (6) : 237-242.	A small but exceptionally fine example of fen habitat with transitions to transition mire fen carr and ombrotrophic bog. Very little disturbance and in a near-natural condition the site contains a rich diversity of species including 3 Red Data plants several national rarities and an interesting invertebrate fauna. Probably the best example of its type in Ireland.	This area is a wet transition mire with a floating root mat developed in a small oval shaped depression. The fen is fed by weak surface springs and drains by an artificially defined outlet. The surrounding lands are agricultural grasslands primarily used for cattle grazing.
000697	Bannow Bay SAC	Goodwillie R. (1979). A preliminary Report on Areas of Scientific Interest in County Wexford. Unpublished. An Foras Forbartha Dublin. Bowman K.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency. Wexford. Colhoun K. (1998). IWeBS Report 1996-1997: Results of the Third Winter of the Irish Wetland Bird Survey. IWC BirdWatch Ireland Dublin. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland - their types and distribution. In: A Guide to the Sand Dunes of Ireland. Quigley M.B. (Ed.). Dublin. Curtis T.G.F. (1991). The flora and vegetation of Sand Dunes in Ireland. In: A Guide to the Sand Dunes of Ireland. Quigley M.B. (Ed.). Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Stationery Office.	Site is important for presence of eleven habitats listed on Annex I of Habitats Directive. Halophilous scrub at the site is one of only two examples in the country. The legally protected <i>Arthrocnemum perenne</i> is found there. The site	Relatively large estuarine site on south-east coast of Ireland. Typical coastal estuary with large areas of mud and sand and restricted access to the sea. Small rivers and streams to the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Dublin.Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment: Proceedings of the Royal Irish Academy 98B: 87 - 104.Delany S. (1996). Waterfowl counts in Ireland 1994/95: a summary of the first winter of the Irish Wetlands Bird Survey (I-WeBS). Irish Birds 5: 423-432.Delany S. (1997). IWeBS Report 1995-1996: Results from the Second Winter of the Irish Wetlands Bird Survey. IWC BirdWatch Ireland Dublin.Falvey J.P. Dempsey S. and Costello M.J. (1997). Survey of Estuarine Intertidal Sites in Ireland. Unpublished report to NPWS ESU Trinity College Dublin.FitzGerald R. (1995). Reports of field meeting in Waterford and Wexford on 3rd and 4th September 1994. BSBI News 69.Gibbons D.W. Reid J.B. Chapman R.A. (1993). The New Atlas of Breeding Birds in Britain and Ireland in 1988-1991. Poyser London.Hannon C. (1997). The 1995 All Ireland Tern Survey. Unpublished Report. BirdWatch Ireland Dublin. Hutchinson C. (1994). Where to Watch Birds in Ireland. Gill and Macmillan Dublin.Lack P. (1986). The Atlas of Wintering Birds in Britain and Ireland. The Bath Press Avon.O' Sullivan W.M. (1994). Summer diet of Otters on part of the River Blackwater catchment. Irish Naturalists' Journal 24: 349-354.Moles S. (1998). Conservation Plan for Natura 2000 Site Bannow Bay - DRAFT. Internal Report to National Parks and Wildlife Dublin.Perring F.H. and Walters S.M. (Eds.) (1990). Atlas of the British Flora. Botanical Society of the British Isles.Ryan L. (1996). The History of Little Terns at Big Burrow. Report Birdwatch Ireland Dublin.Scannell J.P. and Synnott D.M. (1987). Census Catalogue of the Flora of Ireland. 2nd edition. Stationery Office Dublin.Sheppard R. (1993). Ireland's Wetland Wealth: the Birdlife of the Estuaries Lakes Coasts Rivers Bogs and Turloughs of Ireland. Irish Wildbird Conservancy Dublin.Smiddy P. and O'Sullivan O. (1996). Forty-third Irish Bird Report 1995. Irish Birds 5: 445-474.Smiddy P. and Duffy B. (1997). Little Egret Egretta garzetta: a new breeding bird for Ireland. Irish Birds 6: 55-56.Smiddy P. and O'Mahony B. (1997). The status of the Reed Warbler Acrocephalus scirpaceus in Ireland. Irish Birds 6: 23-28.Stace C. (1992). New Flora of the British Isles. Cambridge University Press Cambridge.Webb D.A. Parnell J. and Doogue D. (1996). n Irish Flora. 7th edition. Dundalgan Press Dundalk.Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO Belfast.</p>	<p>includes an important SPA. Internationally important numbers of Branta bernicla hrota found and nationally important numbers of Tadorna tadorna Anas acuta Calidris Vanellus vanellus Calidris alpina Limosa limosa islandica L. lapponica Tringa totanus and Plurialis apricaria Egretta garzetta Alcedo atthis and Sterna albifrons are found and possibly breed in the site. A substantial heronry is located at south-west of site.</p>	<p>north and south-west flow into the bay. The southern end of the site supports a mosaic of sand dune types sea cliffs of clay and rock and extensive sandy beaches. Northern end supports freshwater habitats of marsh wet woodland and non-tidal reedbed. The geology of the site is mainly Ordovician slate rocks with some Cambrian slate at the south-east.</p>
000704	Lady's Island Lake SAC	<p>Bell A. (1919). Fossil shells from Wexford and Manxland. Irish Naturalist 28: 109-114.Bracken J. &amp; Healy B. (1978). Carnsore marine project. In: Coastal Pollution Assessment - Development of Estuaries Coastal Regions and Environmental Quality. Proceedings of a Seminar held in Cork Ireland April 20-21 1978. pp. 172-174 ed. by W.K. Downey &amp; G. Ní Uid. National Board for Science and Technology.Carter R.W.G. and Orford J.D. (1982). The South and East Coasts of County Wexford. Field Guide No. 4: Irish Association for Quaternary Studies.Couhoun K. (1998). I-WeBS</p>	<p>Lady's Island Lake is by far the largest and best example of a sedimentary lagoon in the country and one of the best in Europe. It is in a relatively natural</p>	<p>Situated in the extreme south-east of Ireland this site comprises a shallow coastal lagoon separated from the sea by a sandy-</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Galvin P. (1992). The Ecology of the Brackish-water Lagoons of Wexford and East Cork. M.Sc. thesis University College Dublin. Gardiner P.R.R. &amp; Brenchley P.J. (1970). The Pre-Cambrian and lower Palaeozoic geology of Co. Wexford. Irish Naturalists' Journal 16: 371-379. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Dúchas. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. biogeogr. Soc. 21: 21-66. Guiry M.D. Cullinane J.P. &amp; Whelan P.M. (1979). Notes on Irish marine algae - 3. New records of Rhodophyta from the Wexford coast. Irish Naturalists' Journal 19: 304-307. Hallissey T. (1912). On the superficial deposits of the county of Wexford. Irish Naturalist 21: 175-179. Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. Bull. Ir. biogeogr. Soc. 21: 2-21. Hart H.C. (1883). Report on the Flora of the Wexford and Waterford coasts. Scientific Proceedings of the Royal Dublin Society 4: 117-146. Healy B. (1979). Marine fauna of County Wexford 1 - Littoral and brackish water Oligochaeta. Irish Naturalists' Journal 19: 418-422. Healy B. (1989). Lady's Island Lake County Wexford: A natural resource dependent on management. unpubl. report. Dublin: Department of Zoology University College Dublin. Healy B. (1997). Long-term changes in a brackish lagoon Lady's Island Lake south-east Ireland. Biol. Environ.: Proc. R. Ir. Acad. 97B: 33-51. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol 1 Part 1. Background Description and summary of the surveys. Dúchas. Healy B. and Oliver G.A. (1998). Irish Coastal Lagoons: summary of a survey. Bull. Ir. biogeogr. Soc. 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal Lagoons in the Republic of Ireland. Vol. 2. Inventory of Lagoons and Saline Lakes. Report to the National Parks and Wildlife Service Dublin. Healy B. Bates R. and McGrath D. (1982). Marine Fauna of Co. Wexford - 5. Lady's Island Lake. Ir. Nat. J. 20: 509-526. Healy B. and McGrath D. (1982). Marine Fauna of County Wexford -4: Littoral and Brackish water Fish. Irish Naturalists' Journal 20: 10 429-435 Hurley J. (1994). The South Wexford Coast Ireland - a natural heritage coastline. Telecom Eireann 31 pp. Hurley J. (1997). Water Level at Lady's Island Lake 1984-1996. Kilmore: SWC Promotions. Hurley J. (1998). Water Level at Lady's Island Lake 1997. Kilmore: SWC Promotions. Hurley J. (1999). Water Level at Lady's Island Lake 1997. Kilmore: SWC Promotions. Keegan B.F. O'Connor B.D.S. McGrath D. Konnecker G. &amp; O'Foighil D. (1987). Littoral and benthic investigations on the south coast of Ireland -II. The macrobenthic fauna off Carnsore Point. Proceedings of the Royal Irish Academy 87B: 1-14. Kinahan G.H. (1879). Sea beaches especially those of Wexford and Wicklow. Proceedings of the royal Irish Academy Series 2:3: 191-208. Merne O.J. (1980). Ornithological Study of Carnsore Point Area Co. Wexford. Report for 1980. Forest &amp; Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic</p>	<p>condition despite regular breaching of the barrier separating it from the sea. The flora is typically brackish and includes the Red Data charophyte Lamprothamnion papulosum. The fauna of the lagoon is rich with at least 13 lagoonal specialist species recorded. This coast comprises the best example in Ireland of a landward moving (transgressive) system of gravel-based barrier. The sequence of back barrier washover and seepage structures are among the best in Europe and indeed Lady's Island remains the last intact example in Europe. The site supports typical vegetation of stony banks including the Red Data Book species Othanthus maritimum. A total of six other Red Data Book plant species are present in the site. Carnsore Point has a good example of a littoral reef very exposed to wave action. The reef has wide and well-banded lichen communities that are</p>	<p>gravel barrier. Salinity of the lagoon is generally oligo-mesohaline but it is periodically tidal when the barrier is breached. Dune vegetation occurs over much of the barrier. Swamp and marsh vegetation is particularly well developed at Ring Marsh in the south-east of the site. Several small islands within the lagoon are included in the site. The surrounding land is low-lying agricultural land. Carnsore Point formed by an intrusion of igneous granite felsite and other intrusive rocks rich in silica marks the south-eastern boundary of the site.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore D. &amp; Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks &amp; Wildlife Service Dublin. Neill M. (1994). Water Quality in Lady's Island Lake and its Feeder Streams July 1994. Unpublished report by E.P.A. to Wexford County Council. Norton T.A. (1970). A survey of the seaweeds of county Wexford. Irish Naturalists' Journal 16: 390-391. Norton T.A. (1970). The marine algae of Co. Wexford Ireland. British Phycological Journal 5: 257-266. O Ceidigh P. &amp; McGrath D. (1981). Marine fauna of Co. Wexford: 3 - The first record of the adult of Caridion steveni Lebour (Crustacea: Decapoda) from the Irish coast. Irish Naturalists' Journal 20: 208. O'Connor B. (1980). Marine fauna of Co. Wexford 2 - littoral and brackish water Polychaeta. Irish Naturalists' Journal 20: 85-93. O'Connor B.D.S. (1988). Marine fauna of Co. Wexford 9 - littoral and benthic Echinodermata and Sipunculida. Irish Naturalists' Journal 22: 385-388. Oliver G.A. (1999). Irish Coastal Lagoon Survey 1998. Vol IV. Dúchas. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. biogeogr. Soc. 21: 66-115. Orford J.D. and Carter R.W.G. (1982). Geomorphological changes on the barrier coasts of South Wexford. Irish Geography 15: 70-784. Parkes H.K. &amp; Scannell M.J.P. (1969). A list of marine algae from the Wexford coast. Irish Naturalists' Journal 16: 158-162. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488. Picton B.E. &amp; Costello M.J. eds (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity college Dublin. (Compact Disc). Praeger R.L (1934). The Botanist in Ireland. Hodges &amp; Figgis Dublin. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III. Dúchas. Ruz M-H. (1989). Recent evolution of the southeast barrier coast of Ireland. Journal of Coastal Research 5: 523-539. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Stewart N. &amp; Church I. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough. Wyse Jackson P.N. (1991). Distribution of Irish marine Bryozoa together with biographical notes relating to the chief researchers in the group. Bull. Ir. biogeogr. Soc. 14: 129-18.</p>	<p>typical of the supra littoral fringe on very exposed shores. In the sublittoral fringe the <i>Alaria esculenta</i> community is also representative. The site supports breeding <i>Sterna paradisaea</i> and in the past <i>S. sandvicensis</i>, <i>S. hirundo</i> and <i>S. dougallii</i>. The site is important in supporting the internationally important tern colony (for <i>S. dougallii</i>, <i>S. sandvicensis</i>) at Inish Island. It is of regional importance for wintering waterfowl including <i>Pluvialis apricaria</i> and has one of the highest numbers of breeding wildfowl species in the country including <i>Anas strepera</i> and <i>Anas querquedula</i>.</p>	
000713	Ballyman Glen SAC	<p>Brunker J.P. (1950). Flora of County Wicklow. Dundalgan Press Dundalk. Curtis T. (1976). A Preliminary Report on Areas of Scientific Interest in County Wicklow. Unpublished report prepared for Wicklow County Council An Foras Forbartha Dublin.</p>	<p>A small but extremely species-rich site with a high diversity of habitats in a predominantly agricultural area. The site is notable for the presence of many petrifying springs for</p>	<p>A small glen cut through calcareous sands and gravels with a tributary stream of the Dargle river flowing west to east through it. The site</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			alkaline fen and for wet woodland.	supports a strip of wet woodland a small area of alkaline fen fed by petrifying springs and grades to scrub and dry calcareous grassland on the upper edges of the valley sides.
000717	Deputy's Pass Nature Reserve SAC	Curtis T.F.G. (1976). A Preliminary Report on Areas of Scientific Interest in Co. Wicklow. Unpublished report prepared for Wicklow County Council. An Foras Forbartha Dublin.	This wood is a good example of the Blechno-quercetum petraeae association which is characteristic of the valleys of Wicklow mountains. Oak is dominant over more than half of the site the remainder being a mix of deciduous (native and non-native species) and coniferous woodland. The structure and species composition of the oak-dominated areas appear typical and there is natural regeneration. A narrow area of wet woodland (Fraxinus icorylus) along a small stream adds diversity to the site. This wood although relatively small is an important link in a series of oakwoods which extend from Glen of the Downs across to	This site is situated on the eastern flank of a glacial overflow channel aligned in a south west to north east direction. The underlying rock is a mixture of cambrian and lower silurian deposits. Soils are acid brown earths to podzolics. Deputy's Pass wood is the most intact remnant of the once extensive Glenealy Oakwoods now largely replaced with conifers. Apart from afforestation the main landuse in the area surrounding the site is pastoral farming.



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			the Glendalough area.	
000719	Glen of the Downs SAC	<p>Beirne B.P. (1941). A List of the Microlepidoptera in Ireland. Proceedings of the Royal Irish Academy. 47B 44): 53-147. Nairn R.G.W. and Farrelly P. (1991). Breeding bird communities of broad-leaved woodland in the Glen of the Downs Co. Wicklow. Irish Birds 4: 377-392. Bond K.G.M. (1991). Assessment of conservation value of Glen of the Downs woodlands and Kilmacanogue Marsh Co. Wicklow based on Lepidoptera recorded in both localities. In: Environmental Impact Assessment Of New Dual Carriageway from Kilmacanogue to Glen of the Downs Co. Wicklow. Ashe P. (1988). Mycetobia obscura Mamaev (Diptera : Anisopodidae) a species new to Ireland and a first record for the British Isles. Bulletin Of The Irish Biogeographical Society 11 2-5.</p>	<p>This wood situated in an impressive glacial overflow channel is a good example of the Blechno-quercetum petraeae association which is characteristic of the dry valleys of the Wicklow mountains. Oak is dominant over about half the site the remainder being mostly mixed deciduous woodland. There is a range of habitats from the very dry oak dominated upper slopes to ash-hazel woodland on the valley floor and wet areas beside the stream. The juxtaposition of habitats on the valley floor is particularly valuable for invertebrates some of those found being very rare in Ireland. Of particular note is the occurrence of Mycetobia obscura known from only one other site in Britain and Ireland. The avifauna of the site is characteristic of Irish woodlands. This wood is the most easterly in a series of oakwoods in Co.</p>	<p>This site is situated in a glacial overflow channel cut in a NW-SE direction through cambrian quartzite. In the valley bottom there is a narrow band of alluvium associated with a small stream but the steep slopes are covered with a thin sandy brown-earth/brown podzolic soil which becomes progressively thinner up the slopes. This is reflected in the trees which become shorter and more stunted up the slopes. The soil is very dry over much of the site particularly so on the NE side.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Wicklow which extend to the Glendalough area.	
000725	Knocksink Wood SAC	<p>Curtis T. (1976). A Preliminary Report on Areas of Scientific Interest in County Wicklow. 2nd Edition. Unpublished report to Wicklow County Council. An Foras Forbartha Dublin. Daly O.H. O'Neill F.H. &amp; Barron S.J. (in prep.) The monitoring and assessment of four EU Habitats Directive Annex I woodland habitats. Irish Wildlife Manuals National Parks and Wildlife Service Department of Culture Heritage and the Gaeltacht Dublin. European Commission (2013) Interpretation manual of European habitats. EUR 28. European Commission DG Environment Brussels. Fossitt J.A. (2000) A guide to habitats in Ireland. The Heritage Council Kilkenny. Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and the Environment Proceedings of the Royal Irish Academy 97B: 1-32. O'Neill F.H. &amp; Barron S.J. (2013) Results of monitoring survey of old sessile oak woods and alluvial forests. Irish Wildlife Manuals No. 71. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin. Perrin P. Martin J. Barron S. O'Neill F. McNutt K. &amp; Delaney A. (2008) National Survey of Native Woodlands. Volume I: Main report. Report submitted to the National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin. Perrin P.M. &amp; Daly O.H. (2010) A provisional inventory of ancient and long-established woodland in Ireland. Irish Wildlife Manuals No. 46. National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin. Perrin P.M. Fitzpatrick Ú. &amp; Lynn D. (2018) The Irish Vegetation Classification – An overview of concepts structure and tools. In Practice Issue 102 14-19. Speight M.C.D. and Nash R. (1977). <i>Pherbellia argyra</i> P. <i>fuscipes</i> and <i>Tetanocera sylvatica</i>: Sciomyzidae (Dipt.) new to Ireland together with other sciomyzid records. Irish Naturalists' Journal 19 38-43. Speight M.C.D. (1980). <i>Chiloxanthus pilosus</i> Palloptera <i>modesta</i> and <i>Pipizella heringi</i> confirmed as Irish species. Irish Naturalists' Journal 20 72-73. Speight M.C.D. (1983). <i>Dolichopus latelimbatus</i> <i>Hercostomus germanus</i> and <i>Rhapium riporium</i>: Dolichopodidae (Diptera) new to Ireland. Irish Naturalists' Journal 21 83-84. Speight M.C.D. (1987). <i>Achalcus melanotrichus</i> <i>Systemus leucurus</i> and <i>S. pallipes</i> (Diptera: Dolichopodidae) new to Ireland bred from rot holes in <i>Betula</i> <i>Fagus</i> and <i>Acer pseudoplatanus</i> with a comment on the significance of these records. Irish Naturalists' Journal 22 250-252.</p>	A relatively small but diverse wooded valley notable for the occurrence of good examples of tufa-forming springs and associated alluvial forest. The site is also important for a number of rare plants including <i>Erigeron acer</i> <i>Lamiastrum galeobdolon</i> and <i>Wahlenbergia hederacea</i> and a particularly diverse woodland invertebrate fauna. Its proximity to Dublin adds to its value as an educational and amenity resource.	A wooded valley cut through calcareous glacial drift with the fast-flowing Glencullen river flowing west to east through it. Vegetation types include broadleaf deciduous woods including wet woodland near the river heath and a number of tufa-forming springs and seepage areas.
000733	Vale of Clara (Rathdrum Wood) SAC	<p>Brunker J.P. (1950). Flora of County Wicklow. Dundalgan Press. Jones M. (1986). Coppice Wood Management in the 18th Century: An Example from Co. Wicklow. Irish Forestry 43: 15-31. McCracken E. (1971). The Irish Woods since Tudor Times. David &amp; Charles. McEvoy T. (1943). Some Irish Woodlands : An Ecological Study. M.Sc.</p>	A relatively large oak-dominated woodland and a good example of the dry acid oakwoods of	Situated in a deep steeply-sided valley through which runs the Avonmore

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Thesis. University College Dublin.	eastern Ireland. Evidence indicates that the site has been wooded to varying degrees since at least the early 1700's. Despite damage from afforestation with conifers the wood is still of high quality with a wide range of age classes. The red data species <i>Cephalanthera longifolia</i> has been recorded. Past management practices since 1700's are well documented with continued management for conservation this site will become one of the most extensive oak woods in Ireland.	River. Underlying rock is schist which weathers to an orange-brown sandy loam of Ph 4.1-4.9. A distinct mor humus often several centimetres thick overlies the mineral soil. Apart from the oak-dominated woods there is much mixed wood with non-native species as well as commercial conifer stands. Old river terraces are present along parts of the valley and there are occasional rock outcrops.
001058	Great Island Channel SAC	Aquatic Services Unit (1995). Baseline Survey of Flora and Fauna (birds) of Inner Cork Harbour (March - June 1995). Unpublished report to Forbairt Dublin. Berrow S.D. (1991). Heavy metals in sediments and shellfish from Cork Harbour Ireland. Marine Pollution Bulletin 22: 467-469. Bowman J.J. Clabby K.J. Lucey J. McGarrigle M. and Toner P. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Coveney J. (1992). Cork Harbour counts 1991-1992: An interim report. Cork Bird Report 1991: 71-75. Cunningham P. (1997). Lee Estuary and Cork Harbour. A Preliminary Review of the Results of EPA Water Quality Surveys 1994-1996. EPA Wexford. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Environmental Research Unit (1989). Cork Harbour Water Quality. A Summary and Assessment of the Present Position. E.R.U. Dublin. Goodwillie R. (1986). Areas of Scientific Interest in Co. Cork. Report compiled for Cork County Council. Heffernan M.L. (1995). Shellfish	The site is of ecological importance for its examples of intertidal mud and sand flats and Atlantic salt meadows of the estuarine type. Both habitats are fairly extensive in area and of moderate to good quality. Site has high ornithological importance supporting regularly c.50% of the wintering waterfowl of Cork Harbour. Significant	This site comprises the north-eastern part of Cork Harbour. It includes all of the Great Island Channel the intertidal areas between Fota Island and Little Island and also the estuary of the Dungourney and Owennacurra Rivers as far as Midleton. The North Channel

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Farming and Special Protection Areas for birds in Ireland. Unpublished M.Sc. Thesis University of Dublin. Hutchinson C.D. (1979). Ireland's Wetlands and their Birds. I.W.C. Dublin. Hutchinson C.D. and O'Halloran J. (1984). The waterfowl of Cork Harbour. Irish Birds 2: 445-456. Merne O.J. (1989). Important Bird Areas in Ireland. In: Grimmett R.F.A. and Jones T.A. (eds.) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Nairn R.G.W. (1986). <i>Spartina anglica</i> in Ireland and its potential impact on wildfowl and waders - a review. Irish Birds 3: 215-228. Nixon E. McLoughlin D. Rowe A. and Smyth M. (1995). Monitoring of Shellfish Growing Areas - 1994. Fishery Leaflet 166. Department of the Marine Dublin. O'Sullivan M.C. (1977). Cork Harbour Pollution Report. A report to Cork County Council Cork Corporation and Cork Harbour Commissioners. O'Sullivan M.C. (1981). Report on Midleton Sewage Treatment for Midleton Urban District Council. Sheppard R. (1993). Ireland's Wetland Wealth. I.W.C. Dublin. Smiddy P. O'Halloran J. Coveney J.A. Leonard P.G. and Shorten M. (1995). Wintering waterfowl populations of Cork Harbour: an update. Irish Birds 5: 285-294. Smyth M. Rowe A. McGovern E. and Nixon E. (1997). Monitoring of Shellfish Growing Areas - 1995. Fishery Leaflet 174. Marine Institute Dublin. Whelan M. (1984). Survey of Cork Harbour: Summer 1984. A report to Cork County Council.</p>	<p>proportions of the internationally important populations of <i>Limosa limosa</i> and <i>Tringa totanus</i> which winter in Cork Harbour utilise the site and it supports nationally important populations of a further 12 species including <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i> both listed on Annex I of the EU Birds Directive.</p>	<p>is on average 1 km wide but extends for about 9 km from east to west. The area is well sheltered and the intertidal sediments are predominantly fine muds. In addition to the estuarine habitats the site includes some wet grassland areas which are used by roosting birds as well as some broad-leaved woodland at Fota Island. Compared to the rest of Cork Harbour the Great Island Channel is relatively undisturbed with aquaculture the main activity.</p>
001151	Kindrum Lough SAC	<p>Bullock-Webster G.R. (1919). A new <i>Nitella</i> (<i>N. spanioclema</i>). Irish Naturalist 28: 1-3. Byrne C. MhicDheid C. &amp; O'Sullivan A. (1995). Rare Plant Survey 1995 Kindrum Lough. Unpublished report to National Parks &amp; Wildlife Service Dublin. Stewart N.F. &amp; Church J.M. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough. Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO Belfast.</p>	<p>Although relatively small in size this site is an excellent example of an oligotrophic system located in an exposed coastal location. Aquatic flora is well developed and water quality is good. <i>Nitella spanioclema</i> has been recorded here in the past one of only two known</p>	<p>Situated on the exposed north Donegal coast the lake lies on a narrow neck of land between Mulroy Bay and the Atlantic Ocean. It is a typical oligotrophic system with a stony/gravelly bottom. The</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>world sites for the species. Site has <i>Najas flexilis</i> an Annex II plant. <i>Salvelinus alpinus</i> a Red Data fish species occurs.</p>	<p>marginal vegetation is varied with reed swamp wet grassland heath/scrub and some dry grassland. Included in the site is a small connected lough Fallaneas Lower. Surrounding landuse is mainly low to moderate intensity grazing.</p>
001242	Carrownagappul Bog SAC	<p>Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Part 1. Internal report to the Forest and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin.</p>	<p>This important raised bog site supports good examples of the Annex I habitats active raised bog degraded raised bog (capable of regeneration) and Rhynchosporion vegetation. It contains one of the largest extant areas of uncut high bog surface in East Galway and the area of active raised bog is also relatively large. The bog surface also contains a number of flushed areas including a very interesting wooded swallow-hole flush system. Such areas add greatly to the overall habitat diversity of the site. Important bird species which have been noted from the site in</p>	<p>This site is underlain by shallow water carboniferous limestones which have a moderate to high permeability depending of the amount of karstification. Subsoils are dominated by silty and clayey tills. Some very low relief eskers run under the bogs. A till island lies in the centre of the site and this is not covered by peat.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			the recent past include Lagopus lagopus and Circus cyaneus (visiting during the winter).	
001257	Dog's Bay SAC	<p>Bassett J.A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar Survey of Irish Machair Sites 1996. A report submitted to the National Parks and Wildlife Service Dublin. Leake B.E. and Tanner P.W.G. (1994). The Geology of the Dalradian and Associated Rocks of Connemara. Royal Irish Academy Dublin. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin. Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and the Burren. Royal Dublin Society and Cambridge University Press Cambridge.</p>	<p>Site displays a good diversity of coastal habitats in a relatively small area. Of particular note is the area of fixed dunes parts of which are fairly intact. An interesting transition from fixed dune to coastal heath is shown. The dry heath though small in area is of note as it is strongly influenced by the sea and contains the maritime plant Plantago maritima. The site is also of interest from the point of view of geomorphology and sand dune development. The very localised orchid species Neotinea intacta has been recorded.</p>	<p>The Dog's Bay site essentially consists of a granite island connected to the mainland by a sand bar (tombolo). It is located off the south-west coast of Co. Galway to the west of Roundstone village. The granite bedrock forms prominent outcrops particularly in the south-western part of the site. Most of the site however is dominated by sand which is rich in the shelly remains of Foraminifera. The main and most important habitat present is fixed dune grassland which dominates the middle of the site. Other habitats present include sandy beach rocky shoreline and coastal heath with small areas of freshwater lake</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				freshwater marsh mesotrophic grassland and fore-dune. Grazing by cattle is the predominant land-use throughout most of the site and the sandy beaches are popular with holiday-makers.
001271	Gortnandarragh Limestone Pavement SAC	Noordeloos M.E. (1994). Studies in Entoloma 14. Some new species and new records. Ost. Zeitschr. f. Pilzk. 3: 29-39.	This site contains a range of limestone pavement vegetation communities. It is one of the largest areas of limestone pavement outside of the Burren region. The close proximity of Lough Corrib adds to the interest. The area of bog on the site is the type locality for Entoloma jennyi an endemic fungus found in 1994.	This is a relatively small area of limestone pavement near the shores of Lough Corrib. Exposed pavement (shattered and with clints and grykes) occurs on the central plateau. The slopes are covered in scrub with some woodland present. An area of cutaway bog occurs to the east of the pavement.
001275	Inisheer Island SAC	Berrow S.D. Mackie K.L. O'Sullivan O. Sheppard R.B. Mellan C. and Coveney J.A. (1993). The second international chough survey in Ireland 1992 Irish Birds : 5: 1-10.Crawford I. Bleasdale A. and Conaghan J. (1996). BioMar Survey of Irish Machair Sites. Unpublished report to National Parks and Wildlife Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book. 1 Vascular Plants. Stationery Office Dublin.Curtis T.G.F. (1991). The flora and vegetation of sand dunes in Ireland. In : A Guide to the Sand Dunes of Ireland (M.B. Quigley Ed.) 42-46. European Union for Dune conservation and coastal management.Curtis T.G.F. (1991). A site inventory of the	The island is important for the presence of the priority habitats limestone pavement orchid rich calcareous grasslands and lagoons along with three further annexed habitats. The	Inisheer is the smallest of the three Aran Islands situated approximately 10km off the west coast of County Clare. The island is a

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>sandy coasts of Ireland. Their types and distribution. In: A Guide to the Sand Dunes of Ireland (M.B. Quiqley Ed.) 42-46. European Union for dune conservation and coastal management. Curtis T.G.F. McGough H.N. and Wymer E.D. (1988). The discovery and ecology of rare and threatened arable weeds previously considered extinct in Ireland on the Aran Islands Co Galway. Irish Naturalists' Journal 22: 505-513. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol. V. Unpublished Report Dúchas the Heritage Service Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougalii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Healy B. (1999). A Survey of Irish Coastal Lagoons. Vol. I. Background Description and Summary. Unpublished Report Dúchas the Heritage Service Dublin. Lysaght L. (2002). An Atlas of Breeding Birds of the Burren and the Aran Islands. BirdWatch Ireland Dublin. McGough H.N. (1984). A Report on the Grasslands and Closely Related Vegetation Types of the Burren Region of Western Ireland. Report to the Forest and Wildlife Service. O'Connell M. Molloy K. Usinger H. and Dorfler W. (1997). Coring deep calcareous lakes in S.E. Clare and Inis Oírr (Inisheer) western Ireland towards the reconstruction of late Glacial and Holocene environments. Wurzbürger Geographische Manuskripte 41. O Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A preliminary report. National Parks and Wildlife Service. Oliver G.A. (1999). Irish Coastal Lagoon Survey. 1998. Vol IV. Aquatic fauna. Unpublished Report Dúchas the Heritage Service Dublin. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol. III. Flora. Unpublished Report Dúchas the Heritage Service Dublin. Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and the Burren. Cambridge University Press Cambridge and Royal Dublin Society Dublin.</p>	<p>rocky grasslands play host to the protected species Viola hirta. Traditional agricultural in the form of rye cultivation is still carried on and provides habitat for a number of rare and threatened arable weeds including Lolium temulentum and Bromus racemosus. Three pairs of Pyrrhocorax pyrrhocorax breed on the island.</p>	<p>geological extension of the karstic carboniferous region of the Burren. Upper carboniferous limestone strata interleaved with layers of shale and clay form these exposed islands which rise to a maximum of 64m. The land surface is divided up by a network of fissures varying from fine to deep clefts. The soil cover is thin with pockets of rendzina between the bare limestone.</p>
001311	Rusheenduff Lough SAC	<p>Caffrey J.M. &amp; Rorslett B. (1989). The macrophyte vegetation in Rusheenduff (Renvyle) Lough Co. Galway. Irish Naturalists' Journal 23: 125-128. Curtis T.G.F. &amp; McGough H.N. (1988). The Irish Red Data Book 1. Vascular Plants. Stationery Office Dublin. Pearsall W.H. &amp; Lind E.A. (1942). The distribution of phytoplankton in some north-west Irish loughs. Proceedings of the Royal Irish Academy 48B: 1-24. Scannell M.J.P. &amp; Webb D.A. (1976). The identity of the Renvyle Hydrilla. Irish Naturalists' Journal 18: 327-331. Webb D.A. &amp; Scannell M.J.P. (1983). Flora of Connemara and the Burren. Cambridge.</p>	<p>Although small this lake is an important example of an oligotrophic-mesotrophic system situated directly on the Atlantic coastline. Water quality is good. The lake has an excellent diversity of aquatic plant species and is renowned as the only Irish site for Hydrilla verticillata a legally protected species. The</p>	<p>Rusheenduff Lough is separated from the Atlantic Ocean by a narrow shingle ridge. The geology of the area is dominated by schist and gneiss. The lake drains a catchment of less than 2 km sq. Two small feeder streams enter the southern</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			lake also has abundant <i>Najas flexilis</i> .	part of lake and there is an outflow from the north directly to the sea. It is a shallow lake with maximum depth of 2.1 m. The lake floor is silted though the margins are stony. Despite its proximity to the sea the salinity of the water is low. There is little marginal wetland vegetation. Dry grassland on shingle west of the lake has been partly improved for a pitch and putt course. The surrounding land is low lying and largely used for sheep grazing.
001342	Cloonee and Inchiquin Loughs Uragh Wood SAC	Jorgensen P.M. & James P.W. (1983). Studies on some <i>Leptogium</i> species of western Europe. <i>Lichenologist</i> 15: 109-125. Kelleher C. (1999). Lesser Horseshoe Bat Summer Roost Survey Cork/Kerry Region Ireland 1999. Internal Report to The Vincent Wildlife Trust unpublished. Neff M.J. (1972). Conservation Report - Uragh Wood Kenmare Forest Co. Kerry. Unpublished report Forest & Wildlife Service Dublin. Ní Dhúill E. Smyth N. Waldren S. & Lynn D. (2015). Monitoring methods for the Killarney Fern ( <i>Trichomanes speciosum</i> Willd.) in Ireland. <i>Irish Wildlife Manuals</i> No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. O'Sullivan P. (1994). Bats in Ireland. <i>Irish Naturalists' Journal Special Zoological Supplement</i> 21pp. Platts E.A. & Speight M.C.D. (1988). The taxonomy and distribution of the Kerry Slug <i>Geomalacus maculosus</i> Allman 1843 (Mollusca: Arionidae) with a discussion of its status as a threatened species. <i>Irish Naturalists'</i>	An excellent and important example of a hyper-oceanic semi-natural acidophilous Oak woodland. The woods have a rare lichen <i>Leptogium juressianum</i> plus significant myxomycete bryophyte and invertebrate communities including <i>Geomalacus maculosus</i> .	Situated on the north-western slopes of the Caha Mountains and overlooking the Kenmare River inlet the site comprises a series of linked oligotrophic lakes. Inflowing and connecting rivers and streams are

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Journal 22: 417-430. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co. Dublin. Visser G. & Zoer J.A. (1976). Abbreviated Report of a Botanical and Malacological Study Performed in the South-western part of Ireland. Research Institute for Nature Management Leersum The Netherlands. Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO Belfast.	The site also has a system of good quality oligotrophic lakes. The lakes have <i>Najas flexilis</i> and <i>Salvinus alpinus</i> . <i>Falco peregrinus</i> breeds within site. A disused cottage provides stable and undisturbed summer roosting conditions for an internationally important population (100+) of <i>Rhinolophus hipposideros</i> .	often fast-flowing and some waterfalls are present. The lakes have some marginal fen and swamp vegetation. Uragh Wood is situated on the steep mountain slope on the south-western shore of Inchiquin Lough. Some of the islands on the lakes are wooded. The remainder of the site is a complex of wet grassland heath and some blanket bog. Exposed rock and cliff is a feature of the site. Landuse in the area is mainly grazing by sheep. Commercial afforestation occurs in surrounding areas. Some commercial afforestation is also included since it is used by lesser horseshoe bats for foraging and as a commuting corridor.
001398	Rye Water Valley/Cartron SAC	Goodwillie R.N. (undated). A Preliminary Report on Areas of Scientific Interest in County Kildare. Unpublished report to Kildare County Council. An Foras Forbartha	The importance of the site lies in the presence	A river valley site which includes at its

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Dublin.Dromey M. Johnston B. and Nairn R. (1991). Ecological Survey of the Royal Canal. Final report to National Parks and Wildlife Service Dublin.Doogue D.A. (1993). Rare Plant Survey of Co Dublin 1991-1993. Unpublished report to National Parks and Wildlife Service Dublin.MacNeill N. (1968). The larva of Orthetrum coerulescens (fabricius) and its habitat (Odonata Anisoptera Libellulidae). Entomologist's Gazette 19:159-163.Anderson R. and Doogue D.A. (1982). Vertigo angustior Jeffreys refound at Leixlip Kildare. Irish Naturalist's Journal 20:449.Kevan D.K. (1933). Vertigo angustior (Jeffreys) and Acicula lineata (Drap.) in Co Kildare. Irish Naturalists Journal 4:178-179.Davies G.L. and Hill W.M. deC. (1965). A thermal spring in Co Kildare. Irish Naturalists Journal 15:73-74.Fahy E. (1974). Fauna and flora of a thermal spring at Innfield (enfield) Co Meath. Irish Naturalists Journal 18:9-12.</p>	<p>of a number of rare plant and animal species and a rare habitat i.e. thermal mineral petrifying spring. The spring gives rise to a calcareous marsh the habitat for Vertigo angustior and Vertigo moulinsiana. This marsh is species-rich and holds a number of plant and insect species which are rare or locally uncommon in Ireland. Four Red Data Book plant species have been recorded from the site two of which Hypericum hirsutum and Viola hirta are legally protected. The woods at the eastern end of the site have some ornithological interest.</p>	<p>western end a large area of estate woodland and an artificial lake. The eastern section of the site includes a section of railway canal and aquaduct; it continues as far as leixlip town. The site is underlain by carboniferous limestone over which has been laid a layer of glacial drift.</p>
001529	Lough Cahasy Lough Baun and Roonah Lough SAC	<p>Barnes R.S.K. (1989). Coastal lagoons of Britain: an overview and conservation appraisal. Biological Conservation 49: 295-313.Couhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Delaney C. and R. Devoy. (1995). Evidence from sites in western Ireland of late Holocene changes in coastal environments. Marine Geology 124: 564-588.Good J.A. (1999). Irish coastal lagoon survey 1998. Vol V. unpublished report to Dúchas- The Heritage Service Dublin.Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. biogeogr. Soc. 21: 21-66.Goodwillie R. (1978). A preliminary report on areas of scientific interest in County Mayo. An Foras Forbartha Dublin.Hatch P. and Healy B. (1998).. Aquatic vegetation of Irish coastal lagoons. Bull. Ir. biogeogr. Soc. 21: 2-21.Healy B. (1999). Irish coastal lagoon survey 1998. Vol 1 Part 1. Background Description and summary of the surveys. Unpblished report to Dúchas-The Heritage Service Dublin.Healy. B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bull. Ir. biogeogr. Soc. 21: 116-151.Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. 2 . Inventory of</p>	<p>Geomorphologically Roonah Lough is a good example of a moderately large sedimentary lagoon with a cobble barrier situated on a highly dynamic coastline. However only a low number of lagoonal specialists (flora and fauna species) were recorded in a recent survey. The boulder-shingle ridge which runs the length of the site is</p>	<p>Situated on the south Co. Mayo coast this site extends for up to 4 km and includes a fine diversity of coastal habitats. A boulder-shingle ridge runs the length of the site and is backed by sand hills and dune grassland some of which is machair. There is then a</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		lagoons and saline lakes. Unpublished Report to the National Parks and Wildlife Service Dublin. Oliver G.A. (1999). Irish coastal lagoon survey 1998. Vol IV. Unpublished report to Dúchas- The Heritage Service Dublin. Oliver G.A. and Healy B. 1998. Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. biogeogr. Soc. 21: 66-115. Roden C. 1999. Irish coastal lagoon survey 1998. Vol III. Dúchas. Sheppard R. (1993) Ireland's Wetland Wealth. IWC Dublin.	considered a good example of perennial vegetation of stony banks habitat. The sand dunes or hills are limited in area and diversity. The site has <i>Mertensia maritima</i> a Red Data Book species. Low numbers of wintering waterfowl occur including <i>Cygnus cygnus</i> .	series of wetlands with Roonah Lough being a natural lagoon and Lough Cahasy and Lough Baun being freshwater lakes which at times have a brackish character. These waterbodies have marginal wet grassland and some swamp vegetation. The main landuse within the site is grazing with recreational activities along the beaches and sand dunes.
001536	Mocorha Lough SAC	Goodwillie R (1979). A Preliminary Report on Areas of Scientific Interest in County Mayo. An Foras Forbartha Dublin.	The site supports a good example of <i>Cladium</i> fen in a calcareous lake basin and is considered one of the largest stands in the west of Ireland. It occurs in association with <i>Phragmites</i> swamp <i>Schoenus</i> fen and other wetland vegetation. The quality of wetland habitats appears good. The site supports locally important numbers of <i>Gallinago gallinago</i> and duck species.	The site is a shallow wetland complex lying in a linear depression in Carboniferous limestone which runs north-eastwards from Lough Corrib. The lake basin is mostly overgrown with swamp and fen vegetation with very little open water. Wet grassland which floods at times is

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				found adjacent to the wetland habitats. On high ground within the site are areas of calcareous heath/grassland vegetation which are notable for the presence of <i>Juniperus communis</i> .
001571	Urlaur Lakes SAC	Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	A relatively unpolluted system of oligotrophic marl lakes typical of several in the region with a diversity of semi-natural habitats bordering the open water. The lakes are of local importance for a variety of wildfowl including <i>Cygnus cygnus</i> , <i>Aythya ferina</i> and <i>Anas penelope</i> amongst others.	A series of three oligotrophic marl lakes Lough Roe, Lough Nanoge and Urlaur Lough located in the upper catchment of the Boyle River surrounded by pasture grassland, raised bog and heath with some calcareous fen, reedswamp and dry calcareous grassland on the lake margins.
001625	Castlesampson Esker SAC	Goodwillie R.N. and Fahy E. (1974). A Preliminary Report on Areas of Scientific Interest in County Roscommon. Unpublished report to Roscommon County Council. An Foras Forbartha Dublin. Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin.	The importance of this site lies in its almost intact structure something that is very rare in Irish eskers in its relatively undisturbed nature and in the presence of good quality	The site is dominated by a steep-sided esker composed of glacial gravels. The vegetation of most of the esker is of dry grassland with

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>species-rich dry calcareous grassland. The absence of large blocks of scrub on the esker is notable. This grassland vegetation supports a rich variety of species some of which are rare on eskers or in the midlands including four orchid species. The rare <i>Erigeron acer</i> a Red Data Book species is found in the three gravel pits on the site. The protected <i>Acinos arvensis</i> occurs in a gravel pit on the site north of the main road. The site includes a series of turloughs.</p>	<p>small amounts of scrub scattered throughout. Improved grassland occurs commonly on the site; this is found mainly on the level ground at the base of the esker. Three gravel pits occur within the site. These support mainly open vegetation including two rare plant species. One of the gravel pits supports a number of fen species.</p>
001637	Four Roads Turlough SAC	<p>Goodwillie R.N. (1992). Turloughs Over 10ha - Vegetation Survey and Evaluation. Unpublished Report to the National Parks and Wildlife Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.</p>	<p>The uniformity of the basin and the fertilisation of its eastern half means that there is little interest in the vegetation. However the site is used as a refuge or feeding area by herbivorous wildfowl and waders - some of which occur in numbers of national importance.</p>	<p>Four Roads or Cloonloughlin Turlough lies 2.5 km from the Suck River below a low scarp of limestone hills. It is an open shallow basin without permanent standing water. It seems to flood predictably and dry out quite early. The vegetation is uniform in general and of two main types - grass in the east and sedges in</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				the west. It is grazed intensively.
001757	Holdenstown Bog SAC	Brunker J.P. (1950). Flora of the County Wicklow. Dundalk. Curtis T.G.F. (1976). A Preliminary Report on Areas of Scientific Interest in County Wicklow. 2nd Edition. Unpublished report An Foras Forbartha Dublin. Curtis T and Harrington T. (1976). The Baltinglass Meeting. Irish Biogeographical Society Bulletin No. 1: 37-41.	The site supports an important though small example of transition mire vegetation. Transition mires associated with raised bogs are particularly rare in the region and this is probably the most easterly example in the country. It has many of the expected plant species for the habitat including the locally rare <i>Carex limosa</i> . The site appears to be in a fairly natural state.	The site is a small wetland in a kettle hole amongst morainic deposits. It is mostly dominated by raised bog but there is some open water. Birch woodland is invading the drier areas of the bog. An area of semi-improved grassland is included for practical boundary purposes. The area surrounding site is agricultural land.
001786	Kilroosky Lough Cluster SAC	Douglas C. and Lockhart N. (1983). Pre-drainage Survey Finn/Lucky River Catchment Co.'s Monaghan and Cavan. Unpublished report to the Forest and Wildlife Service Dublin. Lockhart N.D. (1987). A method for evaluating wetlands - a case study on the Finn river catchment County Monaghan Ireland. Irish Geography 20: 75-81. Ní Lamhna E. (1984). Report on Areas of Scientific Interest in Co. Monaghan. Unpublished report prepared for Monaghan County Council. An Foras Forbartha Dublin.	Typical marl lakes with good Chara beds and moderate to good quality in a catchment where many wetlands have been drained or damaged. A zone of <i>Cladium mariscus</i> fen occurs at each of the lakes though this is limited in extent. Interesting diversity of species including a population of <i>Austropotamobius pallipes</i> and a Red Data	A series of four calcareous oligo-mesotrophic lakes developed in drumlin hollows surrounded by reedswamp and fen vegetation with some wet woodland and poor agricultural wet grassland. Well developed Chara beds occur on the marl covered lake beds.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Book plant <i>Pyrola rotundifolia</i> .	
001879	Glanmore Bog SAC	<p>Crundwell A. (1980). The Irish Meeting. Bulletin of the British Bryological Society. No. 36. B.B.S. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. NPWS (2017) Conservation Objectives: Glanmore Bog SAC 001879. Version 1. National Parks and Wildlife Service Department of Arts Heritage Regional Rural and Gaeltacht Affairs. Ross E. (1988). The Reproductive Biology of Freshwater Mussels in Ireland with Observations on their Distribution and Demography. Unpublished Ph. D. thesis University College Galway. Stewart N. (undated). List of Rare Irish Bryophytes. Unpublished. NPWS. Dublin. Visser and Zoer J.A. (1970's). Abbreviated Report of a Botanical and Malacological Study performed in the south-western part of Ireland. Research Institute for Nature Management Leersum The Netherlands.</p>	<p>Site is of importance for the occurrence of several annexed habitats and plant and animal species. Good examples of oligotrophic lakes and floating vegetation of rivers occur and both of these habitats are of good quality. Wet heath is well represented though quality is variable due to overgrazing. The blanket bog is small in extent and also overgrazed though is of some significance as it includes an example of a hanging valley bog. The Annex 11 plant <i>Trichomanes speciosum</i> occurs along with a host of rare bryophytes and lichens. A population of <i>Margaritifera margaritifera</i> occurs in the Ownagappul River. The site has breeding <i>Pyrrhocorax pyrrhocorax</i>.</p>	<p>This large upland site situated on the Beara Peninsula is underlain by Old Red Sandstone. It rises in altitude from 0 to 602 m and consists mainly of heath upland grassland and exposed rock with a small area of blanket bog. A large lake Glenbeg Lough is a feature of the site and this lake is surrounded by steep scree and rocky slopes. The site is drained by two main rivers. The Ownagappul River flows from Glenbeg Lough to the sea at Cappul Bridge and all of this river is included in the site. Headwater streams of the Glanmore River occur in the eastern part of the site. Grazing by sheep is the main landuse within the site.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
001890	Mullaghanish Bog SAC	Mooney E.P. Goodwillie R.N. and Douglas C. (1991). Survey of Mountain Blanket Bogs of Scientific Interest. Unpublished draft report to the National Parks and Wildlife Service Dublin.	Remarkably intact vegetation for such a high-level blanket bog with no damage from overgrazing or erosion. Contains typical mountain blanket bog community and includes stream headwater flush vegetation with locally uncommon species such as <i>Pinguicula grandiflora</i> .	A small area of intact mountain blanket bog on the summit of Mullaghanish (651m) the highest peak in the Old Red Sandstone range of the Derrynasaggart Mountains. The site contains some stream headwater flushes.
001913	Sonnagh Bog SAC	N/A	One of the last remaining intact areas of highland blanket bog in the Slieve Aughty Mountains containing good examples of deep blanket bog peat without <i>Molinia caerulea</i> . A small lake and flush communities associated with streams add diversity to the site. <i>Lagopus lagopus</i> have been reported from this site and <i>Gallinago gallinago</i> is regular in winter.	A relatively isolated example of highland blanket bog situated on a plateau (300m) in the sandstone Slieve Aughty Mountains. Site contains a small lake and the headstreams of the Boleynendorrish River.
001955	Croaghaun/Slievemore SAC	Praeger R.L. (1904). The flora of Achill Island. Irish Naturalist. Volume 13: 265-289. Praeger R.L. (1905). Achill Island Plants. Irish Naturalist. Volume 14: 220-221. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis. Dublin. Stewart N.F. (undated). List of rare Irish bryophytes. (unpublished) National Parks and Wildlife Service Dublin. Foss P.J. Doyle G.J. and Nelson E.C. (1987). The distribution of <i>Erica erigena</i> . R. Ross in Ireland. <i>Watsonia</i> 16:311-327. Berrow S.D. Mackie K.L. O'Sullivan O. Sheppard R.B. Mellon C. and Coveney J. (1993). The second international chough	The site is of immense importance for the occurrence of rare and specialised oceanic bryophytes most of which are associated with alpine heath. It is	This is a medium sized site rising in height from sea level to 688m. It is dominated especially at the west of the site by

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		survey in Ireland 1992. Irish Birds 5:1-10.	one of the best examples of this habitat in the country and covers an area of 297ha. The site also supports a wide diversity of habitats from sea level to >650m. Erica erigena a plant confined in Europe to Spain Portugal Western France and Counties Mayo and Galway in Ireland has its most westerly location at Lough Nakeeroge (Foss et. al. 1987).	cliffs which can exceed 300m. Nestling below the cliffs of Croaghaun are five corrie lakes perched at various levels above the sea. Slievemore rises to >650m at the east of the site. Both summits support alpine heath and exposed rock. Wet heath wet grassland and blanket bog are found on the lower less steep slopes. The underlying geology is pre-Cambrian schists and gneisses at Slievemore and quartzite at Croaghaun. Land use consists of grazing peat cutting quarrying and tourism development. A main road runs parallel to the shore at the south of the site.
001957	Boyne Coast and Estuary SAC	Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their	While the site has a good diversity of coastal habitats including fixed dunes most have been	This moderately sized coastal site which is situated below the town of

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Fahy E. (1972). A preliminary report on areas of scientific interest in County Louth. An Foras Forbartha Dublin. Gaynor K. &amp; Browne A. (1999). Survey of Irish Link Golf Courses. Unpublished report for Duchas The Heritage Service. Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich terns <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Kirk McClure Morton (1997). Drogheda Port Development Capital Dredging Scheme Environmental Impact Statement. Main Report. Commissioned by Drogheda Company Drogheda. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Young R. (1972). A preliminary report on areas of scientific interest in County Meath. An Foras Forbartha Dublin.</p>	<p>modified in some way. The containment of the main tidal channel has altered the tidal pattern which affects the functioning of the various estuarine habitats. Both dune systems were formerly far more extensive but much of the stable areas have now been converted to golf courses. Site is important for wintering waterfowl supporting nine species in nationally important numbers including <i>Pluvialis apricaria</i> an Annex I EU Birds Directive species. <i>Sterna albifrons</i> breeds or attempts to breed in most years.</p>	<p>Drogheda comprises most of the estuary of the Boyne River a substantial river which drains a large catchment. On the seaward side the site extends north and south for several kilometres to include the remaining intact areas of dune systems at Baltray and Mornington as well as the adjacent beaches and intertidal sand flats. The main channel of the Boyne is contained by training walls for navigable purposes. As well as intertidal sand and mud flats the inner part of the site has salt marshes and <i>Spartina</i> swards.</p>
002032	Boleybrack Mountain SAC	National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.	This site supports an excellent diversity of montane habitats over a fairly extensive area. Active blanket bog dry heath and wet heath are particularly well represented with good	Boleybrack mountain is an extensive area of montane habitat which occurs along the Cavan/Leitrim border a few kilometres north of

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>examples also of Molinia meadows and dystrophic lakes. In addition the site contains some areas of scrub (at low elevations) streams and cliff. Although much of the surrounding low-lying land has been afforested with conifers the quality of the remaining upland area is good with relatively low levels of disturbance from damage such as grazing and burning. The site supports breeding <i>Pluvialis apricaria</i> and <i>Lagopus lagopus</i>. It also has a number of scarce plant species for the area notably <i>Vaccinium vitis-idea</i> and <i>Vaccinium oxycoccus</i>. The site is also important from a scenic perspective and is one of a number of important upland heath/blanket bog sites which occur close to the border with Northern Ireland.</p>	<p>Lough Allen. The dominant bedrock within the site is a sedimentary gritstone which contains seams of coal in places. This coal has been mined in the past. The site is dominated by heath and blanket bog with dystrophic/oligotrophic lakes scrub and inland cliff covering a small proportion of the site area. Coniferous forestry is frequent on the lower slopes of the mountain and forms the site boundary in many places.</p>
002034	Connemara Bog Complex SAC	<p>Allott N. et al. (1990). Acidification of Surface Waters in Connemara and South Mayo. Current Status and Causes. duQuesne Dublin. Central Fisheries Board (1998). Preliminary Survey of the Lough Inagh Catchment and recommendations for the enhancement of the juvenile salmonid stock. Central Fisheries Board Dublin. Unpublished. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J.</p>	<p>The site is of exceptional scientific value as it provides (with the exception of the Glenamoy Bog complex) the best example of a</p>	<p>A vast area of lowland Atlantic blanket bog providing one of the best examples of this habitat type</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part 1. General Assessment. Environmental Research Unit Dublin. Conaghan J.P. (1995). The Ecology of Eriophorum gracile and Eriophorum latifolium in Ireland. Ph.D. Thesis National University of Ireland. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Stationery Office Dublin. Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2001. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Douglas C. and Grogan H. (1987). Lowland Blanket Bog Survey Connemara Co. Galway. A Survey to Locate Lowland Blanket Bogs of Scientific Interest in Connemara. Unpublished report to the Forest and Wildlife Service Dublin. Fox. A.D. Norriss D.W. Stroud D.H. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1983/84-1993/94. G.W.F.G. Study Research Report No. 8. Gargan P. (undated). Central Fisheries Board provided information in a correspondence to Dúchas. Good J.A. (1999). Irish coastal lagoon survey 1998. Vol V. Dúchas. National Parks and Wildlife Dublin. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. Biogeogr. Soc. 21: 21-66. Hannon C. Berrow S.D. and Coveney J. (in prep). All Ireland Tern Survey 1995. In preparation for Irish Wildbird Conservancy and National Parks and Wildlife Service Dublin. Haworth P. (1986). An Upland Survey of West Galway. Unpublished report to World Wildlife Fund (U.K.). Hatch P. and Healy B. Aquatic vegetation of Irish coastal lagoons. Bull. Ir. Biogeogr. Soc. 21: 2-21. Healy B. 1999. Irish coastal lagoon survey (1998). Vol Part 1. Dúchas. National Parks and Wildlife Dublin. Healy B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bull. Ir. Biogeogr. Soc. 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. 2. Inventory of lagoons and saline lakes. Report to the National Parks and Wildlife Service Dublin. Heuff H. (1987). The Vegetation of Irish Rivers. Unpublished report to the Forest and Wildlife Service Dublin. Kirby E.N. and O'Connell M. (1982). Shannawoneen Wood County Galway Ireland: the woodland and saxicolous communities and the epiphytic flora. Journal of the Life Sciences Royal Dublin Society 4: 73-96. Lavery T. (1993). A review of the distribution ecology and status of the marsh fritillary Euphydryas aurina Rottemburg 1775 (Lepidoptera : Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-199. Leake B.E. Tanner P.W.G. and Senior A. (1981). The Geology of Connemara. Department of Geography University of Glasgow. Lockhart N.D. (1991). Phytosociological and Ecological Studies of Lowland Blanket Bog Flushes in West Galway and North Mayo. Ph.D. Thesis National University of Ireland. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Minchin D. (1987). Serpula vermicularis L. (Polychaeta: Serpulidae) reef</p>	<p>relatively unmodified lowland blanket bog habitat in Ireland. The primary interest of this site lies in the blanket bog and in the associated habitats of quaking bog flushes Rhynchosporion vegetation dystrophic bog pools and fens. Excellent examples of lagoons occur with highly diverse assemblages of flora and fauna. The site also includes areas of reef. There are four Annex II species of flora and fauna including Salmo salar Najas flexilis and Lutra lutra and a total of 11 legally protected plant species. The site is of particular conservation importance for Salmo salar with excellent grilse and spring salmon rivers and lakes and extensive spawning habitat. The site has ornithological importance with five Annex I Bird Directive species. The nesting Falco columbarius and Pluvialis apricaria within the site constitute a high proportion of the national totals for the species. Additional areas</p>	<p>in Ireland. The majority of land in the area is still quite intact and is of immense botanical and zoological interest. The underlying rock in the area is predominantly granite with areas of gneiss and gabbro to the west of the site. There are numerous oligotrophic lakes throughout the site with the Roundstone area providing an excellent example of a lake-studded blanket bog environment. Dystrophic pools are also encountered throughout the site in association with other habitats including alkaline fens quaking bog transition mires deciduous woodland wet and dry heaths scrub semi-improved grassland wet grassland and river</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>communities from the west coast of Ireland. Ir. Nat. J. 22: 314-316. Oliver G.A. (1999). Irish coastal lagoon survey 1998. Vol IV. Dúchas. National Parks and Wildlife Dublin. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. Biogeogr. Soc. 21: 66-115. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an anglers guide. Merlin Unwin books. London. Roden C. (1999). Irish coastal lagoon survey 1998. Vol III. Dúchas. National Parks and Wildlife Dublin. The Costello and Fermoy Fisheries Company. Fax to Dr Ciaran O'Keeffe Dúchas 2002. Whilde A. (1993). The Irish Red Data Book 2: Vertebrates. HMSO Belfast. Whilde A. (1994). The Natural History of Connemara. Immel Publishing Ltd. London.</p>	<p>are included in the site under EU LIFE funded restoration projects.</p>	<p>habitats.</p>
002047	Cloghernagore Bog and Glenveagh National Park SAC	<p>Allott N.A. et al. (1990). Acidification of Surface Waters in Connemara and South Mayo. Current Status and Causes. duQuesne Dublin. Bleasdale A. and Conaghan J. (1996). A Study of Woodland Exlosures in Glenveagh National Park Co. Donegal. Unpublished report to National Parks and Wildlife Service Dublin. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Stationery Office Dublin. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Flanagan P.J. and Toner P. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83-1993/94. G.W.F.G. Study Research Report No. 8. Fox H.F. (1995). A Review of Donegal Lichens. British Lichen Society Conservation Committee. Athy Ireland. Heuff H. (1987). The Vegetation of Irish Rivers. Unpublished report to the Forest and Wildlife Service Dublin. Kelly D.L. and Moore J.J. (1974). A preliminary sketch of Irish acidophilous oakwoods. In: Gehu (ed.) Colloque Internationale sur la Vegetation des Forets Calcifolie Acidophilous d'Europe Occidentale. Association Internationale Phytosociologique Lille. McLochlainn C. (1984). Breeding and wintering bird communities of Glenveagh National Park Co. Donegal. Irish Birds 2: 482-500. Mooney E. and Goodwillie R.N. (1992) Mountain Blanket Bog Survey 1991. Draft Report to National Parks and Wildlife Service Dublin. Moorkens E.A. (1995). Mapping of the Proposed SAC Area for Margaritifera margaritifera on the Glaskeelan River Co. Donegal. Unpublished report to the National Parks and Wildlife Service Dublin. Moorkens E.A. (1995). Mapping of the Proposed SAC Area for Margaritifera margaritifera on the Owencarrow River Co. Donegal. Unpublished report to the National Parks and Wildlife Service Dublin. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service</p>	<p>The site is of exceptional scientific value as it contains large expanses of relatively unmodified habitat including the largest area of intact blanket bog in north-western Ireland. The site includes Glenveagh National Park two Nature Reserves (Lough Barra Bog and Meenachullion Bog) and property owned by An Taisce and the Irish Peatland Conservation Council. Deciduous woodland within Glenveagh National Park is of high scientific interest and is currently being cleared of <i>Rhododendron ponticum</i>. The site supports several rare species including <i>Trichomanes speciosum</i> <i>Pseudorchis albida</i> <i>Margaritifera margaritifera</i> and</p>	<p>An extensive mountainous area incorporating the two highest mountains in Co. Donegal namely Errigal (751 m) and Slieve Snaght (678 m). The underlying rock in the area is predominantly quartzite however around Errigal the geology is more complex with bands of schist quartzite granodiorite and limestone. A range of habitat types are encountered within the site including blanket bog heath oligotrophic lakes exposed rock and scree and areas of deciduous woodland. The site includes a number of rivers the main</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Department of Arts Heritage and the Gaeltacht Ireland. Northern Regional Fishery Board (1994). A Survey of Salmonid Stocks and Habitat for the Lackagh/Glenveagh system Co. Donegal. Project No 7 NRRFB Donegal. NPWS (2017) Conservation Objectives: Cloghernagore Bog and Glenveagh National Park SAC 002047. Version 1. National Parks and Wildlife Service Department of Arts Heritage Regional Rural and Gaeltacht Affairs. O'Reilly P. (1991). Trout and Salmon Rivers of Ireland: an Angler's Guide. Merlin Unwin Books London. Telford M.B. (1977). Glenveagh National Park: The Past and Present Vegetation. Ph.D. thesis National University of Ireland. Weekes L.C. (1990). A Phytosociological Study and Map of the Vegetation of Glenveagh National Park and the An Taisce Property Co. Donegal. M.Sc. thesis University College Galway. Whilde A. (1993). The Irish Red Data Book 2: Vertebrates. HMSO Belfast.</p>	<p>populations of <i>Salvelinus alpinus</i> and <i>Lutra lutra</i>. The site has an important population of <i>Salmo salar</i>. Bird life is well represented with five Annex I Bird Directive species and notably breeding <i>Gavia stellata</i>.</p>	<p>ones being the Owencarrow Lackagh and Gweebarra. The area is of considerable botanical and zoological interest and is a locus for several Red Data Book species.</p>
002098	Old Domestic Building Askive Wood SAC	<p>O' Sullivan P. (1994). Bats in Ireland. The Irish Naturalists' Journal. Special Zoological Supplement. 21pp.</p>	<p>As this site contains &gt; 200 Lesser Horseshoe Bats (<i>Rhinolophus hipposideros</i>). It is a site of international importance.</p>	<p>This site consists of a small two storey stone building near Sneem Co. Kerry which is used by &gt;200 Lesser Horseshoe Bats as a summer breeding site. The bats enter the building through spaces above three windows and roost in the upper portion of the building hanging from roof timbers. The site is surrounded by woodland which provides both suitable foraging habitat and shelter for bats as they commute between this site and the winter hibernation site - at present</p>

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				unknown.
002110	Corliskea/Trien/Cloonfel liv Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Grogan H. (1985). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Part II. Internal report to the Forest and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin.	This relatively large site supports very good examples of the Annex I habitats active raised bog bog woodland degraded raised bog and Rhynchosporion vegetation. The condition of the habitats is generally good and a large area of uncut high bog surface (c.460 ha) still remains. Perhaps the most striking feature of the site is the extent and high quality of bog woodland and flush habitats that occur. Some parts of the site contains extensive surface drainage features which are of considerable hydrological and ecological interest. The nationally scarce shrub <i>Frangula alnus</i> has been recorded from areas of bog woodland recently and a rare liverwort species <i>Cephalozia elachista</i> also occurs.	The bedrock of this area is low permeability clayey bioclastic carboniferous limestone. The subsoils are dominated by sandstone rich silty/clayey tills. At the SE side of Corliskea Lake clays were recorded. The peat developed in inter-drumlin hollows.
002112	Ballyseedy Wood SAC	Goodwillie R. (1996). Ballyseedy Wood in Context : Ecological Information Relevant to the N21/N22 Plans. Unpublished report prepared by CAAS Ltd. for Kerry County Council. Scully R.W. (1916). Flora of County Kerry. Hodges Figgis & Co. Dublin. Wolfe-Murphy S. (1995). A Botanical Assessment and Outline Management Plan for	A good example of an alluvial forest dominated by <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> . One	Situated about 3 km south-east of Tralee on the south bank of the lower



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Ballyseedy Woods Co. Kerry. Unpublished report prepared by WM Associates Belfast.	of the largest of its type in the south-west. Woodland is well structured and very mature in places. Flora is diverse with a number of scarce species notably <i>Carex strigosa</i> . Value of part of the site is lessened by presence of a number of naturalised alien species.	reaches of the River Lee. The wood is derived from the plantings of the Ballyseedy Estate. There are now few of the original trees remaining and in their place a dense secondary growth has arisen made up of mainly native species. Much of the site is of wet woodland which grades into dry woodland in areas above the flood-plain. The high water table of the woods is maintained more from water draining into the site from the south than from the river itself.
002118	Barnahallia Lough SAC	Byrne C. MhicDaeid C. & O'Sullivan A. (1995). Rare Plant Survey 1995 Lough Barnahallia. Unpublished report to the National Parks & Wildlife Service Dublin.	Barnahallia Lough is a good example of one of the many small oligotrophic lakes which occur along the western seaboard. The quality of the lake appears good and it is in a fairly natural state. The presence of <i>Najas flexilis</i> at one of its most westerly stations in Ireland adds to the	Situated less than 2 km from the Atlantic coastline this site contains a small lake located in a depression at the bottom of Barnahallia Hill (rises to 106 m) to the east. The lake is fed by a small stream at the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			scientific interest of the site.	south-west corner. In addition to a well-developed aquatic flora the lake shows interesting succession to swamp (Phragmites australis Cladium mariscus) fen and blanket bog vegetation. The bog has a good diversity of Sphagnum mosses. The surrounding landuse comprises low intensity grazing.
002122	Wicklow Mountains SAC	<p>Brunker J.P. (1950). Flora of County Wicklow. Dundalgan Press Dundalk. Bowman J.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Bradshaw R. and McGee E. (1988). The extent and time course of mountain blanket peat erosion in Ireland. New Phytologist 103: 219-224. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part One General Assessment. Environmental Research Unit Dublin. Coombes R.H. (1995). Goosanders breeding in County Wicklow. Irish East Coast Bird Report 1994. 74-76. Cross J.R. (1982). Conservation Report on the Glenealo River Catchment Glendalough Co. Wicklow. Unpublished report to the Forest and Wildlife Service Dublin. Curtis T.G.F. (1976). A Preliminary report on Areas of Scientific Interest in County Wicklow. Unpublished report prepared for Wicklow County Council. An Foras Forbartha Dublin. Curtis T.G.F. and McGough H.N. (1988) The Irish Red Data Book: 1 Vascular Plants Stationary Office Dublin. Fagan S. (1986). Pied Flycatchers breeding in Co. Wicklow 1985. Irish Birds 3: 282-283. Flanagan P.J. &amp; Toner P.F. (1975). A Preliminary Survey of Irish lakes. An Foras Forbartha Water Resources Division. Haine J.C. (1990) The breeding status of the Peregrine Falcon in County Wicklow in 1989. Irish East Coast Bird Report 1989. 60-65. Heuff H. (1984) The Vegetation of Irish Lakes. Unpublished report to the Wildlife Service Dublin. McEvoy T. (1943). Some Irish Woodlands: An Ecological Study. M.Sc.</p>	The site comprises the largest complex of upland habitats in eastern Ireland with important examples of blanket bog wet heath and dry heath extensive in area and mostly of good quality. Alpine heath occurs at high levels along with calcareous and siliceous rocky habitats harbouring an arctic-alpine flora. A fine series of oligotrophic lakes occur and some have <i>Salvelinus alpinus</i> . Several oakwoods of	An extensive upland site comprising much of the Wicklow Mountains and extending into Co. Dublin. The solid geology is mainly Leinster granites flanked by Ordovician schists mudstones and volcanics. The area has been glaciated and features fine examples of high corrie lakes deep valleys and moraines. Most of the site is over

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Thesis.National University of Ireland.Mooney E. and Goodwillie R. (1991). Mountain Blanket Bog Survey 1991. Unpublished report to the National Parks and Wildlife Service Dublin.Neff M. (1970). Conservation Report on Glendalough Co. Wicklow. Unpublished report Forest and Wildlife Service Dublin.Praeger R.L. (1934). The Botanist in Ireland. Hodges and Figgis Dublin.Ryan C. (1992) Red grouse at Liffey Head Bog County Wicklow. Irish East Coast Bird Report 1991. 82-85.Stewart N. (Undated). Bryophyte and Lichen Reports. Unpublished reports to the National Parks and Wildlife Service Dublin.Stewart N. and Church I. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough.Whilde A. (1993). Irish Red Data Book 2: Vertebrates HMSO Belfast.Whittow J.B. (1975). Geology and Scenery in Ireland. Penguin Books Ltd Harmondsworth.Wilson H.J. (1977). Some breeding bird communities of Sessile Oak ( <i>Quercus petraea</i> ) woodlands in Ireland. Polish Ecological Studies 3 (4): 245-256.	moderate quality typical of the dry acidic woods of eastern Ireland are found. Seven Red Data Book plant species occur including the rare <i>Alchemilla alpina</i> and <i>Nitella gracilis</i> at its only Irish station. The site supports significant populations of breeding <i>Falco columbarius</i> and <i>Falco peregrinus</i> . The site is important for rare breeding passerines of oakwoods notably <i>Phoenicurus phoenicurus</i> and <i>Phylloscopus sibilatrix</i> . The site also has breeding <i>Turdus torquatus</i> and <i>Lagopus lagopus</i> . <i>Lutra lutra</i> occurs on several of the riverine systems.	300m with much ground over 600m and the highest peak of Lugnaquilla at 925m. The site includes the rare headwaters of several major rivers including the Liffey the Dargle and the Slaney. The substrate over much of the site is peat with poor mineral soil on the slopes and lower ground. Exposed rock and scree is a feature. The dominant habitats on the site are blanket bog heaths and upland grassland.
002126	Pollagoona Bog SAC	Cross J.R. (1995). Internal Report to National Parks & Wildlife Service on site visit.	This site is important as it represents a good example of a relatively intact saddle blanket bog. Variation is displayed in micro-topography structure and in species composition.	This is a small intact saddle blanket bog. Adjacent areas of formerly afforested peatland are included in the site as part of an EU LIFE funded restoration project.
002157	Newgrove House SAC	O' Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal. Special Zoological Supplement. 21pp.	As > 150 Lesser Horseshoe Bats ( <i>Rhinolophus hipposideros</i> ) hibernate	The bats roost in a section of a cellar beneath the former Newgrove House.

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			<p>at this site it is a site of international importance.</p>	<p>They gain access through a hole in the ground and fly along a stone passageway to roost in a dome shaped cellar. Site includes the surrounding pasture fields hedgerows and some areas of mixed woodland. The hedgerows and woodland margins are ideal for foraging and commuting bats. A former lake has been totally reclaimed.</p>
002161	Long Bank SAC	Kearns Mills N. (1996). Offshore Sand and Gravel Deposits. Unpublished BioMar report to the National Parks and Wildlife Service Dublin.	<p>Due to the lack of data it is not possible to determine the quality and importance of this site in comparison to the other offshore sand banks on the east coast. It is however likely to be an important south-eastern example of the habitat and of good quality.</p>	<p>Long Bank and Holdens Bed are situated several kilometres to the east of Rosslare and Wexford Harbour on the East coast. The site is at the southern end of a series of offshore sand banks that run from Arklow to the south of Rosslare. Long Bank is approximately 12 km in length and at its widest is</p>

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				<p>approximately 1.4 km across while Holdens Bed is approximately 3.7 km in length and 1.4 km wide. The two banks are separated by a channel and are separated from the Lucifer bank to the east by an area of deeper water.</p>
002179	Towerhill House SAC	O' Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal. Special Zoological Supplement. 21pp.	<p>As &gt;50 Lesser Horseshoe Bats (<i>Rhinolophus hipposideros</i>) hibernate in this site it is a site of international importance. It is one of just a few known sites for this species in County Mayo - the most northerly distribution point in Europe for this species.</p>	<p>The main interest of the site which is north-east of Lough Carra in County Mayo is a winter hibernation roost of Lesser Horseshoe Bats. More than 50 bats use an artificial underground passage in the grounds of the ruined Towerhill House. The surrounding habitats of conifer plantations mixed woodland wet woodland drains and streams along with Lough Beg and its surrounding swamp vegetation all provide suitable shelter and foraging</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				habitat for the bats.
002187	Drongawn Lough SAC	<p>Barnes R.S.K. (1989) Coastal lagoons of Britain: an overview and conservation appraisal. <i>Biological Conservation</i> 49: 295-313. Costello M.J. Holmes J.M.C. McGrath D. and Myers A.A. (1989). A review and catalogue of the Amphipoda (Crustacea) in Ireland. <i>Irish Fisheries Investigations Series B (Marine)</i> 33: 3-70. De Grave S. and Holmes J.M.C. (1998). The distribution of marine Isopoda (Crustacea) in Lough Hyne. <i>Biology and Environment: Proceedings of the Royal Irish Academy</i> 98B: 23-30. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Unpublished report to National Parks and Wildlife Dublin. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. <i>Bull. Ir. biogeogr. Soc.</i> 21: 21-66. Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. <i>Bull. Ir. biogeogr. Soc.</i> 21: 2-21. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol 1 Part 1. Unpublished report to National Parks and Wildlife Dublin. Healy. B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. <i>Bull. Ir. biogeogr. Soc.</i> 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. 2. Inventory of Lagoons and Saline Lakes. Unpublished report to the National Parks and Wildlife Service Dublin. Myers A.A. and McGrath D. (1984). A revision of the north-east Atlantic species of <i>Erichthonius</i> (Crustacea: Amphipoda). <i>J. mar. biol. Ass. U.K.</i> 64: 379-400. Nelson B. Foster G. Weyl R. and Anderson R. (1998). The distribution of aquatic Coleoptera in Northern Ireland. Part 2: Families Hydraenidae Helophoridae Hydrochidae Hydrophilidae Elmidae and Dryopidae. <i>Bull. Ir. biogeogr. Soc.</i> 22: 128-193. Oliver G.A. (1999). Irish Coastal Lagoon Survey 1998. Vol IV. Unpublished report to National Parks and Wildlife Dublin. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. <i>Bull. Ir. biogeogr. Soc.</i> 21: 66-115. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III. Unpublished report to National Parks and Wildlife Dublin.</p>	<p>The lagoon habitat within the site is an excellent example of a completely natural saline lake lagoon in almost pristine condition and one of the three best representatives of deep silled lagoons in the country. No very rare species of flora have been recorded in the lagoon but the community is typically lagoonal with <i>Ruppia cirrhosa</i> and <i>Chaetomorpha linum</i>. The fauna is rich (69 taxa) with several lagoonal specialists (<i>Hydrobia ventrosa</i> <i>Cerastoderma glaucum</i> <i>Palaemonetes varians</i>) and apparently rare species (<i>Jaera forsmanni</i> <i>Erichthonius difformis</i> <i>Lembos longipes</i>).</p>	<p>Situated on the northern side of the Kenmare River Inlet in Co. Kerry Drongawn Lough is a moderate sized saline lake lagoon with a narrow silled inlet. The lagoon is deep (18 m) and tidal exchange is limited by the narrow inlet but salinity remains high (28-32 ppt). The sides of the lagoon near the inlet consist of steeply shelving exposed rock with a gently sloping muddy floor at 6 m. The land around the lagoon is a mix of blanket bog heath and wet grassland. Some of the wet grassland and heath is partly improved for grazing.</p>
002200	Aughrim (Aghrane) Bog SAC	<p>Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan</a>/Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project. Unpublished report NPWS Dublin. Derwin. J et al 2002; Raised Bog Natural Heritage Area Survey. Unpublished Report NPWS Dublin</p>	<p>The Degraded Raised Bog (DRB) occurring at Aughrim (Aghrane) Bog SAC is of considerable conservation significance. Recent</p>	<p>The raised bog at Aughrim (Aghrane) Bog SAC 002200 comprises approximately 110.33 ha of</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>2.Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at:  <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a>The Interpretation Manual of European Union Habitats – EUR 27 (2007)  <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a>Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at:  <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a>NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin.NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatabosbeheer The Netherlands.Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland:  <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>restoration actions has resulted in active redevelopment of the habitat with an increase in regenerating raised bog microhabitats including open water wet hollows and wet lawns which is adding to the diversity and scientific value of the site. A good range of bog mosses is present including Sphagnum fuscum (sensu lato) and S. austinii. The SAC is located along the south-eastern margins of the Aughrim Bog NHA (001227) and is considered to constitute supporting habitat for an extensive area of Active Raised Bog and Degraded Raised Bog habitat in the NHA. There are few significant threats to the high bog and there is good restoration potential from appropriate conservation measures. The site is being actively managed for conservation as part of an EU LIFE project by the landowner Coillte. For these reasons the site is considered to be of good conservation value.</p>	<p>western raised bog habitat of which 100.18 ha is high bog and 10.15 ha cutover bog. The SAC occurs within the south-eastern section of Aughrim Bog NHA (001227) and occupies just over 40% of that site. The underlying geology is carboniferous limestone. The SAC is dominated by open high bog vegetation characteristic of the Western raised bog type with approximately 37 ha of previously afforested high bog and cutover along the southern and eastern margins. These afforested areas were clear-felled within the last five years and the intensive drainage system associated with the conifer plantations blocked in 2013-15. Since the removal of conifers peatland vegetation is</p>

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				<p>beginning to re-establish. Most of the significant drains on the open high bog with the exception of boundary and eastern section of roadside drains were also blocked. The restoration works were undertaken as part of an EU funded LIFE project so as to raise the water table and maintain and restore Active Raised Bog (ARB) on the site. 4.28 ha of Degraded Raised Bog (DRB) have been predicted within the SAC. This habitat is rapidly rewetting and spreading following the restoration. In addition it is estimated that restoration works carried out on this site will benefit the conservation of 3.5 ha of Active Raised Bog and 3.5 ha of Degraded Raised Bog in the adjacent area of Aughrim</p>



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				Bog NHA (001227). The alien invasive Rhododendron (Rhododendron ponticum) is established in marginal/cutover areas along the eastern margins of the site and this is being controlled as part of a Coillte/EU LIFE restoration programme.
002206	Schoaboy (Sopwell) Bog SAC	<p>Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan</a></p> <p>Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project: A Continuation of the Investigation into the Conservation and Restoration of Selected Raised Bog sites in Ireland. Unpublished report NPWS Dublin.</p> <p>Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin.</p> <p>Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.</p> <p>Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin.</p> <p>Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.</p> <p>Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at: <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a></p> <p>The Interpretation Manual of European Union Habitats – EUR 27 (2007) <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a></p> <p>Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an</p>	Schoaboy (Sopwell) Bog SAC is a site of considerable conservation significance comprising raised bog a rare habitat in the EU and one that is becoming increasingly scarce and under threat in Ireland. It contains good examples of the EU Habitats Directive Annex I habitat Degraded raised bog (capable of regeneration) which is being restored to the priority Annex 1 habitat Active raised bog. The site already supports a good diversity of raised bog microhabitats including some hummock/hollow complexes tear pools and rewetted cutover bog	Schoaboy (Sopwell) Bog SAC (002206) comprises 71.91 ha of raised bog (62.36 ha of high bog and over 9.55 ha cutover) which occupies the central section of the northern end of Schoaboy Bog NHA (000937). Schoaboy Bog is a Midland type raised bog developed in a basin. The site is bounded by peatland on all margins apart from the north where a stream flows along the northern margin. Cutover bog occurs in the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at:  <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a> NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin. NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin. Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatabosbeheer The Netherlands. Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland: <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>and is one of the more southerly raised bogs in the south Midlands which adds significantly to its ecological importance. Ireland has a high proportion of the total EU resource of raised bog (over 50%) and so has a special responsibility for its conservation at an international level. The site is being actively managed for conservation as part of the Coillte EU LIFE Project and most of the required restoration measures have already been carried out. Those measures that remain or are ongoing should be achievable with average effort. An After LIFE management plan is being developed by Coillte for the future conservation management of the SAC. The SAC is located within the raised bog Scohaboy Bog NHA (000937) the conservation management of which should support the redevelopment of Active Raised Bog in the SAC. The presence of White-</p>	<p>south-east of the site and an area of approximately 19 ha of clear-felled coniferous plantation is present on the high bog to the north of the site. Over 43 ha of the high bog was never afforested but a considerable proportion of that area was subjected to intensive but shallow drainage. That drainage was not maintained and in some areas has naturally partly infilled by bog moss Sphagnum species regrowth over the years. The afforested area was planted in the 1980s and was all clearfelled by 2013. Much of the unafforested high bog has vegetation typical of Midland Raised Bog type. The two scarce hummock forming bog mosses Sphagnum fuscum (sensu lato) and S. austini occur</p>

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			<p>clawed Crayfish (Austropotamobius pallipes) a species listed in Annex II of the EU Habitats Directive adds to the diversity and scientific value of the site. The population at this site is considered to have a favourable conservation status with the presence of adults and juveniles. The presence of this species increases the overall scientific interest of the site.</p>	<p>with the latter being locally frequent in places. Some of the recovering pool systems are quite large with Bog Bean (Menyanthes trifoliata) and Great Sundew (Drosera anglica) present. When the conifer plantation in the SAC were removed the intensive drainage system associated with it was blocked by 2014 as part of an EU funded LIFE project so as to raise the water table and restore Active raised bog (ARB) on the site. Prior to the felling there was relatively few bog species present. With the clear-felling of conifers and blocking of drains the high bog appears to be re-wetting with some areas of wet flats and hollows already developing and water-levels now</p>

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				<p>much higher throughout the year. However the majority of the former plantation will not develop vegetation characteristic of the wettest conditions as the surface slopes in this area are too steep and there is a considerable amount of conifer and birch regeneration occurring in these areas. The main benefit of the tree removal and the drain blocking will be to improve the hydrology of the adjacent areas of unafforested high bog to the south of the plantation. There three areas covering over 11.6 ha have been identified by hydrological modelling as Degraded Raised Bog (7120) habitat (DRB). These now have standing surface water in the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>drains hollows and pools for most of the year and considerable areas of regenerating Sphagnum species. It is considered that this area will rapidly develop into Active Raised Bog within 10 years. Much of the cutover to the south-east of the site is dominated by Purple Moor-grass (<i>Molinia caerulea</i>) with scattered scrub of Gorse (<i>Ulex europaeus</i>) and Downy Birch (<i>Betula pubescens</i>) in places. Peat cutting ceased in the area in 2015 and the cutover drains were all blocked in late 2015. The area has now rewetted and should eventually support raised bog communities and species. It is estimated that approximately 1.6 ha of this cutover has the potential to support Active Raised Bog in the</p>

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				medium to long term (i.e. over 30 years period).
002207	Arragh More (Derrybreen) Bog SAC	<p>Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/</a></p> <p>Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project: A Continuation of the Investigation into the Conservation and Restoration of Selected Raised Bog sites in Ireland. Unpublished report NPWS Dublin.</p> <p>Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin.</p> <p>Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.</p> <p>Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin.</p> <p>Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS</p> <p>Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at: <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a></p> <p>The Interpretation Manual of European Union Habitats – EUR 27 (2007) <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a></p> <p>Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at: <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a></p> <p>NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin</p> <p>NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.</p> <p>Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatabosbeheer The Netherlands</p> <p>Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland:</p>	The large area of Degraded Raised Bog habitat in Arragh More Bog SAC is of significant conservation value as it has the potential for restoration to over 10 ha of Active Raised Bog which is a priority habitat in the E.U. and one that is scarce and under threat in Ireland. The restoration actions undertaken to date are resulting in active redevelopment of the habitat towards Active Raised Bog which add to the diversity and scientific value of the site. Large sections of the Degraded Raised Bog in the more flushed parts of the bog may also develop directly or via Active Raised Bog into the very rare priority habitat Bog Woodland (91D0) which would add further to the scientific interest of the site. The site is being actively managed for conservation as part of the Coillte E.U. LIFE Project. The SAC is	Arragh More (Derrybreen) Bog SAC (002207) comprises 90.58 ha of raised bog (57.9 ha of high bog and 32.68 ha cutover) which occupies the north-western section of Arragh More Bog NHA (000640). Arragh More Bog NHA developed originally in at least 3 basins aligned in a north south direction which were initially separated by low ridges of relatively impermeable glacial till overlying limestone bedrock. As these bogs grew they eventually coalesced over these low ridges to form one bog with a very complex shape. Arragh More Bog NHA is therefore the remnant of a large bog that was originally part of a

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p><a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>located within the raised bog Arragh More Bog NHA (000640) the conservation management of which should support the redevelopment of Active Raised Bog in the SAC while the management of the SAC will support the retention of 3 ha of Active Raised Bog in the NHA. Overall there is a large area of bog with good restoration potential for two priority habitats and most of the required restoration measures have already been carried out. While some significant threats remain the size and potential of the site makes it of international importance.</p>	<p>system of interconnecting bogs which are now separated by roads and cutover that has been reclaimed for agriculture. The SAC occupies the western parts of the two most northerly basins. The surface of the high bog in the central basin is lower than that to the east and south and receives significant amounts of runoff from them resulting in the development of an internal flush system. The SAC is bordered by forest plantations on cutover to the north raised bog and cutover to the east and south and agricultural grassland to the east. The SAC was mostly afforested in in the 1970s with just over 12 ha (13%) of high bog in the north-east and south of the site being left</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>unplanted. The remaining areas of intact high bog have vegetation typical of a Midland Raised Bog. Some hummocks of the relatively scarce <i>S. austinii</i> and <i>S. fuscum</i> (sensu lato) have been recorded. Two main areas of high bog covering 11.4 ha have been identified as Degraded Raised Bog (DRB) and thus with potential to develop peat forming habitats (Active Raised Bog and Bog Woodland). These consist of a large area (9.9 ha) to the east with two large lobes and a much smaller one (1.5 ha) to south-east section of the SAC. There is a small area of Bog Woodland to the east just outside the site to provide the characteristic species for that habitat.</p>



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002236	Island Fen SAC	N/A	This site is important as it supports fine examples of the Annex 1 habitat Juniper scrub formations over calcareous grasslands/heath along with some small though species rich areas of alkaline fen - also an Annex 1 habitat. This Juniperus communis site is the only site proposed for this habitat type east of Lough Derg.	The geology of the site is of Lower Carboniferous Limestone and the principle soil is grey brown podzolic. The site overlies an old lake bed lined with shelly marl. Soil cover is generally thin with some rocks protruding locally. Much of the site is dominated by Phragmites australis reedbeds which merge northwards into calcareous grasslands/heath with upright Juniper scrub formations. To the west and south small zones of alkaline fen occur along with a small hazel and ash woodland.
002246	Ballycullinan Old Domestic Building SAC	O'Sullivan P. (1994). Bats in Ireland : The Irish Naturalists' Journal. Special Zoological Supplement. 21 pp. McGuire C. (1998). Survey of lesser horseshoe bats Rhinolophus hipposideros (Bechstein) and other bat species in north Co. Clare Ireland. The Irish Naturalists' Journal 26: 43-50.	This site supports a maternity colony of Rhinolophus hipposideros of international importance. Numbers have gradually increased in recent years with 115 individual bats in 1999. The roost lies within the core area of the	This site is situated to the east of Ballycullinan Lough in County Clare. It includes some derelict dwellings one of which is used by Rhinolophus hipposideros in summer. The area

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			distribution of the species in Ireland.	surrounding the buildings is poor pasture with overgrown hedgerows and scrub. This provides suitable foraging habitat for the bats and some of it is included in the site.
002258	Silvermines Mountains West SAC	National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. Norriss D.W. Marsh J. McMahon D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 1998-2000. Irish Birds 7: 1-10.	Silvermines West is a substantial upland area dominated by wet heath with smaller areas of dry heath blanket bog (incl. degraded bog) acid grassland scrub and outcropping rock. The site has been selected for the presence of the Annex 1 habitat wet heath. The site is one of the largest remaining unafforested upland areas in the north Tipperary area a large proportion of the adjoining uplands having been afforested in recent decades. The quality of the site is high due to the relatively low levels of burning and grazing in the recent past. Site is used as foraging habitat by part of the important <i>Circus cyaneus</i> population that nests in	This is an upland site dominated by heath grassland and blanket bog habitats. The dominant bedrocks within the site are Silurian sandstones and shales which outcrop frequently especially at higher elevations with old red sandstone at lower elevations. Deposits of minerals such as zinc lead and copper - now largely exhausted - occur along the northern boundary of the site where the older rocks meet limestone. Extensive disused mine workings - dominated by a large tailings pond -

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			the Silvermine-Slievefeelim uplands.	lie along the north-eastern boundary and some areas within the site show indications of disturbance from these past mining works. Most of the adjoining mountain ridge to the east has been afforested with conifers.
002269	Carnsore Point SAC	<p>Bell A. (1919). Fossil shells from Wexford and Manxland. Irish Naturalist 28: 109-114.</p> <p>Bracken J. &amp; Healy B. (1978). Carnsore marine project. In: Coastal Pollution Assessment - Development of Estuaries Coastal Regions and Environmental Quality. Proceedings of a Seminar held in Cork Ireland April 20-21 1978. pp. 172-174 ed. by W.K. Downey &amp; G. Ni Uid. National Board for Science and Technology Fahy E. (1981). The Wexford commercial sea bass <i>Dicentrarchus labrax</i> (L.) fishery. Fisheries Bulletin 3: 1-10. Gardiner P.R.R. &amp; Brenchley P.J. (1970). The Pre-Cambrian and lower Palaeozoic geology of Co. Wexford. Irish Naturalists' Journal 16: 371-379. Gibson F.A. (1953). Movements of salmon around Ireland. II. From Baginbun County Wexford (1949 to 1951). Proceedings of the Royal Irish Academy 55B: 195-208. Guiry M.D. Cullinane J.P. &amp; Whelan P.M. (1979). Notes on Irish marine algae - 3. New records of Rhodophyta from the Wexford coast. Irish Naturalists' Journal 19: 304-307. Keegan B.F. O'Connor B.D.S. McGrath D. Konnecker G. &amp; O Foighil D. (1987). Littoral and benthic investigations on the south coast of Ireland - II. The macrobenthic fauna off Carnsore Point. Proceedings of the Royal Irish Academy 87B: 1-14. Hallisey T. (1912). On the superficial deposits of the county of Wexford. Irish Naturalist 21: 175-179. Hart H.C. (1883). Report on the Flora of the Wexford and Waterford coasts. Scientific Proceedings of the Royal Dublin Society 4: 117-146. Healy B. (1979). Marine Fauna of County Wexford 1 - Littoral and brackish water Oligochaeta.. Irish Naturalists' Journal 19:418-422. Healy B. &amp; McGrath D. (1982). Marine Fauna of County Wexford - 4. Littoral and brackish water fish. Irish Naturalists' Journal 20: 429-435. Healy B. &amp; McGrath D. (1988). Marine Fauna of Co. Wexford - 10. The Crustacea Decapoda of intertidal and brackish water habitats. Irish Naturalists' Journal 22: 470-473. Hurley J. (1994). The south Wexford coast Ireland - A natural heritage coastline. Grange Kilmore Co. Wexford SWC Promotions. Keegan B.F. McGrath D. O Foighil D. O'Connor B. &amp; Konnecker G. (1988). Marine fauna of Co. Wexford 8 - Bivalve molluscs from the</p>	Carnsore Point has good examples of littoral reefs moderately exposed to wave action and sublittoral reef communities very exposed to moderately exposed to wave action in which a number of rare species occur. The moderately exposed reef communities are distinguished by a luxuriant growth of the brown alga <i>Ascophyllum nodosum</i> in the midshore. Infralittoral reef areas have good species-rich communities that are typical of exposed infralittoral reefs subject to moderate tidal streams. Conversely the species poor community at Barrel Rocks is an	Carnsore Point is situated to the south of Co. Wexford in the south-east of Ireland. It is formed by an intrusion of igneous granite felsite and other intrusive rocks rich in silica. Both on the shore and under the surface of the water the reef is typically strewn with boulders cobbles and patches of sand. It is exposed to prevailing wind and swells from the west. Tidal streams tend to be moderate but are strong in some areas. Offshore

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>'Lough Beltra' dredging programme. Irish Naturalists' Journal 22: 378-385. Kinahan G.H. (1879). Sea beaches especially those of Wexford and Wicklow. Proceedings of the Royal Irish Academy Series 2:3: 191-208. McGrath D. (1984). Marine fauna of Co. Wexford - 6. The Mysidacea of inshore marine and brackish water habitats. Irish Naturalists' Journal 21: 251-255. Norton M. &amp; Healy B. (1984). Marine Fauna of County Wexford - 7. Observations on the ecology and reproductive biology of <i>Sphaeroma hookeri</i> Leach (Isopoda). Irish Naturalists' Journal 21: 257-262. Norton T.A. (1970). A survey of the Seaweeds of County Wexford. Irish Naturalists' Journal 16: 390-391. Norton T.A. (1970). The marine algae of County Wexford Ireland. British Phycological Journal 5: 257-266. O Ceidigh P. &amp; McGrath D. (1981). Marine Fauna of Co. Wexford: 3 - The first record of the adult of <i>Caridion steveni</i> Lebour (Crustacea: Decapoda) from the Irish coast. Irish Naturalists' Journal 20: 208. O'Connor B. (1980). Marine Fauna of County Wexford 2 - littoral and brackish water Polychaeta. Irish Naturalists' Journal 20: 85-93. O'Connor B.D.S. (1988). Marine fauna of Co Wexford 9 - littoral and benthic Echinodermata and Sipunculida. Irish Naturalists' Journal 22: 385-388. Orford J.D. &amp; Carter R.W.G. (1982). Geomorphological changes on the barrier coast of south Wexford. Irish Geography 15: 70-84. Parkes H.M. &amp; Scannell M.J.P. (1969). A list of marine algae from the Wexford coast. Irish Naturalists' Journal 16: 158-162. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484 - 488. Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc).</p>	<p>extremely good example of a very exposed shallow reef community. The following species were recorded for infralittoral areas that are notable: <i>Tethyspira spinosa</i> <i>Gymnangium montagui</i> <i>Cataphellia brodricii</i> <i>Pycnoclavella aurilucens</i> <i>Sidnyum elegans</i> <i>Distomus variolosus</i> and <i>Stolonica socialis</i>. The circalittoral reefs have examples of several different community types that occur in tidal streams and some are influenced by sand scour. The populations of the sponge <i>Tethyspira spinosa</i> the anthozoan <i>Cataphellia brodricii</i> and the hydroids <i>Schizomavella sarniensis</i> and <i>Stolonica socialis</i> are particularly important because they represent a substantial proportion of the entire populations that occur in Irish waters. The <i>Musculus discors</i> beds are particularly noteworthy as they are the only beds in Ireland where the mussels are superabundant and species richness is high</p>	<p>Barrel's Rocks are extremely exposed to the full force of Atlantic swells.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>(63 species south of Carnsore Point and 79 species north-east of Terchen). The littoral sediment community that occurs at Carne Beach adds habitat diversity to the area and is a good example of a moderately exposed sand shore.</p>	
002283	Rutland Island and Sound SAC	<p>Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139. Good J.A. (1999). Irish Coastal Lagoon Survey. Vol V. Unpublished Report Dúchas the Heritage Service Dublin. Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp. Healy B. (1999). A Survey of Irish Coastal Lagoons. Vol I Background Description and Summary. Unpublished Report Dúchas the Heritage Service Dublin. Lockley R. M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Nat. J. 15: 136-143. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Oliver G.A. (1999). Irish Coastal Lagoon Survey. 1998. Vol. IV. Aquatic Fauna. Unpublished Report Dúchas the Heritage Service Dublin. McConnell K. (1991). Dive Ireland - Aranmore Island. SubSea. Ireland's Diving Magazine. 66: Winter 10-12. Picton B.E and Costello M.J. (eds.) (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III Flora. Unpublished Report Dúchas the Heritage Service Dublin. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. &amp; Flynn J. (1980). An assessment of the status of the common seal <i>Phoca vitulina vitulina</i> in Ireland. Biol. Conserv. 17: 115-123. Warner P.J. (1983). An assessment of the breeding populations of common seals (<i>Phoca</i></p>	<p>The Rutland Channel area between the mainland and Aranmore Island offers a complex of unusual shallow reef and sediment communities in which species richness is high and a number of notable species occur. There are maerl beds at the more open coast sites on the south of Rutland Island as well as seagrass beds which host the rare hydroid <i>Laomedea angulata</i>. Littoral reef communities are representative of communities that occur on rock in sheltered locations on the north-west seaboard of Ireland. Species richness in the sublittoral fringe is unusually high as it is in many of the sublittoral</p>	<p>Rutland Channel is a complex area of islands and small rocky outcrops. Aranmore Island provides shelter from the prevailing south-west winds. The communities on the northern and eastern coasts are moderately exposed or sheltered from wave action. Other islands such as Rutland Island provide areas of further shelter and conditions are very or extremely sheltered from wave action and subject to moderate tidal streams. Bedrock is mainly</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>vitulina vitulina L.) in the Republic of Ireland during 1979. Ir. Nat. J. 21: 24-26. Warner P.J. (1984). Report on the census of common seals (<i>Phoca vitulina vitulina</i>) in the Republic of Ireland during 1984. Unpublished report to the Forestry &amp; Wildlife Service.</p>	<p>reef communities where anthozoan nudibranch bryozoan and ascidian species of conservation importance occur most notably <i>Stolonica socialis</i> which in Ireland is recorded only on the south-east and north-west coasts. An important dune system with a good diversity of dune types occurs on Rutland Island with fixed dunes shifting marram dunes embryonic dunes and some humid dune slacks represented. Annual driftline vegetation is also well represented. While the saline lake lagoon within the site is of a type that is relatively common on the Atlantic coast of Ireland it is a particularly good example in relatively natural surroundings. The fauna is moderately rich and includes four lagoonal specialists and at least three apparently rare species. An apparently rare alga <i>Cladophora battersii</i> occurs in abundance. The site supports an important population of <i>Phoca</i></p>	<p>metamorphic quartzite with intrusions of igneous granite and other rocks rich in silica on the south coast of Aranmore Island. Rutland Island has substantial areas of dunes with highly calcareous sands over granite bedrock. Small areas of marsh vegetation also occur. Sally's Lough is a saline lake lagoon with a narrow tidal inlet that is apparently artificial.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			vitulina.	
002287	Lough Swilly SAC	<p>Bowman J.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin.</p> <p>Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Unpublished Report Dúchas the Heritage Service Dublin. Hart H.C. (1898). Flora of County Donegal. Dublin. Healy B. (1999). A Survey of Irish Coastal Lagoons. Vol I. Background Description and Summary. Unpublished Report Dúchas the Heritage Service Dublin. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. I. Background Outline and Summary of Survey. Report to the National Parks &amp; Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. &amp; Newton S. (2000). Republic of Ireland. Pp.365-416 in M.F. Heath &amp; M.I. Evans (eds) Important Bird Areas in Europe: priority sites for conservation 1: Northern Europe. Cambridge U.K.: BirdLife International. (BirdLife Conservation Series No. 8).</p> <p>McElwaine J.G. Wells J.H. &amp; Bowler J.M. (1995). Winter movements of Whooper Swans visiting Ireland: preliminary results. Irish Birds 5: 265-278. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge.</p> <p>Nelson B. Foster G. Weyl R. and Anderson. R. (1997). The distribution of aquatic Coleoptera in Northern Ireland. Part 1: Families Haliplidae Hygrobiidae Noteridae Dytiscidae and Gyrinidae. Bulletin of the Irish Biogeographical Society 20: 179-296</p> <p>Oliver G.A. (1999). Irish Coastal Lagoon Survey. 1998. Vol. IV. Aquatic Fauna. Unpublished Report Dúchas the Heritage Service Dublin. Praeger R.L (1934). The Botanist in Ireland. Hodges and Figgis Dublin. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III. Flora. Unpublished Report Dúchas the Heritage Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>The site is important as a fine example of a large natural sea inlet which is estuarine in character. Extensive intertidal sand and mud flats are exposed at low tide. Salt marshes of the Atlantic salt meadow type are well represented. The estuarine habitats are generally of good quality though areas along the south-eastern shore have been embanked in the past to create polders. Although the lagoon habitat is artificial in origin it is one of the largest and best examples of a shallow low salinity lagoon in the country. It supports what is probably the largest population in the country of <i>Chara canescens</i> a Red Data Book species. The fauna is rich and diverse and contains 8 lagoonal specialists and is of significant conservation value for ecotonal Coleoptera. Prospects for maintenance of the conservation structure of the habitat are good. The site includes several</p>	<p>Lough Swilly is a long sea inlet situated on the north Donegal coast. The site includes all of the inner part of the lough extending from below Letterkenny to just north of Bunrana a distance of c.25 km along a south-west to north-east axis. The lough varies in width from approximately 2 km to 5 km. The site is estuarine in character with shallow water and intertidal sand and mud flats being the dominant habitats. The main rivers flowing into the site are the Swilly the Leannan and the Crana. Salt marshes occur mainly on the more sheltered western side. Artificial embankments have created brackish lakes at Inch and Blanket Nook.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>areas of old oak woodland mostly of good quality and with natural regeneration. One of these woods is a Statutory Nature Reserve. Lough Swilly supports important populations of wintering and staging waterfowl. Of particular significance is that the site provides roosting and limited feeding areas for the internationally important populations of <i>Cygnus cygnus</i>, <i>Anser anser</i> and <i>Anser albifrons flavirostris</i> which feed mainly on the polders adjacent to the site. In addition there are at least 16 species occurring in numbers of national importance while <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i> both listed on Annex I of the EU Birds Directive also occur regularly. Has breeding <i>Lutra lutra</i>.</p>	<p>Other habitats which have a minor presence include sand dune wet grassland, heath scrub and deciduous woodland.</p>
002293	Carrowbaun Newhall and Ballylee Turloughs SAC	<p>Delany S. (1997). I-WeBS Report 1995-96. Report of the Second Winter of the Irish Wetland Bird Survey. IWC BirdWatch Ireland Dublin. Jennings O'Donovan &amp; Partners and Southern Water Global (1997). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Volumes 1 &amp; 2. Unpublished report prepared for the Office of Public Works Dublin. Madden B. and Heery S. (1999). Census of Wintering Wetland Birds in South Galway (Gort-Ardrahan Catchment) Winter (1998/1999). Unpublished report prepared for Duchas the Heritage Service Dublin.</p>	<p>Along with Coole and Peterswell turloughs this turlough complex forms the third major area where streams descending from the Slieve Aughty Mountains</p>	<p>This site is situated in the limestone lowlands of south Galway. It consists of three separate turlough-type marshes in</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>disappear into the underlying limestone and as such is an essential element in the drainage system in this internationally important karstic region. Despite the vegetation in Newhall and Carrowbaun having been modified by drainage works and heavy grazing there are places where a good zonation of communities occur including stands of conservation value. The Ballylee component is much improved for agriculture and the main interest is at the sink area at the western end. When in flood the site is of local to regional importance for wintering waterfowl including <i>Cygnus cygnus</i> and <i>Cygnus columbianus</i> and also has nesting <i>Gallinago gallinago</i>. Small breeding colonies of <i>Rhinolophus hipposideros</i> and <i>Plecotus auritus</i> occur in Ballylee Castle.</p>	<p>Carrowbaun East and Newhall and the channel between Ballylee Castle and Pollanoween in which the Streamstown and Ballylee Rivers sink. The systems are linked at times of high flood. The lowest part of the Carrowbaun site is at the northern end where topographical ridges enclose two arms of wetland. Newhall lies in a broad peaty depression with gravel deposits at the southern end. At high water levels there is flooding northwards into Carrowbaun West. The Ballylee River is confined between a limestone ridge and drift deposits on the south-eastern side and has formed a channel through whose floor the water sinks. In flood it travels further</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>south-west and disappears in a tangled rocky area covered in scrub. Small amounts of groundwater feed the Carrowbaun and Newhall wetlands and there is very little noticeable flow in summer. Swallow holes occur at Pollaleen which introduces water from nearby Lough Coy as well as at Carrowbaun and at two places in the south-west end. Adjacent areas of wet grassland and improved grassland are included in the site for water quality reasons. Much of the site is grazed.</p>
002303	Dunmuckrum Turloughs SAC	Babtie Pettit (2000). N15 Bundoran / Ballyshannon Bypass. Environmental Impact Statement. Prepared for Donegal County Council. Goodwillie R. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service O.P.W. Dublin. Goodwillie R. (2000). Turloughs in the Ballyshannon Area Co. Donegal. Unpublished report to Biosphere Environmental Services Wicklow.	While small in area the turloughs in this site are of note as they are at the northern limit of the habitat in Ireland. The largest in the series has a varied morphology and good quality vegetation including an oligotrophic margin. The flora	The site is situated in a karstic area of south Donegal. It comprises a group of four small turloughs which lie in a W-E line and are probably hydrologically connected. The

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>includes several unusual species characteristic of turloughs. The proximity of this site to the coast also results in peculiarities that distinguish these turloughs from the nearest turloughs in Sligo and Mayo to the south.</p>	<p>westernmost turlough is the largest and best developed. The base remains wet throughout the year with water amongst the marsh vegetation but the sides dry out entirely and are covered by heathy grassland with outcropping limestone. Pools remain at the western end in summer and there is an obvious swallow hole with evidence of a seasonal stream. The second turlough in the series also has a permanent marsh at the base but the final two are smaller and dry out in summer. Typical turlough scrub woodland occurs at the flood line. For water quality reasons areas of improved grassland are included in the site.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
002336	Carn Park Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas The Heritage Service Dublin. Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Unpublished report Forest and Wildlife Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Westmeath. Unpublished report An Foras Forbartha Dublin. Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.	Although a relatively large proportion of this site has been afforested it still contains a substantial area of active raised bog. This is typical of the midland raised bog type with hummock/hollow complexes pools and Sphagnum lawns. The diversity of Sphagnum species is notably high and includes the nationally rare Sphagnum pulchrum. Degraded raised bog is also well represented though part of this has been afforested. The areas of cutover bog which have not been planted add to the biodiversity of the site.	Carn Park Bog lies approximately 8 km east of Athlone. It comprises an area of uncut high bog and surrounding cutover areas. Part of the high bog is active raised bog though the greater part is classified as degraded. A substantial area of the degraded high bog and the cutover bog has been planted with conifers. Part of the cutover bog has been invaded by Betula pubescens scrub. Further afforestation occurs adjacent to the site.
002342	Mount Hevey Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas The Heritage Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Westmeath. Unpublished report An Foras Forbartha Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. Young R. (1972). A Preliminary Report on Areas of Scientific Interest in County Meath. Unpublished report An Foras Forbartha Dublin.	Mount Hevey Bog is one of the most easterly relatively intact raised bogs in Ireland and represents one of the largest bog areas in the eastern half of the country. Although more than half of the site area consists of cutover bog there is a large area of active raised bog. The active areas support well-developed pool	Mount Hevey is a large midland raised bog which is situated 3 km north-east of Kinnegad village and lies on the border of counties Meath and Westmeath. The bog overlies Carboniferous limestone bedrock and occurs in four

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>areas and have a high Sphagnum cover which include the rare species Sphagnum fuscum and S. imbricatum. A soak area which has developed from an infilled lake and now supports some Betula pubescens trees adds diversity to the bog surface. A substantial area of uncut high bog that is classified as degraded raised bog is present. The degraded bog supports a wide range of plant communities depending on factors such as height of water table and past burning events. The bog and especially the active parts contains substantial areas of Rhynchosporion vegetation which have a typical species composition and generally exist in a well-preserved condition. The cutover areas which surround the high bog contain large areas of scrub woodland dominated by Betula pubescens.</p>	<p>sections. Two of these are small and lie to the north of a railway line while two larger lobes lie to the south of the railway line. These two larger lobes are of higher ecological value due to the presence of active bog. Cutover bog surrounds the uncut high bog. Part of the high bog and also part of the cutover has been afforested with conifers. Other parts of the cutover has been invaded by Betula pubescens scrub and small amounts of broad-leaved woodland. Some of the cutover has been converted to semi-improved grassland.</p>
002348	Clooneen Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office	This is a relatively large midland raised bog	Clooneen Bog is located on the east

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Dublin.Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas The Heritage Service Dublin.Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Unpublished report Forest and Wildlife Service Dublin.National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.	complex which is one of the most northerly in the country. Although the high bog surface is rather dry and predominantly classified as degraded bog there is good habitat diversity with wet bog woodland pool systems and flush areas present. The area of bog woodland which is mainly of <i>Betula pubescens</i> is of particular interest as it ranks as one of the most extensive examples of the habitat in the country. Rhynchosporion vegetation appears to be well developed if somewhat limited in extent and contains the relatively rare <i>Rhynchospora fusca</i> .	bank of the River Shannon approximately 3 km south-east of Roosky Co. Longford. The site contains a large area of rather dry uncut high bog surrounded by cutover bog. The majority of the high bog is classified as degraded raised bog with only a very small area of active bog. The cutover is now mostly semi-improved or wet grassland with a small area of improved grassland also present. Some <i>Betula pubescens</i> scrub also occurs on the cutover.
002350	Curraghlehanagh Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin.Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Unpublished report Wildlife Service Dublin.Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin.Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin.National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.Quinn A.C.M. (1971). A Preliminary Report on Areas of Scientific Interest in Co. Galway. Unpublished report An Foras Forbartha Dublin.	This site contains good examples of active raised bog degraded raised bog and Rhynchosporion vegetation. A relatively undisturbed core of wet active bog occurs in the centre of the high bog area and has a high Sphagnum cover which includes scarce species such as Sphagnum	Curraghlehanagh Bog is a medium-sized raised bog site located 6 km north of Mount Bellew village in the eastern half of County Galway. The bog overlies Carboniferous limestone bedrock and occupies a

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>fuscum and <i>S. imbricatum</i>. There is a substantial area of degraded raised bog which despite drying out still retains a good cover of raised bog vegetation. <i>Rhynchosporion</i> vegetation is best developed in the area of active bog where it is frequent in the inter-pool areas. The broadly ovoid outline of this bog is a positive feature for restoration. The site is one of a cluster of small to medium-sized bogs in the east Galway area.</p>	<p>relatively low-lying plateau within the upper reaches of the Shivan river. Land surrounding the site is rather flat and is dominated by agricultural grassland. Much of the uncut high bog is surrounded by cutover surface with small areas of scrub and semi-improved grassland present on the cutover. The northern part of the cutover has been afforested within the past few decades.</p>
004032	Dungarvan Harbour SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997) Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Guiry M.D. and Kilty G.M. (1972). The <i>Zostera</i> beds of Dungarvan Co. Waterford. <i>Irish Naturalists' Journal</i> 17: 187-189. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). <i>Water Quality in Ireland 1998-2000</i>. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9.</p>	<p>This site qualifies for international importance as waterfowl numbers regularly exceed 20000. It also qualifies as it supports internationally important populations of <i>Branta bernicla hrota</i>, <i>Limosa limosa</i> and <i>Limosa lapponica</i>. The <i>Limosa lapponica</i> population is one of the largest in the country comprising 6.0% of the national total. A further eleven species have</p>	<p>The site is a large east-facing bay sheltered on the south by Helvick Head and Ballynacourty Point to the north. A narrow north-south shingle spit which almost divides the bay in two provides very sheltered conditions for the inner part of the site. The bay is essentially the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Walsh P. and McGrath D. (1988). Waterford Bird Report 1976-1986. Irish Wildbird Conservancy Waterford.	populations of national importance notably Pluvialis squatarola (5.9% of total) Pluvialis apricaria (3.3% of total) Calidris alpina (3.6% of total) Calidris canutus (2.8% of total) and Tadorna tadorna (3.6% of total). The site provides high quality feeding areas and good roost sites. At high tides however roosts outside of the site area are also used. Overall this is the most important site for waterfowl in County Waterford and is one of the most important in the region.	estuaries of three main rivers the Brickey the Colligan and the Glendine. At low tide very extensive intertidal sand and mud flats are exposed. These have a diverse macro-invertebrate fauna and Zostera is present. Salt marshes often fringe the intertidal flats especially in the more sheltered areas. The site includes a substantial area of shallow marine water in outer Dungarvan Harbour.
004033	Bannow Bay SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997) Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989) Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	Bannow Bay supports an excellent diversity of wintering waterfowl and is one of the most important sites in the south-east. Of particular note is an internationally important population of Branta bernicla hrota. It also supports nationally important numbers of a further 12 species which includes 3.4% of the national total for Tadorna tadorna 3.0% of	Bannow Bay is a large very sheltered estuarine system with a narrow outlet to the sea. Very extensive intertidal mud and sand flats are exposed at low tide with an average width of about 2 km. A number of small to medium sized rivers flow into the site the



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			<p>the total for <i>Limosa limosa</i> 2.6% of the total for <i>Limosa lapponica</i> and 2.6% of the total for <i>Anas acuta</i>. The intertidal sand and mud flats provide excellent feeding for waterfowl species while suitable roosts are provided by the salt marshes and other shoreline habitats. Habitats are generally of good quality. Part of site is a Wildfowl Sanctuary. The site has been well monitored since the 1970s.</p>	<p>principal being the Owenduff and the Corock which enter at the top end of the estuary. The sediments have a rich macroinvertebrate fauna with such species as <i>Scrobicularia plana</i> <i>Hediste diversicolor</i> and <i>Arenicola marina</i> being frequent. Salt marshes are well developed in the sheltered areas of the site. The main landuse within the site is shellfish farming. The site is surrounded by agricultural land of moderate to high intensity.</p>
004035	Cummeen Strand SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Sligo. An Foras Forbartha Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Jennings O'Donovan and Partners (1998). Sligo Main Drainage Waste Water Treatment</p>	<p>Cummeen Strand is of importance for the diversity of wintering waterfowl and is an integral part of the larger unit of Sligo Bay. The site has an internationally important population of <i>Branta bernicla hrota</i> and supports nationally important numbers of <i>Haematopus ostralegus</i></p>	<p>Cummeen Strand SPA comprises the greater part of Sligo Harbour the middle one of the three 'arms' forming Sligo Bay. The site extends for up to 7 km from east to west and has an average width of c.2.5 km. The site is</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Works. Environmental Impact Statement Main Report Volumes 1 and 2. Report prepared for Sligo Corporation. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>and <i>Tringa totanus</i>. Both <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i> utilise the site though in relatively low numbers. The intertidal flats which have well-developed macro-invertebrate communities and <i>Zostera</i> beds provide good feeding grounds for the wintering birds. Birds roost on the salt marshes and upper shoreline though on high tides some may leave the site to roost elsewhere.</p>	<p>the estuary of the Garavoge River a short slow-flowing river which flows from Lough Gill. The harbour is very enclosed with the mouth of the harbour being sheltered by two islands (Coney Island and Oyster Island). A large proportion of the estuary is intertidal (&gt; 80%). Sediments are predominantly sands or coarser materials though muddy sands or muds also occur. <i>Zostera</i> beds are present. The intertidal sand and mud flats are fringed by salt marshes in places but mostly stony shoreline. Sligo Harbour is a regional port for the town of Sligo.</p>
004036	Killala Bay/Moy Estuary SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife</p>	<p>This site is a fine example of an estuarine system in a natural state. It supports an excellent diversity of wintering waterfowl and is one of</p>	<p>This large site comprises the inner estuarine part of Killala Bay at the mouth of the River Moy. It is a funnel-</p>

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		<p>International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>the most important sites in the region. Six of the species have populations of national importance: <i>Limosa lapponica</i> <i>Charadrius hiaticula</i> <i>Pluvialis squatarola</i> <i>Calidris alba</i> <i>Calidris canutus</i> and <i>Calidris alpina</i>. <i>Pluvialis apricaria</i> also occurs in numbers close to national importance. There is a regular population of <i>Branta bernicla hrota</i> which in some winters exceeds the threshold for international importance. <i>Gavia stellata</i> is regular within the site. The Red Data Book species <i>Groenlandia densa</i> occurs in the site.</p>	<p>shaped estuary that is approximately 7 km wide at its outer limit. The site is well-sheltered by a sandy island Bartragh Island that extends across much of the outer part and by a sandy peninsula which extends from Enniscrone on the eastern side. Extensive intertidal sand and mud flats are exposed at low tide. Salt marshes skirt part of the intertidal flats.</p>
004042	Lough Corrib SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Creme G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. Biology and Environment Proceedings of the Royal Irish Academy 97B: 149-156. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Gittings T. and Delany S. (1996). A pre-breeding census of Common Scoters in Ireland in 1995. Irish Birds 5: 413-422. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds). Important Bird Areas in</p>	<p>The site is of international importance for wintering <i>Aythya ferina</i> but also qualifies for international importance because it regularly supports well in excess of 20000 waterfowl. It is one of the top five sites in the country for wintering waterfowl. Of particular importance is that it is the most important site</p>	<p>Lough Corrib is the largest lake in the Republic of Ireland. The lake can be divided into two parts: a relatively shallow basin underlain by Carboniferous limestone in the south and a larger deeper basin underlain by more acidic granite</p>

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		<p>Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Poyser London. Ruttledge R.F. (1987). The breeding distribution of the Common Scoter in Ireland. Irish Birds 3: 417-426. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Tierney T.D. Dunne J. and Callanan T. (2000). The Common Scoter <i>Melanitta nigra nigra</i> breeding in Ireland range expansion or site relocation ? Irish Birds 6: 447-452. Whilde A. (1978). A survey of gulls breeding inland in the west of Ireland in 1977 and 1978 and a review of the inland breeding habit in Ireland and Britain. Irish Birds 1: 134-160. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Whilde A. (1990). The 1990 spring movement of Common Gulls and Black-headed Gulls at Lough Corrib Co. Galway. Irish Birds 4: 227-229. Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A repeat survey of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p>	<p>in the country for <i>Aythya ferina</i> <i>Aythya fuligula</i> and <i>Fulica atra</i> supporting 21% 46% and 13% of the respective national totals. It also has nationally important populations of wintering <i>Cygnus olor</i> <i>Anas strepera</i> <i>Anas clypeata</i> <i>Pluvialis apricaria</i> and <i>Vanellus vanellus</i>. The lake is a traditional site for <i>Anser albifrons flavirostris</i>. Small numbers of <i>Cygnus cygnus</i> winter. Lough Corrib is a traditional breeding site for gulls and terns. There are nationally important colonies of <i>Sterna hirundo</i> and <i>Sterna paradisaea</i> as well as <i>Larus ridibundus</i> and <i>Larus canus</i>. Considerable higher numbers of gulls bred in the 1970s and 1980s. Whilst only colonised in the 1970s/80s by nesting <i>Melanitta nigra</i> Lough Corrib now supports approximately half of the national population of this rare duck which is a Red Data Book species. The population has been stable since the mid</p>	<p>schists shales and sandstones to the north. The main inflowing rivers are the Black Clare Dooghta Cregg Owenriff and the channel from Lough Mask. The main outflowing river is the Corrib which reaches the sea at Galway City. Lough Corrib is classified as a mesotrophic system and overall water quality is considered to be satisfactory. The shallow lime-rich waters of the southern basin of the lake support one of the most extensive beds of charophytes (<i>Chara</i> spp.) in Ireland which occur mixed with submerged pondweeds (<i>Potamogeton</i> spp.). Large areas of reedswamp vegetation dominated by varying mixtures of <i>Phragmites australis</i> and <i>Scirpus lacustris</i> occur around the</p>

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			<p>1990s. Lough Corrib supports a range of species listed on Annex II of the E.U. Habitats Directive including <i>Lutra lutra</i> <i>Salmo salar</i> and <i>Najas flexilis</i>.</p>	<p>margins of the lake. Reeds swamp usually grades into species-rich marsh vegetation. Of particular note are the extensive beds of <i>Cladium mariscus</i> that have developed over the marly peat deposits in sheltered bays. The lake has numerous islands from rocky islets to larger islands with grassland or woodland. The surrounding lands are mostly pastoral farmland to the south and east and bog and heath to the west and north. Lough Corrib is an internationally renowned salmonid fishery.</p>
004045	Glen Lough SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Crowe O. (2005). Irelands Wetlands and their Waterbirds: Status and Distribution. Birdwatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04 Bird Study 55: 66-77. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe:</p>	<p>The main importance of this site is that it is used (along with Lough Iron and other sites) at times by an internationally important population of <i>Cygnus cygnus</i>. At times the site is utilised by the internationally important midland lakes population</p>	<p>Glen Lough had practically no surface water owing to extensive drainage in the 1960s which resulted in a dramatic drop in the water table. However the area</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>of <i>Anser albifrons flavirostris</i> although usage of the site is not regular. It has a range of other waterfowl species mainly dabbling duck but in relatively low numbers. The <i>Anas clypeata</i> populations at times exceeds the qualifying threshold for national importance.</p>	<p>does flood in the winter months. Since 2005 there has been active management of the site to retain water including the construction of embankments. Sedge-dominated freshwater marsh now occupies the majority of the site with species such as <i>Carex rostrata</i> and <i>Phalaris arundinacea</i> present. Other habitats present include reedswamp wet and dry grassland cutaway bog colonised by heath vegetation scrub and wet willow woodland.</p>
004057	Lough Derg (Donegal) SPA	<p>Creame G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. Biology and Environment. Proceedings of the Royal Irish Academy 97B: 149-156. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife</p>	<p>Inishgoosk Island in Lough Derg supports the largest colony of nesting <i>Larus fuscus</i> in Ireland as well as a colony of <i>Larus argentatus</i> of national importance. The site was formerly a regular feeding/roost haunt for the flock of <i>Anser albifrons flavirostris</i> that frequents the Pettigoe</p>	<p>Lough Derg is a large oligotrophic lake situated north of Pettigo. The lake lies in a landscape of extensive blanket bogs and conifer plantations which make up its catchment. The underlying geology of the area is acid</p>

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		<p>Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Ruttledge R.F. and Ogilvie M. A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Whilde A. (1978). A survey of gulls breeding inland in the west of Ireland in 1977 and 1978 and a review of the inland breeding habit in Ireland and Britain. Irish Birds 1: 134-160. Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A repeat survey of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p>	<p>Bog complex. The recent status of this species in the site and surrounding area is not well known. The lake is a fine example of an oligotrophic system. Salvelinus alpinus a species listed in the Irish Red Data Book occurs in the lake.</p>	<p>gneiss with some basic intrusions. The lakeshore is mostly stony and marginal vegetation is poorly developed due to the close proximity of the conifer plantations although good examples of wetland scrub occur in places on the lakeshore and on some of the islands. Inishgoosk is the island used by the nesting gulls.</p>
004058	Lough Derg (Shannon) SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Heery S. (1996). Birds in Central Ireland - Mid Shannon Bird Report 1992-1995. Birdwatch Ireland Dublin. Heery S. (ed.) (2000). Birds in Central Ireland: Mid-Shannon Bird Report 1996-1999. BirdWatch Ireland Dublin Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Macdonald R.A. (1987). The breeding population and distribution of the Cormorant in Ireland. Irish Birds 3: 405-416. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002).</p>	<p>Lough Derg is of importance for both breeding and wintering birds. The islands support nationally important breeding colonies of Sterna hirundo Phalacrocorax carbo Podiceps cristatus and probably Aythya fuligula. It is a traditional site for nesting Larus ridibundus but there is no recent survey information. In winter the lake is particularly important for diving ducks with nationally important populations of Aythya fuligula and</p>	<p>Lough Derg is the largest of the Shannon Lakes being some 40 km long. Its maximum breadth across the Scarriff Bay-Youghal Bay transect is 13 km but for most of its length it is less than 5 km wide. The lake is relatively shallow at the northern end being mostly 6 m in depth but in the middle region it has an axial trench and descends to over 25 m in places. The</p>

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		<p>Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford.</p> <p>Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge.</p> <p>Minchin D. Maguire C. and Rosell R. (2003). The zebra mussel (<i>Dreissena polymorpha Pallas</i>) invades Ireland: human mediated vectors and the potential for rapid intra-national dispersal. <i>Biology and Environment Proceedings of the Royal Irish academy</i> 103B: 23-30.</p> <p>Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). <i>Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland</i>. Poyser London.</p> <p>Reynolds J.V. (1990). The breeding gulls and terns of the islands of Lough Derg. <i>Irish Birds</i> 4: 217-226.</p> <p>Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. <i>Irish Birds</i> 1: 293-363.</p> <p>Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. IWC Dublin.</p>	<p><i>Bucephala clangula</i> occurring. <i>Cygnus olor</i> also has a population of national importance whilst a range of other species occur in lesser numbers including <i>Cygnus cygnus</i>, <i>Anas crecca</i>, <i>Fulica atra</i> and <i>Vanellus vanellus</i>. A flock of <i>Anser albifrons flavirostris</i> has traditionally used the site where they feed on grassy islands but birds have seldom been recorded in recent years.</p>	<p>narrow southern end of the lake has the greatest average depth with a maximum of 34 m. The greater part of the lake lies on Carboniferous limestone but the narrow southern section is underlain by Silurian strata. Most of the lower part of the lake is enclosed by hills on both sides the Slieve Aughty Mountains to the west and the Arra Mountains to the east. The northern end is bordered by relatively flat agricultural country. The lake shows the high hardness levels and alkaline pH to be expected from its mainly limestone catchment basin and it has most recently been classified as a mesotrophic system. The lake has many small islands especially on its western and northern sides. The</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				shoreline is often fringed with swamp vegetation. Aquatic vegetation includes a range of charophyte species.
004060	Lough Fern SPA	<p>Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbirds numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77.</p> <p>Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8).</p> <p>Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford.</p> <p>Robinson J.A. Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swan <i>Cygnus cygnus</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge.</p> <p>Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>The site is of importance mainly for the high numbers of diving duck that it supports. The <i>Aythya ferina</i> population is of national importance with substantial numbers of <i>Aythya fuligula</i>. It supports a range of other species though in relatively low numbers including <i>Cygnus cygnus</i>, <i>Fulica atra</i> and some dabbling duck. Numbers of birds fluctuate a lot probably reflecting the relatively small size of the lake. More rigorous monitoring of bird populations is required. The site supports the Red Data Book plant <i>Trollius europaeus</i>. The Leannan is an important salmonid system.</p>	<p>Lough Fern is a relatively small lake with a maximum length of 2.5 km. The lake lies on the Leannan River and is underlain by metamorphic rock (schist gneiss quartzite). It is a shallow system with a maximum depth of 2.5 m. The water is soft though not markedly coloured. It is classified as mesotrophic (sampled in 2000). The shoreline is often stony though swamp vegetation occurs in the northern and southern parts. There are two small islands within the lake both covered with deciduous woodland.</p>
004068	Inishmurray SPA	<p>Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1.</p> <p>Hannon C. Berrow S.D. and Newton S.F. (1997). The status and</p>	Inishmurray is a traditional site for	Inishmurray is an exposed low-lying

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Praeger R.L. (1896). The plants of Inishmurray Co. Sligo. Irish Naturalist : 177-178. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>breeding terns though numbers vary considerably between years. In 1995 it held almost 5% of the national total for Sterna paradisaea and up to 2% of the national total for Sterna hirundo. The site supports a colony of Hydrobates pelagicus but there are no recent survey data. Earlier estimates indicated it could be between 100 and 1000 pairs in strength. Other breeding seabirds which have nationally important populations are Phalacrocorax aristotelis Larus argentatus and Larus marinus. Several further species Larus canus Larus fuscus and Cepphus grylle have regionally important populations. Inishmurray supports a nationally important population of Somateria mollissima. The site is a wintering ground for Branta leucopsis. Numbers are of national importance though the birds are likely to be part of a larger population which frequents the mainland</p>	<p>island lying approximately 6 km off Streedagh Point in the outer part of Donegal Bay. It consists of a low reef of Carboniferous sandstone with a thin covering of soil often peaty in character. Wet grassland is the dominant habitat though dry grassland and scrub also occur. Several small ponds are present. There is a fine rocky shoreline and some low cliffs at the western end. The surrounding seas to a distance of 200 m from the shoreline where seabirds forage bathe and socialise are included in the site. The island has been uninhabited since the 1950s and is an important archaeological site being well-known for its early Christian remains.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			and is of international importance.	
004073	Tory Island SPA	<p>Alcorn S. Donaghy A. and Moloney D. (2009). Corncrake Fieldwork in North and West Donegal 2009. Unpublished Report by Birdwatch Ireland for National Parks and Wildlife Service. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Gibbons D.W. Reid J.B. &amp; Chapman R.A. (1993). The new Atlas of Breeding Birds in Britain and Ireland: 1988-1991. Poyser London. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish Natural Heritage. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lauder C. and Donaghy A. (2008). Breeding Waders in Ireland 2008: A Review and Recommendations for Future Action. Unpublished Birdwatch Ireland Report to NPWS. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Sheppard R. (1995). Hybrid Tree x House Sparrow in County Donegal. Irish Birds 3: 319-320.</p>	<p>Tory Island is of particular conservation importance as it supports a nationally important population of <i>Crex crex</i> which has increased in recent years and now represent over 16% of the all-Ireland total. It is also an important seabird site supporting nationally important numbers of four species: <i>Fulmaris glacilis</i> <i>Larus canus</i> <i>Alca torda</i> and <i>Fratercula arctica</i>. A small colony of <i>Hydrobates pelagicus</i> occurs and also breeding <i>Falco peregrinus</i> and <i>Pyrhrocorax pyrrhcorax</i>. A range of wader species breed including <i>Charadrius hiaticula</i> and <i>Vanellus vanellus</i>. <i>Passer montanus</i> a Red Data Book species occurs. Two Red Data Book plants <i>Ligusticum scoticum</i> and <i>Crambe maritima</i> are found on the island. Habitat quality throughout the island is generally good.</p>	<p>Tory Island is a remote inhabited island lying some 11 km off the north-west Donegal coast. It is approximately 4 km in length and 1 km in width. The bedrock is mainly igneous granite with a few dolerite intrusions. The extreme eastern section however is made up of more resistant Ards Quartzite and here high sea-cliffs rising to 86 m occur. Cliffs continue along the north coastline while the southern shoreline consists of bedrock shore and boulder beach. Shingle is well-represented along the south-west shoreline and forms an effective barrier to impound a small lagoon Lough Ayes. Heath and cutaway bog occupies much of the interior of the island and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>especially the northern part in from the cliffs while much of the remainder of the island comprises wet or dry grassland some of which is improved. Other habitats include small shallow lakes and marsh vegetation. A marine area is included around the north-east cliffs for the benefit of seabirds. The main landuse on the island is low intensity agriculture with grazing by sheep and cattle and some arable cultivation.</p>
004086	River Little Brosna Callows SPA	<p>Casey C. (1998). Distribution and conservation of Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Heery S. (1993). The Shannon Floodlands - a Natural History of the River Shannon Callows. Tir Eolas Kinvara. Heery S. and Cooney T. (1997). A Part Re-survey of the Breeding Waders on the Shannon/Little Brosna Callows. Unpublished report to National Parks and Wildlife Service. Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-</p>	<p>This site is of international importance because it regularly supports in excess of 30000 waterfowl and is rated among the top five sites in the country for numbers of wintering birds. At a species level it supports internationally important populations of Anser albifrons flavirostris and Limosa</p>	<p>The site follows the River Brosna from its confluence with the River Shannon for approximately 9 km south-eastwards to just beyond New Bridge. The main habitat present is grassland that is improved to varying extents and which is seasonally</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Nairn R. Herbert I.J. and Heery S. (1988). Breeding waders and other wet grassland birds of the River Shannon callows Ireland. Irish Birds 3: 521-537. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Tierney T.D. Hudson J. and Casey C. (2002). Survey of breeding waders on the River Shannon Callows 2002. Irish Birds 7: 21-32.</p>	<p>limosa. The Anser albifrons flavirostris flock is the largest outside of the Wexford Slobbs whilst the Limosa limosa population accounts for over 15% of the national total and is the largest in the country. It has nationally important populations of a further seven species: Cygnus cygnus Anas penelope Anas crecca Anas acuta Anas clypeata Pluvialis apricaria and Vanellus vanellus. The Anas penelope population is over 10% of the national total whilst the Anas acuta Anas clypeata and Pluvialis apricaria populations are over 5% of the respective totals. The Calidris alpina population is notable as inland populations of this species are rare. It has substantial nesting populations of Gallinago gallinago and Tringa totanus though the numbers of nesting waders has decreased since the 1980s. Crex crex formerly bred but not since the early 1990s. This site provides one of the few remaining</p>	<p>flooded. The less improved areas are species-rich. The grassland is used mainly for pasture but some is used for hay-making. The river channel is fringed by swamp and marsh vegetation. The site adjoins several raised bogs and cutover bogs.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			examples in the country of a large river system which still floods in a fairly natural way.	
004087	Lough Foyle SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	This site is a relatively small part of the Lough Foyle estuarine complex a site of high ornithological importance. The Lough Foyle SPA provides feeding habitat for a range of wintering waterfowl species but all are in relatively low numbers. Gulls are regular in winter with substantial numbers of <i>Larus argentatus</i> and <i>Larus marinus</i> .	The site comprises a section of the western shore of Lough Foyle between Muff and White Castle. Habitat is almost entirely intertidal mudflat with small areas of sand and shingle. The quality of intertidal habitat is not known but it may be somewhat enriched due to the proximity of Derry City (less than 10 km upstream).
004090	Sheskinmore Lough SPA	Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Choughs <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-191. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-	Sheskinmore Lough SPA was formerly of high importance for wintering geese but populations have declined in recent years. The population of <i>Anser albifrons flavirostris</i> was formerly of international importance but has declined since the 1980s and is now only of regional importance. Nevertheless Sheskinmore is still a	This site comprises a complex of coastal habitats adjacent to Loughros More Bay. The solid geology is largely obscured by sand but the fringe of a granitic intrusion forms the higher ground to the north-east of the lake. Calcareous sands blow across the site and there is

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>156.Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56.Merne O.J. and Walsh A. (2003). Barnacle Geese in Ireland spring 2003. Irish Birds 7: 173-176.Nairn R.G.W. and Sheppard J.R. (1985). Breeding birds of sand dune machair in north-west Ireland. Irish Birds 3: 53-70.Ruttledge R.F. and Ogilvie M. A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Sheppard R. and Sheppard E. (1985). Neotinea maculata (Desf.) Stearn in County Donegal. Irish Naturalists' Journal 21: 534-535.</p>	<p>core feeding and roost site for the remaining birds and the population is significant as it is one of the few flocks still using traditional habitats (it also uses two bogland feeding sites). The site was formerly utilised by an internationally important population of Branta leucopsis which also uses the nearby Inishkeel and Roaninish islands. However in recent years Branta leucopsis appears to have abandoned Sheskinmore as a feeding site. A feature of the site is the large number of Pyrrhocorax pyrrhocorax that frequent the area through the year and especially in winter. These birds which nest elsewhere on the coast feed and socialise within the site. There is a substantial breeding population of Vanellus vanellus whilst Calidris alpina bred in the past. Sheskinmore has a well-developed flora including the Red Data Book species Draba incana and is particularly notable for its orchid flora which</p>	<p>seepage of basic water from the dunes to the lake. Sheskinmore Lough itself is a shallow lake that is fed by the Duvoge and Abberachrin rivers. It has good stands of swamp vegetation and merges into fen wet grassland and machair habitats. An area of orchid-rich calcareous grassland occurs to the north of the lake. Unimproved coastal grassland grades into a well-developed sand dune system in the western sector of the site which is edged on the west by Trawmore Strand and to the south by Ballinreavy Strand. The site includes the outer part of the Owentocker Estuary. Salt marshes are well developed within the site.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			includes the localised <i>Neotina maculata</i> . The lake has a population of <i>Najas flexilis</i> .	
004093	Termoncarragh Lake and Annagh Machair SPA	<p>Cabot D. and West B. (1983). Studies on the populations of Barnacle Geese wintering on the Inishkea Islands Co. Mayo. I. Population Dynamics 1961-1983. <i>Irish Birds</i> 2: 318-337. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. <i>Irish Birds</i> 6: 177-191. Merne O.J. (1989). <i>Important Bird Areas in the Republic of Ireland</i>. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. <i>Irish Birds</i> 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. <i>Irish Birds</i> 7: 53-56. Ruttledge R.F. (1994). <i>Birds in Counties Galway and Mayo. An Account of Their Status and Distribution</i>. Irish Wildbird Conservancy Dublin. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. Irish Wildbird Conservancy. Dublin. Suddaby D. (2004). <i>Meadows for crakes - restoration of Termoncarragh meadows gets underway</i>. <i>Wings</i> 33: 8</p>	<p>The site is of importance for both wintering and breeding birds. It is part of the wintering ground for the largest population of <i>Branta leucopsis</i> in the country and regularly supports a flock of international importance. It also has a range of other wintering species including <i>Cygnus cygnus</i>, <i>Anser flavirostris</i>, <i>albifrons</i> and <i>Pluvialis apricaria</i>. A range of breeding waders occur notably <i>Calidris alpina</i> and <i>Vanellus vanellus</i>. Formerly it was the principal site in the country for <i>Phalaropus lobatus</i> but the site now appears to be abandoned by this species. The Mullet was formerly a stronghold for <i>Crex crex</i> and the occasional bird is still recorded. Part of site is owned by BirdWatch Ireland who have recently commenced a management programme to improve</p>	<p>Termoncarragh Lake is a shallow coastal lake situated on the north-west side of the Mullet peninsula. It is fringed by swamp vegetation and edged in parts by freshwater marsh and fen. The lake habitats merge into a machair plain that is mostly divided into strip fields. Low sand hills occur between the machair and the sea. The innermost part of Portnafrankagh Bay is included in the site. Moinian schists underlie the site.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>habitat conditions for breeding waders including Phalaropus lobatus as well as Crex crex.</p>	
004096	Middle Shannon Callows SPA	<p>Casey C. (1998). Distribution and conservation of Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Copeland A. (2002). Delivering Corncrake Crex crex conservation in Ireland: Past present and future. Irish Birds 7: 33-42. Copeland A. and Madden D. (2002). Corncrake Fieldwork in the Shannon Callows 2002. Unpublished report BirdWatch Ireland. Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Heery S. (1991). The plant communities of the grazed and mown grasslands of the River Shannon callows. Proceedings of the Royal Irish Academy 91B (1): 1-19. Heery S. (1993). The Shannon Floodlands - a Natural History of the River Shannon Callows. Tir Eolas Kinvara. Heery S. (2000). Birds in Central Ireland. Mid-Shannon Bird Report 1996-1999. BirdWatch Ireland Dublin. Heery S. and Cooney T. (1997). A Part Re-survey of the Breeding Waders on the Shannon/Little Brosna Callows. Unpublished report to National Parks and Wildlife Service. Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Nairn R. Herbert I.J. and Heery S. (1988). Breeding waders and other wet grassland birds of the River Shannon callows Ireland. Irish Birds 3: 521-537. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Sheppard R. and Green R.E. (1994). Status of the Corncrake in Ireland in 1993. Irish Birds 5: 125-138. Tierney T.D. Hudson J. and Casey C. (2002). Survey of breeding waders on the River Shannon Callows 2002. Irish Birds 7: 21-32. Tubridy M. (ed.) (1984). Creation and Management of a Heritage Zone at Clonmacnoise Co. Offaly Ireland. Final Report EEC</p>	<p>This site is the largest area of semi-natural floodplain grassland in Ireland and has very many features of a natural ecosystem. Along with its main tributaries the River Suck and River Brosna it represents one of the most important wetland systems in the country. It is of International Importance for wintering waterfowl as numbers regularly exceed the 20000 threshold (mean of 34985 for the 5 winters 1994/94-1998/99). Of particular note is the presence of an Internationally Important population of Cygnus cygnus. A further five species have populations of national importance: Cygnus olor Anas penelope Pluvialis apricaria Vanellus vanellus and Limosa limosa. There is a well documented spring passage of Limosa limosa</p>	<p>The site follows the River Shannon from Athlone just below Lough Ree to Portumna just above Lough Derg a distance of over 50 km. It includes much of the flood plain of the river varying in width from approximately 0.5 km to up to 1.5 km in places. A weir at Meelick divides the flooding regime. The main habitat present is humid grassland improved to varying extents that is seasonally flooded. The less improved areas are species-rich. The grassland is used mainly for pasture but some is used for hay-making. The river channel is fringed by swamp and marsh vegetation. There is an</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Contract No. 6611/12. Environmental Sciences Unit Trinity College. Dublin. Tubridy M. (ed.) (1987). The Heritage of Clonmacnoise. Environmental Sciences Unit Trinity College. Dublin.</p>	<p>along the river valley. The Shannon callows are also of high importance for breeding birds. In particular it has the largest concentration of <i>Crex crex</i> in Ireland. Since 1991 a conservation programme involving annual monitoring of population size practical habitat management and publicity has been in operation. <i>Coturnix coturnix</i> a very rare species in Ireland also breeds in the grasslands. Several wader species notably <i>Vanellus vanellus</i> <i>Gallinago gallinago</i> and <i>Tringa totanus</i> have important breeding populations though these have declined substantially since the 1980s. The scarce breeding species <i>Anas clypeata</i> nests in small numbers each year. The callows is one of the very few sites in Ireland where <i>Limosa limosa</i> has bred. The habitats also support a range of ground nesting passerine species notably <i>Locustella naevia</i> and <i>Alauda arvensis</i>. In</p>	<p>extensive system of drainage channels many of which support a diverse flora. The callows often border raised bogs some of which are still intact.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			autumn and winter Circus cyaneus is a regular visitor.	
004107	Coole-Garryland SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Goodwillie R. (1992). Turloughs over 10 ha: Vegetation Survey and Evaluation. A report for the National Parks and Wildlife Service Dublin. Unpublished. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Southern Water Global and Jennings O'Donovan and Partners (1998). South Galway Flood Study Final Report (Vols.1-111). Prepared for Office of Public Works Dublin.</p>	<p>This site is of international importance for Cygnus cygnus which use the site for both feeding and roosting purposes though the flock also visits other feeding areas outside of the site. It was formerly of importance for Cygnus columbarius bewickii but birds have not been present in recent winters reflecting a decline that has occurred throughout the country. A good diversity of other wintering birds occurs notably Anas penelope which is close to the threshold for national importance. Also present are Anas crecca Anas clypeata Aythya ferina Vanellus vanellus and Numenius arquata. Coole Lough has particular significance for wintering waterfowl as during prolonged dry spells it is one of the few sites in the catchment which retains open water. The ecology of the site has been studied in detail.</p>	<p>The Coole-Garryland SPA is situated in a low-lying karstic limestone area west of Gort. It comprises a series of turloughs which are fed by springs and a partly submerged river surrounded by woodland pasture and limestone heath. Coole Lough is the largest and most permanent of the turloughs retaining some water throughout the year. Water levels vary greatly depending on rainfall and this has consequences on the numbers of birds present. During prolonged dry spells higher numbers of some species are present as birds from other sites in the catchment are attracted to the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>permanent waters of Coole Lough. Excessive flood conditions reduce the potential feeding areas though birds still roost on the lakes.</p>
004113	Howth Head Coast SPA	<p>Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Goodwillie R. (1988). A Preliminary Report on Areas of Scientific Interest in County Dublin. 2nd edition. An Foras Forbartha Dublin. Hart H.C. (1887). Flora of Howth. Hodges Figgis and Co. Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Jeffrey D.W. (1980). Howth Natural History. In: McBrierty V.J. (ed.). The Howth Peninsula Its History Lore and Legend. North Dublin Round Table Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Madden B. Merne O.J. and Newton S. (2000). East coast Black Guillemot survey 1998. Irish East Coast Bird Report 1999: 82-86. Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002. Merne O.J. (1989). Seabirds and Waterfowl of the Irish Sea. In: Sweeney J.C. (ed.). The Irish Sea: a Resource at Risk. Geographical Society of Ireland Special Publications No.3. Merne O.J. (1988). Recent changes in breeding seabird population in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987: 69-77. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland.</p>	<p>Howth Head has important colonies of breeding seabirds with nationally important populations of <i>Rissa tridactyla</i> <i>Alca torda</i> and <i>Cepphus grylle</i> and a regionally important population of <i>Uria aalge</i>. The colony has been monitored at intervals since the Operation Seafarer project in 1969/70 and most populations have increased since then. The cliffs also support a breeding pair of <i>Falco peregrinus</i> a species listed on Annex I of the E.U. Birds Directive. The site is easily accessible and has important amenity and educational value due to its proximity to Dublin City.</p>	<p>Howth Head is a rocky headland situated on the northern side of Dublin Bay. The peninsula is composed of Cambrian rock of the Bray Group the most conspicuous component being quartzite. The site comprises approximately 3 km of sea cliff which vary between about 60 m and 90 m in height. A typical maritime cliff flora occurs. Where the gradient allows shallow glacial drift supports a typical maritime flora and there is a fringe of coastal heath on the cliff tops. The marine area to a distance of 500 m from the cliff base</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				where seabirds bathe socialise and feed is included within the site.
004115	Inishduff SPA	Brazier H. and Cassidy M. (1985). Storm Petrels and Shags on Inishduff Co Donegal. In: O'Halloran J. Walsh P.M. Cross T.F. Kelly T.C. and Hutchinson C. (eds). Current ornithological research in Ireland. Irish Birds 3: 139-162. Cabot D.B. (1962). Birds on Inishduff Co. Donegal. Irish Naturalists' Journal 16: 36-37. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Walsh A. and Merne O.J. (1988). Barnacle Geese in Ireland spring 1988. Irish Birds 3: 539-550.	The island is of importance for breeding seabirds. Hydrobates pelagicus breeds though the colony is relatively small (estimated 100-400 pairs). Other breeding seabirds are Phalacrocorax aristotelis Larus argentatus Larus marinus and Cepphus grylle. There is also a nesting colony of Somateria mollissima a species confined to the northern coasts in Ireland. Inishduff is visited in winter by a population of Branta leucopsis; numbers however are relatively small (<60 individuals).	Inishduff is a small uninhabited rocky island lying approximately 2 km off the south coast of Donegal. It is a low-lying island rising to a maximum height of about 10 m. The island is vegetated by a short maritime grassy sward. The site includes the island and the surrounding seas to a distance of 200 m where seabirds forage bathe and socialise.
004116	Inishkeel SPA	Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database. BirdWatch Ireland Dublin. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Walsh A. and Merne O.J. (1988). Barnacle Geese in Ireland spring 1988. Irish Birds 3: 539-550.	The island is of importance as it provides feeding and refuge for a wintering flock of Branta leucopsis which at times exceeds the threshold for international importance. The flock also use Roaninish Island and the mainland site at Sheskinmore. Gweebarra	Inishkeel is a small to medium sized island situated approximately 500 m offshore from Portnoo in the inner part of Gweebarra Bay in west County Donegal. At low tide it is accessible from the mainland

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>Bay including the waters within the SPA support important wintering concentrations of <i>Clangula hyemalis</i> and <i>Somateria mollissima</i>. The latter species also breeds on the island.</p>	<p>by a sand spit. The island is largely comprised of Dalradian metasediments of the Lower Falcarragh Pelites formation but there is a large dyke of metadolerite in the centre of the island which reaches a peak of 19 m above sea level. It is a rugged low-lying island which is almost entirely covered by a maritime grassland sward. The island is grazed by cattle. The ruin of an old church is the only building on the island. The site includes the surrounding seas to a distance of 200 m from the shoreline.</p>
004117	Ireland's Eye SPA	<p>Blake Knox E. (1897). Notes from a trip to Ireland's Eye. <i>Irish Naturalist</i> 6: 204-205.          Cooney T. Marsh J. and Merne O.J. (1990). A new Gannet colony on Ireland's Eye Co. Dublin. <i>Irish East Coast Bird Report</i> 1989: 66-69. Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). <i>Flora of County Dublin</i>. Dublin Naturalists' Field Club Dublin. Hart H.C. (1887). <i>Flora of Howth</i>. Hodges Figgis and Co. Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). <i>The Birds of Dublin and Wicklow</i>. <i>Irish Wildbird</i></p>	<p>Ireland's Eye is an important seabird colony with 11 species breeding regularly. It has nationally important populations of <i>Phalacrocorax carbo</i> <i>Larus argentatus</i> <i>Larus marinus</i> <i>Rissa tridactyla</i></p>	<p>Situated c.1.5 km north of Howth Ireland's Eye is a small uninhabited island. The underlying geology is Cambrian greywackes and quartzites. These</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Conservancy Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002. Madden B. Merne O.J. and Newton S. (1988). East coast Black Guillemot survey 1998. Irish East Coast Bird Report 1999: 82-86. Merne O.J. (1988). Recent changes in breeding seabird populations in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987: 69-77. Merne O.J. and Madden B. (2000). Breeding seabirds of Ireland's Eye Co. Dublin. Irish Birds 6: 495-506. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: the status of Breeding Seabirds in Britain and Ireland.</p>	<p>Uria aalge and Alca torda. In addition the island has a recently established colony of Sula bassana which is one of only five in the country and the only one on the East coast. It also has regionally important populations of Fulmarus glacialis Phalacrocorax aristotelis Cepphus grylle and a small colony of Fratercula arctica. It is a traditional site for Falco peregrinus though this species only breeds in some years. It supports two Red Data Book plant species Crambe maritima and Hyoscyamus niger. The seabird colony is monitored annually.</p>	<p>rocks form impressive cliffs along the northern and eastern sides of the island reaching up to 69 m. A tall stack which is completely cut off from the main island at mid and high tide occurs at the eastern side of the cliffs. Elsewhere the island is covered by glacial drift. A sandy beach backed by shingle and low sand hills occurs at Carrigeen Bay on the western shore. A low-lying sparsely vegetated islet known as Thulla occurs a little south of the main island and an extensive area of bedrock shore is exposed at low tide to the south of the island. The main habitat on the island is a mix of dry grassland and bracken. The seas to the north and east of the island (to a distance of 500 m) where</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>seabirds feed bathe and socialise are included in the site. Owing to its proximity to the mainland the island is popular with day-trippers and also has educational value.</p>
004118	Keeragh Islands SPA	<p>Hannon C. (1997). The 1995 All Ireland Tern Survey. Unpublished Report. BirdWatch Ireland. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hurley J. (1994). The South Wexford Coast Ireland - A Natural Heritage Coastline. SWC Promotions Kilmore. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Macdonald R.A. (1987). The breeding population and distribution of the Cormorant in Ireland. Irish Birds 3: 405-416. Merne O.J. (1974). The Birds of Wexford Ireland. South-East Tourism and The Irish Tourist Board. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. West B. Cabot D. and Greer-Walker M. (1975). The food of the Cormorant (Phalacrocorax carbo) at some breeding colonies in Ireland. Proceedings of the Royal Irish Academy 75B: 285-304.</p>	<p>The site has a nationally important breeding colony of Phalacrocorax carbo which is considered to be one of the largest in the country. The site was well monitored in the past though an up-to-date survey is urgently required. Larus gulls bred in the past and small numbers may still breed. The islands may be used as a night roost by wintering waterfowl from the mainland. The site is well isolated and with little disturbance.</p>	<p>The Keeragh Islands are two low-lying islets located just over 1 km offshore from the south Wexford coastline. The site includes the islets and associated rocky shorelines and reefs as well as the surrounding marine area to a distance of 200 metres. The islets which rise to a maximum height of about 9 m above sea level have very small areas of land permanently above the tide line. The vegetation is predominantly maritime in character with species such as Festuca rubra Armeria maritima</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				Cochlearia officinalis and Silene vulgaris subsp. maritima. The surrounding reefs support a range of seaweeds.
004135	Ardboline Island and Horse Island SPA	Casey C. (1998). The distribution and conservation of Corncrakes in Ireland 1993-1998. Irish Birds 6: 159-176. Copland A. and Donaghy A. (2001). A Strategy for Corncrake Conservation in Ireland 2001-2010. Unpublished report BWI Dublin. Cotton D.C.F. (unpublished bird records). Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Macdonald R.A. (1987). The breeding population and distribution of the Cormorant in Ireland. Irish Birds 3: 405-416. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Merne O.J. and Walsh A. (2003). Barnacle Geese Branta leucopsis in Ireland spring 2003. Irish Birds 7: 173-176. Mitchell C. Walsh A. Hall C. and Crowe O. (2008). Greenland Barnacle Geese Branta leucopsis in Britain and Ireland: Results of the International Census Spring 2008. WWT NPWS and BirdWatch Ireland Report. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London.	In winter the site is utilised by part of the internationally important flock of Branta leucopsis that is based on the mainland at Ballintemple/Lissadell. The geese feed and roost on the islands which provide an important refuge. The islands support a Phalacrocorax carbo colony that is of national importance. This has been known since at least the 1970s and is one of the largest in the region. Small numbers of Larus gulls also breed as well as Somateria mollissima. Terns (Sterna spp.) have bred but not in past decades. Crex crex have also been recorded at this site in 2006. Habitat quality is good with no significant disturbance occurring.	The site comprises two small low-lying islands situated within 1 km of the county Sligo coast. The islands are underlain by Carboniferous limestone and support a maritime grassy sward. Both islands are surrounded by rocky reefs. The sea area between and around the islands is included in the site.
004140	Four Roads Turlough SPA	Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick	Four Roads Turlough is an important site for	Four Roads Turlough (also

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Fox T. Francis I. and Walsh A. (2008). Report of the 2007/2008 International Census of Greenland White-Fronted Geese. Greenland White-fronted Goose Study and NPWS. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Goodwillie R.N. (1992). Turloughs over 10 ha - Vegetation Survey and Evaluation. Unpublished Report to National Parks and Wildlife Service Dublin. Heery S. (1996). Birds in Central Ireland. Mid-Shannon Bird Report 1992-1995. BirdWatch Ireland Kilcoole. Heery S. (2000). Birds in Central Ireland. Mid-Shannon Bird Report 1996-1999. BirdWatch Ireland Kilcoole. Hills J.P. (2003). Rare Irish breeding birds. Irish Birds 7: 157-172. Hills J.P. (2004). First annual report of the Irish Rare Breeding Birds Panel. Irish Birds 7: 375-384. National Parks and Wildlife Service. Greenland White-fronted Goose Inventory. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-Fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth IWC Dublin.</p>	<p>wintering waterfowl. In most winters it is visited by the nationally important River Suck population of Anser albifrons flavirostris. The site also supports a nationally important population of Pluvialis apricaria (2.3% of the all-Ireland population). Other species which occur regularly include Anas penelope Anas crecca Anas platyrhynchos Anas clypeata and Vanellus vanellus. It is also occasionally used by Cygnus cygnus. Breeding species include Vanellus vanellus and Gallinago gallinago.</p>	<p>known as Cloonlaughnan Turlough) is located 6 km south of Athleague Co. Roscommon and just over 2 km east of the River Suck. It lies below a low scarp of limestone hills and is an open shallow basin without permanent standing water which floods regularly and dries out early.</p>
004153	Dingle Peninsula SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Cough Survey Ireland. Irish Birds 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Cough in Britain and Ireland. British Birds 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Cough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Cough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser</p>	<p>The topography of the Dingle Peninsula with its mosaic of grazed semi-improved and improved pasture extensive well-drained uplands and sand dune systems in close proximity of breeding cliffs favours Pyrrhocorax pyrrhocorax. Particularly high densities of this species occur at Reenbeg in the south of the site The Three Sisters in the</p>	<p>The Dingle Peninsula SPA is a large site situated on the west coast of Co. Kerry. It encompasses the high coast and sea cliff sections of the peninsula from south of Brandon Point in the north around to the end of the peninsula at Sleah Head and as far east as Inch in the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish Birds 6: 333-344. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs Pyrrhocorax pyrrhocorax in three Irish Chough Important Bird Areas.</p>	<p>north-west and Ballydavid Head in the north. Large flocks gather particularly in the autumn at inland sites and at coastal locations such as the dune systems at Inch and Castlegregory (which are included in other adjacent SPAs). Marked individuals have provided evidence that young birds converge in these flocks from throughout the peninsula and it is possible that the species gathers in the dunes here from further afield. The sea cliffs also support nationally important populations of breeding Falco peregrinus and Fulmarus glacialis.</p>	<p>south. The site includes the sea cliffs the land adjacent to the cliff edge an area of sand dunes near Murreagh and also several upland areas further inland of the coast about Ballybrack Lough Doon Anscaul Lough Arraglen and Ballynane. The high water mark forms the seaward boundary.</p>
004156	Sheep's Head to Toe Head SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. Irish Birds 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. British Birds 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S.</p>	<p>The site supports an important population of breeding Chough a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 82 breeding pairs were recorded from the site in the 1992 survey and 73 in the 2002/03 survey. During the winter of 2003/04 flocks of up to 27 birds were recorded within the SPA. The</p>	<p>The Sheep's Head to Toe Head SPA is large site situated on the south-west coast of Co. Cork. It encompasses the high coast and sea cliffs from Sheep's Head Brow Head and Crookhaven in the west and from Baltimore to Tragumna Bay</p>

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		<p>Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish Birds 6: 333-344. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs Pyrrhocorax pyrrhocorax in three Irish Chough Important Bird Areas.</p>	<p>highest densities of breeding Chough are on and around Mizen Head. The site supports an important Peregrine population (8 pairs in 2002); this species is listed on Annex I of the E.U. Birds Directive. The site also holds a nationally important population of Black Guillemot (137 individuals) as well as smaller populations of other breeding seabirds: Fulmar (57 pairs) Herring Gull (30 pairs) Shag (17 pairs) Kittiwake (20 pairs) and Great Black-backed Gull (1 pair) - all seabird data from 1999 2001 and 2002.</p>	<p>Gokane Point and the Toe Head peninsula in the east. The site includes the sea cliffs the land adjacent to the cliff edge (inland for 300 m) an area further inland to the east of Dunlough Bay and also areas of sand dunes at Barley Cove and Crookhaven. The high water mark forms the seaward boundary. Most of the site is underlain by Devonian sandstones and mudstones though Carboniferous rocks are also found on the Sheep's Head and Toe Head peninsulas.</p>
004159	Slyne Head to Ardmore Point Islands SPA	<p>Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Whilde A. (1985). The All Ireland Tern Survey 1984.</p>	<p>The islands within the site support an internationally important wintering population of Branta leucopsis (646 – 4 survey mean between 1993 and 2003). Since 1993 aerial surveys have recorded between 523 (1993) and 875 (2003) birds within the site. The</p>	<p>The site includes a number of islands along the Connemara coast Co. Galway from Slyne Head to Kilkieran Bay. It is characterised by a large number of small uninhabited islands rocks and</p>

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		Unpublished report for the Irish Wildbird Conservancy Dublin.	count in 2003 represented approximately 10% of the national total. The islands used by the geese include St Macdara's Island Croagnakeela Island Illaunacroagh More Illaunacroagh Beg Inishmuskerry and Birmore Island. The site is also a traditional breeding area for a number of tern species with nationally important populations of three species occurring i.e. <i>Sterna sandvicensis</i> (126 pairs in 1995 or 4% of the All-Ireland population) <i>Sterna paradisaea</i> (582 pairs in 1995 approximately 19% of the All-Ireland total) and <i>Sterna albifrons</i> (41 pairs in 1995 24% of the All-Ireland total). <i>Sterna hirundo</i> (24 pairs in 1995) and <i>Sterna dougalii</i> (5 pairs in 1984) have also been recorded breeding within the site. The terns can use different islands between years.	skerries. Some of the islands are up to 4 km from the mainland whilst others are in very shallow waters close to the shoreline. The larger islands in the site include Inishlackan Croagnakeela Island St Macdara's Island Masson Island Birmore Island Freaghillaun Illaunamid and Illaunurra. Most of the larger islands support maritime grassland; machair occurs on Masson Island. The surrounding seas to a distance of 200 m which are used as foraging areas by terns and other seabirds are included within the site.
004186	The Murrough SPA	Collin R. and Whelan J. (1993). Mute Swan herds in Dublin and Wicklow. Irish Birds 5: 11-22. Cooney T. and Madden B. (1993). Irish East Coast Birds Report 1992. Dublin. Cooney T. and Madden B. (1994). Irish East Coast Birds Report 1993. Dublin. Cooney T.	The site is of high importance for the good numbers and wide	The Murrough SPA comprises a coastal wetland complex

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>and Madden B. (1995). Irish East Coast Birds Report 1994. Dublin. Cranswick P.A. Bowler J.M. Einarsson O. Gardarsson A. McElwaine J.G. Merne O.J. Rees E.C. and Wells J.H. (1996). Numbers of Whooper Swan <i>Cygnus cygnus</i> in Iceland Ireland and Britain in January 1995: results of the international Whooper Swan census. <i>Wildfowl</i> 47: 23-36. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland. Crowe O. Austin G.A. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008a). Estimates and trends of waterbirds numbers wintering in Ireland 1994/95 to 2003/04. <i>Bird Study</i> 55: 66-77. Crowe O. Webb G. Collins E. and Smiddy P. (2008b). Waterways Bird Survey. NPWS OPW and BirdWatch Ireland Report. Hearn R. and Mitchell C. (2004). Greylag Goose <i>Anser anser</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetland Trust/Joint Nature Conservation Committee Slimbridge. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Poyser London. Robinson J.A. Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swans <i>Cygnus cygnus</i> (Iceland Population) in Britain and Ireland 1960/69 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetland Trust/Joint Nature Conservation Committee Slimbridge. Sheppard R. (1993) Irelands Wetland Wealth IWC Dublin. Smiddy P. and O'Mahony B. (1997). The status of the Reed Warbler <i>Acrocephalus scirpaceus</i> in Ireland. <i>Irish Birds</i> 6: 23-28.</p>	<p>variety of waterfowl species that it holds in winter and on passage. The improved grassland provides feeding for Greylag Geese (<i>Anser anser</i>). This is one of a handful of sites around the south and east coasts at which Reed Warbler (<i>Acrocephalus scirpaceus</i>) has in recent years proved to be a regular breeding species. For some years in the 1980s Bearded Tit (<i>Panurus biarmicus</i>) bred here at its only site in Ireland emphasizing the potential of this site to hold the community of reedswamp species present in Great Britain but largely absent in Ireland. The shingle beach is a breeding site for the country's largest colony of Little Tern (<i>Sterna albifrons</i>) and supports 19% of the all-Ireland population.</p>	<p>that stretches for 13 km from Kilcoole Station east of Kilcoole village in the north to Wicklow town in the south and extends inland for up to to 1 km. The site includes area of marine water to a distance of 200 m from low water mark. There is a railway on top of the beach and much agricultural reclamation of the marshes/saltmarshes.</p>
004187	Sligo/Leitrim Uplands SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Cough Survey Ireland. <i>Irish Birds</i> 5:1-10 Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Cough in Britain and Ireland. <i>British Birds</i> 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Cough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Cough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03.</p>	<p>The cliffs hold nesting Cough a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 14 breeding pairs were recorded from the site in the 1992</p>	<p>The Sligo/Leitrim Uplands SPA is located north-east of the town of Sligo in the mountain range of Ben Bulbin Arroo and</p>

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		Irish Birds 7: 147-156. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished Report to NPWS Dublin. Norris D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30.	survey and 15 in the 2002/03 survey. Chough forage mostly on unimproved closely grazed grassland and flocks of up to 29 have been seen. The land on the plateau is for the most part vegetated by heath and blanket bog which is largely unsuitable habitat for Chough. The extensive uplands on the plateau provide excellent habitat for Peregrine; the cliffs are ideal nesting sites and five pairs were recorded in 2002.	Cope's Mountain/Crockaun s. The site straddles the Co. Sligo/Co. Leitrim border. The site includes six separate lengths of cliffs in these ranges including those of King's Mountain Benbulbin Benwisin Gleniff Truskmore Tievebaun Glenade Glencar Arroo Mountain and Cope's Mountain/Crockaun s. These uplands are formed of Carboniferous limestone capped in places with shales. They stand on a high plateau 300-450m above the surrounding countryside and the edges form lofty cliffs from 15 to 300m in height. Areas of scree occur below cliffs on slopes of 40-50 degrees.
004190	Galley Head to Duneen Point SPA	Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. Irish Birds 5: 1-10. Bullock I.D.	The site supports an important population of	Galley Point to Duneen Point SPA is

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. British Birds 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs <i>Pyrrhocorax pyrrhocorax</i> in three Irish Chough Important Bird Areas.</p>	<p>breeding <i>Pyrrhocorax pyrrhocorax</i> - 11 breeding pairs were recorded from the site in the 1992 survey and 11 in the 2002/03 survey. In addition flocks of 4-6 birds have been noted.</p>	<p>situated to the south-west of the town of Clonakilty Co. Cork. It encompasses the sea cliffs south of Castlefrefre dunes to Galley Head north-eastward along the coast to Dunowen Head and Ringlea Point as far as the north side of Duneen Point. The site includes the sea cliffs and the land adjacent to the cliff edge. The high water mark forms the seaward boundary. Most of the site is underlain by Devonian sandstone siltstone and mudstone but similar rocks of Carboniferous age also occur.</p>
004221	Illaunnanoon SPA	<p>Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Creme G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. Biology and Environment. Proceedings of the Royal Irish Academy 97B: 149-156. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Lloyd C. (1982). Inventory of Seabird Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Ussher R.J. and Warren R. (1900). Birds of Ireland. Gurney and Jackson</p>	<p>Illaunnanoon supports a nationally important population of <i>Sterna sandvicensis</i> which has been breeding there since at least 1984. <i>Sterna hirundo</i> <i>Larus ridibundus</i> and <i>Larus canus</i> also breed on the island.</p>	<p>Illaunnanoon also known as Lamb's Island is a small low-lying island located about 2 km west of Letterfrack Co. Galway. It is situated at the mouth of Barnaderg Bay on the east side</p>



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		London.		of Ballynakill Harbour. It is composed of metamorphic rocks and supports a sward of coastal grassland. The site comprises the island and the surrounding marine waters and inter-tidal rocks.
004228	Lough Conn and Lough Cullin SPA	<p>Champ W.S.T. and King J.J. (1988). The Trophic Status of Lough Conn: An Extended Study. Central Fisheries Board Dublin. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Gittings T. and Delany S. (1996). A pre-breeding census of Common Scoters in Ireland in 1995. Irish Birds 5: 413-422. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Igoe F. O'Grady M.F. Byrne C. Gargan P. Roche W. and O'Neill J. (2001). Evidence for the recent extinctions of Arctic char <i>Salvelinus alpinus</i> from two catchments in the west of Ireland. Aquatic conservation; marine and freshwater ecosystems 2: 445-485. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. McGarrigle M.L. and Champ W.S.T. (1999). Keeping pristine lakes clean: Loughs Conn and Mask western Ireland. Hydrobiologia 395/396: 455-469. McGarrigle M.L. Champ T. Norton R. Moore M. and Larkin P. (1993). The Trophic Status of Lough Conn. Mayo County Council. McGarrigle M.L. Kilmartin L. and Hallissey R. (1997). Phosphorus loss from agriculture to water - a twin-catchment analysis in the Lough Conn catchment. In Collins J. (ed.). Proceedings of the Irish Soil Science Association University College Dublin April 1997. Mitchell P.I.</p>	Lough Conn and Lough Cullin is one of only four breeding sites in the country for <i>Melanitta nigra</i> (supporting 40% of the all-Ireland total) a species that in Ireland is at the south-west end of its European range. Recent surveys have recorded a considerably reduction in breeding pairs. Lough Conn and Lough Cullin is also of importance for wintering waterfowl with a nationally important population of <i>Aythya fuligula</i> (1% of all-Ireland total). The lakes attract other species in lesser numbers including <i>Cygnus olor</i> <i>Cygnus cygnus</i> <i>Anas crecca</i> <i>Pluvialis squatarola</i> <i>Bucephala clangula</i>	Lough Conn and Lough Cullin are situated in north Co. Mayo and are connected by a narrow inlet near Pontoon. The main inflowing rivers to Lough Conn are the Deel the Addergoole and the Castlehill while the main outflowing river from Lough Cullin is the River Moy. The lakes have a number of small islands. Fringing swamp vegetation occurs in some sheltered areas. Both Lough Conn and Lough Cullin are part of an important salmonid fishery.

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		<p>Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. O'Grady M. (1992). A review of fish stocks in Lough Conn 1978-1990. In: The Future of the Moy Fisheries Integrated Management and Development Plan for the River Moy System. North Western Fisheries Board Ballina Dublin. Robinson J.A Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swan <i>Cygnus cygnus</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge. Ruttledge R.F. (1987). The breeding distribution of the Common Scoter in Ireland. <i>Irish Birds</i> 3: 417-426. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. <i>Irish Birds</i> 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Tierney T.D. Dunne J. and Callanan T. (2000). The Common Scoter <i>Melanitta nigra nigra</i> breeding in Ireland range expansion or site relocation. <i>Irish Birds</i> 6: 447-452. Whilde A. (1978). A survey of gulls breeding inland in the west of Ireland in 1977 and 1978 and a review of the inland breeding habit in Ireland and Britain. <i>Irish Birds</i> 1: 134-160. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A repeat survey of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. <i>Irish Birds</i> 5: 67-72.</p>	<p>Vanellus vanellus and Podiceps cristatus. Lough Conn is also one of the sites utilised by a population of <i>Anser albifrons flavirostris</i>. The geese feed mainly on Annagh Island and at a shoreline site near Cloonaghmore Point.</p>	
004235	Doogort Machair SPA	N/A	<p>This site traditionally supported a breeding <i>Calidris alpina</i> subsp. <i>schinzii</i> population with ten pairs recorded here in 1985. The population declined to two pairs in 1996 and by 2009 no breeding <i>Calidris alpina</i> subsp. <i>schinzii</i> were recorded at the site. However <i>Calidris alpina</i> subsp. <i>schinzii</i> has been recorded here during the early stages of the breeding season in</p>	<p>Doogort Machair SPA is a small coastal site situated in the north-east corner of Achill Island adjacent to the village of Valley and approximately 3 km east of Doogort Co. Mayo. The site comprises machair and associated habitats including foredunes and freshwater marsh as well as</p>

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			<p>recent years indicating its potential as a breeding resource for this scarce breeding bird whose national population has declined in recent years. The site can also be of importance for other breeding wader species - a 1996 survey recorded eleven pairs of <i>Vanellus vanellus</i> and one pair of <i>Charadrius hiaticula</i>. It is also used on occasion by <i>Pyrhocorax pyrrhocorax</i>.</p>	<p>two lakes Lough Doo and Lough Nambrack.</p>
000014	Ballyallia Lake SAC	<p>Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmet R.F.A. and Jones T.B. (EDS.) Important bird areas in Europe. ICBP Technical Publication No.9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Hutchinson C.D. (1979). Ireland's Wetlands and their Birds. Irish Wildbird Conservancy Dublin. Heuff H. (1984). The Vegetation of Irish Lakes. Part 2. Unpublished report to the Wildlife Service Dublin.</p>	<p>This small shallow lake is a typical example of a natural eutrophic lake. The diversity of habitat around the lake is low and some of the marginal wetland habitats have been damaged by agricultural improvements. The quality of the water may also have deteriorated due to agricultural intensification in the area in recent years. The site is a very important bird site with a high diversity and some important populations of wintering waterfowl. Of note is the internationally important population of Shoveler</p>	<p>Ballyallia Lake is situated on the River Fergus about 4km north of Ennis. It is a shallow (max. depth 7.8 m) eutrophic calcareous lake with relatively clear water. The bottom is muddy sand rocky in the shallows. Low-lying areas of rough pasture occur to the west and south with higher sloping ground to the north and east. Lough Girroga situated less than 1km to the south forms</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			and the nationally important population of Gadwall. Breeding birds include Great Crested Grebe and Coot.	part of the site.
000020	Black Head-Poulsallagh Complex SAC	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. and Coveney J.A. (1992). The 2nd International Chough Survey: Ireland. Unpublished report to the RSPB Belfast.</p> <p>Byrne M. (1990). Annual reproductive cycles of the commercial sea-urchin <i>Paracentrotus lividus</i> from an exposed intertidal and a sheltered subtidal habitat on the west coast of Ireland. <i>Mar. Biol.</i> 104: 275-189.</p> <p>Curtis T.G.F. and McGough H.N. (1988). <i>The Irish Red Data Book 1. Vascular Plants.</i> Stationery Office Dublin.</p> <p>Heuff H. (1987). <i>The Vegetation of Irish Rivers.</i> Unpublished report to the Forest and Wildlife Service Dublin.</p> <p>Lewis J.R. (1964). <i>The Ecology of Rocky Shores.</i> Hodder and Stoughton Ltd UK.</p> <p>Lockhart N. (1998). Report on Survey of <i>Petalophyllum ralfsii</i> at Fanore Co. Clare. Unpublished report to Dúchas the Heritage Service National Parks and Wildlife Dublin.</p> <p>Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Dublin.</p> <p>McGough H.N. (1984). A Report on the Grasslands and Closely Related Vegetation Types of the Burren Region of Western Ireland. Unpublished report to the Forest and Wildlife Service Dublin.</p> <p>Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin.</p> <p>Praeger R.L. (1934). <i>The Botanist in Ireland.</i> Hodges Figgis and Co. Dublin.</p> <p>Webb D.A. and Scannell M.J.P. (1983). <i>Flora of Connemara and the Burren.</i> Royal Dublin Society Dublin and Cambridge University Press Cambridge.</p> <p>Southward A. J. and Crips D.J. (1954). The distribution of certain intertidal animals around the Irish coast. <i>Proceedings of the Royal Irish Academy</i> 57B: 1-29.</p>	<p>This site has an excellent diversity of typical Burren habitats with many rare plant species. The site is of particular value for the fine examples of high level <i>Arctostaphylos uva-ursi</i> heaths and for the presence of the only river found in the high Burren. This river the Caher is noted for its partly intermittent nature and the degree of development of tufa deposits. A superb and extensive example of a highly exposed vegetated shingle bank occurs at Poulsallagh with substrate ranging from large limestone boulders to pebbles. The littoral reef communities are important biogeographical variations of intertidal rocky shores extremely exposed to wave action and the area includes the best examples of this shore type in the</p>	<p>The Black Head-Poulsallagh complex encompasses a complete range of rocky Burren habitats from coastal glacially planed limestone pavements to high level heaths. The limestone pavement includes smooth blocky and shattered types. Erratics of Galway granite occur especially around Black Head which is the main glaciated area of the Burren. A mosaic of typical Burren habitats are found including calcareous grasslands heaths and scrub. The Caher River is a shallow limestone spring-fed system with important tufa deposits of considerable</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>country. The caves are the best known extensive network of caves that are connected to the sea in Ireland. While little is known of their biological diversity it is considered that they exist in a very natural state. The occurrence of <i>Petalophyllum ralfsii</i> adds to the interest of the site as does the presence of <i>Pyrrhocorax pyrrhocorax</i>.</p>	<p>thickness located to the west of the site. The shores are gently sloping stepped limestone pavements over most of the site but at Black Head the shore is narrow and very steeply stepped. There are numerous shallow rockpools on the shore. Black Head gives some protection to the shores immediately to the east but the west facing shores are extremely exposed to wave action. The shore has scattered cobbles and a number of pools are affected by these cobbles acting as mills in the pools causing severe scouring. In the most extreme cases there is a very impoverished flora and fauna present.</p>
000051	Lough Gash Turlough SAC	Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation Survey & Evaluation. Unpublished report for National Parks and Wildlife Service. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.	This site is at the extreme end of two ranges in variation of the turlough habitat i.e.	Lough Gash is a late-draining turlough in a hollow just to the west of

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			wetness and trophic status. It has a greater area of annual vegetation than any other site and this includes Rorippa islandica a rare species found in 10-20 turloughs. Wildfowl numbers are high for its size especially Aythya ferina and Cygnus olor. There is no effective drainage of the site and though over enriched its nutrient balance could be restored.	Newmarket-on-Fergus. It is flooded into August in most years and this results in the dominance of annual plant species which form an ungrazed stand 60cm high. This is surrounded by a fringe of amphibious species. Channels have been dug at the western and southern corners but these have little drainage effect. There are some wildfowl nesting. An inflow comes through the town on the east side and has a nutrient enriching effect.
000057	Moyree River System SAC	Heuff H. (1987). The Vegetation of Irish Rivers. Wildlife Service Office of Public Works. Unpublished report. (1)Keane S. & Rule M. (1993). NHA internal report to the Wildlife Service.	The Moyree river system is the best example of a karstic river after the Caher River in Ireland. The river exhibits an excellent example of nutrient gradients associated with silt deposition. Several good examples of active stream caves occur. 57% of the site consists of the	The Moyree River is a slow moving river which follows a partially subterranean course through a lowland karst region on the fringe of the eastern Burren. It is sheltered on the east by gentle

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Annex I priority habitat limestone pavement and its associated calcareous grasslands and scrub. A fine example of alkaline fen occurs within the flood plain of the river. A colony of the Annex II species <i>Rhinolophus hipposideros</i> occurs within the site. <i>Salmo trutta</i> was recorded from the river and <i>Clossiana euphrosyne</i> a butterfly species generally confined to a few localities in the west of Ireland was noted on site. The secluded nature of the river valley is ideal for sheltering wildfowl and other fauna which include <i>Lutra lutra</i> and <i>Martes martes</i> a Red Data Book species.	sloping limestone outcrops and ash woodland and to the west by low undulating drumlin hills. Where the stream first emerges a small relatively eutrophic area of flood plain grassland is developed on alluvial soils. Further downstream the soils are fen peat and marl and fen vegetation dominated by <i>Schoenus nigricans</i> occurs.
000064	Poulnagordon Cave (Quin) SAC	Bunce C. & Judd B. (1987). Poll na Gordon. Irish Speleology 4 : 15. O'Sullivan P. (1994). Bats In Ireland. The Irish Naturalists' Journal. Special zoological supplement 21pp. Self C.A. (ed.) (1981). Caves of County Clare. University of Bristol Speleological Society. 225pp.	This is an important example of a natural limestone cave with a good diversity of features. As >50 Lesser Horseshoe Bats have been recorded at this site it is a site of international importance. It is also important as it is at the eastern limit of this species' distribution in Ireland.	This site is a natural limestone cave situated in a field south of a school in Quin Co. Clare. A large entrance leads to a wide chamber from which three passages radiate. Two of these soon become blocked but a route to the left leads into a

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				passage which has been used by >50 Lesser Horseshoe Bats as a winter hibernation site. Cave habitats include slow moving water thick mud boulders pools of water rock walls and roof.
000106	St. Gobnet's Wood SAC	Corcoran K. (2007). Ecological analyses of the Ballyvourney oak wood. Unpublished report for Ms Maura Ní Shuilleabháin. Cross J. (2007). Vegetation and floristic report on Cascade Wood Ballyvourney County Cork. Unpublished report for NPWS. Fox H. & Cullen M. (2007). Cascade Wood lichen survey. Unpublished report for Ms Maura Ní Shuilleabháin. Goodwillie R. (1986). A Preliminary Report on Areas of Scientific Interest in County Cork. Unpublished report prepared for Cork County Council An Foras Forbartha Dublin. Kelleher C. (2007). Proposed N22 road realignment at Cascade Wood and gorge Ballyvourney County Cork; Bat survey Cork County Bat Group. Unpublished report for Ms Maura Ní Shuilleabháin. Kelly D. (2007). Cascade Wood Ballyvourney County Cork. Unpublished report for Ms Maura Ní Shuilleabháin. Neff M. (1970). Conservation report. St. Gobnet's Wood Ballyvourney County Cork. Unpublished report for Forest and Wildlife Service. Neff M. (1996). Nature conservation schedule St. Gobnet's Wood. Internal report for NPWS.	Although partially degraded through the presence of exotic trees and an area of dense Rhododendron ponticum and Prunus laurocerasus this wood is of value as a good example of old oak woodland. Notable for its particularly rich ground flora including Saxifraga spathularis Euphorbia hyberna and a range of bryophytes. It is also habitat for Geomalacus maculosus and foraging area for seven species of bat.	A relatively large complex of oakwood developed on brown earth brown podzolic & gleyed soils situated on rocky slopes on either side of the River Sullane. Seepage zones small watercourses a narrow rocky defile and areas of rock outcrop occur within the woodlands.
000115	Ballintra SAC	Praeger R. Lloyd. (1934). Helianthemum vulgare in Ireland. Irish Naturalist's Journal Vol. V : 76-77. An Foras Forbartha ASI report 1972. Bassett J.A. and Curtis T. (1984). Rare plant survey. Internal report to National Parks and Wildlife Service Dublin. Curtis T.G.F. Bassett J.A. and McGough H.N. (1985). The present status and ecology of Helianthemum nummularium (L) Miller in Ireland Irish Naturalist's Journal Vol. 21 No 12 : 515 - 517. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book. O'Criodain C. (1992). Conservation of grassland sites of scientific interest in Ireland. Internal report to National Parks and Wildlife Service Dublin.	This site contains 60% Annex I habitat - 32% of this is priority habitat. It is the only known Irish locality for Helianthemum nummularium which is an Irish Red Data Book	Ballintra is a low hill with almost bare limestone near the summit and scrub woodland on its sides. Areas of calcareous grassland also occur



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			<p>species protected under the Flora Protection Order (1987). It is also one of the most northerly Irish outposts of typical limestone flora.</p>	<p>within the site. On the areas of deeper soil which are more peaty in nature a heathy vegetation occurs. Some of the denser areas of woodland have a rich ground flora.</p>
000140	Fawnboy Bog/Lough Nacung SAC	<p>Douglas C. Scally L. Dunnells D. and Wyse-Jackson M. (1990). A Survey to Locate Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. National Parks and Wildlife Service internal report. Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Flanagan P.J. and Larkin P.M. (1992). Water quality in Ireland 1987-90. Part 2: River quality data. E.R.U. Dublin. Fox A.D. Norriss D.N. Stroud D.A. and Wilson H.J. (1994). Greenland White Fronted Geese in Ireland and Britain 1983/87 - 1993/94. Greenland White-Fronted Goose study research report number 8.</p>	<p>The site particularly the River Clady is very important for its populations of Margaritifera margaritifera an Annex II species under the Habitats Directive. A good example of blanket bog a priority habitat under the habitats Directive is found at the site. Depressions on peat substrates (Rhynchosporion) is also well represented. Wet heath supports the Red Data Book species Erica mackaiana. The legally protected and Red Data Book species Pilularia globulifera is found in Lough Nacung. Two Annex I Bird Directive species occur - Anser albifrons flavirostris and Gavia stellata.</p>	<p>This is the most north-westerly lowland blanket bog in the country. Geologically the area is principally underlain by black graphic metamorphic sediments overlying metamorphosed limestones and calcareous siltstones which outcrop to the east of the area. Several deep-seated east/west faults cut across the terrain which may act as conduits for base-rich ground-water accounting for calcicole species in the flora. The dominant vegetation communities are associated with</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				blanket bog and heath; Lough Nacung and other lakes and rivers make up a large portion of the remainder of the site. Two villages are very close to the River Clady.
000164	Lough Nagreany Dunes SAC	<p>Bassett J.A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Cough Survey in Ireland 1992. Irish Birds 5: 1-10. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Delaney A.; Devaney F.M.; Martin J.M.; Barron S.J. (2013). Monitoring survey of Annex I sand dune habitats in Ireland Irish Wildlife Manual No. 75. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190. Ryle T.; Murray A.; Connolly K.; Swann M. (2009). Coastal Monitoring Project 2004-2006 Unpublished report to NPWS.</p>	<p>A relatively small site but displaying an excellent range of sandy habitat types. Of particular interest is the gradation from fixed dune to decalcified dune heath and machairs. The occurrence of a small area of decalcified fixed dunes with <i>Empetrum nigrum</i> is of especial importance owing to the rarity of this habitat in Ireland. A significant area of dunes with <i>Salix repens</i> occurs and these are generally of good quality. Lough Nagreany while a shallow lake supports a population of the rare Red Data Book vascular plant <i>Najas flexilis</i>. Site provides feeding for <i>Pyrrhocorax pyrrhocorax</i> which breed locally. Overall the dune habitats are intact and</p>	<p>Located on the north-western side of the Fanad Peninsula in north Donegal site is comprised mostly of coastal dune and sandy heath habitats. Underlain by granite rock which outcrops within the site. Site includes several small lakes notably Lough Nagreany all of which are species rich and have water fringe vegetation. A small area of blanket bog and scrub occurs as an outlier to the south-west of main site. The dominant landuse is grazing. Human disturbance is low.</p>

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			<p>relatively undisturbed. Grazing however is severe in places. The machair plains are species rich and frequent species include lady's bedstraw (<i>Galium verum</i>) birdsfoot trefoil (<i>Lotus corniculatus</i>) and white clover (<i>Trifolium repens</i>) in dry area along with creeping bent (<i>Agrostis stolonifera</i>) common sedge (<i>Carex nigra</i>) and marsh pennywort (<i>Hydrocotyle vulgaris</i>) in wetter areas.</p>	
000172	Meenaguse/Ardbane Bog SAC	Douglas C. Dunnells D. Scally L. and Wyse Jackson M. (1990). A Survey to Locate Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the National Parks and Wildlife Service Dublin.	<p>Important for its complex of wetland habitats with particularly wet areas of well developed highland blanket bog and several areas of fens and flushes unusual for this region. Despite recent disturbance by peat cutting the wet bog areas are still used by a flock of <i>Anser albifrons flavirostris</i> one of the few remaining sites in the country where this species still feeds on bogland vegetation.</p>	<p>A complex of highland blanket bog lakes flushes upland acid grassland and heath situated on an undulating plateau on the southern flanks of the Blue Stack Mountains underlain by Carboniferous limestones and shales. The site contains several headstreams of the Eany Beg Water and Eany More Water rivers which flow southward to the sea at Inver Bay.</p>

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000181	Rathlin O'Birne Island SAC	<p>Cramp S. Bourne W.R.P. Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Hunt J. Derwin J. Coveney J. &amp; Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath &amp; M.I. Evans eds. Important Bird Areas in Europe: Priority sites for conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1989). Birds in Ireland. Poyser London. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in The Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland Spring 1993 and 1994. Irish Birds 5: 151-156. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488 Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>Rathlin O'Birne has many good examples of submerged reef communities that are extremely exposed to wave action. It supports a rich flora and fauna that is characterized by several rare and notable species. The kelp forest is also representative most notably for being characterized by the anemone <i>Phellia gausapata</i> which is characteristic of exposed communities. Species richness is particularly high (79 species) at the north-west tip of the island. Rare species are present in the infralittoral reef community including two algal species <i>Carpomitra costata</i> and <i>Schmitzia hiscockiana</i>. In deeper water there are many unusual and fragile circalittoral reef communities. Communities that are characterized by the rare sea fan <i>Eunicella verrucosa</i> are widespread despite their fragility. <i>Eunicella verrucosa</i> and its associated opisthobranch</p>	<p>Rathlin O'Birne Island is a small uninhabited island situated on the north-west coast of Ireland off Malin Beg Head north of Donegal Bay. It is fully exposed to extremely powerful wave action from the Atlantic on its south and west coasts. Bedrock is igneous intrusive granite and other rocks rich in silica which rise steeply off the deep ocean floor (charted as 50 - 80 m just offshore). Main habitat on island is maritime grassland. Low cliffs occur on the southern side of the island. The site includes a substantial area of surrounding seas. The island has an automated lighthouse.</p>

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			<p>mollusc Tritonia nilsodhneri are at the northern limit of their range at Rathlin O'Birne. A number of other notable and rare circalittoral species are found including sponges hydroids nudibranchs soft corals and ascidians. The site is important for breeding seabirds notably Hydrobates pelagicus with probably the largest colony in the north-west region. Possible breeding site of Oceanodroma leucorhoa. The site supports a nationally important wintering population of Branta leucopsis.</p>	
000194	Tranarossan and Melmore Lough SAC	<p>Bassett J.A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Farrell L. and Randall R.E. (1992). The distribution of Mertensia maritima (L.) Gray Oyster Plant in Ireland. The Irish Naturalists' Journal 24: 135-140. Fay P. (1996). The Rare and Protected Flora of Coastal Areas in Counties Galway Mayo Sligo and Donegal. Unpublished report to the National Parks and Wildlife Service Dublin. Hart H.C. (1898). Flora of County Donegal. Dublin. Holyoak D.T. (1999). Report on surveys of Petalophyllum ralfsii in Co. Sligo and Co. Donegal Western Ireland 31 July-7 August 1999. Unpublished report to National Parks &amp; Wildlife Service Dublin. Holyoak D.T. (2002). Rare plant report: Petalophyllum ralfsii in Tranarossan and Melmore Lough cSAC. Unpublished report to National Parks &amp; Wildlife Service Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in the Republic of Ireland. Unpublished report Forestry and Wildlife Service Dublin. Madden</p>	<p>This site has an excellent diversity of sand dune and heath habitats. Of particular importance are the fixed dunes and machair which are extensive in area and generally of good quality. Also of note is a good example of decalcified fixed dunes with Empetrum nigrum a rare habitat in Ireland. Other habitats present of particular note are intertidal sandflats stony</p>	<p>The site comprises the Tranarossan/Melmore headland and a long stretch of sea-cliff to the south-west which has been included for both its ornithological and botanical value. Geologically the site is dominated by granite and schists with extensive plains of blown</p>

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		<p>B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190. McConnell B.J. and Long C.B. (1997). Geology of North Donegal. A Geological Description to Accompany the Bedrock Geology 1: 10000 Scale Map Series Sheet 1 and Part of Sheet 2 North Donegal. Geological Survey of Ireland Dublin. Roden C.M. (1999). A Survey of Coastal Lakes in Counties Galway Mayo Sligo and Donegal. Report prepared for the Heritage Council Kilkenny. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>banks with perennial vegetation vegetated sea cliffs and dry heath. Melmore Lough which has considerable depth (&gt;10 m) despite its small size is a good example of a hard water lake and supports a diverse charophyte community. Noteworthy populations of the Red Data Book plant species <i>Mertensia maritima</i> <i>Ligusticum scoticum</i> and <i>Draba incana</i> have been recorded recently as has a small population of the rare liverwort <i>Petalophyllum ralfsii</i>. The site has breeding <i>Falco peregrinus</i> and <i>Pyrhocorax pyrrhocorax</i> both Annex I Birds Directive species. A scattering of breeding seabirds occur.</p>	<p>sand at Tranarossan and north of Melmore Lough. These areas of machair are confined by low rocky hills dominated by dry heath vegetation. The most extensive habitats at the site are dry heath sand dune machair and sea-cliff. Habitats of smaller extent include lake shingle beach sandy intertidal shore blanket bog acid grassland and flush. Livestock grazing is the main land use within the site while amenity and recreational activities are frequent especially in the eastern sector.</p>
000199	Baldoyle Bay SAC	<p>Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Doogue D. Nash D. Parnell J. Reynolds S. &amp; Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Goodwillie R. (1988). A</p>	<p>A typical eastern estuarine system with fairly extensive intertidal sand and mud flats. Good diversity in sediment types. Has <i>Zostera</i> spp. Quality variable but generally good. Salt marshes are</p>	<p>Site comprises a relatively small estuarine and bay system in north County Dublin. Receives the flows of the Mayne and Sluice rivers both of which drain an</p>

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		<p>Preliminary Report on Areas of Scientific Interest in County Dublin. 2nd Edition. An Foras Forbartha Dublin. Lovatt J.K. Madden B. &amp; O'Donnell M. (1985). The birds of Portmarnock sand dune system and Baldoyle Estuary. Irish East Coast Bird Report 1985 58-62. Lovatt J.K. Madden B. &amp; O'Donnell M. (1986). The birds of Portmarnock sand dune system and Baldoyle Estuary : Part 2: Spring 1986 to January 1987. Irish East Coast Bird Report 1986 46-50. Madden B. Jeffrey D.W. &amp; Jennings E. (1993). Distribution and ecology of Zostera in County Dublin. Irish Naturalists' Journal 24: 303-309. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. O'Reilly H. &amp; Pantin G. (1957). Some observations on the salt marsh formation in Co. Dublin. Proceedings of the Royal Irish Academy Vol. 58 Sect. B: 89-128. Reynolds B. (1997). A vegetation survey and some edaphic analysis of Baldoyle brackish marsh with particular reference to borer's saltmarsh grass Puccinellia fasciculata. Unpublished M.Sc. Thesis National University of Ireland. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>well represented and are at least of moderate quality. Has two Red Data Book plant species. Of importance for wintering waterfowl with an internationally important population of Branta bernicla horta and nationally important populations of a further 6 species including Pluvialis apricaria and Limosa lapponica. Sterna albifrons formerly bred.</p>	<p>agricultural / suburban catchment. The inner part of the site is sheltered from the sea by a large sand dune peninsula though most of the dunes are now used as a golf course. Sediments in the inner sheltered areas are mostly muds or muddy sands often with a high organic content. Part of the tidal section of the Mayne River and adjoining brackish marshes are included in the site. The outer part of the site is exposed to the open sea and the sediments here are predominantly well-aerated sands. In addition to the intertidal and salt marsh habitats small areas of sand dunes and sandy beaches are included.</p>
000204	Lambay Island SAC	<p>Berrow S. Hickey R. O'Connor I. &amp; McGrath D. (2008). Small cetacean site survey investigations 2008. Report to the National Parks &amp; Wildlife Service October.</p>	<p>Lambay is the largest and most isolated island on</p>	<p>Lambay the largest east coast island</p>

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		<p>24pp.Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 34 pp.Grimmett R.F.A. and Jones T.A. (1989). Important Bird Areas in Europe. I.C.B.P. Technical publication. No.9. Cambridge.Kiely O. Lidgard D.C. McKibben M. Baines M.E. and Connolly N. (2000). Grey Seals: Status &amp; Monitoring in the Irish &amp; Celtic Seas. Maritime Ireland/Wales INTERREG report No. 3. Marine Institute 80 Harcourt St. Dublin.Lidgard D.C. Kiely O. Rogan E. and Connolly N. (2001). The status of breeding grey seals (Halichoerus grypus) on the east and south-east coast of Ireland. Mammalia 65(3): 283-294. Lloyd C.S. (1982). An Inventory of Seabird Breeding Colonies in the Republic of Ireland. (4 vols). Unpublished report to Forest and Wildlife Service Dublin.Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (Phoca vitulina) and grey seals (Halichoerus grypus) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp.Synnott D.N. (1990). The Bryophytes of Lambay Island. Glasra New series 1: 65-81.Merne O.J. (1988). Recent Changes in Breeding Seabird Populations in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987: 69-77.Merne O.J. (1989). Seabirds and Waterfowl of the Irish Sea. In: Sweeney J.C. (Ed.). The Irish Sea. A Resource at Risk. pp. 89-98. Geographical Society of Ireland Special Publication No.3. Maynooth.Merne O.J. Costello M.J. and Allen R.M. (1990). The Irish Sea Coast of the Republic of Ireland. In: The Irish Sea - An Environmental Review. Part 1 - Nature Conservation pp103-132. Irish Sea Study Group. Liverpool.Madden B. and Merne O.J. (1995). A Survey of Breeding Birds on Lambay Island May 1995. Unpublished report to the National Parks and Wildlife Service.Dublin.MERC Consultants Ltd. (2010). Project Report: Irish Sea Reef Survey. Unpublished report to the National Parks &amp; Wildlife Service of the Department of the Environment Heritage &amp; Local Government. 36ppÓ Cadhla O. Strong D. O'Keeffe C. Coleman M. Cronin M. Duck C. Murray T. Dower P. Nairn R. Murphy P. Smiddy P. Saich C. Lyons D. and Hiby A.R. (2007). An assessment of the breeding population of grey seals in the Republic of Ireland 2005. Irish Wildlife Manuals No. 34. National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 60pp.Ó Cadhla O. and Strong D. (2007). Grey seal moult population survey in the Republic of Ireland 2007. Report to the National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 22pp.Praeger R.L. et al. (1907). Contributions to the Natural History of Lambay County Dublin. Irish Naturalist. 1-111.Praeger R.L. et al. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co. Dublin.Walsh P.H. (1988). Black Rats Rattus rattus (L.) As prey to Short-eared OwlsAslo</p>	<p>the east coast. Extensive heath formerly existed but this has been eliminated at the expense of improved pasture. Vegetated cliff is the most notable habitat - these are quite representative of eastern cliffs with diversity in height slope and aspect. The cliffs hold internationally important populations of seabirds especially Uria aalge. Anser anser winter in significant numbers. The island was the subject of an intensive natural history study in 1905-06 and again in the early 1990's. This site provides year-round haul-out habitat for the Annex II seal species Halichoerus grypus and Phoca Vitulina and includes regionally significant breeding and moulting sites. The foreshore surrounding the island holds examples of Reef habitat with typical biodiversity for the east coast.</p>	<p>lies 4 km off the Dublin coast. The underlying geology is dominated by igneous rocks (of andesitic type) and ash. Also present are shales and limestones of Silurian origin as well as some massive beds of Old Red Sandstone. The bedrock is exposed on the fringing cliffs and in rocky outcrops; elsewhere it is overlain by varying depths of glacial drift. The island is surrounded by steep cliffs on the north east and south sides. The west shore is low-lying and the land slopes gently eastwards to the summit in the centre of the island. Most of the western third of the island is intensively farmed while the rest is a mixture of less intensively grazed land rock outcrops scrub and</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>flanneus (Pontopidan) on Lambay Island Co. Dublin. Irish Naturalist's Journal 22: 536-537. Summers C.F. (1983). The Grey Seal Halichoerus grypus in Ireland. A report to the Minister for Fisheries Forestry and Wildlife. Lockley R.M. (1966). The Distribution of Grey and Common Seals on the coasts of Ireland. Irish Naturalists Journal 15: 136-142.</p>		<p>bracken. There are small areas of woodland around Lambay castle and farm. Indications are that the waters close to Lambay are very important for marine life. The main component of this importance is the prevalence of both intertidal and subtidal reef habitat.</p>
000205	Malahide Estuary SAC	<p>Bowman J.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Collins R. &amp; Whelan J. (1993). Mute Swans in Dublin and Wicklow 1983-1992. Irish Birds 5: 11-22. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Doogue D. Nash D. Parnell J. Reynolds S. &amp; Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Gaynor K. &amp; Browne A. (1999). Survey of Irish Link Golf Courses. Unpublished report for Duchas The Heritage Service. Dublin. Goodwillie R. Ni Lamhna E. &amp; Webb R. (1988). A second report on areas of scientific interest in County Dublin. An Foras Forbartha Dublin. Healy B. (1994). Lagoons and other enclosed brackish waters in the Republic of Ireland. Unpublished report Department of Zoology University College Dublin. Healy B. Lyons J &amp; Galvin P. (1993). Environmental Impact Study of the Aquatic Fauna of the Inner Malahide Estuary Co. Dublin. Unpublished report by the Marine Research Unit Department of Zoology University College Dublin to Dublin County Council. Madden B. Jeffrey D.W. &amp; Jennings E. (1993). Distribution and ecology of Zostera in County Dublin. Irish Naturalists' Journal 24: 303-309. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Ni Lamhna E. (1982). The vegetation of salt marshes and sand dunes at Malahide Island Co. Dublin. Journal of</p>	<p>The site has an important example of intertidal sand and mud flats with Zostera spp. Their quality is variable but generally good. Salt marshes are well represented particularly Atlantic salt meadows and Salicornia flats. Most of the sand dune system is managed for a golf course but significant areas of fixed dunes and shifting white dunes remain. The site has Viola hirta a Red Data Book plant species. It is of high importance for wintering waterfowl with an internationally important population of Branta bernicla horta and nationally important</p>	<p>The site is situated in north Co. Dublin between the towns of Malahide and Swords. It comprises the estuary of the River Broadmeadow. A railway viaduct built in the 1800s crosses the site and has led to the inner estuary becoming lagoonal in character and only partly tidal. Much of the outer part of the estuary is well sheltered from the sea by a large sand spit known as 'the island?'. This spit is now mostly</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>the Royal Dublin Society 3: 111-129. O'Reilly H. &amp; Pantin G. (1957). Some observations on the salt marsh formation in Co. Dublin. Proceedings of the Royal Irish Academy Vol. 58 Sect. B: 89-128. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Smyth L.B. (1920). The carboniferous coast section at Malahide Co. Dublin. Scientific Proceedings of the Royal Dublin Society 16: 19-24.</p>	<p>populations of a further 14 species including <i>Pluvialis apricaria</i>. It also supports a regionally important population of <i>Limosa lapponica</i>. this site has educational value and has been the subject of a number of research projects.</p>	<p>converted to golf-course though some sand dunes and salt marshes remain. A section of bedrock shore extending towards Portmarnock is included as it represents the only continuous section through the fossiliferous Lower Carboniferous rocks in the Dublin Basin and is the type locality for several species of fossil coral.</p>
000213	Inishmore Island SAC	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Sheppard R.B. Mellan C. and Coveney J.A. (1993). The Second International Chough Survey In Ireland 1992. Irish Birds 5:1-10. Byrne M. (1990). Annual reproductive cycles of the commercial sea-urchin <i>Paracentrotus lividus</i> from an exposed intertidal and a sheltered subtidal habitat on the west coast of Ireland. Mar. Biol 104: 275-289. Crawford I. Bleasdale A. and Conaghan J. (1996). BIOMAR Survey of Irish Machair Sites. 2 vols. Unpublished report to the National Parks and Wildlife Service Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book. Wildlife Service Ireland. Curtis T.G.F. (1991). The Flora and Vegetation of Sand Dunes in Ireland. In: A Guide to the Sand Dunes of Ireland (M.B. Quigley Ed.) 42-46. European Union for Dune Conservation and Coastal Management. Curtis T.G.F. (1991). A Site Inventory of the Sandy Coasts of Ireland their Types and Distribution. In: A Guide to the Sand Dunes of Ireland (M.B. Quigley Ed.) 6-9. European Union for Dune Conservation and Coastal Management. Curtis T.G.F. McGough H.N. and Wymer E.D. (1988). The Discovery and Ecology of Rare and Threatened Arable Weeds Previously Considered Extinct in Ireland on The Aran Islands Co. Galway. The Irish Naturalists' Journal 22: 505-513 (5). Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Ecotonal Coleoptera. Report for Dúchas the Heritage Service. Unpublished. Hannon K. et al (1995). All Ireland Tern Survey. IWC/NPWS. Hart H.C. (1875). A List of Plants Found in The Island of Aran Galway Bay. Hodges Foster &amp; Co. Dublin. 32 pp. Healy</p>	<p>Inishmore is a site of high conservation importance with an excellent range of marine coastal grassland heath and limestone habitats. There are many good examples of sublittoral reef communities that are extremely exposed to wave action. On the infralittoral reefs are two exceptional communities. Ireland's only recorded example by BioMar of a population of sublittoral purple sea urchins <i>Paracentrotus lividus</i> is</p>	<p>Inishmore is situated on the west coast of Ireland in the mouth of Galway Bay. It is the largest of the three Aran Islands which are fully exposed to extremely powerful wave action from the Atlantic. Cliffs up to 80 m or more dominate the south-west coastline. The land is flatter along the more sheltered north-east coast.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>B. (1999). A Survey of Irish Coastal Lagoons. Vol. I Background Description and Summary. Report for Duchas the Heritage Service. Unpublished. Keegan B.F. (1969). Investigation of the plankton off the west coast of Ireland - III. <i>Calanus finmarchicus</i> (Gunn.) and <i>Calanus helgolandicus</i> (Claus) in the plankton of Killeany Bay Aran Islands. Proceedings of the Royal Irish Academy 68B: 137-147. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Part 2: Mayo - Galway. Unpublished Report to the National Parks and Wildlife Service Dublin. Lysaght L. (2002). An Atlas of Breeding Birds of the Burren and the Aran Islands. BirdWatch Ireland. Dublin. McGough H.N. (1984). A Report on the Grasslands and Closely Related Vegetation Types of The Burren Region of Western Ireland. Report to the Forest and Wildlife Service. Moorkens E.A. (1999). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>mouliniana</i> and V. <i>geyeri</i>. Unpublished report National Parks and Wildlife Service Dublin. Morrow C.C. and Picton B.E. (1996). An aplousid sponge <i>Hexadella racovitzai</i> Topsent 1896 new to the British Isles with notes on its habitat and distribution. The Irish Naturalists' Journal 25: 218-221. O'Connell M. Fives J.M. and Ó Ceidigh P. (1992). Ecological studies of littoral fauna and flora on Inishmore Aran Islands Co. Galway. Proceedings of the Royal Irish Academy 92B: 91-107. Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A preliminary report. National Parks and Wildlife Service. Oliver G.A. (1999). Irish Coastal Lagoon Survey. 1998. Vol IV. Aquatic Fauna. Report for Dúchas the Heritage Service. Unpublished. Robinson T. (1986). The Stones of Aran. Lilliput Press Mullingar. 298 pp. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol. III Flora. Report for Dúchas the Heritage Service. Unpublished. Sides E.M. Picton B.E. Emblow C.S. Morrow C.C. and Costello M.J. (1994). Marine communities of Kilkieran Bay the Aran Islands and the Skerd Rocks and an assessment of their conservation importance. Field survey report Environmental Sciences Unit Trinity College Dublin. Tattersfield P. (1998). Wetland mollusc communities from the Aran Islands. Irish Naturalists' Journal 26: 8-21. Webb D.A. (1980). The Flora of the Aran Islands. Journal of Life Sciences Royal Dublin Society 2: 51-83. Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and The Burren. Cambridge University Press. Wymer E.D. (1984). The Phytosociology of Irish Saltmarsh Vegetation. Unpublished M.Sc. thesis National University of Ireland.</p>	<p>on the west of the island. At the reef in Blind Sound is Ireland's best example (excellent representativity and species rich) of an extremely exposed shallow infralittoral community that is dominated by a forest of mixed kelps and the brown seaweed <i>Alaria esculenta</i> with an understorey of diverse red algal species. Rare species are present in the infralittoral reef community including soft corals sea fans and anemones. In deeper water there are excellent examples of the Axinellid sponge community with a large number of species considered to be of conservation importance including a number of rare species. Large submerged caves on the south east coast are unusually species rich (76 species) and are characterized by a diverse fauna of sponges hydroids bryozoans soft corals anemones nudibranchs echinoderms and ascidians. They are</p>	<p>The Aran Islands are an extension of the karstic Carboniferous (Visean) limestone of the Burren. Large blocks of broken limestone bedrock are piled on a terraced platform and against vertical and overhanging cliff faces. Horizontal caves occur on the east end of the island some as deep as 10m. Large caves are also known to occur on the west end of the island. The terraced platform and cliff faces are characteristically pitted and furrowed. On the land a thin cover of <i>rendzina</i> occurs in pockets between the bare limestone. A network of high stone walls divide the island into small fields each enclosing an area of limestone pavement interspersed with</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>probably the best known sea caves in Ireland. The sea cliffs are of high quality and are an important western example as indicated by species such as <i>Rhodiola rosea</i>. Inishmore supports a variety of karstic lagoons a type which is believed to be rare in Europe. All are in a natural state and of good quality. The flora is typically lagoonal with three lagoonal specialists. The fauna is not rich but comprises a high number of lagoonal specialists including the rare corixid species <i>Sigara selecta</i>. The Annex II mollusc <i>Vertigo angustior</i> occurs at three different locations within the site two on dune and one on maritime grass. The protected plants <i>Astragalus danicus</i> and <i>Viola hirta</i> occur here. A number of rare and threatened arable weeds thought to be extinct in Ireland were recently recorded on Inishmore: <i>Lolium temulentum</i> <i>Centaurea cyanus</i>. Ornithologically the island is important for</p>	<p>species rich calcareous grasslands.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			breeding Pyrrhocorax pyrrhocorax and Sterna spp. with one of the biggest colonies of Sterna paradisaea in the country present on Brannock Island off the west coast.	
000216	River Shannon Callows SAC	<p>Bernaldez F.G. (1991). Vegetation of the Clonmacnoise and Little Brosna Sites Central Ireland. Internal report to the FAEWA EU-STEP project. Borggreve C. and de Groot C. (1996). Vegetation of the Shannon Callows at Bullock Island Ireland. MSc thesis Wageningen Agricultural University Netherlands. Bron W.A. and de Heer M. (1996). Synecology of the Shannon Callows. MSc thesis Wageningen Agricultural University Netherlands. Cabot D. (1999). Ireland. A Natural History. Harper Collins New Naturalist Series. Casey C. (1993). Corncrake Fieldwork on the Shannon Callows (1993). BirdWatch Ireland Dublin. Casey C. (1996). Corncrakes increase again. Wings 3: 12-13. Casey C. (1997). Corncrakes survive wet summer. Wings 7: 13. Colhoun K. (2001) I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Cranswick P.A. Bowler J.M. Einarsson O. Gardarsson A. McElwaine J.G. Merne O.J. Rees E.C. and Wells J.H. (1996). Numbers of Whooper Swans Cygnus cygnus in Iceland Ireland and Britain in January 1995: results of the international Whooper Swan census. Wildfowl 47: 23-36. Coveney J. Merne O.J. Wilson H.J. Allen D. and Thomas G. (1993). A Conservation Strategy for Birds in Ireland. Unpublished report. Irish Wildbird Conservancy. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book. I Vascular Plants. Stationery office Dublin. Curtis T.G.F. and Neff J. (1997). Provisional Scarce Plants List. Unpublished report National Parks and Wildlife Dublin. Delany S. (1997). I-WeBS Reports 1995-96. BirdWatch Ireland Dublin. Delany S. (1998). I-WeBS Reports 1996-97. BirdWatch Ireland Dublin. Derwin J. (1997). Corncrake Fieldworking North Donegal 1997. Internal report to IWC BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study Research Report no. 8. The Irish National Parks and Wildlife Service. Fuller R.M. (1987). The changing extent and conservation status of lowland grasslands in England and Wales: a review of grassland surveys 1930 - 1984. Biological Conservation 40: 281-300. Heery S. (1991). The plant communities of the grazed and mown grasslands of River Shannon Callows. Proceedings of the Royal Irish Academy 91B(1): 1-19. Heery S. (1993). The Shannon Floodlands - a Natural History of the Shannon Callows. Tir Eolas Kinvara. Heery S. (1994). Corncrake Map of Options Project - North Donegal Shannon Callows and Moy Valley. Unpublished report to Royal</p>	This site is the largest area of semi-natural floodplain grassland in Ireland and Britain and has very many features of a natural ecosystem. It has been placed among the most 'natural' floodplains in western Europe. It is subject to regular and prolonged annual winter flooding. Wooded alluvial islands which flood regularly occur at one location. A number of Red Data Book and scarce plant species occur on the site the scarce species including Leucojum aestivum Sium latifolium Botrychium lunaria and Lemna gibba. In addition the site contains a very wide variety of native plant species. A small area of limestone pavement at Clorhane is of particular importance as it is the only example	The River Shannon is the largest river in Ireland and its central route drains a large percentage of the whole country. It has proved too powerful to be tamed by drainage schemes in the past and this central section is still free to flood the surrounding lowlands in winter. It is a well-used agricultural resource of low intensity during the summer. This floodplain functions as a semi-natural meadow/marsh habitat (used for grazing or hay-making). There is an extensive system of surface drains. The site is linear running

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		<p>Society for the Protection of Birds and The National Parks and Wildlife Service Dublin. Heery S. (1996). Birds in Central Ireland. Mid Shannon Bird Report 1992-1995. BirdWatch Ireland. Heery S. (2000). Birds in Central Ireland. Mid-Shannon Bird Report 1996-1999. BirdWatch Ireland Dublin. Heery S. and Cooney T. (1997). Part Re-survey Breeding Waders on the River Shannon/Little Brosna Callows. Unpublished report to Dúchas - The Heritage Service and Royal Society for the Protection of Birds Belfast. Heery S. (1998). Rare and Scarce Plants on the Shannon Callows. Unpublished report to Dúchas The Heritage Service Dublin. Hooijer A. (1996). Floodplain Hydrology. An Ecologically Oriented Study of the Shannon Callows. PhD thesis Free University Amsterdam. Hutchinson C. (1979). Ireland's Wetlands and their Birds. IWC Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McDevitt A.M. (1998 and 1999). Corncrake Fieldwork on the Shannon Callows 1998 and 1999. BirdWatch Ireland Dublin. Mayes E. and Stowe T. (1989). The status and distribution of the Corncrake in Ireland 1988. Irish Birds 4: 1-12. Nairn R.G.W. Heery S. and Herbert I.J. (1988). Shannon Callows 1987: Report of a Survey of Breeding Birds and Plant Communities in the River Shannon Floodplain. Unpublished report to the Irish Wildbird Conservancy Dublin. Royal Society for the Protection of Birds (1991). Corncrakes and Grassland Management in Britain and Ireland. R.S.P.B. Sandy. Salmon D.G. and Black J.M. (1986). The January Whooper Swan census in Britain Iceland and Ireland. Wildfowl 37: 172-174. Sheppard R. (1991). The Irish Wigeon population - distribution and changes. In: Harradine J. Wigeon in Ireland 17-29. British Association for Shooting and conservation Rossett. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Sheppard R. and Green R.E. (1994). Status of the Corncrake in Ireland in 1993. Irish Birds 5: 125-138. Smiddy P. and O'Sullivan O. (1995). Forty-second Irish Bird Report 1994. Irish Birds 5: 325-351. Smiddy P. and O'Sullivan O. (1996). Forty-third Irish Bird Report 1995. Irish Birds 5: 445 - 474. Tubridy M. (1984) (ed.). Creation and Management of a Heritage Zone at Clonmacnoise Co. Offaly Ireland. Final Report EEC Contract No. 6611/12. Environmental Sciences Unit Trinity College. Dublin. Tubridy M. (1987) (ed.). The Heritage of Clonmacnoise. Environmental Sciences Unit Trinity College. Dublin. Tubridy M. (1988). Clonmacnoise Heritage Zone project: a Portfolio of Management Plans. Final report to EC project no. 6611/85/08/1. Tucker G.M. and Heath M.F. (1994). Birds in Europe: Their Conservation Status. Birdlife Conservation Series no. 3. Birdlife International Cambridge. Waters R.J. and Cranswick P.A. Evans J. and Pollitt M.S. (1996). The Wetland Bird Survey 1994-1995: Wildfowl and Wader Counts. BTO/WWT/RSPB/NCC Slimbridge. White J. and Doyle G. (1982). The vegetation of</p>	<p>of this habitat in the region. Along with its tributary the Little Brosna (designated separately) this is one of the great waterfowl sites in Ireland with huge numbers of a wide range of species occurring in winter with a mean peak of 34985 waterbirds recorded from 1995/96 to 1999/00. This is the third highest for an inland site in Ireland. The highest is the Little Brosna which is an extension to the Middle Shannon Callows. Only three estuarine sites are higher. In 1996/97 one species was of International Importance (Whooper Swan) and six species were of National Importance. A small flock of Anser albifrons flavirostris regularly use a few locations on the site and these are part of the Internationally Important flocks of both the Little Brosna and the River Suck. It is one of very few significant inland sites in Britain or Ireland for Calidris alpina. It is the top site in the country for Cygnus</p>	<p>for about 50 km at an average width of about 0.75 km (but reaching 1.5 km in several places). For about half its length it borders raised bogs most of which are in the process of large-scale peat harvesting. Esker ridges lie adjacent to the callows in some places. There are areas of both relict and active levees. A weir at Meelick divides the flooding regime. Ecological diversity is caused and maintained by multiple ownership variation in the flooding regime due to the topography of the callows hundreds of kilometres of drainage ditches differences in the amount of peat and alluvium in the soils and by the extensive nature of the site. The main habitat on the site is humid grassland managed for hay</p>

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		Ireland. A catalogue raisonne. Journal of Life Sciences Royal Dublin Society 3: 289-368.	<p>olor and close to that for <i>Cygnus cygnus</i> <i>Vanellus vanellus</i> and <i>Pluvialis apricaria</i>. The E.U. Birds Directive Annex I species <i>Circus cyaneus</i> regularly uses the site for hunting in autumn and winter. Perhaps even more important are its nesting <i>Crex crex</i> <i>Coturnix coturnix</i> and breeding waders. In 1987 1204 pairs of breeding waders were recorded (including adjacent parts of the Shannon) mainly <i>Vanellus vanellus</i> <i>Gallinago gallinago</i> <i>Numenius arquata</i> and <i>Tringa totanus</i>. <i>Crex crex</i> has one of its last strongholds here with 70 and 66 calling birds present in 1998 and 1999 respectively. The Shannon Callows is one of the few areas in Ireland where <i>Coturnix coturnix</i> breeds. Numbers vary between years but up to 14 males have been heard. There are high populations of ground-nesting passerines such as <i>Alauda arvensis</i> <i>Anthus pratensis</i> <i>Locustella naevia</i> and <i>Emberiza</i></p>	and pasture and these areas have the same management regime as the lowland hay meadows and <i>Molinia</i> meadows.

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			<p>schoeniclus on the site. The River Shannon Callows is a breeding site for two Red Data Book waterbird species: Limosa limosa islandica and Anas clypeata. The Red Data Book species Anas acuta has also bred on the site though its current status is unknown. The E.U. Birds Directive Annex I species Falco columbarius bred on the site in 1996. Large rivers flowing unfettered through lowland floodplains are now rare anywhere in Europe. This river and its associated habitats are of the highest conservation importance.</p>	
000218	Coolcam Turlough SAC	Goodwillie R. (1992). Turloughs over 10 ha - Vegetation Survey and Evaluation. Unpublished report for the National Parks and Wildlife Service Dublin.	<p>This appears to be a very natural site with excellent representation of the vegetation types found in wetter turloughs. Further study would probably yield rare plant species e.g. Rorippa islandica. The wetness of the habitat is an important factor for the bird life which seems rich.</p>	<p>Coolcam consists of two separate basins in an extensive area of eskers and glacial deposits. The larger basin has large amounts of aquatic vegetation and marl (CaCO<sub>3</sub>) deposition: the smaller is more clayey. Most of the turlough dries out for a short period (e.g. August - October). Other</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				small depressions in the S.E. corner also flood. Land use is of low intensity.
000242	Castletaylor Complex SAC	<p>Colhoun K. (1998). IWeBS Report 1997-98: Results of the Third Winter of the Irish Wetlands Bird Survey. IWC BirdWatch Ireland Dublin. Coxon C. (1986). A Study of the Hydrology and Geomorphology of Turloughs. Unpublished Ph.D. thesis. Trinity College Dublin. Goodwillie R. (1992). Turloughs Over 10ha. Vegetation Survey and Evaluation. Unpublished report to the National Parks and Wildlife Service Dublin. Madden B. and Heery S. (1999). Census of Wintering Wetland Birds in South Galway (Gort-Ardrahan Catchment) Winter 1998/99. Internal Report prepared for Dúchas the Heritage Service (National Parks and Wildlife). Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin. Southern Water Global Ltd. and Jennings O'Donovan and Partners (1997). An Investigation of the Flooding Problems in the Gort - Ardrahan Area of South Galway. Vols. I and II. Internal Report prepared for Dúchas the Heritage Service (National Parks and Wildlife) and for The Office of Public Works.</p>	<p>Site contains an excellent example of an extreme oligotrophic turlough and good examples of Dryas and Juniperus heaths calcareous grassland and some limestone pavement. The transition from the wetland to the surrounding habitats is particularly well shown. A range of scarce plants occur including Frangula alnus a Red Data species as well as typical Burren species such as Gentiana verna. The site also has breeding Vanellus vanellus. The diversity of specialised habitats all in good quality in a relatively small area makes this site of particular importance.</p>	<p>Situated c.4km south-east of Kilcolgan and set on undulating limestone topography this site comprises a range of habitats in a relatively small area. The western half of the site is dominated by Caranavoodaun turlough but also has good examples of heaths calcareous grassland and limestone pavement. The eastern half is dominated by dry broad-leaved woodland and scrub. The surrounding lands are mostly of low to moderate intensity pasture with some afforestation immediately to the south. The turlough has no significant wintering bird</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				populations because of the nutrient-poor conditions.
000268	Galway Bay Complex SAC	<p>Booth D.A. (1974). The Water Structure and Circulation of Killary Harbour and of Galway Bay. Unpublished M.Sc. thesis National University of Ireland. Costelloe J. Keegan B.R. and Konnecker G.F. (1986). Rocky subtidal assemblages on the west coast of Ireland. <i>Hydrobiologia</i> 142: 97-111. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. De Valera M. Pybus C. Casley B. and Webster A. (1979). Littoral and benthic investigations on the west coast of Ireland X. Marine algae of the northern shores of the Burren County Clare. <i>Proceedings of the Royal Irish Academy</i> 79B: 259 ? 269. Farrington A. (1964). Raised beaches in Galway Bay. <i>Irish Naturalists' Journal</i> 14: 216-217. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol 5. Unpublished report to National Parks and Wildlife Dublin. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. <i>Bulletin of the Irish Biogeographical Society</i> 21: 21-66. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate S. <i>dougallii</i> Common S. <i>hirundo</i> Arctic S. <i>paradisaea</i> and Little Terns S. <i>albifrons</i> in Ireland in 1995. <i>Irish Birds</i> 6: 1-22. Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. <i>Bulletin of the Irish Biogeographical Society</i> 21: 2-21. Harper D.A.T. (1991). The brachiopods <i>Neocrania</i> and <i>Terebratulina</i> from Galway Bay. <i>Irish Naturalists' Journal</i> 23: 371-374. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol 1 Part 1. Background Description and Summary of the surveys. Unpublished report to National Parks and Wildlife Dublin. Healy. B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. <i>Bulletin of the Irish Biogeographical Society</i> 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal Lagoons in the Republic of Ireland. Vol. 2 Inventory of Lagoons and Saline Lakes. Unpublished report to the National Parks and Wildlife Service Dublin. Heffernan M.L. (1995). Shellfish Farming and Special Protections Areas for Birds in Ireland. Unpublished M.Sc. thesis. Trinity College Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority sites for Conservation I: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lansbury I. (1965). Notes on Hemiptera Coleoptera Diptera and other Invertebrates of the Burren Co. Clare and Inishmore Aran Islands. <i>Proceedings of the Royal Irish Academy</i> 64B: 89-115. Lloyd C. (1982). Inventory of</p>	<p>The site has very important and good quality examples of large shallow inlets and bays intertidal mud and sandflats and reefs. The area has the country's only recorded example of the littoral community characterized by <i>Fucus serratus</i> with sponges ascidians and red seaweeds on tide-swept lower eulittoral mixed substrata. Sublittorally the area has Ireland's only reported piddock bed an extensive maerl bed of <i>Phymatolithon calcareum</i> an oyster bed and seagrass beds. A host of rare marine organisms occur including the sea urchin <i>Paracentrotus lividus</i> the sponge <i>Mycale contarenii</i> the red algae <i>Phyllophora sicula</i> and <i>Rhodomenia delicatula</i>. Lagoons are particularly well represented and varied in type size and salinity. Of especial importance are the rare</p>	<p>The Galway Bay Complex is a very large marine-dominated site situated on the west coast of Ireland. The inner part of the south bay is protected from exposure to Atlantic swells by the Aran Islands and Black Head. Subsidiary bays and inlets (e.g. Poul-na-clough Aughinish and Kinvara Bays) add texture to the patterns of water movement and sediment deposition which lends variety to the marine habitats and communities. The terraced Carboniferous (Visean) limestone platform of the Burren sweeps down to the shore and into the sublittoral. West of</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Seabird Breeding Colonies in the Republic of Ireland Unpublished report to the Forestry and Wildlife Service Dublin. Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. The Irish Naturalists' Journal 15: 136-143. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Murphy K.P. and Fairley J.S. (1985a). Food of otters <i>Lutra lutra</i> on the south shore of Galway Bay. Proceedings of the Royal Irish Academy 85B: 47-55. Murphy K.P. and Fairley J.S. (1985b). Food and sprainting places of otters on the west coast of Ireland. The Irish Naturalists' Journal 21: 477-479. O'Connor B McGrath D. Konnecker G. and Keegan B. F. (1993). Benthic macrofaunal assemblages of Greater Galway Bay. Biology and Environment Proceedings of the Royal Irish Academy 93B: 127-136. Oliver G.A. (1999). Irish Coastal Lagoon Survey 1998. Vol 4. Unpublished report to National Parks and Wildlife Dublin. .Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bulletin of the Irish Biogeographical Society 21: 66-115. Pybus C. and Pybus M.J. (1981). An ecological study of Lough Murree a brackish water lake in County Clare. Proceedings of the Royal Irish Academy 80B: 367-384. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol 3. Unpublished report to National Parks and Wildlife Dublin. Ryland J.S. (1969). Some shore fishes from Galway Bay. The Irish Naturalists' Journal 16: 127-131. Ryland J.S. and Nelson-Smith A. (1975). Littoral and benthic investigations on the west coast of Ireland - IV. (Section A: faunistic and ecological studies.) Some shores in counties Clare and Galway. Proceedings of the Royal Irish Academy 75B: 245-266. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. An account of Their Status and Distribution. Irish Wildbird Conservancy Dublin. Sheehy-Skeffington M. (1987). Lough Atalia and Adjacent Marshes - Wildlife and Flora of Interest. Unpublished report University College Galway. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Stewart N. and Church I. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. and Flynn J. (1980). An assessment of the status of the common seal (<i>Phoca vitulina vitulina</i>) in Ireland. Biological Conservation 17: 115-123. Warner P. (1983). An assessment of the breeding populations of common seal (<i>Phoca vitulina vitulina</i> L.) in the Republic of Ireland during 1979. The Irish Naturalists' Journal 21: 24-26. Warner P. (1984). Report on the Census of Common Seals (<i>Phoca vitulina vitulina</i>) in the Republic of Ireland during 1984. Unpublished document to the Forest and Wildlife Service Dublin. Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and the Burren. Royal Dublin Society and Cambridge University Press Dublin and Cambridge. Whilde A. (1983). The wintering bird communities of Inner Galway Bay. Irish Birds 2: 278-293. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Whilde A. (1990). Birds of Galway. Irish Wildbird Conservancy Galway. Cronin</p>	<p>karstic rock lagoons of which the site holds all but one of the examples known from the mainland of Ireland. Good quality salt marshes of both Atlantic and Mediterranean types are well represented and occur along with perennial vegetation of stony banks. A very good though limited example of calcareous grassland rich in orchids occurs and there are examples of alkaline fen and <i>Juniperus communis</i> scrub of moderate quality. Two Red Data Book stoneworts occur <i>Chara canescens</i> and <i>Lamprothamnium papulosum</i> and also two Red Data Book vascular plants - <i>Crambe maritima</i> and <i>Hyoscyamus niger</i>. The site has one of the largest populations of <i>Phoca vitulina</i> in the country and provides optimum habitat for <i>Lutra lutra</i>. Galway Bay is a very important ornithological site with an internationally important wintering population of <i>Branta bernicla hrota</i> and</p>	<p>Galway city the bedrock geology is granite. The long shoreline is noted for its diversity with complex mixtures of bedrock shore shingle beach sandy beach and fringing salt marshes. Other habitats which occur in small amounts include lagoon fen turlough dry grassland wet grassland and deciduous woodland.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks & Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp.Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139.Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks & Wildlife Service. 10pp.Lyons D.O. (2004). Summary of National Parks & Wildlife Service surveys for common (harbour) seals ( <i>Phoca vitulina</i> ) and grey seals ( <i>Halichoerus grypus</i> ) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks & Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp.	regular nationally important populations of a further 16 species including <i>Gavia immer</i> <i>Gavia arctica</i> <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i> . Breeding birds of note are <i>Phalacrocorax carbo</i> <i>Sterna sandvicensis</i> and <i>Sterna hirundo</i> .	
000295	Levally Lough SAC	Quinn A. (1971). Provisional Survey of Areas of Scientific Interest in Co. Galway. Report to Galway County Council (unpublished). An Foras Forbartha.Goodwillie R.N. (1992). Turloughs Over 10 ha - Vegetation Survey and Evaluation. Unpublished report to the National Parks and Wildlife Service.Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.	Levally is in good condition and is unusual for being at the wet end of turlough variation. It must therefore have a distinct flora and fauna though this is not yet known in detail. Diversity in the vegetation seems small but rather higher in the birdlife - particularly breeding waterfowl.	This is a turlough that remains flooded for a long period and in some years never goes dry. It contains a large area of marl (precipitated CaCO <sub>3</sub> ) as well as aquatic vegetation with willows <i>Salix</i> sp. The amount of marginal grassland flooded is relatively small. There is a swallow hole and inflowing stream at the eastern end.
000301	Lough Lurgeen Bog/Glenamaddy Turlough SAC	Douglas C. And Grogan H. (1985). Survey to locate raised bogs of scientific interest in Counties Galway (E) and Roscommon. Part II. Unpublished report to the Forest and Wildlife Service Dublin.Fojt. W. (1988). Field excursion to Ireland. International Mires Group. Nature Conservancy Council.Goodwillie R. (1992). Turloughs over 10ha : Vegetation survey and evaluation. A report to the National Parks and Wildlife Service Dublin.Kelly L. Doak M. and Dromey M. (1995). Raised bog restoration project: an	Lough Lurgeen bog and Glenamaddy turlough is one of the largest and most important wetland sites in Ireland. The site supports very good	Site is probably underlain by low permeability fossiliferous limestones with subsoils dominated

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>investigation into the conservation and restoration of selected raised bogs sites in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Sheppard R. (1993). Irelands wetland wealth. Irish Wildbird Conservancy Dublin.</p>	<p>examples of the Annex I habitats active raised bog turlough degraded raised bog and Rhynchosporion vegetation. The raised bog present constitutes the second largest extant area of uncut raised bog surface in the country. The turlough system is also large and is important from an ornithological point of view supporting populations of <i>Anser albifrons flavirostris</i> <i>Cygnus columbianus bewickii</i> and <i>Cygnus cygnus</i>. <i>Viola persicifolia</i> a protected plant species has been recorded from the seasonally inundated turlough bed. The combination of raised bog turlough and linking stream is unique in Ireland and probably does not occur elsewhere in the world.</p>	<p>by limestone/sandstone till. The bog plays an important role in the hydrology of the Glenamaddy area as most of the high bog forms the catchment for the turlough (70% of total catchment). The system is an important example of an integrated bog - turlough association. Two drumlins run under the high bog and between them a unique spring fed lake occurs. Some areas of improved grass are included in the site as they are used by <i>Anser albifrons flavirostris</i>.</p>
000308	Loughatorick South Bog SAC	<p>Douglas C. (1992). Survey Report on Loughatorick South. Unpublished report for the National Parks and Wildlife Service Dublin.</p>	<p>The largest of three highland blanket bogs in the Slieve Aughty mountains with vegetation intermediate between lowland and mountain blanket bog a relatively rare habitat type in Ireland.</p>	<p>A highland blanket bog encompassing the summits of Scalp (317m) and Bohatch Mountain (379m) at the southern end of the Old Red Sandstone Slieve Aughty</p>

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			<p>Remarkably intact blanket bog with a range of altitudinal topographic and vegetation variation and including the most western station for <i>Andromeda polifolia</i> on an upland blanket bog. Site used by <i>Lagopus lagopus</i> and <i>Gallinago gallinago</i>.</p>	<p>mountain range. The site incorporates the headstreams of the Coos Conra and Bow river catchments and includes a range of upland habitats i.e. blanket bog heath rock outcrop fens flushes and <i>Molinia</i> grassland.</p>
000318	Peterswell Turlough SAC	<p>Goodwillie R. (1992). Turloughs Over 10ha - Vegetation Survey and Evaluation. Unpublished report to the National Parks and Wildlife Service Dublin. Madden B. and Heery S. (1999). Census of Wintering Wetland Birds in South Galway (Gort-Ardrahan Catchment) Winter 1998/99. Internal Report prepared for Dúchas the Heritage Service (National Parks and Wildlife). Southern Water Global Ltd. and Jennings O'Donovan and Partners (1997). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Vols. 1 and II. Internal Report prepared for Dúchas the Heritage Service (National Parks and Wildlife) and for the Office of Public Works.</p>	<p>The Blackrock section of the site is the deepest turlough known and one of the few large ones that is river-fed. The vegetation is in very good condition and while not very diverse includes two types not widely found. These are <i>Rhamnus</i> woodland and late-exposed mud with <i>Limosella</i>. The Bullaunagh section is a broader valley which floods in winter. Between the two turloughs the Limepark area has notable turlough woodland along the narrow river gorge with a large area of <i>Ash</i> woodland on limestone pavement at the west. Winter bird numbers are</p>	<p>Peterswell (Blackrock and Bullaunagh) Turlough lies in limestone in an elongated depression close to the edge of the Slieve Aughty mountains. It is fed largely by surface flow from the Kilchreest River but has no corresponding outflow. The Blackrock section is a deep basin dry in summer with woodland and sloping rocks on the S.E. side. The fluctuation of water level is extreme and in some years the</p>

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			thought to be significant. The internationally important population of Whooper Swans at the Lough Coy catchment use the turloughs in this site. Three Red Data Book plant species are found in the site.	waterbody is 18m deep.
000322	Rahasane Turlough SAC	Hutchinson C. (1979). Ireland's Wetlands and Their Birds. Irish Wildbird Conservancy Dublin. Lockhart N. (1984). Report on the Wetland Vegetation of the Dunkellin and Lavally River Catchments. Unpublished report to the Forest & Wildlife Service Dublin. Buckley P. & McCarthy T.K. (1987). Bird Communities in the Dunkellin/Lavally Catchment. Unpublished report to Wildlife Service Dublin. Goodwillie R.N. (1992). Turloughs Over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin. Grimmett R.F.A. & Jones T.A. (1989). Important Bird Areas in Europe. ICBP Technical Publication No. 9. ICBP Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Young R. (1975). <i>Tanyastix stagnalis</i> (L.) new to Britain and Ireland. Irish Naturalists' Journal 18:203.	This site has an excellent variety of vegetation several rare plant species and huge bird populations in winter. It supports internationally important numbers of <i>Cygnus cygnus</i> , <i>Anas penelope</i> , <i>Anas clypeata</i> and <i>Pluvialis apricaria</i> . It is the largest site inland for <i>Calidris alpina</i> in Ireland and Britain. It was also the first place that <i>Tanyastix stagnalis</i> was found in these islands.	Rahasane is a very large turlough consisting of grassland and marshes sunk in an area of outcropping limestone. It is fed by a large catchment (Dunkellin River) and so is naturally eutrophic and productive with a large number of wintering birds. There is a little marl but no peat in the basin. The river flows through most of the area and its natural course is the centre of a significant aquatic community.
000326	Shankill West Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance Dublin. Douglas C. and Mooney E. (1984). Survey to locate raised bogs of scientific interest in Counties Galway (E) and Roscommon. Part I. Internal report to the Forest	Shankill West Bog is one of the best examples of a relatively small raised bog site in the country	This site is underlain by shallow water bioclastic

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		<p>and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1993). Raised bog restoration project: An investigation into the conservation and restoration of selected raised bog sites in Ireland: An internal report to the National Parks and Wildlife Service. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>and contains good examples of the Annex 1 habitats active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). The high bog dome contains a wet central core of active raised bog which is of high quality containing extensive quaking lawns and pool systems. On areas along the northern and southern margins of the site at the transition between raised bog and the higher mineral ground there are areas of infiltration lagg influenced by upwelling base-rich water. This lagg area supports fen vegetation of high ecological interest which adds greatly to the overall interest of the site.</p>	<p>carboniferous limestones which have a moderate to high permeability depending on the degree of karstification and number of fissures. Silty limestone tills dominate the subsoils. These have a moderate permeability. The bog occupies a small basin surrounded by drumlin ridges. To the north peat has encroached onto the drumlin with a natural gradation from bog to mineral soil. There is a small discharge area at the base of this drumlin which gives rise to an area of alkaline fen. Part of the cutover bog has been converted to improved grassland but is included in the site for hydrological reasons.</p>
000332	Akeragh Banna and Barrow Harbour SAC	<p>Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and</p>	<p>The site is of importance mainly for the diversity of sand dune and salt</p>	<p>The site covers a 10 km stretch of coast running southwards</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Doyle G.J. (1993). Cuscuta epithimum (L.) (Convolvulaceae) its hosts and associated vegetation in a limestone pavement habitat in the Burren lowlands in County Clare (H9) western Ireland. Biology and the Environment Proceedings of the Royal Irish Academy 93B: 61-67. Goodwillie R. (1976). A Preliminary Report on Areas of Scientific Interest in County Kerry. An Foras Forbartha Dublin. Hutchinson C. (1979). Ireland's Wetlands and their Birds. Irish Wildbird Conservancy Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges and Figgis Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Wymer E.D. (1984). The phytosociology of Irish Saltmarsh Vegetation. M.Sc. thesis. National University of Ireland. Wyse Jackson M.B. and Wyse Jackson P.S. (1994). Report of field meeting to north and south Kerry (v.cc. H1 &amp; H2). 31st July - 1st August. BSBI News 65: 59-60.</p>	<p>marsh habitats. Of particular note are the fixed dunes which are substantial in area and of good quality in the southern part of site. There is an interesting transition through a series of dune communities including humid dune slacks to salt marsh communities at Carrahane Strand. The site supports important concentrations of wintering waterfowl including <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i> both listed on Annex I of the EU Birds Directive. The sand flats salt marsh and dunes support important invertebrate communities including nationally threatened species.</p>	<p>from Ballyheigue to Fenit Co. Kerry. A good diversity of coastal habitats occur including rocky shore shingle and sandy beaches sand dunes salt marshes intertidal sand and mud flats dry heath and dry grassland wet grassland and reed beds. Akeragh Lough formerly a brackish lagoon has silted up since the 1970s and is now mostly wet grassland and swamp vegetation. The underlying geology is limestone and as a result the sandy soil is calcareous in nature and has a high shell fragment content. Recreation and grazing (cattle and rabbits) are the primary landuses.</p>
000335	Ballinskelligs Bay and Inny Estuary SAC	<p>Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Lockhart N. (1998). Report on Survey of <i>Petalophyllum ralfsii</i> at Ballinskelligs</p>	<p>The site is important for the occurrence of both Atlantic and Mediterranean salt meadows both of which are of good quality.</p>	<p>The site is situated in the west of County Kerry and comprises the estuary of the River Inny and the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Bay Co. Kerry. Unpublished report to Dúchas The Heritage Service National Parks and Wildlife Dublin Sheppard R. (1993). Ireland's Wetland Wealth. I.W.C. Dublin.</p>	<p>Petalophyllum ralfsii has been known from the site since 1890 and has recently been re-confirmed. The number of plants however is low and potential habitat is limited. A nationally important wintering population of Melanitta nigra occurs in the area and regularly uses the shallow waters within the site. Charadrius hiaticula occurs in nationally important numbers along with smaller numbers of other wading birds.</p>	<p>shallow waters of Ballinskelligs Bay (to a depth of c. 16 m). The extent of the site is from Horse Island in the west to Rinneen Point in the south east of the bay. The estuary of the Inny is well sheltered by a protruding sand spit now a golf course on the south side. A small area of sandhills still occurs on the northern side of the estuary. Most of the tidal section of river is included in site. Above the intertidal sand and mud flats and salt marshes there are areas of wet grassland freshwater marsh and swamp vegetation.</p>
000364	Kilgarvan Ice House SAC	<p>Kelleher C. (1999). Lesser Horseshoe Bat Summer Roost Survey Cork/Kerry Region Ireland 1999. Internal report to The Vincent Wildlife Trust unpublished. McAney C.M. (1994). The Lesser Horseshoe Bat in Ireland - Past Present and Future. Folia zoologica. 43 (4) : 387-392. O'Sullivan P. (1994). Bats in Ireland. The Irish Naturalists' Journal. Special zoological supplement. 21pp.</p>	<p>As more than 300 lesser horseshoe bats Rhinolophus hipposideros hibernate in this site and up to 366 lesser horseshoe bats have been counted in summer it is a site of international</p>	<p>This site includes a small stone structure called an ice house which is situated in Glannaserha Wood on the southern side of the Roughty River Kilgarvan Co.</p>

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			<p>importance. Kilgarvan Ice House is probably one of the largest hibernacula for this species in Europe. The site includes year-round roosting and foraging habitat for the bats. One of the most important sites in the country for <i>Rhinolophus hipposideros</i>.</p>	<p>Kerry. This structure was formerly used for food storage but is now used by &gt;300 Lesser Horseshoe bats as a winter hibernation site. The number of bats using the hibernaculum has increased since the entrance was fitted with a grille in 1987. The surrounding woodland which is within the site provides both suitable foraging habitat and some shelter for bats as they commute to two summer roosting sites several kilometres away on either side of the ice house. The summer roosts are a disused cottage and a disused barn each of which are used by over 170 bats.</p>
000391	Ballynafagh Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report to the Minister of State at the Department of Finance. Stationery Office Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Raised Bogs of Scientific Interest. Internal report to the Forest and Wildlife Service Dublin. Hammond R.F. Van der Krogt G. and Osinga T. (1990). Vegetation and water-tables on two raised bog remnants in Co. Kildare. In: G.J. Doyle (ed.) Ecology and Conservation of Irish</p>	<p>Ballynafagh Bog is a small raised bog site which contains examples of the Annex 1 habitats active raised bog degraded raised bog and</p>	<p>This area is directly underlain by muddy fossiliferous limestones interbedded with calcareous shales. A</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>peatlands. pp 121-134. R.I.A. Dublin. Goodwillie R. (1984). Evaluation of Four Raised Bogs (Mouds Carbury Properous and Ballina) for Conservation. A report to Kildare Co. Council. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report for National Parks and Wildlife Service. Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>Rhynchosporion vegetation. The bog is one of the most easterly examples of a relatively intact raised bog in Ireland and together with Mouds Bog is one of only two such systems in Co. Kildare. A central depression on the high bog dome supports a substantial area of active raised bog with a locally high Sphagnum cover. The site is also of ornithological interest being within the breeding territory of a pair of Falco columbarius and providing habitat for breeding Gallinago gallinago and Numenius arquata. Lepus timidus hibernicus occurs within the site.</p>	<p>reverse fault runs directly under the bog so that the NW of the bog is underlain by fossiliferous mudmounds. Both have low permeabilities. The subsoils are predominantly clay rich tills of low permeability. Part of the site has been planted with conifers.</p>
000396	Pollardstown Fen SAC	<p>Daly D. (1981). Pollardstown Fen. Hydrological Assessment of the Drainage on the Water Supply to the Grand Canal. Internal report for the Geological Survey of Ireland Dublin. Doyle G. (1984). Pollardstown Fen. In: Nature Conservation in Ireland : Progress and Problems. Ed. D.W. Jeffrey. Royal Irish Academy Dublin. Killen I.J. and Moorkens E.A. (2002). A Survey of Vertigo angustior at Pollardstown Fen Co. Kildare. A report for Kildare County Council. Unpublished. Moorkens E.A. (1995). Mapping of proposed SAC sites for Vertigo angustior V. moulinsiana and V. geyeri. Unpublished report for the National Parks and Wildlife Service Dublin. Moorkens E.A. (2002). Annual Report on Molluscan Invertebrate Work 2001. Unpublished report for Kildare County Council. Moorkens E.A. and Good J. (1998). 1998 Baseline Invertebrate Survey of Pollardstown Fen. Unpublished report for Natural Environment Consultants Ashford Wicklow. Neff M.J. (1980). Hydrological/Ecological Report - Pollardstown Fen. Internal Report for the Forest and Wildlife Service Dublin. Noriss A. and Pickrell D.G. (1972).</p>	<p>The largest spring-fed fen in Ireland largely intact and responding well to restoration measures. Supports one of the largest stands of Cladium fen and is one of the most studied examples of its kind in Ireland. Type locality for the Cirsio dissecti-Schoenetum nigricantis and contains a significant number of</p>	<p>A large spring-fed fen situated in a shallow basin composed of up to 6m of marl/peat overlying clay. The fen contains the feeder channel of the Grand Canal and has survived several attempts at drainage and reclamation.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Notes on the occurrence of <i>Vertigo geyeri</i> Lindholm in Ireland. Journal of Conchology 27:411-418. O'Connor J.P. Good J.A. and Bond K.G.M. (1990). <i>Leptocerus tineiformis</i> Curtis: a caddisfly new to Ireland from Pollardstown Fen Co. Kildare. Entomologist's Record 102: 115-116. Patton L. Boule G.M. and O'Connell T. (1990). An Ecological Survey of Pollardstown Fen 1989. Irish Wildlife Federation FAS Teagasc Office of Public Works Dublin. Speight M.C.D. (1980). <i>Chiloxanthus pilosus</i> Palloptera modesta and <i>Pipizella heringi</i> Confirmed As Irish Species. Irish Naturalists' Journal 20(2): 72-73. Speight M.C.D. (1982). <i>Arcoceria globulus</i> <i>Limnia paludicola</i> and <i>Sphaerophoria loewi</i>: insects new to Ireland. Irish Naturalists' Journal 20 (9): 369-372. Speight M.C.D. and O'Connor J.P. (1983). The Irish Ptychopteridae (Diptera). Bulletin of the Irish Biogeographical Society 5: 29-37. Speight M.C.D. and Chandler P.J. (1983). Irish Otidae and Platystomatidae (Diptera) including a key to the genera known in Ireland and/or Great Britain. Irish Naturalists' Journal 21 (3): 130-136. Speight M.C.D. (1986). <i>Asaphidion curtum</i> <i>Dorylomorpha maculata</i> <i>Selatosomus melancholicus</i> and <i>Syntormon miki</i>: insects new to Ireland. Irish Naturalists' Journal 22 (1): 20-23. Speight M.C.D. and Vockeroth J.R. (1988). <i>Platycheirus amplus</i> - an insect new to Ireland previously recorded from Europe. Irish Naturalists' Journal 22 (12): 518-521. Vaillant F. and Withers P. (1992) <i>Panimerus goodi</i>: sp. n. from Ireland with a description of other members of the <i>maynei</i> complex (Diptera: psychodidae). Irish Naturalists' Journal 24: 27 - 28.</p>	<p>rare and threatened species. A number of internationally important invertebrates have been recorded and rare sub-aquatic invertebrates are particularly well represented. Pollardstown is the only known site in Ireland (or Europe) to support all three Annex II <i>Vertigo</i> species (<i>V. geyeri</i> <i>V. angustior</i> <i>V. moulinsiana</i>) and thus provides unique opportunity to study their different habitat and hydrological requirements. Re-flooding of reclaimed areas has increased the ornithological value of the site.</p>	<p>Supports extensive areas of <i>Cladium</i> fen <i>Schoenus</i> fen reed and sedge swamp <i>Molinia</i> grassland and species-rich seepage areas. Restoration of the central fen area following partial reclamation in 1979 has caused re-flooding and allowed the re-establishment and expansion of aquatic and reedswamp vegetation and their associated fauna.</p>
000412	Slieve Bloom Mountains SAC	<p>Douglas C. (1993). Survey Of Glenletter Bog. Unpublished report to the National Parks and Wildlife Service Dublin. Feehan J. (1979). The Landscape of Slieve Bloom. Blackwater Dublin. Heuff H. (1986). The Vegetation of Irish Rivers. Unpublished report to the Wildlife Service Dublin. Mooney E.P. Goodwillie R.N. and Douglas C. (1991). Survey of Mountain Blanket Bogs of Scientific Interest. Unpublished draft report to the National Parks and Wildlife Service Dublin. Norris D.W. Marsh J. McMahon D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 1998-2000. Irish Birds 7: 1-10.</p>	<p>One of the best and least disturbed mountain blanket bogs in Ireland representing an important biogeographical link in the east/west gradient of bog variation. Contains transitional elements between raised and blanket bogs notably <i>Andromeda polifolia</i> and <i>Vaccinium oxycoccus</i> and includes extensive</p>	<p>An isolated inland mountain range composed of Old Red Sandstone forming an elongated ridge extending for 25km in a North-east/South-west direction supporting extensive mountain blanket bog development. Site</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>heaths and headwater streams. Wet heath is well represented within the site. Alluvial woodland occurs within the Camcor River valley - this is of variable quality due to afforestation but quality will be improved with sensitive management by the forestry agency. The Slieve Blooms is a stronghold for breeding <i>Circus cyaneus</i>.</p>	<p>includes the headwaters of several river systems including the river Barrow. Surrounding lands are extensively afforested with conifer monocultures.</p>
000428	Lough Melvin SAC	<p>Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Central Fisheries Board (1993). A Baseline Survey of the Glenaniff and Ballagh Rivers Lough Melvin Catchment and Recommendations for Fisheries Development. Central Fisheries Board Dublin. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Ferguson A. and Mason F.M. (1981). Allozyme evidence for reproductively isolated sympatric populations of brown trout <i>Salmo trutta</i> L. in Lough Melvin Ireland. <i>Journal of Fish Biology</i> 18: 629-642. Ferguson A. (1986). Lough Melvin - a unique fish community. Occasional papers in Irish Science and Technology No. 1. Went Memorial Lecture. Royal Dublin Society Dublin. Ferguson A. (1989). Genetic differences among brown trout <i>Salmo trutta</i> and their importance for conservation and management of the species. <i>Freshwater Biology</i> 21: 35-46. Goodwillie R. (1973). A Preliminary Report on Areas of Scientific Interest in County Leitrim. An Foras Forbartha Dublin. Lawrie E.W. Wolfe-Murphy S.A. and Gibson C.E. (1992). Northern Ireland Lakes Survey. 7: Large Lakes. A Botanical Survey of the Eight Largest Lakes in Northern Ireland. Unpublished report for the Department of the Environment Northern Ireland. Lucey J. Bowman J.J. Clabby K.J. Cunningham P. Lehane M. MacCarthaigh M. McGarrigle M.L. and Toner P.F. (1999). Water Quality in Ireland 1995-1997. Environmental Protection Agency Wexford. O'Reilly P. (1991). Trout and Salmon Rivers of Ireland: An Angler's Guide. Merlin Unwin books London. Praeger R.L.</p>	<p>Lough Melvin part of which lies in Northern Ireland is an important example of an oligotrophic-mesotrophic lake system. Sections of the main inflowing rivers and all of the outflowing river are included in site. It has a typical aquatic and emergent flora. The site is of great importance for fish conservation with three genetically distinct populations of brown trout (<i>Salmo trutta</i>) - <i>ferox</i>? <i>gillaroo</i>? <i>sonaghen</i>? as well as <i>Salvelinus alpinus</i> and important populations of <i>Salmo salar</i>. It may be one of the last examples</p>	<p>Lough Melvin is a large lake over 12 km in length and up to 3 km in width. The lake lies in a glaciated valley with average depth of 8.5 m and a maximum of 45 m. The underlying rock is limestone. The lake is fed by several main rivers - the Ballagh the Glenaniff the County and the Roogagh (lies in Northern Ireland) plus numerous small streams. The lake drains into Donegal Bay via the Drowes River.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		(1934). The Botanist in Ireland. Hodges Figgis & Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	in north-western Europe of a natural post-glacial salmonid lake. The site supports a population of <i>Lutra lutra</i> and has four Red Data Book plant species notably <i>Trollius europaeus</i> . <i>Martes martes</i> has been reported from the site in recent times.	Marginal vegetation is mainly wet grassland but there are significant areas of wet woodland and some swamp and fen vegetation. Several large islands occur. Landuse in surrounding areas is mainly agricultural though there are substantial areas of forestry. Some areas of bog and heath occur in the catchment.
000439	Tory Hill SAC	Andrieu V. Huang C.C. O'Connell M. and Paus A. (1993). Late-glacial vegetation and environment in Ireland: first results from four western counties. <i>Quaternary Science Review</i> 12. O'Connell M. Huang C.C. Andrieu V. and Paus A. (1993). Fresh evidence for vegetation and climate change at the end of the Midlandian glaciation. In: <i>Glacial Events. IQUA Annual Symposium 1993 pp.11-14.</i> Irish Association for Quaternary Studies Dublin. Ó Críodáin C. (1992). Conservation of Grassland Habitats of Scientific Interest in Ireland. A Preliminary Report. Unpublished report National Parks & Wildlife Service Dublin.	This site has an excellent diversity of habitats all of good quality over a relatively small area. The calcareous grassland and fen habitats which are represented at the site are rare in the county. The calcareous grassland is particularly species-rich and has some locally scarce species including <i>Arabis hirsuta</i> and <i>Ophrys apifera</i> . An area of limestone heath-scrub on the western flank of Tory Hill is remarkable for the occurrence of a stand of <i>Taxus baccata</i> which is a feature now rare in Ireland. Tory Hill	Tory Hill is an isolated limestone outcrop rising to 112 m. It is an excellent example of an end-moraine. Of particular geomorphological note are ice marks that are clearly visible on the solid rock of its northern flank. Soil is a coarse calcareous drift. Most of the hill is dominated by deciduous scrub and woodland with a well developed heath-scrub complex occurring

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			has geological and geomorphological importance and represents an excellent example of a landform that is rare outside of the Burren. The site has been the subject of palaeoecological investigations and has high educational potential.	on its western flank. Some limestone pavement occurs in association with the calcareous grassland. Lough Nagirra is a small lake that is surrounded by swamp and fen vegetation and wet grassland.
000440	Lough Ree SAC	<p>Barrington R.M. and Vowell R.P. (1887). Report on the flora surrounding the shores of Lough Ree. Proceedings of Royal Irish Academy Series 2: 14: 693-708</p> <p>Bowman J.J. (1996). Lough Ree: an investigation of eutrophication and its causes. Environmental Protection Agency Wexford.</p> <p>Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality In Ireland : 1987-1990. E.R.U. Dublin.</p> <p>Curtis T.G.F. (1977). Species List of the Pteridophyta Gymnospermae and Angiospermae Hare Island Lough Ree. Bulletin of the Irish Biogeographical Society. 1: 17-19.</p> <p>Daly O.H. O'Neill F.H. &amp; Barron S.J. (in prep.) The monitoring and assessment of four EU Habitats Directive Annex I woodland habitats. Irish Wildlife Manuals National Parks and Wildlife Service Department of Culture Heritage and the Gaeltacht Dublin.</p> <p>Doogue D. (1977). Woodlice in the Lough Ree district. Bulletin of the Irish Biogeographical Society. 1: 25-27.</p> <p>Duigan C. (1988). The Cladocera (Crustacea) of Lough Ree and neighbouring waterbodies in Ireland. Bulletin of the Irish Biogeographical Society. 11: 100-113.</p> <p>Dunford B. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Unpublished Internal Report prepared for Coillte Teo.</p> <p>European Commission (2013) Interpretation manual of European habitats. EUR 28. European Commission DG Environment Brussels.</p> <p>Flanagan P.J. and Toner P.J. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin.</p> <p>Fossitt J.A. (2000) A guide to habitats in Ireland. The Heritage Council Kilkenny.</p> <p>Gittings T. and Delany S. (1996). A pre-breeding census of Common Scoters in Ireland in 1995. Irish Birds 5: 413-422.</p> <p>Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22.</p> <p>Kelly D.L. and Fuller S. (1988). Ancient Woodland In Central Ireland : Does It Exist? In: Favio Salvitano (Ed.) Human Influence On Forest Ecosystem Development In Europe: 363-</p>	One of the largest and most important lakes in Ireland Lough Ree is an excellent example of a natural eutrophic system. The woodlands at the site are considered the best in the midlands. The site also contains very good examples of degraded raised bog much of which retain a typical raised bog flora and which could be improved by restoration works. Bog woodland is also represented though some of this is planted Pinus species. A further area of wet woodland on cutover peat is notable for the abundance of Frangula alnus. Good to moderate examples of alkaline fens and	A large mesotrophic moderate-eutrophic lake situated in an ice deepened depression in carboniferous limestone on the River Shannon. Greater part is less than 10 m in depth but there are deep troughs from north to south of depths between 17-33 m. Lough Ree has a long and much indented shoreline mostly stony with some gravel and sand. In parts reed swamp alkaline fen bog freshwater marshes wet and dry grassland and



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>369. ESS Fern-Cnr. Pittgoria Editrices Bologne.Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and Environment - Proceedings of the Royal Irish Academy Section B. 1-32.Levinge D.E.S. (1977). A general description of Lough Ree and surround. Bulletin of the Irish Biogeographical Society. 1: 4-6.Levinge D.E.S. (1977). Hare Island Lough Ree. Bulletin of the Irish Biogeographical Society. 1: 6-9.Lovatt J.K. (1997). Occurrence of the Garden Warbler <i>Sylvia borin</i> around Lough Ree and County Cavan. Irish Birds 6: 58-60.O'Connor J.P. and Norton M.A. (1976). Preliminary notes on the aquatic invertebrate fauna of Hare Island and environs. Bulletin of the Irish Biogeographical Society. 1: 20-25.O'Neill F.H. &amp; Barron S.J. (2013) Results of monitoring survey of old sessile oak woods and alluvial forests. Irish Wildlife Manuals No. 71. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin.Parnell J. &amp; Curtis T. (2012) Webb's an Irish flora. 8th edition. Cork University Press Cork.Perrin P. Martin J. Barron S. O'Neill F. McNutt K. &amp; Delaney A. (2008) National Survey of Native Woodlands. Volume I: Main report. Report submitted to the National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin.Perrin P.M. &amp; Daly O.H. (2010) A provisional inventory of ancient and long-established woodland in Ireland. Irish Wildlife Manuals No. 46. National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin.Praeger R.L. (1934). The Botanist In Ireland. Hodges Figgis Dublin.Rubers W.V. (1975). Notes on some bryophytes from the Lough Ree area. Irish Naturalists' Journal. 18: 177-187.Ruttledge R.F. (1997). The breeding distribution of Common Scoter in Ireland. Irish Birds 3: 417-426.Sheppard R. (1993). Irelands' Wetland Wealth. Irish Wildbird Conservancy Dublin. Speight M.C.D. (1977). Insects collected on and near the shores of Lough Ree. Bulletin of Irish Biogeographic Society. 1: 27-36.</p>	<p>calcareous dry grasslands also occur. Limestone pavement with species-rich woodland occurs at Rathcline. Several Red Data plant species occur. <i>Lutra lutra</i> is frequent on the site and the fish <i>Coregonus autumnalis</i> pollan has been recorded. It is an important bird site for wintering and breeding waterfowl and has a colony of <i>Sterna hirundo</i>. It is of particular importance for the breeding population of <i>Melanitta nigra</i> as it is one of only three sites for the species in Ireland. Water quality of the lake is considered good.</p>	<p>wet woodland occurs. Numerous islands some wooded occur in the lake. Dry broad-leaved woodland of good quality is included in site. Lough Ree is surrounded by agricultural land of moderate to high intensity and is close to Athlone town. Eutrophication may be a problem but at present Lough Ree is less affected than other midland lakes notably Lough Derg.</p>
000448	Fortwilliam Turlough SAC	<p>Farrell L. (undated - 1972). Report On Areas Of Scientific Interest In Co. Longford. Unpublished Report to Longford County Council. An Foras Forbartha.Goodwillie R.N. (1992). Turloughs Over 10ha - Vegetation Survey and Evaluation. Unpublished Report to National Parks and Wildlife Service.</p>	<p>Fortwilliam is the most important turlough in Co. Longford and the 004 NUTS region and one of only two good examples east of the Shannon. It has a diverse vegetation with particularly large stands of nutrient-poor marsh containing normally calcifuge plants. The woodland is also unusual and goes with a</p>	<p>The turlough area includes a more or less permanent waterbody with scattered reeds a woodland which is partly flooded in winter ungrazed tall herb vegetation and grassland. There is considerable precipitation of marl (CaCO<sub>3</sub>)</p>

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			historic low intensity of grazing. There is no sign of drainage in the basin and little sign of eutrophication.	associated with ground water input and a lack of surface flow. Rock outcrops occur on the North East side with boulders on the turlough floor.
000453	Carlingford Mountain SAC	Praeger R.L. (1934). The Botanist In Ireland. Hodges Figgis Dublin.Fahy E. (1972). A Preliminary Report on Areas of Scientific Interest in County Louth. Unpublished report prepared for Louth County Council An Foras Forbartha Dublin.	An extensive area of upland heath and acid grassland with exposed rocks and scree noted for the occurrence of some alpine plants including the nationally rare <i>Cryptogramma crispa</i> .	An upland site composed of silurian slates dolomite basic gabbro with granite at the summit of Carlingford Mountain the highest point in the range (590m). Mostly covered in heath and acid grassland vegetation with some blanket bog and marsh the site is rugged in parts with exposed rock and some scree.
000458	Killala Bay/Moy Estuary SAC	Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford.Cawley M. (1996). Notes on some non-marine mollusca from Co Sligo and Co Leitrim including a new site for <i>Vertigo geyeri</i> Lindholm. Irish Naturalists? Journal 25: 183-185. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks & Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 34 pp.Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in	This large site displays an excellent diversity of dune types and is one of the most important dune systems in the north-west region. There remains a substantial area of intact fixed dune despite modifications to parts of the site for	Situated on the north Mayo/Sligo coast this large site comprises the inner part of Killala Bay including the estuary of the River Moy from downstream of Ballina. The towns

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Environmental Protection Agency (2001). An Assessment of the Trophic Status of Estuaries and Bays in Ireland. Report prepared for the Department of Environment and Local Government. EPA Wexford. Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp. King J.J. (2006). The status and distribution of lamprey in the River Barroo SAC. Irish Wildlife Manuals No. 15 National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. Lockley R. M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Nat. J. 15: 136-143. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moorkens E.A. (1997). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and V. <i>geyeri</i>. Unpublished report National Parks &amp; Wildlife Service Dublin. Norris A. and Colville B. (1974). Notes on the occurrence of <i>Vertigo angustior</i> Jeffreys in Great Britain. Journal of Conchology. 28: 140-154. O'Connor W. (2004). A survey of juvenile lamprey populations in the Moy Catchment. Irish Wildlife Manuals No. 15 National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. Praeger R.L (1934). The Botanist in Ireland. Hodges &amp; Figgis Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. &amp; Flynn J. (1980). An assessment of the status of the common seal <i>Phoca vitulina vitulina</i> in Ireland. Biol. Conserv. 17: 115-123. Warren A. (1879). The land and freshwater Mollusca of Mayo and Sligo. Zoologist 3: 25. Warren A. (1892). Rare Mollusca from Co. Sligo. Irish Naturalist 1: 170. Warner P.J. (1983). An assessment of the breeding populations of common seals (<i>Phoca vitulina vitulina</i> L.) in the Republic of Ireland</p>	<p>recreational and agricultural purposes. Some humid dune slacks also occur and there are good and fairly extensive examples of shifting dunes with marram embryonic shifting dunes and annual vegetation of driftlines. Salt marshes are well represented with both Atlantic salt meadows and <i>Salicornia</i> types present. The Moy estuary is an important example of an estuary and has extensive intertidal sand and mud flats. Water quality is very good. The site is important for the occurrence of the Annex II mollusc <i>Vertigo angustior</i> which occurs in marsh habitat. An excellent diversity of waterfowl winter at site including two Annex I Bird Directive species (<i>Pluvialis apricaria</i> <i>Limosa lapponica</i>). Seven other species winter in nationally important numbers and in some winters internationally important concentrations of <i>Branta bernicla hrota</i> occur. Two Red Data plant species</p>	<p>of Enniscrone and Killala occur on the eastern and western shores respectively. Sand dunes systems estuaries and intertidal areas are the main habitats of the site. Bartragh Island a sand bar on which a dune system has developed stretches across most of the outer part of the site. A further dune system protrudes westwards from Enniscrone while more dunes occur at the Ross peninsula in the north-west of the site. Other habitats present include salt marshes dry grassland reedbeds and scrub.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		during 1979. Ir. Nat. J. 21: 24-26. Warner P.J. (1984). Report on the census of common seals ( <i>Phoca vitulina vitulina</i> ) in the Republic of Ireland during 1984. Unpublished report to the Forestry & Wildlife Service. Went A.E.J. & Kennedy M. (1976). List of Irish Fishes. Stationery Office Dublin.	are known from site. The site supports an important population of <i>Phoca vitulina</i> and both adult and juvenile <i>Petromyzon marinus</i> .	
000461	Ardkill Turlough SAC	Coxon C.E. (1986). A Study of the Hydrology and Geomorphology of Turloughs. Unpublished Ph.D. Thesis. Trinity College Dublin. Goodwillie R.N. (1992). Turloughs over 10 ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin.	The site is in good condition with a high level of vegetation diversity for its small size. It is an unusual turlough because of its great range of water levels and for the exposure of limestone cliff at its edge. It is probably unique in Mayo.	This is a steep-sided turlough basin surrounded by fairly intensive farmland. It is bordered in part by a rock outcrop and small cliff and contains a long-lasting natural pond which is used by cattle. The steepness of the slopes compresses the normal vegetation zonation into noticeable bands.
000470	Mullet/Blacksod Bay Complex SAC	Bassett J.A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar survey of Irish machair sites 1996. A report submitted to the National Parks & Wildlife Service Dublin. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Farran G.P. Knowles M.C. and Hartmyer R. (1915). Results of a biological survey of Blacksod Bay Co. Mayo. Fisheries Ireland Scientific Investigations 1914 part III. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks & Wildlife	Blacksod Bay has a good range of representative littoral and sublittoral sediment communities. The seagrass <i>Zostera marina</i> occurs at several localities and species richness in sublittoral sediment communities is high. There is an interesting and unusual Horse Mussel ( <i>Modiolus modiolus</i> ) / Purple Sea Urchin ( <i>Paracentrotus</i>	This large coastal site located in north-west Mayo comprises much of the Mullet Peninsula the sheltered waters of Blacksod Bay and the low-lying sandy coastline from Belmullet to Kinrovar. Blacksod Bay is 16 km in length and 8 km

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Service Dublin. Goodwillie R. (1979). Report on Areas of Scientific Interest in County Mayo. An Foras Forbartha Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Holyoak D.T. (1999). Report on Surveys of Petalophyllum ralfsii in Co. Mayo and Co. Galway Western Ireland 16-22 April 1999. Unpublished report to Duchas The Heritage Service National Parks and Wildlife Dublin. Johnson W.F. (1918). The Purple Sea-urchin at Inishkeel Co. Donegal. Irish Naturalist 27: 10-11. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Lockhart N. (1998). Report on Survey of Petalophyllum ralfsii at Dooyork and Doolough Machairs Co. Mayo. Unpublished report to Duchas The Heritage Service National Parks and Wildlife Dublin. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Nairn R.G.W. and Sheppard J.R. (1985). Breeding birds of sand dune machair in north-west Ireland. Irish Birds 3: 53-70. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488. Praeger R.L. (1934) The Botanist in Ireland. Hodges &amp; Figgis Dublin. Roden C.M. (1999). A Survey of Coastal lakes in Counties Galway Mayo Sligo and Donegal. Unpublished report for the Heritage Council. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. An account of their status and distribution. Irish Wildbird Conservancy Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Walsh A. and Merne O.J. (1988). Barnacle Geese in Ireland spring 1988. Irish Birds 3: 539-550. Wilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Whittow J.B. (1975). Geology and Scenery in Ireland Penguin Books Ltd. Harmondsworth.</p>	<p>lividus) community. There are large oyster (Ostrea edulis) populations and the rare anemone Phellia gausapata is present. The machair and fixed dune habitats are particularly well developed and comprise some of the largest areas of these habitats in Ireland. A fine example of decalcified fixed dunes occurs. A fairly extensive area of alkaline fen which is subject to a strong maritime influence occurs at Termoncarragh Lough. Cross Lough is a good example of a naturally eutrophic system and receives large inputs of wind-borne ions from the nearby ocean. Petalophyllum ralfsii has recently been found at two machair areas within the site. The site supports significant populations of nine Annex I Bird Directive species most notably internationally important populations of wintering Gavia immer and Branta leucopsis a nationally important population of</p>	<p>wide at the mouth. It is a shallow bay reaching a maximum depth of 19 m and with weak tidal streams. The character of the site is strongly influenced by the Atlantic Ocean and the exposed location of much of it results in a terrestrial landscape dominated by blown sand and largely devoid of trees. In addition to sand dune habitats other terrestrial habitats include shallow coastal lakes notably Cross Lough and Termoncarragh Lough salt marshes and some rocky shore. The underlying bedrock consists mainly of schists and gneiss. Grazing is the main terrestrial activity while fishing and recreational activities are carried out in Blacksod Bay.</p>

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			<p>Limosa lapponica and a regionally important population of Anser albifrons flavirostris. The site is one of the only Irish breeding sites for Phalaropus lobatus though birds have not been recorded in recent years. A good diversity of other wintering waterfowl occur including internationally important numbers of Branta bernicla horta and Charadrius hiaticula. The site also had important concentrations of breeding waders especially Calidris alpina and Vanellus vanellus. Lutra lutra occurs throughout much of site.</p>	
000471	Brackloon Woods SAC	<p>Neff M.J. (1973). Conservation Report - Brackloon Wood. Unpublished report for the Forest and Wildlife Service Dublin. Cross J.R. and Neff M.J. (1982). Schedule for Proposed Nature Reserve at Brackloon Wood Croagh Patrick Forest Co. Mayo. Unpublished report for the Forest and Wildlife Service Dublin.</p>	<p>A sessile oak wood of the Blechno-Quercetum petraea scapanietosum a rare hypo-oceanic community of restricted distribution. It is one of the few remaining fragments of woodland in the region. Considerable past disturbance has fragmented the wood which nevertheless retains a typical structure and flora in places and</p>	<p>A sessile oak wood developed on soils derived from schists and gneiss on gently undulating terrain. The site is bounded on the eastern margin by the Owenee River.</p>

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			contains the Red Data species <i>Cephalanthera longifolia</i> .	
000504	Kilglassan/Cahevavosti a Turlough Complex SAC	Goodwillie R. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin. Coxon C.E. (1986). A Study of the Hydrology and Geomorphology of Turloughs. Unpublished Ph.D. Thesis. Trinity College Dublin.	Kilglassan is large and has considerable habitat diversity. For a turlough it is unusual in its large amount of wetland vegetation that occurs at the base. The occurrence of <i>Oenanthe fistulosa</i> is unusual in a turlough and the site is also of value for breeding waders.	The site consists of two turlough basins separated by higher ground which includes a pond and small floating fen. The floors of the turloughs are close to the summer watertable so that there is extensive and varied wetland vegetation and peat formation. The surrounding slopes have thin stony soils where some leaching takes place.
000516	Lackan Saltmarsh and Kilcummin Head SAC	Couhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Doyle G.J. (1993). <i>Cuscuta epithimum</i> (L.) (Convolvulaceae) its hosts and associated vegetation in a limestone pavement habitat in the Burren lowlands in County Clare (H9) western Ireland. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 93B: 61-67. Goodwillie R. (1978). A preliminary report on areas of scientific interest in County Mayo. An Foras Forbartha Dublin. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	Site is of importance mainly for dune and salt marsh habitats. The dune system is extensive in area and dominated by fixed dunes. These dunes are largely intact and support a species-rich vegetation that reflects the calcareous nature of the site. Bryophyte and lichen communities are well represented. The salt marsh is representative of both	Situated on the north-western part of Killala Bay on the north coast of Co. Mayo this funnel-shaped site displays fine examples of coastal habitats from open sea to salt marsh. The underlying geology is predominantly carboniferous mainly limestone. The Cloonalaghan

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>the Atlantic and Mediterranean types and is extensive in area and of good quality. Site supports low numbers of wintering waterfowl (part of Killala Bay population) including <i>Pluvialis apricaria</i>. An important site for the north-west region.</p>	<p>River flows through the site to the sea. The outer part of the site is dominated by a dune system and a sandy beach. Behind the dunes there are sheltered intertidal sand flats which in turn are backed by extensive salt marsh. A shallow area of open sea and some rocky shore and low cliffs are included in the site. Grazing is the main landuse and the dune and beach area are popular for recreational activities.</p>
000522	Lough Gall Bog SAC	<p>Foss P.J. and McGee E. (1987). A Survey to Locate Blanket Bogs of Scientific Interest in Co. Mayo. Unpublished report for the Wildlife Service Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report NPW Dublin.</p>	<p>This largely intact blanket bog supports a high diversity of typical features. Of particular note is the unusually intact zonation and transition from blanket bog vegetation to salt marsh on peat and shingle beach. The site supports the protected <i>Lycopodiella inundata</i> and the uncommon <i>Erica erigena</i>. The site is</p>	<p>An area of lowland blanket bog situated on a peninsula in the sheltered marine inlet of Bellacragher Bay with a range of typical natural features including small lakes pool systems streams flushes swallow holes islands and natural drains.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			visited by Lutra lutra which has a presence in Bellacragher Bay.	Boulder shingle beaches salt marsh and marine waters form a natural boundary to the site on three sides.
000525	Shrule Turlough SAC	Goodwillie R.N. (1992). Turloughs Over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin.	Shrule is highly oligotrophic with thick marl and peat deposits. As such it differs from most Mayo turloughs resembling some of those in the eastern Burren. The vegetation is highly diverse and shows good zonation from the edges and from north to south. Several uncommon water plants occur. Much of the site is little grazed and gives cover to nesting waders.	Shrule Turlough lies in a shallow basin in flat land east of Lough Corrib. Limestone outcrops on the north shore but glacial till predominates elsewhere. There is thick peat in the centre covered by fen vegetation. Three swallow holes occur on the south shore where there is grassland. There are no natural inflow channels though some water enters from the west. The site is nutrient-poor and seems little used by wildfowl.
000572	Clara Bog SAC	Bell J. (1991). A Study of the Hydrological Effects of a Bog Road Clara Bog Co. Offaly. MSc. Thesis. Department of Civil Engineering Imperial College London. Blackwell I. (1992). A Hydrological Study of the Lagg Zone of Clara Bog Co. Offaly Ireland. MSc. Thesis Imperial College University of London. Bloetjes O.A.J. and van der Meer J.J.M. (1992). A Preliminary Stratigraphical Description of Peat Development on Clara Bog. Fysisch Geografisch en Bodemkundig Laboratorium Universiteit van Amsterdam. Connolly A. (1992). A Report on the Palaeoecology of Lough Roe Clara Bog	Clara Bog is a very good example of a large midland raised bog which contains examples of the Annex I habitats active raised bog degraded raised bog bog	Most of the site is underlain by low permeability Waulsortian limestone. The southern section is underlain by

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Co. Offaly. School of Botany University of Dublin Trinity College. Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance. Stationery Office Dublin. van der Cruysen Grent A. and van Wolfswinkel R. (1993). Acrotelm Mapping on Clara Bog. Department of Water Resources. Group Hydrogeology. Wageningen Agricultural University The Netherlands. van Dijk J. and Young R. (1984). Effects of Human Influence on the Edge Vegetation of Irish Midland Raised Bogs. Unpublished Internal Report of the Hugo de Vries Laboratory University of Amsterdam. Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Offaly. Unpublished report to Offaly County Council. An Foras Forbartha Dublin. Flynn R. M. (1990). Clara Bog: A Hydrological Study. MSc. Thesis University of Birmingham. Flynn R. (1993). The Hydrogeology of Clara Bog and the Surrounding Area. A report to the National Parks and Wildlife Service Dublin. van't Hullenaar J.W. and ten Kate J.R. (1991). Hydrology of Clara and Raheenmore Bogs: Evapotranspiration Storage Co-efficients Lateral Flow in the Acrotelm Catchment Definition and Test of the Piezometer Method for Hydraulic Conductivity. Wageningen Agricultural University The Netherlands. Hussey V. (1992). Levelling on Clara Bog. A report to the Parks and Wildlife Service Office of Public Works. Kelly M.L. (1993). Hydrology Hydrochemistry and Vegetation of Two Raised Bogs in Co. Offaly. Ph.D. Thesis School of Botany University of Dublin Trinity College. Kelly M.L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project : An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report to National Parks and Wildlife Service Dublin. McAfee D.A. (1993). A Preliminary Investigation into some of the factors that Affect the Colonisation Potential of Sphagnum cuspidatum with Particular Reference to the Drainage Channels on Clara Bog Co. Offaly. Unpublished B.A. (Mod.) Thesis School of Botany Trinity College Dublin. O'Neill B.J. (1992). The Design of a Walkway for Clara Bog Co. Offaly. BAI Thesis Trinity College Dublin. Reynolds J.D. (1985). Some Invertebrates of Lough Roe Co. Offaly: a rare and endangered habitat. Bulletin of the Irish Biogeographical Society. 9 : 41-45. Rijsdijk K.F. and van der Meer J.J.M. (1990). Lacustrine Deposits in the Areas of Clara and Raheenmore Bogs. Facies Development and Relations to Surrounding Deposits. Fysisch Geografisch en Bodemkundig Laboratorium Universiteit van Amsterdam. Samuels H. (1992). Drainage and Subsidence in a Raised Bog. MSc. Thesis Imperial College University of London. Scheffers M.C. and van der Meer J.J.M. (1993). An Additional Study in the Quaternary Geology of Clara Bog Co. Offaly. Fysisch Geografisch en Bodemkundig Labortatorium Universiteit van Amsterdam. Schouten M.G.C. (ed.) (2002). Conservation and Restoration of Raised Bogs. Geological Hydrological and Ecological Studies. Stationery Office Dublin. Spijksma J.F.M. (1993). Hydrology of Clara and Raheenmore Bog: Permeability of Raheenmore Bog and Subsidence Study of Clara Bog</p>	<p>woodland depressions on peat substrates (Rhynchosporion) and orchid-rich calcareous grassland. One of the most unusual features of the bog is the presence of an infilling lake which supports mesotrophic fen vegetation. There is an associated soak area which is dominated by a well-developed wet birch woodland. This area of bog woodland is one of the best examples of the habitat in the country and supports a rich invertebrate flora which includes Parhelophilus consimilis and Ampedus pomorum. The moss Tetraplodon angustatus has its only Irish station on the bog while it is also the last known site for the vascular plant species Scheuchzeria palustris (transplanted to the site and now thought to be extinct). The site also provides habitat for important bird species such as Lagopus lagopus and breeding Falco columbarius. Clara Bog has been subject to detailed hydrological and ecological studies.</p>	<p>relatively impermeable massive limestone. This bedrock is overlain by sands gravels and boulder clays which in turn are overlain by a layer of lacustrine clay. Shell marl is seen in a few places. The peat layer developed on top of this. An esker ridge runs roughly east-west along the northern edge of the site and a till mound is seen to the south. The raised bog developed in a former lake. Part of the old cutover bog has been converted to improved pasture which is included in the site for hydrological reasons. A conifer plantation will eventually be removed.</p>

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		<p>West. Department of Water Resources. Group Hydrogeology. Wageningen Agricultural University The Netherlands.van Tatenhove F. and van der Meer J. (1990). The Quaternary Geology of Clara and Raheenmore Co. Offaly Ireland. Preliminary Mapping of Superficial Deposits. Fysisch Geografisch en Bodemkundig Laboratorium Universiteit van Amsterdam.Veldkamp N.M. and Westein R. (1993). Hydrology of Raheenmore Bog. A Water Balance Study. Wageningen Agriultural University The Netherlands.</p>		
000582	Raheenmore Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance. Stationery Office Dublin. Van Dijk J. and Young R. (1984). Effects of Human Influence on the Edge Vegetation of Irish Midland Raised Bogs. Internal report of the Hugo de Veres laboratory University of Amsterdam.Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin.Bell J. (1991). A study of the hydrological effects of a bog road Clara Bog Co. Offaly. MSc. Thesis. Department of Civil Engineering Imperial College London.Blackwell I. (1992). A hydrological study of the lagg zone of Clara Bog Co. Offaly Ireland. MSc. Thesis Imperial College University of London.Bloetjes O.A.J. and van der Meer J.J.M. (1992). A preliminary stratigraphical description of peat development on Clara Bog. Fysisch Geografisch en Bodemkundig Laboratorium Universiteit van Amsterdam.Connolly A. (1992). A report on the palaeoecology of Lough Roe Clara Bog Co. Offaly. School of Botany University of Dublin Trinity College.van der Crujisen Grent A. and van Wolfswinkel R. (1993). Acrotelm mapping on Clara Bog. Department of Water Resources. Group Hydrogeology. Wageningen Agricultural University The Netherlands.Flynn R. M. (1990). Clara Bog: A Hydrological Study. MSc. Thesis University of Birmingham.Flynn R. (1993). The Hydrology of Clara Bog and the Surrounding Area. A report to The National Parks and Wildlife Service Office of Public Works Dublin.van't Hullenaar J.W. and ten Kate J.R. (1991). Hydrology of Clara and Raheenmore Bogs: Evapotranspiration Storage co-efficients lateral flow in the acrotelm catchment definition and test of the piezometer method for hydraulic conductivity. Wageningen Agricultural University The Netherlands.Hussey V. (1992). Levelling on Clara Bog. A report to The Parks and Wildlife Service Office of Public Works.Kelly M.L. (1993). Hydrology Hydrochemistry and Vegetation of Two Raised Bogs in Co. Offaly. Ph.D. Thesis School of Botany University of Dublin Trinity College.McAfee D.A. (1993). A preliminary investigation into some of the factors that affect the colonisation potential of Sphagnum cuspidatum with particular reference to the drainage channels on Clara Bog Co. Offaly. Unpublished B.A. (Mod.) Thesis School of Botany Trinity College Dublin.National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife</p>	<p>Raheenmore Bog is a medium-sized midland raised bog site which contains good examples of the priority Annex I habitat active raised bog and the non-priority habitats degraded raised bog and depressions on peat substrates (Rhynchosporion). These habitats are generally of good quality. Most of the site is owned by the National Parks and Wildlife Service and there has been considerable research and restoration carried out on the site over the past 15 years. In addition to the presence of a well-developed flora the site provides habitat for important animal species such as Rana temporaria Lacerta vivipara Lagopus lagopus and is within a breeding territory of Falco columbarius.</p>	<p>This site is underlain by muddy limestone with low permeability. This is overlain by sands gravels and boulder clays. A layer of lacustrine clay lies over this on which the peat layer developed. The bog developed in a basin between low hills in which a lake would initially have been present. Part of the cutover bog has been converted to improved grassland which is included in the site for hydrological reasons.</p>

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		<p>Service Dublin. O'Neill B.J. (1992). The Design of a Walkway for Clara Bog Co. Offaly. BAI Thesis Trinity College Dublin.Reynolds J.D. (1985). Some vertebrates of Lough Roe Co. Offaly: A rare and endangered habitat. Bulletin of The Irish Biogeographical Society. 9: 41-45.Riysdijk K.F. and van der Meer J.J.M. (1990). Lacustrine Deposits in the Areas of Clara and Raheenmore Bogs. Facies development and relations to surrounding deposits. Fysisch Geografisch en Bodemkundig Laboratorium Universiteit van Amsterdam.Samuels H. (1992). Drainage and Subsidence in a Raised Bog. MSc. Thesis Imperial College University of London.Scheffers M.C. and van der Meer J.J.M. (1993). An Additional Study in the Quaternary Geology of Clara Bog Co. Offaly. Fysisch Geografisch en Bodemkundig Laboratorium Universiteit van Amsterdam.Spieksma J.F.M. (1993). Hydrology of Clara and Raheenmore Bog: Permeability of Raheenmore Bog and Subsidence Study of Clara Bog West. Department of Water Resources. Group Hydrogeology. Wageningen Agricultural University The Netherlands.van Tatenhove F. and van der Meer J. (1990). The Quaternary Geology of Clara and Raheenmore Co. Offaly Ireland. Preliminary Mapping af Superficial Deposits. Fysisch Geografisch en Bodemkundig Laboratorium Universiteit van Amsterdam.Veldkamp N.M. and Westein R. (1993). Hydrology of Raheenmore Bog. A water balance study. Wageningen Agricultural University The Netherlands.Heery S. (1996). Birds in central Ireland. Mid Shannon Bird Report 1992-1995. Birdwatch Ireland Dublin.</p>		
000588	Ballinturly Turlough SAC	<p>Goodwillie R.N. (1992). Turloughs Over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service.Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.</p>	<p>Ballinturly is the fourth largest active turlough still extant and has a wide range of habitat and vegetation. The recent survey identified 16 plant communities there out of a possible 32. Despite a seasonal connection with the Suck the groundwater is oligotrophic enough to support normally calcifuge water plants. The site also is the base for a large wintering bird population including Anser albifrons which uses adjacent smaller</p>	<p>Ballinturly occupies a large v-shaped basin close to the River Suck and in contact with it in high floods. It has a shallow lake/fen at the lowest point and tapers off with cutover bog and a limestone quarry at the points of the 'v'. Peat underlies a significant part of the southern limb giving way to grassland on mineral soil elsewhere. There is</p>

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			sites also.	some marl (CaCO <sub>3</sub> ) formation occurring in the lake and it was more widespread in the past. A little flooded woodland occurs at the south-west end.
000595	Callow Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin.</p> <p>Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Unpublished report Wildlife Service Dublin.</p> <p>Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin.</p> <p>Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin.</p> <p>Lavery T.A. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottenburg 1775 (Lepidoptera: Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-199.</p> <p>National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p> <p>van Swaay C.A.M. and Warren M.S. (eds.) (2003). Prime Butterfly Areas in Europe - Priority Sites for Conservation. National Reference Centre for Agriculture Nature and Fisheries Ministry of Agriculture Nature Conservation and Fisheries the Netherlands.</p>	<p>This large bog site contains significant examples of active raised bog degraded raised bog and Rhynchosporion vegetation. The presence of a large and mostly wet <i>Molinia</i> flush on the high bog is an unusual feature and its presence adds to the interest of the site. It is thought that this flush is mostly natural in origin being associated with shallow peat along a mineral ridge. A number of scarce plant species notably <i>Sphagnum fuscum</i> <i>S. imbricatum</i> and <i>Frangula alnus</i> occur and these add to the overall floristic interest. The site is one of a number of relatively intact western raised bog sites along the Roscommon/Sligo border and these together form an important cluster of sites. Although the</p>	<p>Callow Bog is a medium to large raised bog site located on the southern shores of Lough Gara approximately 6 km north-east of Ballaghaderreen County Roscommon. Much of the site is relatively flat with slight slopes towards Lough Gara. The uncut high bog occurs as 5 distinct lobes of varying size which are separated by cutover bog. Parts of the cutover are colonised by secondary habitats of ecological importance such as scrub reedbeds and marsh. A small area of coniferous forestry occurs</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>quality of the habitats is not high due to drying-out and recent burning events the site is extensive and does occur close to the north-western limit of raised bog distribution in the Republic of Ireland. The site shares a common boundary with the Lough Gara Special Protection Area.</p>	<p>within the site with more along the margins of the site. Some of the marginal areas of cutover have been converted to semi-improved grassland. A number of roads and tracks traverse the site which fragments it to some degree.</p>
000625	Bunduff Lough and Machair/Trawalua/Mullaghmore SAC	<p>Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Costelloe J. and Keegan B.F. (1984). Littoral and benthic investigations on the west coast of Ireland - XIX.Synonymy diagnostic morphology distribution and life-style of <i>Aslia lefevrei</i> (Barrois 1882) (Holothurioidea: Echinodermata). Proceedings of the Royal Irish Academy 84B: 29-35.Cotton D.C.F. and Cawley M. (1993). New records for vascular plants from Cos. Sligo (H28) and Leitrim (H29). Irish Naturalists' Journal 24: 288-295. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar Survey of Irish Machair Sites 1996. Irish Wildlife Manuals Nos 3 and 4. Dúchas the Heritage Service Dublin.Cullinane S.P. (1970). New seaweed records from the Leitrim and Sligo coasts. Irish Naturalists' Journal 16: 393-394.Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin.Curtis T.G.F. Goodwillie R. and Young R. (1978). A Preliminary Report on Areas of Scientific Interest in County Sligo. An Foras Forbartha Dublin.Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin. Guiry M.D. (1978). A Consensus and Bibliography of Irish Seaweeds. Cramer Vaduz.Healy B. Oliver G. Hatch P. and Good P. (1997). Lagoons and Other Enclosed Brackish Waters in the Republic of Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Heuff H. (1980). The Vegetation of Irish Lakes: Part 2. Unpublished report to the Wildlife Service Dublin.Lockhart N.D. (1999). Report on Survey of <i>Petalophyllum ralfsii</i> at Bunduff Co. Sligo. Unpublished report to Dúchas The Heritage Service National Parks and Wildlife Dublin.Lloyd C. (1982).</p>	<p>This site is of importance in terms of both habitat diversity and quality. The machair and alkaline fen habitats are particularly well developed. Much of the machair is wet in character and there are interesting transitional areas with the alkaline fen. The machair is considered one of the best examples in the north-west region. A very substantial area of fixed dunes occur which are well-developed and mostly intact. Also present are well developed marram dunes and Juniper scrub. Intertidal sandflat shallow bay and reef habitats are well represented with a well</p>	<p>This site is located on the south side of Donegal Bay and c.18 km north of Sligo town. The part of the site west of Mullaghmore Head is very exposed to prevailing wind and swells from the Atlantic whereas the Head itself affords moderate shelter to the eastern part of the site. Bedrock is Middle Carboniferous limestone. The site is generally low-lying and includes a fine range of coastal habitats with open shallow marine areas</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Inventory of Seabird Breeding Colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin.Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6 177-190.Sheppard R. (1993) Ireland's Wetland Wealth. IWC Dublin.Southward A.J. and Crisp D.J. (1954). The distribution of certain intertidal animals around the Irish coast. Proceedings of the Royal Irish Academy 57B: 1-29.	developed zonation of benthic communities and high species richness in the littoral sediments. Petalophyllum ralfsii has recently been found in the machair habitat. The site has a number of locally rare plant species including Orobanche rubra Cuscuta epithymum Epipactis palustris and Ophrys apifera. Cygnus cygnus and Pluvialis apricaria both Annex I Bird Directive species are regular in winter. Pyrrhocorax pyrrhocorax breeds as well as several wader species notably Vanellus vanellus and small numbers of seabirds.	intertidal sandy beaches bedrock shoreline various sand dune types including fixed dunes and machair. Bunduff Lough is a shallow coastal lake probably with a brackish influence and is fringed with swamp fen and dune grassland. Grazing is the main landuse within the site and area is used for water-based recreational activities.
000636	Templehouse and Clooncleigha Loughs SAC	Douglas C. Goodwillie R. and Mooney E. (1993). Notes on the Flora of the Owenmore Catchment Cos. Sligo (M28) and East Mayo (M26). Irish Naturalists' Journal 24: 218-220.Goodwillie R. Buckley P. and Douglas C. (1992). Owenmore River Proposed Arterial Drainage - Environmental Impact Assessment. Unpublished report to the National Parks and Wildlife Service Dublin.Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin.Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.	Site contains an excellent diversity of wetland habitats including good examples of hard water lakes and floating river vegetation. A number of rare plant species occur including the Red Data Species Lathyrus palustris. The site is of regional importance for wintering waterfowl.	The site includes three loughs Templehouse Clooncleigha and the much smaller Killawee Lough all interconnected by the sluggish and meandering Owenmore River. These are situated on Carboniferous limestone but their catchment includes

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>the surrounding low peat covered hills. The peat gives the hard water a marked colour and the water contains significant amounts of iron. The site supports a diversity of wetland habitats such as river lakes wet grassland swamp bog and wet woodland.</p>
000688	Lough Owel SAC	<p>Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality In Ireland 1987-90 - Part one. Environmental Research Unit Dublin. Heuff H. (1984). The Vegetation of Irish Lakes. Unpublished report to the Forest and Wildlife Service Dublin. Hutchinson C.D. (1979). Ireland's Wetlands and Their Birds. Irish Wildbird Conservancy Dublin. John D.M. Champ W.S.T. and Moore J.A. (1983). The Changing Status of Characeae in Four Marl Lakes in the Irish Midlands. Journal of Life Sciences 4: 47-71. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones J.A. (Eds.) Important Bird Areas in Europe. ICBP Technical Publication No.9. Cambridge. O'Connor W. (Ecofact Environmental Consultants)(2007). Monitoring of crayfish in Irish lakes. Unpublished interim report to NPWS Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.</p>	<p>This lake comprises an excellent example of a hard water lake. Charophyte vegetation is well developed and includes some rare species of calcareous waters. The site holds a good population of Austropotamobius pallipes and good examples of transition mires and also some alkaline fen. A number of Red Data plant species and important invertebrate species occur at the site. The site is also an important bird site. Although affected by eutrophication in the late 1970s the lake has recovered and the quality of the water has</p>	<p>Lough Owel is a large calcareous lake in the Shannon Catchment. It is fed by small streams and springs and is mostly shallow though has a maximum depth 22m. The water is moderately hard alkaline and virtually colourless. The lake is relatively unproductive with low chlorophyll concentrations. Up to 60% of the lake bed is covered by charophyte-dominated vegetation. The shores of the lake are mostly exposed</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			apparently since been stable.	and stony. At the north-west and south-west ends of the lake complexes of wetland vegetation occur including areas of fen transition mires reedswamp wet woodland and wet grassland. The site is surrounded by fairly intensive farmland and some afforestation.
000700	Cahore Polders and Dunes SAC	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. & Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks & Wildlife Service Dublin. Hart H.C. (1881). A botanical ramble along the Slaney and up the East coast of Wexford. Journal of Botany (London) 19: 336-344. Hart H.C. (1883). Report on the flora of the Wexford and Waterford coasts. Scientific Proceedings of the Royal Dublin Society. Vol. IV. Pt III. 117-146. Healy B. (2002). The Cahore Drainage System. Report prepared for the Wexford Wetlands Project. Unpublished. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath & M.I. Evans (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	The site has a well-developed dune system typical of the east coast. The dunes display a good zonation with fixed dunes grading eastwards to marram dominated dunes embryo dunes and at the top of the beach annual driftline vegetation. The northern part of system is subject to erosion from the sea while active growth is seen in the southern parts. The dunes support two Red Data book plant species <i>Asparagus officinalis</i> subsp. <i>prostratus</i> and the hybrid <i>Equisetum x moorei</i> which is confined to the coastline of Wexford and	The site is located just south of Cahore Point on the north Wexford coast. The area is underlain by rocks of Cambrian age. The site comprises a sand dune system that extends along the coast for over 4 km and which reaches up to 18 m in height. The dunes are backed by extensive areas of polder grassland interspersed by canals and drainage channels. The drainage canals and sluices were installed in the mid

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>Wicklow. Drainage ditches in the polders support <i>Ceratophyllum submersum</i> a rare and only relatively recently recorded species in Ireland. The site is of high ornithological importance having nationally important wintering populations of <i>Anser albifrons flavirostris</i> <i>Pluvialis apricaria</i> <i>Anas penelope</i> <i>Anas clypeata</i> and <i>Vanellus vanellus</i>. It also supports other species in smaller numbers including <i>Cygnus cygnus</i> and <i>Cygnus columbarius bewickii</i>. <i>Sterna albifrons</i> formerly bred on the beach. <i>Pyronia tithonus</i> occurs near the northern extreme of its Irish range.</p>	<p>19th century to reclaim wetlands and land that flooded regularly behind the dunes. Seawater may occasionally enter the channels and create brackish conditions. Polder grasslands are included in the site and are valuable for wintering waterfowl.</p>
000708	Screen Hills SAC	<p>Fitzgerald R. (1993). The Discovery of <i>Lotus subbiflorus</i> in South-east Ireland. Irish Naturalists' Journal 24: 240-243. Heuff H. (1984). The Vegetation of Irish Lakes. Unpublished report to the Forest and Wildlife Service Dublin. Goodwillie R. (1979). A Preliminary Report on Areas of Scientific Interest in County Wexford. An Foras Forbartha. Dublin.</p>	<p>Among the best examples of kame and kettle landscapes in Ireland the Screen Hills have a complex of vegetation types. Dry heath is extensive and is noted for its diversity of annual plant species. Several Red Data species occur. The lakes vary in diversity and include</p>	<p>Site is part of a classic kame and kettle landscape with many lake basins marking the site of former ice blocks in an acid sandy moraine. The lakes vary in size most being pond-sized and have widely</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			some oligotrophic types. All stages in seral development from open water through varieties of swamp and bog to wet woodland are represented. Overall site is a unique landscape unit with high geomorphological and ecological interests.	different plant and animal communities. Incipient raised bog occurs at Doo Lough with acidic fen and Nitella communities associated with many of the other ponds. The moraine sands are extremely base poor and very dry. This gives rise to extensive pasture-type dry heath which is species rich and renowned for rare and scarce plants. Much of the site is relatively undisturbed and is used for sheep grazing.
000710	Raven Point Nature Reserve SAC	An Foras Forbatha (1977). A Study of the Raven Co. Wexford. An Foras Forbartha/Forest & Wildlife Service Dublin. Brady Shipman & Martin (1992). Wexford Coastline. Coastal Zone Management Plan. Unpublished report to Wexford County Council. Cotton J. (1974). <i>Pyrola rotundifolia</i> L in County Wexford. Irish Naturalists' Journal 18: 44-46. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a) A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Deasy J. (1946). Some notes on coastal afforestation in Co. Wexford. Journal of the Society of Irish Foresters. Vol. III. 29-39. Fox A.D. Norriss D.W.	The site is an important example of an extremely dynamic coastal sand system. It contains one of the few afforested sand dune systems in Ireland though the commercial plantings have compromised the structure of the natural dune vegetation. Outside the planted areas there are good examples of a	Situated on the north side of Wexford Harbour the site incorporates the dynamic sand system of the Raven Point and the coastal stretch running north to Curracloe House. The main part of the dune system

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Rowe D. and Wilson C.J. (eds) (1996). High Skies - Low Lands. An Anthology of the Wexford Slob and Harbour. Duffry Press Wexford. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>range of sand dune types including embryo dunes mobile marram dunes fixed dunes dunes with Salix repens and humid dune slacks. A small though significant area of Atlantic salt meadow occurs below the fixed dunes. The site also has a good example of intertidal flats which are predominantly sandy owing to exposure. Three Red Data Book plant species are known from the site as well as a number of locally important species. Natterjack toad a Red Data Book species has been successfully introduced into the site. Site provides principal roost site for the Internationally Important Wexford Slob and Harbour population of Anser albifrons flavirostris. Seven further bird species occur at the Raven in nationally important concentrations notably Pluvialis squatarola and Calidris alba and there are populations of Pluvialis apricaria and Limosa lapponica. Sterna</p>	<p>was planted with coniferous species in the 1930s and 1950s mainly as a coastal defence measure. Other than the sand dune habitats the site also contains sand flats salt marsh and lagoons. There has been heavy erosion along the eastern site of the site in recent years but the dunes are building westwards along the southern boundary of the adjacent Wexford Slob. The sediment source is siliceous in nature. The main landuses of the site are nature conservation and commercial forestry. Future plans include replacement of the conifers with hardwood species.</p>

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			<p>albigens breeds in some years though recently conditions have been less suitable. Most of site is a statutory nature reserve.</p>	
000716	Carriggower Bog SAC	<p>Colhoun K. (2001). I-WeBS Report 1998/99. BirdWatch Ireland Dublin. Curtis T.G.F. (1976). A Preliminary Report on Areas of Scientific Interest in County Wicklow. 2nd edition. Unpublished report An Foras Forbartha Dublin.</p>	<p>Transition mires are well represented at this site and likely to be one of the larger examples of the habitat in eastern Ireland. A range of characteristic species occur. The bryophyte flora is probably well developed (though not fully investigated). It supports a suite of invertebrate species of international importance. It also supports important wintering concentrations of <i>Gallinago gallinago</i> and <i>Lymnocyrtus minimus</i> and is actually the top site in the country for <i>Lymnocyrtus minimus</i>. The site is partly owned by State (NPW).</p>	<p>The site is an upland valley bog complex on the Calary plateau on the eastern side of the Wicklow Mountains. It comprises a mosaic of wet blanket bog and poor fen vegetation along with such related habitats as heath wet grassland and <i>Betula-Salix</i> scrub. There is no open water other than pools. The Vartry River skirts the western side of site. The bog was exploited for peat up to about 100 years ago but now old cuttings are well revegetated. An area of conifer plantation is included. Surrounding landuse is mostly semi-improved</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				grassland and forestry.
000764	Hook Head SAC	<p>Bell A. (1919). Fossil shells from Wexford and Manxland. Irish Naturalist 28: 109-114. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Fahy E. (1981). The Wexford commercial sea bass <i>Dicentrarchus labras</i> (L.) fishery. Fisheries Bulletin 3: 1-10. Gardiner P.R.R. and Brenchley P.J. (1970). The Pre-Cambrian and lower Palaeozoic geology of Co. Wexford Irish Naturalists' Journal 16: 371-379. Gibson F.A. (1953). Movements of salmon around Ireland. II. From Baginbun Co. Wexford (1949 to 1951). Proceedings of the Royal Irish Academy 55B: 195-208. Goodwillie R. (1979). A preliminary report on areas of scientific interest in County Wexford. An Foras Forbartha Dublin. Guiry M.D. Cullinane J.P. and Whelan P.M. (1979). Notes on Irish marine algae - 3. New records of Rhodophyta from the Wexford coast. The Irish Naturalists' Journal 19: 304-307. Hallisey T. (1912). On the superficial deposits of the Co. of Wexford. The Irish Naturalist 21: 175-179. Hart H.C. (1883). Report on the Flora of the Wexford and Waterford coasts. Scientific Proceedings of the Royal Dublin Society 4: 117-146. Healy B. (1979). Marine fauna of Co Wexford 1 - Littoral and brackish water Oligochaeta. The Irish Naturalists' Journal 19: 418-422. Healy B. and McGrath D. (1982). Marine fauna of Co Wexford - 4. Littoral and brackish water fish. Irish Naturalists' Journal 20: 429-435. Healy B. and McGrath D. (1988). Marine fauna of Co Wexford - 10. The Crustacea Decapoda of intertidal and brackish water habitats. Irish Naturalists' Journal 22: 470-473. Hurley J. (1994). The south Wexford coast Ireland - A natural heritage coastline. Grange Kilmore Co. Wexford SWC Promotions. Keegan B.F. McGrath D. O'Foighil D. O'Connor B. and Konnecker G. (1988). Marine fauna of Co Wexford 8 - Bivalve molluscs from the 'Lough Beltra' dredging programme. The Irish Naturalists' Journal 22: 378-385. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Lovatt J.K. (1983). Birds of Hook Head Co. Wexford. Irish Wildbird Conservancy Dublin. McGrath D. (1984). Marine fauna of Co Wexford - 6. The Mysidacea of inshore marine and brackish water habitats. Irish Naturalists' Journal 21: 251-255. Norton M. and Healy B. (1984). Marine fauna of Co Wexford - 7. Observations on the ecology and reproductive biology of <i>Sphaeroma hookeri</i> Leach (Isopoda). Irish Naturalists' Journal 21: 257-262. Norton T.A. (1970). A survey of the seaweeds of Co Wexford. Irish Naturalists' Journal 16: 390-391. Norton T.A. (1970). The marine algae of Co Wexford Ireland. British Phycological Journal 5: 257-266. O Ceidigh P. and McGrath D. (1981). Marine fauna of Co. Wexford: 3 - The first record of the adult of <i>Caridion steveni</i> Lebour (Crustacea: Decapoda) from the Irish coast. The Irish Naturalists' Journal 20: 208. O'Connor B. (1980). Marine fauna of Co Wexford 2 - littoral and brackish water</p>	<p>The site has an important example of low-lying south-eastern cliffs of both clay and rock. Quality good. It is of high geological importance and a noted fossil site. It is of particular importance for marine habitats. Infralittoral bedrock communities are species rich (81 and 84 species in the upper infralittoral and 81 and 82 species in the lower infralittoral). Rare to scarce species include the sponge <i>Stryphnus ponderosus</i>; the hydroids <i>Aglaophenia kirchenpaueri</i> and <i>Gymnangium montagui</i>; the anemone <i>Isozoanthus sulcatus</i>; the nudibranch <i>Crimora papillata</i>; the ascidians <i>Distomus variolosus</i> and <i>Stolonica socialis</i>; and the red alga <i>Schizymenia dubyi</i>. Of particular interest is <i>Schizymenia dubyi</i> since Irish populations of this species appear to be concentrated in the south-east of the</p>	<p>The Hook peninsula is a long narrow low-lying headland which protrudes into the sea in a south-south-west direction on the eastern side of Waterford Harbour. The site includes Baginbun Head. There are c.15 km of coastline most of which has cliffs above a bedrock or boulder beach shoreline. The cliffs are mostly low usually not more than 10-20 m though they reach up to 30 m at Baginbun. The geology of the area is of high interest being an excellent example of the junction between Devonian Old Red Sandstone and overlying Carboniferous Limestone. Fossils are a feature of the limestone rock formations. A large</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Polychaeta. The Irish Naturalists' Journal 20: 85-93.O'Connor B.D.S. (1988). Marine fauna of Co Wexford ( - littoral and benthic Echinodermata and Sipunculida. The Irish Naturalists' Journal 22: 385-388.Orford J.D. and Carter R.W.G. (1982). Geomorphological changes on the barrier coast of south Wexford. Irish Geography 15: 70-84.Parkes H.M. and Scannell M.J.P. (1969). A list of marine algae from the Wexford coast. The Irish Naturalists' Journal 16: 158-162.Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. The Irish Naturalists' Journal 21: 484-488.Picton B.E. and Costello M.J. (eds.) (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc).Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co Dublin.</p>	<p>country. Circalittoral reef communities have good examples of Axinellid sponge communities. Notable species present are: Axinella dissimilis Aglaophenia kirchenpaueri Gymnangium montagui Alcyonium glomeratum Eunicella verrucosa and Crimora papillata. Sublittoral sediments populated by the burrowing sea cucumber Neopendactyla mixta are noteworthy because this type of community was only recorded seven times by the BioMar survey and the Amphiuira securigera was only recorded at the Kenmare River in Co. Kerry and at Hook Head and the Saltee Islands in Co. Wexford. Has breeding Falco peregrinus and Pyrrhocorax pyrrhocorax and a small seabird colony (mostly Uria aalge).</p>	<p>area of the surrounding sea is included in the site. Under the surface of the water the reef has a north-east/south-west orientation and is typically strewn with boulders cobbles and patches of sand and gravel. It is exposed to prevailing wind and swells from the west. Tidal streams tend to be moderate but are strong in some areas.</p>
000770	Blackstairs Mountains SAC	<p>Fahy E. (1975). A Preliminary Report on Areas of Scientific Interest in County Carlow. Unpublished report to Carlow County Council. An Foras Forbartha Dublin.Goodwillie R.N. (1979). A Preliminary Report on Areas of Scientific Interest in County Wexford. Unpublished report to Wexford County Council. An Foras Forbartha Dublin.FitzGerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin.Booth E.M.</p>	<p>The importance of the site lies primarily in the extensive areas of high quality dry heath that occur. Limited peat accumulation on the site</p>	<p>The Blackstairs Mountains are situated at the southern end of the Leinster Mountain Chain. They are</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		(1979). Flora of County Carlow. Royal Dublin Society Dublin.	has allowed the development of this habitat. Wet heath also occurs in the areas where deeper peat has developed. Those areas that have not been afforested are largely undisturbed and relatively intact. The site is home to several scarce plant species including the Red Data Book species <i>Ornithopus perpusillus</i> .	composed primarily of granite but also include especially on their eastern side some overlying Ordovician slates and sandstones. The range forms a roughly north-south orientated ridge some 22km long which includes six peaks over 520m. The dominant vegetation of the site is dry heath; this occurs throughout the site but predominantly on the higher sections of the range. Bare rock and scree is found in the highest and steepest sections of the site. <i>Molinia</i> -dominated wet heath/bog vegetation is found in very small amounts at lower levels and by streams. The valley of the Urrin River on the north-east side of the site supports some deciduous woodland and



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				incipient bog. Much of the site is flanked by coniferous forest; this is not confined to the lowlands being found at over 640m north of Mount Leinster.
000831	Cullahill Mountain SAC	FitzGerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin. Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin.	The importance of this site lies in the presence of an unusually large area (for south-east Ireland) of unimproved herb-rich calcareous grassland. On a national scale the extent of this habitat is however relatively small. The site boasts a large population of the scarce Green-winged Orchid <i>Orchis morio</i> .	This site is situated on a small limestone plateau on the western side of which is a steep escarpment. Soils are relatively shallow and exposed limestone outcrops are common in several areas of the site. The dominant vegetation comprises herb-rich dry calcareous grassland (Eu-Mesobromenion) in which the occurrence of five orchid species and in particular the abundance of <i>Orchis morio</i> is notable. The western side of the site has Ash/Hazel woodland. The site appears to contain

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				a rich invertebrate fauna.
000859	Clonaslee Eskers and Derry Bog SAC	Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Laois. An Foras Forbartha Dublin. Foss P.F. (1986). Field excursion to the Derry Hills Co. Laois - 6 July 1985. Bulletin of the Irish Biogeographical Society 9: 57-62 Foss P.F. (1986). <i>Acinos arvensis</i> (Lam) Dandy refound in County Laois (H14). Irish Naturalists' Journal 22: 25-27. Moorkens E.A. (1998). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and V. <i>geyeri</i> . Unpublished report National Parks and Wildlife Dublin. Webb D.A. (1950). The fly orchid in Leix. Irish Naturalists' Journal 10: 107. Webb D.A. (1957). <i>Neotinia</i> in Roscommon and <i>Sesleria</i> in Leix. Irish Naturalists' Journal 12: 199. Webb D.A. (1958). New county records for <i>Vicia orobus</i> <i>Epilobium roseum</i> and <i>Pyrola minor</i> . Irish Naturalists' Journal 12: 249.	The alkaline fen at this site is a good representative of the habitat and has a diverse flora. The site contains a relict population of <i>Vertigo geyeri</i> and is one of a small number of known sites for this mollusc in the country. The site also contains two legally protected and Red Data plant species <i>Vicia orobus</i> and <i>Acinos arvensis</i> plus a number of scarce species such as <i>Erigeron acer</i> <i>Sesleria albicans</i> and <i>Ophrys insectifera</i> .	This site comprises a series of glacial esker ridges situated c.5 km west of the town of Clonaslee and to the north of the Slieve Bloom Mountains. Calcareous grassland mostly unimproved is a principal habitat and is noted for high species diversity. Calcareous springs at the base of the esker ridges have resulted in the formation of alkaline fen. Native deciduous woodland also occurs on the ridges. A raised bog Derry Bog now mostly cutaway is included in site. Owing to the diversity of habitats present the site is noted for its unusual mixture of calcicole and calcifuge species.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
000869	Lisbigney Bog SAC	Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Laois. An Foras Forbartha Dublin. Moorkens E.A. (1998). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and <i>V. geyeri</i> . Unpublished report National Parks and Wildlife Service Dublin.	The site supports a population of the Annex II snail <i>Vertigo moulinsiana</i> . The site contains a small though significant example of <i>Cladium mariscus</i> fen. Similar habitat in this part of the country is scarce. All recently surveyed sites with confirmed populations of this species are considered important.	This site comprises a small wetland situated c.5 km north-east of Durrow. The principal habitat is fen with reed swamp wet grassland pools and scrub also occurring. At present the site is not used for any particular activity other than light grazing.
000919	Ridge Road SW of Rapemills SAC	Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected And Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin. O Críodáin C. (1992). Conservation Of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin.	The importance of this site lies in the unimproved herb-rich esker grassland. As well as supporting vegetation communities in which several notable herb species are found the site also supports a large population of <i>Orchis morio</i> a Red Data Book species. Sites such as this are becoming increasingly rare in Ireland through grassland improvement or removal of the sites for gravel.	A relatively extensive unimproved grassland site situated on steep-sided twin esker ridge formed from glacial gravels. The main vegetation type on the site is unimproved dry grassland in which several notable herb species are found. Open scrub and hazel scrub woodland is found in many parts of the site. The western end of the site has some improved grassland.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
000934	Kilduff Devilsbit Mountain SAC	Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected And Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin. Ó'Críodáin C. (1992). Conservation Of Grassland Sites Of Scientific Interest In Ireland. A preliminary report. National Parks and Wildlife Service Dublin.	The main importance of the site lies in the fairly extensive area of good quality species-rich Nardus grassland that occurs and in the large population of the nationally rare and protected orchid Pseudorchis albida that it supports. The site is relatively diverse and includes a small area of good quality dry heath. Undamaged unimproved upland grassland sites such as this are becoming increasingly rare in Ireland.	The site is situated on the north-eastern slopes of Devilsbit Mountain a flat-topped ridge composed of silurian grits. The main vegetation type found on the site is species-rich heathy grassland. Degraded Molinia-dominated wet heath dry heath and stands of Quercus sp./Fagus sylvatica woodland occur in the upper sections of the site. Light scrub is scattered throughout the lower sections of the site and here several streams and flushes are found. A wet broad-leaved Alder woodland in the wet area at the eastern side of the site.
001013	Glenomra Wood SAC	Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in Co. Clare. An Foras Forbartha Dublin.	This is an old oak woodland which was clear-felled and left to regenerate naturally resulting in a rather dense and even-aged stand. The understorey is	This site is dominated by deciduous woodland on a west facing slope. Although probably of ancient origin it

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>also dense which along with recent grazing has resulted in an impoverished ground flora. The wood is unmanaged and provides a haven for species such as <i>Martes martes</i> while ditches within the site support an abundant population of <i>Rana temporaria</i>. The association with other semi-natural habitats notably wet grassland and bog is of value.</p>	<p>was clear-felled around 50 years ago and left to regenerate naturally. The diversity of the site is enhanced by an area of species-rich grassland a small stream and a small area of raised bog.</p>
001021	Carrowmore Point to Spanish Point and Islands SAC	<p>Adams J. (1908). A synopsis of Irish algae freshwater and marine. Proceedings of the Royal Irish Academy 27B: 11-60. Andrews W. (1877). Notes on Irish Crustacea - first series - the Brachyura. Scientific Proceedings of the Royal Dublin Society 1: 21-31. Brennan A.T. (1945). Notes on the distribution of certain marine algae on the west coast of Ireland. Irish Naturalists' Journal 8: 252-254. Casley B. (1974). <i>Acrothrix gracilis</i> Kylin on the Galway and Clare coasts. Irish Naturalists' Journal 18: 20-21. Costelloe J. Keegan B.R. &amp; Konnecker G.F. (1986). Rocky subtidal assemblages on the west coast of Ireland. Hydrobiologia 142: 97-111. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Cullinane J.P. (1978). A preliminary account of the distribution of <i>Cordylecladia erecta</i> (Grev.) J.G.Ag. (Rhodophyta: Rhodymeniales) in Ireland and the British Isles. Scientific Proceedings of the Royal Dublin Society Ser. A: 6: 49-58. Ser. A: 5: 475-490. Cunningham W.H. (1900). The crabs of our sea-shore. Irish Naturalist 9: 120-127. Farran G.P. 1949. <i>Stenoteuthis pteropus</i> (Steenstrup) on Co. Clare shore. Irish Naturalists' Journal 9: 277-278. Good J.A. (1999). Irish coastal lagoon survey 1998. Vol V. Dúchas. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. biogeogr. Soc. 21: 21-66. Guiry M.D. (1978). A consensus and bibliography of Irish seaweeds. Cramer Vaduz 287pp. Guiry M.D. &amp; Maggs C.A. (1985). Notes on Irish marine algae - 7. <i>Gigartina teedii</i> (Roth) Lamour. (Rhodophyta). Irish Naturalists' Journal 21: 490-493. Healy B. (1999). Irish coastal lagoon survey (1998). Vol 1 Part 1. Dúchas. Healy, B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bull. Ir. biogeogr. Soc. 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in</p>	<p>The site holds a very high number of littoral reef communities. Some have extremely high species richness e.g. 85 species in the sublittoral fringe and 80 species in the lower eulittoral south of Cloghaunichy Point. There are uncommon species in the intertidal (<i>Paracentrotus lividus</i> and <i>Bifurcaria bifurcata</i>). Sublittorally the area is important for its deep exposed reef communities that are characterized by unusual and delicate erect sponges the fragile anthozoan <i>Eunicella verrucosa</i> the rare</p>	<p>This site stretches for over 10 km of the west Clare coast. It consists mostly of marine waters which are exposed to the full force of Atlantic swells from the west. Tidal streams are weak to moderate. Bedrock is composed of Carboniferous Lower Devonian Shales and Sandstones Carboniferous Slate Series and Calciferous Sandstone Series. Several islands are</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>the Republic of Ireland. Vol. 2 . Inventory of lagoons and saline lakes. Report to the National Parks and Wildlife Service Dublin.Hunt J. Derwin J. Coveney J. &amp; Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath &amp; M.I. Evans eds. Important Bird Areas in Europe: Priority sites for conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Killeen I. &amp; Light J. (1989). Marine recording on the Burren. Conchologists' Newsletter 3: 242-45. Kinahan J.R. (1863). Notes on the marine fauna of the west coast of Clare. Proceedings of the Natural History Society of Dublin 99-103.Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland. Unpublished report Forestry and Wildlife Service Dublin.Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. McGrath D. &amp; King P.A. (1991). Settlement of mussels <i>Mytilus edulis</i> L. on wave-exposed shores in Irish waters: a survey. Proceedings of the Royal Irish Academy 91B: 49-58.Moore D. &amp; Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks &amp; Wildlife Service Dublin.Murphy J. (1993). Preliminary report on the Birds and Wildlife of Mutton Island Co. Clare. Unpublished report Irish Wildbird Conservancy Clare. Murphy J. (1995). Visit to Mutton Island County Clare in May 1995. Unpublished report Irish Wildbird Conservancy Clare. Murray P.J. (1972). The occurrence of <i>Mytilicola intestinalis</i> Steuer on the coasts of counties Galway and Clare. Irish Naturalists' Journal 17: 198-199. Oliver G.A. (1999). Irish coastal lagoon survey 1998. Vol IV. Dúchas.Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. biogeogr. Soc. 21: 66-115.O'Loughlin E.F.M. (1989). Notes on the distribution of <i>Calliostoma zizyphinum</i> (L.) (Mollusca) on the shores and shallow waters of the Irish coast. Bulletin of the Irish Biogeographical Society 12: 22-30.Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488.Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin.Roden C. 1999. Irish coastal lagoon survey 1998. Vol III. Dúchas.Ryland J.S. &amp; Nelson-Smith A. (1975). Littoral and benthic investigations on the west coast of Ireland - IV. (Section A: faunistic and ecological studies.) Some shores on counties Clare and Galway. Proceedings of the Royal Irish Academy 75B: 245-266. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Southward A. J. and Crips D. J. (1954). The distribution of certain intertidal animals around the Irish coast. Proceedings of the Royal Irish Academy 57B: 1-29.Webster A. (1972). A note on <i>Corallina squamata</i> Ellis as it occurs in the eulittoral zone in counties Clare and Galway. Irish Naturalists' Journal 17: 267-268. de Valera M. (1960). Interesting seaweeds from the shores of the Burren. Irish Naturalists' Journal 13: 168. de Valera M. (1962). Some aspects of the problem of the</p>	<p>sponge <i>Tetilla zetlandica</i> and the anthozoan <i>Parazoanthus axinellae</i>. Lough Donnell is a good example of a moderately large oligohaline percolation lagoon. The floral and faunal communities are not particularly rich but include an important brackish element with five lagoonal specialists and it is the most northerly station of one relatively rare species (<i>Notonecta viridis</i>). The site has significant examples of vegetated shingle and stony banks all of which are very exposed. The site has a good example of petrifying springs with tufa formations with several species of bryophyte typical of the Cratoneurion. The springs occur along seepage zones in clay sea cliffs. A population of <i>Branta leucopsis</i> of international importance winters on Mutton Island and <i>Hydrobates pelagicus</i> may still breed. <i>Phalacrocorax carbo</i> breeds on Mattle Island. The site holds nationally</p>	<p>included the largest of which is Mutton Island. Mutton Island is uninhabited and is dominated by a maritime grassy sward. The mainland shoreline is mostly rocky or stony though there are several sandy beaches and areas of intertidal flats. Lough Donnell is a shallow sedimentary lagoon with a large cobble barrier.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		distribution of <i>Bifurcaria bifurcata</i> (Velley) Ross on the shores of Ireland north of the Shannon Estuary. Proceedings of the Royal Irish Academy 62B: 77-99.	important wintering populations of <i>Charadrius hiaticula</i> <i>Calidris maritima</i> <i>Calidris alba</i> <i>Calidris alpina</i> and <i>Arenaria interpres</i> . <i>Cygnus cygnus</i> and <i>Pluvialis apricaria</i> occur in small numbers.	
001107	Coolvoy Bog SAC	Douglas C. Dunnells D. Scally L. and Wyse-Jackson M.B. (1990). A Survey to Locate Lowland-Highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the Wildlife Service Office of Public Works Dublin.	Coolvoy Bog is a small lowland blanket bog that is important because it represents a good if small example of a relatively undisturbed somewhat dome-shaped blanket bog whose structural and hydrological integrity has remained largely intact. It has a well-developed microtopography and <i>Sphagnum</i> flora and good examples of hummocks pools quaking areas and flushes occur. Small areas of cutaway bog are becoming revegetated.	The site is situated on the gentle northern slopes of Croaghleheen Mountain and comprises two domed areas of deep peat separated by a stream. This stream's catchment is included in the site and comprises higher ground to the south with heath acid grassland exposed rock and small pockets of bog. Typical blanket bog and flush vegetation occurs on the deep peat areas covering most of the site. The site is underlain by a bedrock of granite.
001141	Gweedore Bay and	Bassett J.A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair	This is an ecologically	Gweedore Bay and

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
	Islands SAC	<p>in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Cough Survey in Ireland 1992. Irish Birds 5: 1-10. Colhoun K. (2000). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Conaghan J. (1998). A Survey of Rare Plant Species in County Donegal. Unpublished report to the National Parks and Wildlife Service Dublin. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar survey of Irish Machair Sites 1996. A report submitted to the National Parks and Wildlife Service Dublin. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Fay P. (1996). The Rare and Protected Flora of Coastal Areas in Counties Galway Mayo Sligo and Donegal. Unpublished report to the National Parks and Wildlife Service Dublin. Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Dúchas the Heritage Service Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hart H.C. (1898). Flora of County Donegal. Dublin. Healy B. (1999). A Survey of Irish Coastal Lagoons. Vol. I Background Description and Summary. Heuff H. (1984). The Vegetation of Irish Lakes. Unpublished report to the Wildlife Service Dublin. Holyoak D.T. (1999). Report on Surveys of Petalophyllum ralfsii in Co. Sligo and Co. Donegal Western Ireland 31 July - 7 August 1999. Unpublished report to Dúchas The Heritage Service National Parks and Wildlife Dublin. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland. Unpublished report Forestry and Wildlife Service Dublin. Lockhart N.D. (1998). Report on Survey of Petalophyllum ralfsii at Keadew Co. Donegal. Unpublished report to Dúchas the Heritage Service National Parks and Wildlife Dublin. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190. McConnell B.J. and Long C.B. (1997). Geology of North Donegal. A Geological Description to Accompany the Bedrock Geology 1: 10000 scale map series sheet 1 and part of sheet 2 North Donegal. Geological Survey of Ireland Dublin. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Oliver G.A. (1999). Irish Coastal Lagoon Survey. 1998. Vol. IV. Aquatic Fauna. Dúchas the Heritage Service Dublin. Picton B.E. and Costello M.J. (eds) (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0). Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Praeger R.L. (1934). The Botanist in Ireland. Hodges and Figgis Dublin.</p>	<p>diverse site generally of good quality. Excellent diversity of dunes with the fixed dunes of particular note for their extent/area. Decalcified fixed dunes are also well represented including the type with Empetrum nigrum. Embryonic dunes are very well developed as well as shifting Marram dunes and dune slacks. Machair occurs at several locations though the quality is often reduced by over-grazing and other activities. Two significant examples of saline lake lagoons a type of lagoon that is relatively common on the Atlantic coast of Ireland occur within the site. Many plant and invertebrate lagoonal specialists are found. Some very fine examples of perennial vegetation of stony banks are found within this large site. Dry heath is a well represented habitat and occurs in association with Juniperus communis formations and alpine heath the latter including the locally rare Arctostaphylos uva-ursi.</p>	<p>Islands is a large and ecologically diverse site situated on the north-west coast of Co. Donegal. The site extends for approximately 16 km from north to south. The coastline is very indented with several large intertidal inlets. The islands provide some shelter though their western sides as well as parts of the mainland are very exposed to the Atlantic swells. The shoreline varies from bedrock to boulder/cobble beaches to shingle and sand. The predominant geology of the site is granite though much of the bedrock is covered by calcareous sands and heath. Habitats of relatively small extent include salt marsh deciduous woodland and blanket bog. Many of the islands are</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III. Flora. Dúchas the Heritage Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Walsh A. and Merne O.J. (1988). Barnacle Geese in Ireland spring 1988. Irish Birds 3: 539-550. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>Two plants listed on Annex II <i>Petalophyllum ralfsii</i> and <i>Najas flexilis</i> occur within the site as well as three Red Data Book species. The site supports an important population of <i>Branta leucopsis</i> (exceeds international threshold at times) and has the largest winter population of <i>Clangula hyemalis</i> in the country. <i>Sterna hirundo</i> and <i>Sterna paradisaea</i> breed in low numbers and <i>Pyrhacorax pyrrhacorax</i> is resident. Several wader species breed with notable populations of <i>Haematopus ostralegus</i> <i>Vanellus vanellus</i> and <i>Calidris alpina</i>. The site supports an important population of <i>Lutra lutra</i>.</p>	<p>uninhabited and relatively undisturbed.</p>
001230	Courtmacsherry Estuary SAC	<p>Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Site survey cards of National Parks and Wildlife Service Dublin.</p>	<p>An attractive area of coastal scenery and interesting landforms (sunken river valley or ria). The transition from salt marsh to freshwater marsh is well developed and a small sandspit and associated salt marsh also occur. Several rare plants have been recorded in the past. The</p>	<p>An estuary at the mouth of a valley which opens into the Celtic sea. The estuary is ria-like with a salt water influence which extends far inland. The site includes large areas of sand and mudflats as well as small sand</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>estuarine mud and sand flats support duck and wader winter populations.</p>	<p>dune systems and shingle ridges at the mouth of small streams. Interesting salt and freshwater marshes flank the river banks of the main river.</p>
001403	Arroo Mountain SAC	<p>Unpublished report to Leitrim County Council An Foras Forbartha Dublin. Barrington R.M. and Vowell R.P. (1885). Report on the flora of Ben Bulben and the adjoining mountain range in Sligo and Leitrim Proceedings of the Royal Irish Academy. 2nd series. 4: 493-517. Conaghan J. and Fuller J. (2005). A survey of Rare and Threatened Vascular Plants in County Leitrim. A Report to the National Parks and Wildlife Service Dublin. Douglas C. Dunnells D. Scally L. and Wyse Jackson M.B. (1990). A Survey to Locate Lowland-Highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the Wildlife Service Office of Public Works Dublin. Goodwillie R.N. (1978). Areas of Scientific Interest in County Leitrim. Stelfox A.W. (1965). <i>Salix hibernica</i> Rechinger f. Irish Naturalists' Journal 15: 25-29. Synnott D.M. (1984). Notes on <i>Salix phylicifolia</i> L. and related Irish willows Glasra 7: 1-10.</p>	<p>The north-facing limestone cliffs of Arroo Mountain and the 'slips' below them are very important for the rich arctic-alpine vascular plant and bryophyte floras they support. A number of very rare species are found springs and flushes some of which have tufa formations occur amongst the calcareous rocky habitats. The main interest of the summit vegetation lies with the extensive area of good quality almost intact wet heath found there; here also are found several good but small examples of intact mountain blanket bog. <i>Falco peregrinus</i> nest on the cliffs while <i>Pluvialis apricaria</i> on blanket bog in the north-eastern section of the plateau.</p>	<p>A large mountain complex comprised of blanket bog wet and dry heath humid and dry calcareous grassland flushes streams small lakes wooded ravines limestone gorges limestone scree and steep limestone cliffs which have developed on the sides and summit of an undulating plateau of carboniferous limestone overlain by shale. Post-glacial slippage of sections of cliff has formed an interesting geomorphological feature at the northern end of the site. Numerous swallow holes are found on the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				plateau. The site includes several megalithic monuments and tombs of archaeological interest.
001501	Erris Head SAC	Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. & Coveney J.A. (1992). The 2nd International Chough Survey : Ireland. Unpublished report to the IWC Dublin and RSPB Belfast. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest & Wildlife Service Dublin. Praeger R.L. (1905). The flora of the Mullet and Inishkeas. Irish Naturalist 229-244. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co. Dublin. Synnott D.M. (1986). An outline of the flora of Mayo. Glasra 9: 13-117.	This is an extensive and fairly inaccessible site generally of good quality and in a natural state. Good examples of exposed north-facing cliffs and alpine heath with <i>Arctostaphylos-Juniperus-Empetrum</i> communities are present. <i>Pyrrhocorax pyrrhocorax Falco peregrinus</i> and <i>Branta leucopsis</i> all Annex I Bird Directive species occur as well as small seabird colonies. The northern limit of <i>Erica erigena</i> in Ireland is found here.	The site is situated in a very exposed position on the northern part of the Mullet Peninsula. It comprises about 15 km of cliff. The cliffs are predominantly north-facing and of moderate height (up to 90 m). Cliff vegetation grades into alpine heath and dry grassland. Part of the surrounding sea is included in the site. The geology of the area is ancient acid rocks including quartzite gneiss and Silurian schists and shales. The land in the site is grazed by sheep though not excessively.
001669	Knockalongy and Knockachree Cliffs SAC	Curtis T.G.F. Goodwillie R.N. and Young R. (1978). Areas of Scientific Interest in Co. Sligo. Unpublished report to Sligo County Council. An Foras Forbartha Dublin. Goodwillie R.N. (1972). A Preliminary Report on Areas of Scientific Interest in County Sligo. Unpublished report to Sligo County Council. An Foras Forbartha	The importance of the site lies in the presence of the rare and protected <i>Trichomanes speciosum</i>	The site comprises two separate areas on the north and south-east facing

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Dublin.Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland.Praeger R.Ll. (1929). Killarney fern in Sligo Irish Naturalists' Journal 2: 247.</p>	<p>as well as several rare or scarce mountain and alpine plants such as <i>Saxifraga aizoides</i> and <i>Thelypteris phegopteris</i>. The site provides the only habitat for these species in the Ox Mountains where cliffs are very scarce.</p>	<p>slopes of Knockachree and Knockalongy mountains. Both areas include a small lake at the foot of steeply-sloping cliffs on which acid grassland and wet heath vegetation predominates. Small areas of blanket bog occur about both lakes. Lough Minnaun at the southern end of the site is almost surrounded by planted coniferous forest. The site is underlain by acid gneiss and granitic rocks; the presence of base-rich minerals in some sections of the site is reflected by several elements of the flora.</p>
001774	Lough Carra/Mask Complex SAC	<p>Bonham F.R.H. (1978). An Interim Report on the State of Knowledge of the Natural History of an Area in South Mayo. Internal Report Forest and Wildlife Service Dublin.Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P. (1992). Water Quality in Ireland 1987-1990. Environmental Research Unit Dublin.Cross J. (1976). Conservation Report on Cong Forest. Forest and Wildlife Service unpublished.Cross J. (1982). Proposed Nature Reserve at Ballykine and Rosshill Woods Cong Forest. Internal Document Forest and Wildlife Service Dublin.Dunford B. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report.</p>	<p>This site is of immense importance for the occurrence of scarce and specialised habitats as well as animal and plant species. Lough Carra is one of the best examples of a marl lake in the</p>	<p>General geological character of the area is carboniferous limestones with some shales and sandstones. Lough Mask dominates</p>

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		<p>Unpublished Internal Report prepared for Coillte Teo.Flanaghan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin.Fras De.V and Kane W.M. (1903). Race of blind amphipod from Lough Mask. Irish Naturalist 12: 273-274.Hannon K. et al. (in preparation). 1995 All Ireland Tern Survey. IWC/NPW.Heuff H. (1984). The Vegetation of Irish Lakes. Internal Report Forest and Wildlife Service Dublin.Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath and M.I. Evans (eds.). Important Bird areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Igoe F. O'Grady M.F. Tierney D. and Fitzmaurice P. (2003). Arctic char <i>Salvelinus alpinus</i> (L.) in Ireland -a millenium review of its distribution and status with conservation recommendations. Biology and Environment 103B: 9-22.Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and the Environment Proceedings of the Royal Irish Academy 97B: 1-32.King J.J. and Champ W.S.T. (2000). Baseline water quality investigations on Lough Carra western Ireland with references to water chemistry phytoplankton and aquatic plants. Biology and Environment 100B: 13-26.McAney C.M. (1994). The Lesser Horseshoe Bat In Ireland - Past Present and Future. Folia Zoologia. (1314) : 387-392.McGarrigle M.L. and Champ W.S.T. (1999). Keeping pristine lakes clean: Lough Conn and Mask western Ireland. Hydrobiologia 395/396: 455-469.McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. O'Sullivan P. (1994). Bats In Ireland. The Irish Naturalists' Journal. Special Zoological Supplement. 21 pp.Praeger R.L. (1906). On the botany of Lough Carra. Irish Naturalist 15: 207-214.Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin.Shackleton J. (1975). A Study of Certain Aspects of the Vegetation of Lough Carra Co. Mayo. Unpublished Report Forest and Wildlife Service Dublin.Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.Webb D.A. (1957). <i>Hypericum canadense</i> L. A new American plant in Western Ireland. Irish Naturalists' Journal. 12: 112-116. Webb D.A. and Halliday G. (1973). The distribribution habitat and status of <i>Hypericum canadense</i> L. In Ireland. <i>Watsonia</i> 9: 333-344.Whilde A. Cotter D.C.F. and Sheppard R. (1993). A Repeat Survey of Gulls Breeding Inland in Counties Donegal Sligo Mayo and Galway with Recent Counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p>	<p>country while Mask is one of the largest lowland oligotrophic systems. The site is the northern limit of the western limestones. The limestone pavement which is one of the most important examples outside of the Burren occurs in mosaic with good examples of dry heath and calcareous grassland rich in orchids. Alkaline fens and calcareous fens with <i>Cladium mariscus</i> are a feature of the marginal wetland vegetation and both are well represented. Alluvial forest is well-developed at Lough Mask especially at Ballykine and Clonbur. <i>Taxus baccata</i> occurs as a component of the woodland at Clonbur. An internationally important population of <i>Rhinolophus hipposideros</i> which is at the northern limit of the species' distribution in Ireland is also present. A population of <i>Drepanocladus vernicosus</i> on the shoreline of Lough Mask is the only known</p>	<p>the site being the sixth largest lake in Ireland and one of the deepest (maximum depth 58m). The eastern side of Mask is edged by a mosaic of limestone pavement scrub and woodland. The paving floods. In contrast the western shore is backed by high mountains from which the fast flowing Owenbrin river flows and where it enters the lake it forms an extensive delta of coarse sandy sediment. Lough Carra is generally shallow (maximum depth 9m) and surrounded by limestone pavement with a diversity of other habitats both limestone related and wetland type. A feature of the lakes are the many islands. Loughs Mask and Carra are hydrologically</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>example of a lake-shore population in Ireland. Several Red Data Book plant species occur. Also supports Lutra lutra the glacial relict Salvelinus alpinus and a rare shrimp Niphargus spp. Important for wintering and breeding birds with Anser albifrons flavirostris Sterna hirundo and Larus gulls.</p>	<p>linked while the main outflowing river in Mask connects to Lough Corrib.</p>
001818	Lough Forbes Complex SAC	<p>Browne A. Dunne F. and Roche N. (2000). A Survey of Broadleaf Woodlands in three SACs: Barrow-Nore River Unshin and Lough Forbes. Unpublished report to National Parks and Wildlife Dublin. Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance Dublin. Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Unpublished report to the Forest and Wildlife Service Dublin Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Longford. Unpublished report prepared for Longford County Council An Foras Forbartha Dublin. Grimmett R.F.A. and Jones T.A. (1989). Important Bird Areas in Europe. ICBP Technical Publication No.9. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Raised Bog Sites in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin.</p>	<p>Lough Forbes Complex is an extensive and important midland site which contains significant examples of the Annex I habitats natural eutrophic lake active raised bog alluvial woodlands degraded raised bog and Rhynchosporion vegetation. Other habitats of note occurring include mixed ash/oak woodland dry grassland and cutover raised bog. In many areas there are good examples of relatively undisturbed transitions from lake and river to adjoining terrestrial habitats such as wet grassland and raised bog. The lake callow and raised bog</p>	<p>A complex of naturally eutrophic lake fed by the River Shannon and Rinn River with extensive reed bed development and natural transitions to flooded grasslands marsh and two active raised bogs. The Castle Forbes estate on the eastern shore of the lake is extensively planted with mature semi-natural woodland including some stands of old oak wood. The site is located in the north central midlands at a low elevation and overlies</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			areas provide feeding and roosting sites for a flock of wintering Anser albifrons flavirostris. The site is within a breeding territory of Falco columbarius.	Carboniferous Limestone with a variable thickness of glacial tills.
001831	Split Hills and Long Hill Esker SAC	Ó'Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A preliminary report. National Parks and Wildlife Service Dublin. Breen C. Curtis T.G.F. and Scannell M.J.P. (1984). Cardamine impatiens L. in Co Westmeath (H23) - an addition to the Irish flora Irish Naturalists' Journal 21:344-345. Goodwillie R.N. (1972). A Preliminary Report on Areas of Scientific Interest in County Westmeath. Unpublished report to Westmeath County Council. An Foras Forbartha Dublin. Cross J.R. (1992). The distribution character and conservation of woodlands on esker ridges in Ireland. Proceedings of the Royal Irish Academy 92 B:1-19.	This is one of the finest wooded esker ridges remaining in the country and constitutes one of the few woodlands in the area. In places a very rich ground flora is found in the woods. This includes several scarce species including the protected Cardamine impatiens which has not been recorded as a native elsewhere in Ireland. The site is very diverse and includes examples of many habitats. Species-rich calcareous grassland is found in many areas of the site. The protected plant Galeopsis angustifolia has been recorded from the site.	A linear site approximately 7km long which comprises for the most part an esker ridge composed of glacial sand and gravel. The main habitat is semi-natural deciduous woodland but this diverse site also contains significant areas of bog scrub improved and wet grasslands. Sand and gravel are extracted from three areas of the site. Roads and a river cross the site in several places.
001847	Philipston Marsh SAC	Lockhart N.D. (1991). Report on the Wetland Vegetation of the Mulkear River Catchment Cos. Limerick and Tipperary. National Parks and Wildlife Service Dublin. Unpublished.	The site supports an important though small example of transition mire vegetation in a region where such habitat is rare. It has many of the expected	The site is within the upper reaches of the Mulkear catchment. The southern part is flushed with calcareous

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>flora species for the habitat. A range of scarce plant species are found at the site notably <i>Epipactis palustris</i> <i>Galium uliginosum</i> and <i>Eriophorum latifolium</i>. The site appears to be in a fairly natural state.</p>	<p>groundwater issuing from the base of a gentle slope. A small stream or drainage channel flows along part of northern boundary. The site comprises a mosaic of wetland habitat types mainly reed swamp alkaline fen and transition mire. A small area of open water occurs. Willow (<i>Salix</i> spp.) scrub is present in places and some wet grassland is included. Some of the areas immediately adjacent to site are planted with conifers.</p>
001899	Cloonakillina Lough SAC	<p>Douglas C. Goodwillie R. and Mooney E. (1993). Notes on the flora of the Owenmore Catchment Co. Sligo (H28) and East Mayo (H26). <i>Irish Naturalists' Journal</i> 24 (5). Goodwillie R. Buckley P. and Douglas C. (1992). Owenmore River - Proposed Arterial Drainage Environmental Impact Assessment. Botanical and Ornithological Surveys. Unpublished report to the National Parks and Wildlife Service Dublin.</p>	<p>A rich variety of plant species and communities in a relatively small area showing interesting stages in the development from open water transition mire fen wet woodland and bog. Sites of this kind in good condition are relatively uncommon in Ireland. This area also supports small numbers of a</p>	<p>A small meso-eutrophic lake with extensive development of transitional mire vegetation over the western side of its basin set in undulating terrain amongst several raised bogs.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			variety of waterfowl many of which breed amongst the relatively undisturbed vegetation.	
001912	Glendree Bog SAC	Douglas C. (1992). Survey Report on Glendree Bog. Unpublished report for the National Parks and Wildlife Service.	One of only three intact blanket bog sites known in the Slieve Aughty Mountains of value as an example of a scarce transitional highland type containing ombrotrophic zones with no <i>Molinia caerulea</i> . Considerable diversity within the site with <i>Schoenus nigricans</i> flush vegetation and good examples of oligotrophic upland lakes the largest of which Lough Ea is a traditional roosting site for <i>Anser albifrons flavirostris</i> .	A highland blanket bog underlain by Old Red Sandstone in the Slieve Aughty Mountains. Site contains three upland oligotrophic lakes the largest of which is Lough Ea and includes the headstream of the Glendree River. Minerotrophic flush and heath vegetation also occur. Site is surrounded on three sides by commercial forestry plantation.
001922	Bellacorick Bog Complex SAC	Douglas C. Garvey L. Kelly L. O'Sullivan A. and van Doorslaer L. (1989). A Survey to Locate Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to the Wildlife Service Dublin. Foss P.J. and McGee E. (1987). A Survey to Locate Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to the Wildlife Service Dublin. Lockhart N. (1991). Phytosociological and Ecological Studies of Lowland Blanket Bog Flushes in West Galway and North Mayo. Unpublished Ph.D. Thesis National University of Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 to 1993/94. National Parks and Wildlife Service Dublin and Greenland White-fronted Goose Study. Lockhart N.D. (1987). The occurrence of <i>Homalothecium nitens</i> (Hedw.) Robins in Ireland. <i>Journal of Bryology</i> 14 511-517. Lockhart N.D. (1988). Further records for <i>Homalothecium nitens</i> (Hedw.) Robins in north County Mayo Ireland. <i>Journal of Bryology</i> 15 234-235. Lockhart N.D. (1989). <i>Leiocolea rutheana</i> (Lumpr.) K. Muell. new	Probably one of the largest and finest examples of intact lowland blanket bogs in Ireland with exceptionally well developed pool complexes and dystrophic lakes. Rhynchosporion vegetation is well represented in many of the pool areas out in the	A large expanse of lowland blanket bog with numerous pools and dystrophic lakes developed on gently undulating glacial drift overlying shales and sandstone and bordering carboniferous limestone to the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>to Ireland. Journal of Bryology 15 525-529. Lockhart N.D. (1999). <i>Paludella squarrosa</i> (Hedw.) Brid. a Boreal relic moss new to Ireland. Journal of Bryology 21 305-308.</p>	<p>wet quaking bog area. Groundwater seepage areas are widespread and support a range of fen vegetation assemblages including some of the best alkaline fens in the country notable for their diversity of structure and species especially rare boreal relict fen mosses such as <i>Leiocolea rutheana</i> <i>Homalothecium nitens</i> and <i>Paludella squarrosa</i>. One of only 4 locations for <i>Saxifraga hirculus</i> an Annex II species. The site formerly supported wintering <i>Anser albifrons flavirostris</i>. Additional areas are included in the site under EU LIFE funded restoration projects.</p>	<p>east. Shallow stream valleys bordered by humid grassland and heath vegetation dissect the lowland plain. Site is notable for the widespread occurrence of flush and fen vegetation derived from mineral-rich and often calcareous groundwater seepage areas.</p>
001926	East Burren Complex SAC	<p>Boycott A. Mullan G.J. and Wilson L.J. (1996). Cave notes: County Clare and County Galway Ireland. Proceedings of the University of Bristol Spelaeological Society 20 (3) 215-235. Brady Shipman Martin (eds) (1996). Burren National Park Study. Draft Park Management Plan. Stationery Office Dublin. Bradley J.D. and Pelham-Clinton E.C. (1967). The Lepidoptera of the Burren Co. Clare W. Ireland. Entomologist's Gazette 18: 115-153. Bunce C. and Judd B. (1987). Glen Curran. Irish Speleology 4: 12-13. Clabby K.J. Lucey J. McGarrigle M.C. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part One: General Assessment. Environmental Research Unit Dublin. Coxon C.E. (1986). A Study of the Hydrology and Geomorphology of Turloughs. Unpublished Ph.D. Thesis. Trinity College Dublin. Curtis T.G.F. Ryan J.B. and McGough H.N. (1985). The status and ecology of <i>Limosella aquatica</i> L. in Clare (H9) and south-east Galway (H15). The Irish Naturalists' Journal 21: 406-407. Curtis T.G.F. and McGough H.N. (1981). A Survey of the Wetlands of the Fergus Catchment and</p>	<p>This large site is of immense importance for the diversity and quality of Annex I habitats (12 in total) five of which are priority. Of particular note are the limestone pavement calcareous grasslands (orchid rich) and heaths and hard water lakes and associated <i>Cladium</i> fens. <i>Taxus baccata</i> occurs as a</p>	<p>This site encompasses the largest expanse of limestone pavement in the country - this ranges from typical flat open paving with sparse vegetation at high levels such as at Mullagh More to often scrub covered</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Adjoining Areas. Unpublished report to the Forest and Wildlife Service Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1. Vascular Plants. Stationery Office Dublin. D'Arcy G. and Hayward J. (1992). The Natural History of the Burren. Immel Publishing Ltd London. Drew D. and Jones G.L. (2000). Irish Geological Heritage Site Report Form: Vigo Cave. Unpublished. Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Fox A.D. Norris D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83-1993/94. GWFG Study Research Report No. 8. Geological Survey of Ireland (2000). Irish Geological Heritage Site Report Form: Vigo Cave. Unpublished. Goodwillie R.N. (1992). Turloughs over 10 ha. Vegetation Survey and Evaluation. Unpublished report to the National Parks and Wildlife Service Dublin. Goodwillie R.N. (1995). Additions to the Irish range of <i>Rorippa islandica</i> (Oeder ex Murray) Borbas. The Irish Naturalists' Journal 25: 57-59. Heuff H. (1980). The Vegetation of Irish Lakes. Part 2. Unpublished report to the Forest and Wildlife Service Dublin. Hutchinson C.D. (1979). Ireland's Wetlands and their Birds. Irish Wildbird Conservancy Dublin. Ivimey-Cook R.B. and Proctor M.C.F. (1966). The plant communities of the Burren. Co. Clare. Proceedings of the Royal Irish Academy 64B: 211-301. Kirby E.N. and MacGowran B.A. (1979). A Vegetation Survey of the Proposed National Park in the Burren Co. Clare. Unpublished report to the National Parks and Monuments Branch of the O.P.W. Dublin. Lavery T. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottemburg 1775 (Lepidoptera: Nymphalidae) in Ireland. The Irish Naturalists' Journal 24: 192-198. Lysaght L. Mee T. Murphy J. and Tarpey T. (1994). Birds of Clare and Limerick 1982-1991. Irish Wildbird Conservancy Dublin. McAney C.M. (1994). West of Ireland Winter Hibernation Survey 1994. The Vincent Wildlife Trust Unpublished. MacGowran B. (1985). Phytosociological and ecological studies on turloughs in the west of Ireland. Unpublished Ph.D. thesis National University of Ireland. McGough H.N. (1984). A Report on the Grasslands and Closely Related Vegetation Types of the Burren Region of Western Ireland. Unpublished report to the Forest and Wildlife Service Dublin. O'Sullivan A. Byrne C. and Mhic Dhaeid E.C. (1995). Information on populations of Annex II plant species recorded in SAC no. 1926. Unpublished report to National Parks and Wildlife Service Dublin. O'Sullivan P. (1994). Bats in Ireland. Special supplement to the Irish Naturalists' Journal. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Reynolds J.D. (1986). Cladocera from Burren turloughs at Mullagh More Co. Clare. Bulletin of the Irish Biogeographical Society 9: 51-54. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Self C.A. (ed.) (1981). Caves of County Clare. University of Bristol Spelaeological Society. 225pp. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Speight M.C.D.</p>	<p>component of woodland on limestone pavement in some areas. The site also includes an area of alluvial woodland. The site has an internationally important population of <i>Rhinolophus hipposideros</i> a major colony of <i>Euphydryas aurinia</i> and <i>Lutra lutra</i>. Several Red Data Book plant species occur. The Red Data Book fish species <i>Salvelinus alpinus</i> has been recorded from L. Inchiquin. Four Annex I Bird Directive species occur.</p>	<p>broken paving at the lower altitudes. Associated with the limestone pavement are well-developed calcareous heaths and grasslands. In the limestone areas surface drainage is largely absent. The south and south-east of the site is dominated by a series of wetlands which run from Corofin to Kilmacduagh. These range from open lakes to dense swamp vegetation. For water quality reasons areas of improved pasture are included in site.</p>

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		<p>(1983). Dolichopodidae (Diptera) new to Ireland. Irish Naturalists' Journal 21: 83-84. Speight M.C.D. de Courcy-Williams M. and Withers P. (1979). Pachygaster minutissima Psacadinazernyi and Xylota tarda insects new to Ireland. The Irish Naturalists' Journal 19: 354-355. Southern Water Global Ltd. (1996). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Interim Factual Report September 1996. Text Vol 1. Unpublished report to the Office of Public Works Dublin. Stewart N.F. and Church J.M. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough. Stewart N. (undated). Bryophyte and Lichen Reports. Unpublished reports to the Wildlife Service Dublin. Tratman E.K. (ed.) (1969). The Caves of North-West Clare Ireland. University of Bristol Spelaeological Society. Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and the Burren. Royal Dublin Society Dublin and Cambridge University Press Cambridge. Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO Belfast. Whittow J.B. (1975). Geology and Scenery in Ireland. Penguin Harmondsworth. Willmot A. (1979). An ecological survey of the ferns of the Burren Co. Clare Eire. Fern Gazette 12: 9-28.</p>		
002006	Ox Mountains Bogs SAC	<p>Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987 - 1990. Part one General Assessment. Department of Environment Environmental Research Unit Dublin. Cotton D.C.F. and Cauley M. (1993). New records of vascular plants from Counties Sligo (H28) and Leitrim (H29). Irish Naturalists' Journal 24: 288-295. Douglas C. Garvey L. Kelly L. and O'Sullivan A. (1989). A Survey to Locate Blanket Bogs of Scientific Importance in County Kerry and County Sligo. Unpublished report to the Wildlife Service Dublin. Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 to 1993/94. National Parks and Wildlife Service Dublin and Greenland White-fronted Goose Study.</p>	<p>One of the largest areas of blanket bog in Ireland showing considerable altitudinal diversity with lowland highland and mountain blanket bog types well represented and exceptional development of patterned pool systems exhibiting intermediate bog characteristics and with depressions on peat substrates (Rhynchosporion) very well represented. Wet heath is widely distributed within the site with a number of species-poor oligotrophic lakes including Easky Lough. Wet bog areas are a traditional feeding and</p>	<p>An extensive upland area composed of metamorphic schists and gneiss with some basic intrusions on which a range of blanket bog types have developed. Heath vegetation occurs on the north-facing slopes of the mountains and along the numerous stream valleys that descend from the central plateau. Dystrophic lakes occur as patterned pool systems on the lowland blanket bogs. Several oligotrophic lakes</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>roosting ground for a flock of <i>Anser albifrons flavirostris</i> and the site probably supports a breeding population of <i>Pluvialis apricaria</i>. An area of calcareous fens supports a recently discovered population of <i>Vertigo geyeri</i>.</p>	<p>with stoney shores occur within the site the largest of which is Easky Lough.</p>
002012	North Inishowen Coast SAC	<p>Bassett J.A. &amp; Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. <i>Proceedings of the Royal Irish Academy</i> 85B: 1-20. Berrow S.D. Mackie K.L. O. Sullivan O. Sheppard K.B. Mellon C Coveney J.A. (1993). The second International Cough Survey in Ireland 1992. <i>Irish Birds</i> 5: 1-10. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) <i>A Guide to the Sand Dunes of Ireland</i>. E.U.C.C. Dublin. Curtis T.G.F. &amp; McGough H.N. (1988). <i>The Irish Red Data Book: 1 Vascular Plants Stationary Office Dublin</i>. Fay P. (1996). The rare and protected flora of coastal areas in Counties Galway Mayo Sligo and Donegal. Unpublished report to the National Parks and Wildlife Service Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. <i>Irish Birds</i> 6: 1-22. Hart H.C. (1898). <i>Flora of County Donegal</i>. Dublin. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998 in press). Breeding waders of machair systems in Ireland in 1996. <i>Irish Birds</i> 6. McConnell B.J. and Long C.B. (1997). <i>Geology of North Donegal. A geological description to accompany the bedrock geology 1: 10000 scale map series sheet 1 and part of sheet 2 North Donegal</i>. Geological Survey of Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. <i>Irish Birds</i> 5: 151-156. Perry K.W. (1975). <i>The Birds of the Inishowen Peninsula</i>. Privately published Craigavon. Praeger R.L (1934). <i>The Botanist in Ireland</i>. Hodges Figgis Dublin. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. IWC Dublin. Stephens N. and Syngé F.M. (1965). Late Pleistocene shore lines and drift lines in northern Donegal. <i>Proceedings of the Royal Irish Academy Section B: [3]</i>. Walsh A. and Merne O.J. (1988). Barnacle Geese in Ireland</p>	<p>The most important habitats within the site are the priority Annex I habitats fixed dune and machair which are of moderate quality. The large areas of other Annex 1 habitats particularly vegetated sea cliff shingle beach and intertidal sand and mud flats are of good quality. The habitats support a large number of important and sometimes rare plant and animal species. The site contains a large proportion of the national population of the Red Data Book plant species <i>Mertensia maritima</i> and <i>Ligusticum scoticum</i> while other nationally rare species such as <i>Silene acaulis</i> and <i>Crambe maritima</i> have been recorded in the</p>	<p>This large site located along the northern coast of Co. Donegal is of value for the wide range of maritime and sub-maritime habitats present. The main habitats are sea-cliffs beach (both shingle and sandy) and dry heath with smaller areas of sand dune machair tidal mud flats salt marsh and deciduous woodland. Cliff and outcropping rock is frequent throughout the site with quartzite being the predominant rock type although small areas with schist and granite bedrock also occur. The coastline close</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		spring 1988. Irish Birds 3: 539-550. Wilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.	past. Important populations of the Annex I Bird Directive species Branta leucopsis Falco peregrinus and Pyrrhocorax pyrrhocorax occur. Several species of seabirds breed on the cliffs while Trawbreaga Bay attracts moderate numbers of wintering waterfowl including Branta bernicla hrota in internationally important numbers. Lutra lutra occurs regularly within the site.	to Malin Head provides some of the best examples of late-glacial marine strandlines in Ireland and thus is of great interest from a geomorphological perspective. The main landuse within the site is grazing particularly by sheep with amenity pressure high in the parts of the site with sand dune and machair.
002031	The Twelve Bens/Garraun Complex SAC	Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a> : February 2001. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. & Lehane M. (eds.) (1999). Water Quality in Ireland 1995-1997. Statistical compendium of River Quality Data Environmental Protection Agency. Douglas C. Garvey L. Kelly L. and O'Sullivan A. (1989). A Survey to Locate Blanket Bogs of Scientific Interest in County Galway Part 2. Unpublished report to the Wildlife Service Dublin. Douglas C. and Grogan (1987). A Survey to Locate Lowland Blanket Bogs of Scientific Interest in Connemara County Galway. Unpublished report to the Wildlife Service Dublin. Ferguson D.K. and Westhoff V. (1987). An Account of the Flora of Derryclare Wood Connemara (Co. Galway) Western Ireland. Proceedings of The Koninklijke Nederlandse Akademie van Wetenschappen C90 (2) : 139-172. Folan A.C.M. and Mitchell M.E. (1970). The Lichens and Lichen Parasites of Derryclare Wood Connemara. Proceedings Of The Royal Irish Academy Section B 70 (7) : 163-170. Heuff H. (1984). The Vegetation of Irish Lakes. Unpublished report to the Wildlife Service Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Neff M. (1972). Conservation Report. Derryclare Wood Ballinahinch Forest Co Galway. Internal Report to Forest & Wildlife Service. O'Reilly P. (1991). Trout and Salmon Rivers of Ireland: an angler's guide. Merlin Unwin Books London. Quinn A.C.M. (1971). Areas of Scientific	One of the largest and most varied sites of conservation interest in Ireland including the scenically renowned Twelve Bens mountain range which support extensive areas of blanket bog heath and exposed rock and a range of arctic-alpine plants. Rhynchosporion vegetation is well represented in the wet areas of blanket bog. The suite of lowland lakes that encircle the mountains represent some of the finest oligotrophic lakes in the	An extensive area incorporating the predominantly quartzite mountains of the Twelve Bens and encompassing a range of habitat types including blanket bog oligotrophic lakes heath exposed rock and scree acid grassland and remnants of oak woodland. The northern part of the site is bounded by coastline and includes rocky shore and small

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Interest in County Galway. Unpublished preliminary report prepared for Galway County Council. An Foras Forbartha Dublin. Roden C.M. (1986). A Survey of the Flora of some Mountain Ranges in the West of Ireland. Irish Naturalists' Journal 22 (2) : 52-59. Scannell M.J.P. and White J. (1975). <i>Cryptogramma crispa</i> In West Galway. Irish Naturalists' Journal 18 : 336. Tangney D.E. & Fairley J.S. (1994). Otter signs and diet in Connemara National Park and its environs. Irish Naturalists' Journal 24: 434 - 440. Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and the Burren. Royal Dublin Society and Cambridge University Press Cambridge.	country and support several rare species such as <i>Pilularia globulifera</i> and populations of <i>Salvelinus alpinus</i> . The site also has a significant population of <i>Lutra lutra</i> and an important population of <i>Salmo salar</i> . The site includes a large portion of the Connemara National Park and a National Nature Reserve at Derryclare Wood. Additional areas are included in the site under EU LIFE funded restoration projects.	areas of sandy beach machair tidal river mud flats and saltmarsh. Several river headstreams are also within the site.
002111	Kilkieran Bay and Islands SAC	Byrne (1990). Annual reproductive cycles of the commercial sea-urchin <i>Paracentrotus lividus</i> from an exposed intertidal and a sheltered subtidal habitat on the west coast of Ireland. Marine Biology 104: 275-289. Costelloe J Keegan B.F. and Konnecker G.G. (1986). Rocky subtidal assemblages on the west coast of Ireland Hydrobiologica 142: 97-111. Crawford I. Bleasdale A. and Conaghan J. (1996). BioMar Survey of Irish Machair Sites 1996. A report submitted to the National Parks & Wildlife Service Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Good J.A. (1999). Irish coastal lagoon survey 1998. Vol V. Dúchas. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. biogeogr. Soc. 21: 21-66. Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. Bull. Ir. biogeogr. Soc. 21: 2-21. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol 1 Part 1. Background Description and summary of the surveys. Dúchas. Healy. B. and Oliver G.A. (1998). Irish Coastal Lagoons: summary of a survey. Bull. Ir. biogeogr. Soc. 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal Lagoons in the Republic of Ireland. Vol. 2. Inventory of Lagoons and Saline Lakes. Report to the National Parks and Wildlife Service Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of	Kilkieran Bay has high conservation importance. The bay has a wide variety of marine and intertidal habitats and a high number (25) of species that are rare or of conservation interest in Ireland. Communities of particular importance are the extensive and varied maerl beds and the circalittoral <i>Raspailia ramosa</i> /Corella parallelogramma communities which have a high diversity of encrusting and branching	Kilkieran Bay is situated on the extreme north-west shore of Galway Bay. It is approximately 13 km in length and 7 km at its widest point. Kilkieran Bay is an indented fjord and much of the complexity is due to numerous rocky outcrops and islands the largest ones being Lettermore Island (not in the site) Gorumna Island and

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. &amp; Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath &amp; M.I. Evans eds. Important Bird Areas in Europe: Priority sites for conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Keegan B.F. (1974a). The macro fauna of maerl substrates on the west coast of Ireland. Cahiers de Biologie Marine 15: 513-530. Keegan B.F. (1974b). Littoral and benthic investigations on the west coast of Ireland-III (Section A: faunistic and ecological studies). The bivalves of Galway Bay and Kilkieran Bay. Proceedings of the Royal Irish Academy 74B: 85-123. Konnecker G. and Keegan B. (1983). Littoral and benthic investigations on the west coast of Ireland XVII. The epibenthic animal associations of Kilkieran Bay. Proceedings of the Royal Irish Academy 83B: 309 - 324. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland. Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland Spring 1993 and 1994. Irish Birds 5: 151-156. Nunn J. (1990). The occurrence of the rare nudibranch Hancockia uncinata (Hesse 1972) at St John's Point Co. Donegal. Irish Naturalists Journal 21: 484-488. O Ceidigh P. (1959). The blennies genus Blennius L. of Kilkieran Bay Connemara. Irish Naturalists Journal 13: 72-73. O'Connor B. Konnecker G. McGrath D. and Keegan B.F. (1977). Pachycerianthus multiplicatus Carlgren - Biotope or biocoenosis? In Biology of Benthic Organisms ed. by B.F. Keegan P. O'Ceidigh and P.S. Boaden 475-482. Pergamon Press Oxford. O'Connor McGrath D. Konnecker G. and Keegan B.F. (1993). Benthic macrofaunal assemblages of greater Galway Bay. Biology and Environment: Proceedings of the Royal Irish Academy 93B: 127-136. Oliver G.A. (1999). Irish Coastal Lagoon Survey 1998. Vol IV. Dúchas. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. biogeogr. Soc. 21: 66-115. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21(11): 484-488. Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Roden C.M. (1984). The 1980/81 phytoplankton cycle in the coastal waters of Connemara Ireland. Estuarine Coastal Shelf Science 18: 485-497. Roden C. (1999). Irish Coastal Lagoon Survey 1998. Vol III. Dúchas. Rostron D. &amp; Picton B. (1982). Hancockia uncinata a nudibranch mollusc new to Ireland with notes on its distribution and ecology. Irish Naturalists' Journal 20: 491-493. Sides E.M. Picton B.E. Emblow C.S. Morrow C.C. Foster-Smith R. Davies J. and M.J. Costello. (1996). Kilkieran Bay and its environs revisited. (Field survey report</p>	<p>sponges and ascidians. Species of particular interest are the sponges Plakortis simplex and Tricheurypon viride and the burrowing sea anemones Pachycerianthus multiplicatus Halcampoides elongatus Scolanthus callimorphus Mesacmaea mitchellii and Aurelia heterocera. The sponge Plakortis simplex is common in circalittoral reef communities in Kilkieran Bay and there is only one other known record for Ireland. The sponge Tricheurypon viride is rare having been recorded from only four other locations in Ireland. The anemone Pachycerianthus multiplicatus is at the southern limit of its distribution in Ireland and has only two further records in Ireland. The nocturnal anemone Halcampoides elongatus is known from only two other sites in Ireland. Kilkieran Bay is the only known locality in Ireland for Mesacmaea mitchellii and has one of the two</p>	<p>Lettermullen Island. The bedrock is igneous composed of granite felsite and other intrusive rocks rich in silica. The bay is subject to strong tidal streams as the sea funnels between islands and through channels. Surface waters are under the direct influence of the North Atlantic Drift and there are frequent intrusions of oceanic water. The shoreline is typically rocky giving way to mud in shallow water. A particular feature of the site is the large numbers of salt marshes on peat and the numerous small beaches of shell sand. The terrestrial areas of the site are mostly covered by shallow peaty soils with dry heath and blanket bog present. Brackish and small freshwater lakes occur.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Environmental Sciences Unit Trinity College Dublin.)Stephens J. (1915). Sponges of the coast of Ireland. 1. The triaxonida and part of the Tetraxonida. Department of Agriculture Ireland Fisheries Scientific Investigations 1914.Stephens J. (1921). Sponges of the coast of Ireland 2. The Tetraxonida (concluded) Department of Agriculture Ireland Fisheries Scientific Investigations 1920 II 1-75. Dublin.Tully O and O'Ceidigh P. (1989). The ichthyoneuston of Galway Bay (Ireland) 1. The seasonal diet and spatial distribution of larval post-larval and juvenile fish. Marine Biology 101: 27 - 42.Webb D.A. and Scannell M.J.P. (1983). Flora of Connemara and the Burren. Royal Dublin Society and Cambridge University Press Cambridge. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp.Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139.Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp.Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp.Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. &amp; Flynn J. (1980). An assessment of the status of the common seal <i>Phoca vitulina vitulina</i> in Ireland. Biol. Conserv. 17: 115-123.Warner P.J. (1983). An assessment of the breeding populations of common seals (<i>Phoca vitulina vitulina</i> L.) in the Republic of Ireland during 1979. Ir. Nat. J. 21: 24-26.Warner P.J. (1984). Report on the census of common seals (<i>Phoca vitulina vitulina</i>) in the Republic of Ireland during 1984. Unpublished report to the Forestry &amp; Wildlife Service.</p>	<p>known populations in Ireland of the anemone <i>Scolanthus callimorphus</i>. The lagoon habitat within the site is an excellent example of a particularly unusual type of saline lake lagoon situated in peat which appears to be rare in Europe but characteristic of south Connemara. One lagoon (Lettermullen) is a particularly good example of a rock lagoon lying on granite. The flora of the habitat is particularly important for the relative abundance of the Red Data charophyte <i>Lamprothamnion papulosum</i> the number of lagoonal specialist species the algal communities and an unusual <i>Ruppia/Zostera/Lamprothamnion</i> community. The fauna is particularly rich and two lagoons within the site are ranked as the two most important in the country based on fauna alone. The site undoubtedly contains a significant proportion of the most</p>	

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>important lagoonal habitat in the country and of a type which appears to be rare in Europe. The habitat is well conserved and prospects for maintenance of structure are excellent. Machair is represented though the quality is rather low. Salt meadows both Atlantic and Mediterranean are particularly well represented the site probably containing the largest area of salt marsh on peat in the country. Lowland hay meadows occur and are typical of the type that was formerly widespread along the western seaboard. The site provides optimum habitat for <i>Lutra lutra</i>. The site supports an important population of <i>Phoca vitulina</i>. The site supports a population of <i>Najas flexilis</i>. Some of the islands provide breeding sites for terns with regionally important populations of <i>Sterna hirundo</i> <i>Sterna paradisaea</i> and <i>Sterna albifrons</i> recorded in 1995. <i>Branta leucopsis</i> occurs in</p>	

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			winter.	
002117	Lough Coy SAC	<p>Good J.A. and Butler F.T. (2001). Turlough pastures as a habitat for staphylinidae and carabidae (Coleoptera) in south-east Galway and north Clare Ireland. Bulletin of the Irish Biogeographical Society 25:74-94.</p> <p>Jennings O'Donovan &amp; Partners and Southern Water Global (1997). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Volumes 1 &amp; 2. Unpublished report prepared for the Office of Public works Dublin.</p> <p>Madden B. and Heery S. (1999). Census of Wintering Wetland Birds in South Galway (Gort-Ardrahan Catchment) Winter (1998/1999). Unpublished report prepared for Dúchas the Heritage Service Dublin.</p> <p>MacGowran B. (1985). Phytosociological and Ecological Studies on Turloughs in the West of Ireland. Unpublished Ph.D. Thesis University College Galway.</p> <p>An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Final Report to the OPW Dublin 1997.</p>	<p>The site is an excellent example of a eutrophic turlough exposed to a large volume of water over the winter season and a considerable fluctuation in level. Vegetation zonation is well developed and a number of rare plants occur. The site is in a natural condition and there is little outside influence on the habitat apart from grazing and a little gravel removal. The site is one of several turloughs in the area used by wintering waterfowl including <i>Cygnus cygnus</i> and an inland flock of <i>Calidris alpina</i>. Usage varies according to water levels.</p>	<p>Lough Coy occupies an oval basin in the limestone just west of the Gort-Loughrea road. It is a turlough with a permanent central lake which reduces in area during the summer. The immediate catchment of Lough Coy is very small and the turlough would seem to be fed almost solely by water from Peterswell turlough to the north and its feeding river. A main swallowhole occurs in the north-western corner of the basin. At times of low water extensive mudflats are exposed at Lough Coy on which a distinctive annual vegetation develops. The sides of the basin are closely grazed though there are numerous rocks and a little scrub. At high water levels</p>

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				<p>some water escapes southwards where it joins a small permanent flow from Ballynabucky. The southern sector has further swallow holes and the area is characterised by small stands of wetland vegetation often on peat over marl. Areas of improved grassland are included in the site for hydrological reasons.</p>
002119	Lough Nageeron SAC	<p>MhicDaeid C. Byrne C. &amp; O'Sullivan A. (1995). Rare Plant Survey 1995 Lough Nageeron Ards Peninsula. Unpublished report to National Parks &amp; Wildlife Service Dublin.</p>	<p>A small oligotrophic lake typical of the many lowlying lakes along this part of the western seaboard. Apparently of good water quality and surrounded by heath and grassland habitats. A main interest of site is the presence of <i>Najas flexilis</i> which was last recorded in 1997. <i>Daboecia cantabrica</i> is a component of the heath habitat.</p>	<p>Situated beside Ard Bay in Connemara Lough Nageeron is a small oligotrophic lake which has a connecting channel to the sea. Lake has a number of rocky islets some of which are vegetated. Parts of lake are fringed with <i>Phragmites australis</i> or freshwater marsh. Much of surrounding land was formerly heath but this habitat remains intact only at the northern part</p>

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				of site. In places the heath merges into blanket bog vegetation. Much of the remainder of the area surrounding the lake is wet grassland. The main landuse of the area is grazing by cattle.
002120	Lough Bane and Lough Glass SAC	<p>Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. &amp; Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part 1. - General Assessment. Environmental Research Unit Dublin. Reynolds J.D. (1982). Notes on the Irish distribution of the freshwater crayfish. Bulletin of the Irish Biogeographical Society 6: 18-24. Reynolds J.D. (1987). Crayfish extinctions and crayfish plague in Central Ireland. Biological Conservation 45: 279-285. Mathews M. &amp; Reynolds J.D. (1992). Ecological impact of crayfish plague in Ireland. Hydrobiologia 234: 1-6. Reynolds J.D. &amp; Mathews M.A. (1996). Conservation strategies for the Irish freshwater crayfish. In: J.D. Reynolds (ed.) The Conservation of Aquatic Systems. 151-155. Royal Irish Academy Dublin.</p>	<p>A small but diverse marl lake with well developed Chara communities including such species as Chara globularis C. contraria C. rudis and C. curta. Water quality is good with no apparent signs of pollution. The lake formerly had a good population of Austropotamobius pallipes but the entire population had become extinct by 1987 probably due to crayfish fungus plague. Habitat for crayfish remains suitable and there are plans for a reintroduction scheme.</p>	<p>The site is situated in a shallow valley on the headwaters of the River Deel. It comprises Lough Bane and two smaller lakes. Water level has dropped since the start of the 20th century exposing soft marl deposits. The lakes have well developed marginal swamp and fen vegetation. Parts of shoreline are wooded with mainly deciduous species. The site includes some areas of dry calcareous grassland. Surrounding areas are mostly semi-improved to improved pasture</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				fields. Some afforestation has occurred in the area in recent times.
002121	Lough Lene SAC	<p>Bowman J.J. Clabby K.J. Lucey J. McGarrigle M. and Toner P. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes An Foras Forbartha Water Resources Division. Matthews M. and Reynolds J.D. (1992). Ecological impact of crayfish plague in Ireland. Hydrobiologia 234: 1-6. Reynolds J.D. (1982). Notes on the Irish distribution of the freshwater crayfish. Bulletin of the Irish Biogeographical Society 6: 18-24. Reynolds J.D. (1988). Crayfish extinctions and crayfish plague in Central Ireland. Biological Conservation 45: 279-285. Reynolds J.D. and Matthews M.A. (1996). Conservation strategies for the Irish Freshwater Crayfish. In: Reynolds J.D. (ed.) The Conservation of Aquatic Systems 151-155. Royal Irish Academy Dublin. Reynolds J.D. and Matthews M.A. (1997). Successful reintroduction of crayfish to Irish lake. Crayfish News 19 (2): 4-5. Sheppard R. (1993). Ireland's Wetland Wealth. I.W.C. Dublin.</p>	<p>A small to medium sized hard water marl lake in a fairly natural condition. A single sampling indicated a diverse Charophyte community including two marl lake indicators (Chara curta C. pendunculata). Water quality is generally good though likely to have received increased loading of nutrients from agricultural catchment in recent years. The site supported Austropotamobius pallipes prior to 1987 before eradication by crayfish fungus Aphanomyces astaci. A re-introduction programme has been successful and the species is now breeding again at the site. The site supports wintering waterfowl notably Aythya ferina which occur in nationally important numbers.</p>	<p>Situated in an area of Carboniferous limestone Lough Lene is a small to medium sized marl lake. Maximum length is 4.5 km and maximum depth is 20 m. Two small streams feed the lake and the main outflowing river is the River Deel which drains eastwards into the Boyne catchment. Lake is naturally oligotrophic though tends towards mesotrophic conditions at times. Shoreline mostly stony but areas of well developed marsh swamp and wet woodland vegetation occur in the sheltered areas at both the eastern and western ends. Situated in a fairly intensive agricultural catchment.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
002123	Ardmore Head SAC	Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. & Coveney J.A. (1992). The Second International Chough Survey : Ireland. Unpublished report IWC Dublin & RSPB Belfast. Herries-Davies G.L. & Stephens' N. (1978). The Geomorphology of the British Isles. Methuen & Co. London. McGrath D. & Walsh P.M. (1996). The breeding population of Kittiwakes on the south coast of Ireland 1985-1995. Irish Birds 5: 375-380. Walsh P.M. & McGrath D. (1988). Waterford Bird Report 1976-1986. Irish Wildbird Conservancy Waterford.	A small site though displaying fairly typical examples of the type of cliff and dry heath associated with the south coast of Ireland. Mostly of good quality though some damage from burning. Cliffs support seabird colonies notably <i>Rissa tridactyla</i> with 1.6% of national total. Also has <i>Pyrhocorax pyrrhocorax</i> an Annex I Birds Directive species.	Situated on a small headland just east of the village of Ardmore on the west Waterford coastline the site includes a range of habitats from open marine water to cliff heath and dry grassland. The cliffs are of moderate height (up to 40 m) continuous and well indented. They form part of the Ardmore Syncline. The dry heath is of the shrubby type dominated by <i>Calluna vulgaris</i> but with <i>Ulex gallii</i> and <i>Erica cinerea</i> . A footpath occurs along the top of the cliffs. In addition St. Declan's holy well and church is within the site.
002125	Anglesey Road SAC	N/A	The primary scientific interest of this site is the presence of a fairly good example of <i>Nardus</i> grassland. Species rich <i>Nardus</i> grassland is a rare habitat in Ireland.	A small site on the lower slopes of Mother Mountain. It consists mainly of grassland on mineral soil. Some of the grassland has been improved. The other main

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>component of the site is scrub along the river and lateral gullies. On steeper slopes a form of dry heath with Pteridium aquilinum invasion is found. A road runs through the site.</p>
002129	Murvey Machair SAC	<p>Bassett J.A. (1983). Report on the conservation of Irish coastal sites - machair in Ireland. Unpublished report to the Department of Fisheries and Forestry Dublin.          Bassett J.A. &amp; Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20.          Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar survey of Irish machair sites 1996. A report submitted to the National Parks &amp; Wildlife Service Dublin.          Geological Survey of Ireland (1993). Geology of Mayo. Department of Transport Energy and Communications Dublin.          Holyoak D.T. (1999). Report on Surveys of Petalophyllum ralfsii in Co. Mayo and Co. Galway Western Ireland 16-22 April 1999. Unpublished report to Dúchas The Heritage Service National Parks and Wildlife Dublin.          Leake B.E. and Tanner P.W.G. (1994). The Geology of the Dalradian and Associated Rocks of Connemara. The Geological Survey of Ireland Dublin.          Lockhart N. (1998). Report on Survey of Petalophyllum ralfsii at Murvey Machair Co. Galway. Unpublished report to Dúchas The Heritage Service National Parks and Wildlife Dublin.          van Groenendael J.M. Hochstenbach S.M.H. van Mansfeld M.J.M. Roozen A.J.M. (1979). The influence of the sea and of parent material on wetlands and blanket bog in west Connemara Ireland. M.Sc. Thesis Catholic University Nijmegen.</p>	<p>This site is important because of the presence of the priority Annex I habitat machair though the quality of the habitat has been reduced by erosion by the sea and intensive grazing. Associated with the machair is a recently discovered population of the Annex II liverwort Petalophyllum ralfsii. Eriophorum gracile a Red Data Book and legally protected plant species has been recorded recently from both Lough Namanawaun and Lough Murvey. These small but productive coastal lakes provide very good examples of wetland succession.</p>	<p>This small machair/wetland site is located in the south-west of Co. Galway 6 km west of Roundstone village. The underlying geology of the site consists of granite. Most of the bedrock however is masked by a cover of sand and thin organic soils. In addition to the machair interest the site contains areas of freshwater marsh freshwater lake grassland and heath. The site can be divided into two contrasting halves an exposed coastal half dominated by wind-blown sand</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				and a more sheltered half dominated by lakes and wetlands. The sheltered nature of the wetland areas and their close proximity to the coast is partially responsible for the extensive development of freshwater marsh vegetation along the margins of Loughs Namanawaun and Murvey.
002137	Lower River Suir SAC	<p>Bowman K.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency. Wexford. Central Fisheries Board 2001. Irish Salmon Catches 2000. <a href="http://www.cfb.ie/February">http://www.cfb.ie/February</a> 2001. Central Fisheries Board 2003. Conservation fish species. <a href="http://www.cfb.ie/January">http://www.cfb.ie/January</a> 2003. Central Fisheries Board 2003. Irish Salmon Catches 2001. <a href="http://www.cfb.ie/February">http://www.cfb.ie/February</a> 2003. Cross J. (1976). Conservation Report on Cahir Forest. (Unpublished Internal Report to The Forest Service Dublin). Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1 : Vascular Plants. Government Publications Stationery Office. Dublin. Delaney S. (1996). Waterfowl Counts in Ireland 1994/95: a summary of the first winter of the Irish Wetland Bird Survey (I-WeBS). Irish Birds 5:423-432. Delaney S. (1997). IWeBS Report 1995-96: results from the second winter of the Irish Wetland Bird Survey. IWC BirdWatch Ireland Dublin. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Doris Y. Clabby K.J. Lucey and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Garrett W. (2001). Old Woodlands Survey. Internal Report to Coillte Teoranta Dublin. Gibbons D.W. Reid J.B. and Chapman R.A. (1993). The New Atlas Of Breeding Birds in Britain and Ireland: 1988-</p>	This site contains a range of Annex I habitats including floating river vegetation eutrophic tall herbs alluvial forest old oak woods yew woods and salt meadows. The site is very important for the presence of a number of scarce and specialised Annex II animal species with particularly important populations of the fish species <i>Salmo salar</i> and <i>Alosa fallax fallax</i> . <i>Lutra lutra</i> is widespread on the system as is <i>Austropotamobius pallipes</i> . The site	The Suir River system flows through the counties of Tipperary Kilkenny and Waterford. The site consists of all of the freshwater stretches of the Suir immediately south of Thurles the tidal stretches as far as the confluence with the Barrow/Nore immediately east of Cheekpoint in Co. Waterford and many of the tributaries including the Clodiagh the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>1991. Poyser. London. Goodwillie R. (1974). The Scientific Value of the Oakwoods at Curraghmore (Portlaw Wood) Co. Waterford and Recommendations for their Management. A Report for Waterford Co. Council. Herries Davies G.L. and Stephens N. (1978). The Geomorphology of the British Isles: Ireland. Methuen and Co. Ltd. London. Horkan K. (1984). Suir. In: Whitton B.A. (ed). Ecology of European Rivers. Blackwell. Oxford. Hutchinson C. (1979). Ireland's Wetlands and their Birds. IWC. Dublin. Hutchinson C. (1994). Where to Watch Birds in Ireland. Gill and Macmillan. Dublin. Kelly D.L. and Iremonger S. F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and the Environment Proceedings of the Royal Irish Academy 97B: 1-32 King J.J. (2002). Investigations on shad species in Irish waters paper presented at Royal Irish Academy National Commission for Hydrobiology Annual Meeting 2002. Kurz I and Costello M.J. (1999). An outline of the Biology Distribution and Conservation of Lampreys in Ireland. Irish Wildlife Manuals No. 5. Dúchas Dublin. Lelek A. (1980). Threatened Freshwater Fish in Europe. Nature and Environment Series No. 18 Council of Europe. Strasbourg. Lucey J. and McGarrigle M.L. (1987). The Distribution of the Crayfish in Ireland. Irish Fisheries Investigations Series A (Freshwater) No. 29. Lucey J. (1993). The Distribution of Margaritifera margaritifera (L.) in Southern Irish Rivers and Streams. J. Conch. Lond. 34:301-310. Maitland P.S. (1972). Key to British Freshwater Fishes. Freshwater Biological Association Scientific Publication No. 27. Freshwater Biological Association. Ambleside. Maitland P.S. (1980). Review of the ecology of lampreys in northern Europe. Canadian Journal of Aquatic Sciences 37: 1944-1952. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Waterford. McGrath D. (1982.) The Birds of Co. Waterford. Merne O. (1986). Greylag Geese in Ireland. Irish Birds 3: 207-214. Moorkens E.A. (1995). Internal report on Freshwater Crayfish for National Parks and Wildlife. Moorkens E.A. (1995b). Mapping of Proposed SAC Area for Margaritifera margaritifera on the Mountain River Co. Carlow. An internal report for the National Parks and Wildlife. Moorkens E.A. (1996). Studies on the Biology and Ecology of Margaritifera in Ireland. PhD. Thesis. Trinity College Dublin. Moorkens E.A. Costello M.J. and Speight M.C.D. (1992). Status of the Freshwater Pearl Mussel Margaritifera margaritifera and M.M. Durrovensis in the Nore Barrow and Suir River tributaries South east Ireland. The Irish Naturalists' Journal 24: 127-131. Neill M. (1992). A Report on Water Quality in the Suir/Barrow/Nore Estuary 1991. Regional Water Laboratory Kilkenny. Neill M. (1994). River Water Quality in Counties Carlow Kilkenny Tipperary NR Tipperary SR Waterford and Wexford. 1994. A Report to the Management Committee of Regional Water Laboratory (South East). Environmental Protection Agency Kilkenny. Neill M. (1995a). River Water quality in Counties Carlow Kilkenny Tipperary NR Tipperary SR Waterford and Wexford. 1994. A</p>	<p>supports two Annex I priority and five non-priority Annex I habitats. There are four Annex I species of birds present within the site. The rare lichen Lobaria pulmonaria an ancient woodland indicator occurs at Portlaw Oak Woods within the site.</p>	<p>Lingaun Anner Nier Tar Aherlow and Miltreen. Much of the system flows through Carboniferous limestone though towards Waterford the geology changes to Old Red Sandstone and Ordovician bedrocks. The site supports a diverse range of habitats including marsh reedbeds wet and dry grasslands broad-leaved semi-natural woodlands salt marshes tidal rivers and estuarine channels. Substantial areas of improved grassland and arable lands are included for water quality reasons.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Report to the Management Committee of Regional Water Laboratory (South East). Environmental Protection Agency Kilkenny. O'Connor M. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 17 - Cahir Park Yew Woodland. Unpublished Internal Report prepared for Coillte Teo. O'Connor M. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 19 - Shanbally Yew Woodland. Unpublished Internal Report prepared for Coillte Teo. O'Connor M. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 24 - Shanbally Alluvial Woodland. Unpublished Internal Report prepared for Coillte Teo. O'Grady K. and Caffrey J. (1987). A fishery survey of the River Suir catchment. Central Fisheries Board Dublin. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London. Quigley D.T.G. (1996). First record of Smelt <i>Osmerus eperlanus</i> L. from the River Suir together with a review of Irish Records. Bulletin of the Irish Biogeographical Society No. 19. Quigley D.T.G. (1996). Status and conservation of euryhaline fish in Irish waters. Aquatic Conservation: Marine and Freshwater Ecosystems Vol. No. 6. pp 313-318. Quigley D.T.G. and Flannery K. (1996). Endangered freshwater fish in Ireland in Kirchhofer A. and Hefti D. (Eds) Conservation of Endangered Freshwater Fish in Europe Birkhauser Verlag Basel Switzerland. Reynolds J.D. (1982). Notes on the Irish Distribution of Freshwater Crayfish. Bulletin of the Irish Biogeographical Society No. 6. Reynolds J.D. (1998). Ireland's Freshwaters. The Marine Institute Dublin 1998. Scannell J.P. and Synnott D.M. (1987). Census Catalogue of the Flora of Ireland. Government Publications. The Stationery Office. Dublin. Seaward M.R.D. (1975). Some observations on the status of the lichen genus <i>Lobaria</i> in south east Ireland. Ir. Nat. J. 18 248-250. Sheppard R. (1993). Ireland's Wetland Wealth: The Birdlife of the Estuaries Lakes Coasts Rivers Bogs and Turloughs of Ireland. Irish Wildbird Conservancy. Three Rivers Project (1999). Review of Fisheries Survey Information from the River Suir (1983-1995). Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO. Belfast. Young R. (1972). A Preliminary Report on Areas of Ecological and Geological Interest in County Kilkenny. Unpublished report An Foras Forbartha Dublin. Young R. (1972). A Report on Areas of Scientific Interest in County Waterford. Unpublished report An Foras Forbartha Dublin.</p>		
002144	Newport River SAC	<p>Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency. Flanagan P.J. and Larkin P.M. (1992). Water Quality in Ireland 1987-1990. Part 2. River Quality Data. Environmental Research Unit Dublin. Moorkens E.A. (1995). Mapping of Proposed SAC Area for <i>Margaritifera margaritifera</i> on the Newport River County Mayo. Unpublished</p>	<p>This is a very important site for <i>Margaritifera margaritifera</i> with populations occurring in suitable habitat throughout the Newport River. The site is also</p>	<p>The Newport River flows from Lough Beltra to Newport town. Part of the main tributary the Skerdagh River is included as is the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		report to the National Parks and Wildlife Service Dublin.O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London.	important for the conservation of Salmo salar being a notable spring fishery with good spawning habitats. Habitat conditions and water quality for both of these species is currently good though declining rod and line catches and disappointing spawning in the last few years may reflect negative impacts of afforestation and overgrazing in the catchment. The site also has important sea trout Salmo trutta stocks. Lutra lutra is present on the system as is Alcedo atthis.	main river which flows into Lough Beltra the Crumpaun/Boghad oon. The rivers flow through a range of habitats mainly wet grassland which is improved to varying extents but also wet heath blanket bog scrub and some deciduous woodland. Coniferous plantations occur close to the edges of the watercourses in some parts. Lough Beltra is a medium sized lake with several islands.
002164	Lough Golagh and Breesy Hill SAC	Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report IWC Dublin and RSPB Belfast. Whilde A. Cotton D.C.F. & Shepperd R. (1993). A repeat survey of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.	The site supports a fairly large area of blanket bog though it is only of moderate quality owing mainly to peat cutting. The islands on Lough Golagh support a small colony of Sterna hirundo. Other species of note are Meles meles Rana temporaria and Lagopus lagopus.	This is a moderately sized upland site with blanket bog and associated habitats such as fen swamp and wet grassland. The bog is dominated by Molinia caerulea. Much of the site is underlain by acid gneiss. At the north of the site much of the lakes are underlain by both gneiss and

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				limestone resulting in an interesting and diverse flora. Other habitats found at the site include rocky outcrops on the slopes of Breesy Hill and a small area of broad-leaved woodland in the western part of the site. Many trackways are present in the site.
002185	Slieve Mish Mountains SAC	Atlas 2000 - BSBI field cards from 1984 to 1998. Berrow S.D. Mackie K.L. O' Sullivan O.L. Shepherd K.B. Mellon C. & Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Curtis T.G.F. & McGough H.N. (1988). The Irish Red Data Book: 1 Vascular Plants. Wildlife Service Dublin. Goodwillie R. (1972). A preliminary report on areas of ecological and geological interest in Co. Kerry. An Foras Forbartha Dublin. Hart H.C. (1882). Notes on Mountain Plants in Kerry. Journal of Botany 20: 174-176. Ní Dhúill E. Smyth N. Waldren S. & Lynn D. (2015). Monitoring methods for the Killarney Fern ( <i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. Scully R.W. (1916). Flora of County Kerry. Hodges Figgis & Co. Dublin. Scully R.W. (1889). Further Notes on the Kerry Flora. Journal of Botany. 27: 85-92. Stewart N. (c1993). Bryophyte Report. Unpublished report to NPWS Dublin. Webb D.A. Parnell J. & Doogue D. (1996). An Irish Flora. Dundalgan Press Dundalk. Whilde A. (1993). Threatened mammals birds amphibians and fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO Belfast.	The site contains a number of habitats which are listed in the EU Habitats Directive. Over-grazing is widespread and has contributed to the degradation of much of the wet heath oligotrophic lakes and blanket bog. However extensive areas of dry heath of reasonable quality remain within the site along with alpine/sub-alpine heath on the highest ridges. The cliff vegetation is of good quality and is unaffected by the grazing. The site contains an important population of the Annex II fern <i>Trichomanes speciosum</i> .	The Slieve Mish Mountain Range dominates and forms the backbone of the eastern reaches of the Dingle peninsula from the outskirts of Tralee town in the east to the village of Annascaul in the west. This mountain range is composed of a ridge of predominantly Old Red Sandstone of the main series which abuts the Dingle Beds' sandstones in the north west. Silurian and Ordovician

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			<p>One bird species listed in Annex I of the EU Birds Directive also occurs within the site namely: Falco peregrinus. Two Irish Red Data Book plants also occur namely: Sibthorpia europaea and Stachys officinalis.</p>	<p>rocks form a high ridge to the north east of Inch and the mountains are flanked by Lower Avonian Shales and the Kiltorcan Beds (of Old Red Sandstone) to the north east and South. The site is intersected particularly on its northern flank by several steep sided glaciated river valleys e.g. Derrymore Glen the head of which features a classical corrie lake which is surrounded by steep cliffs. Steep cliffs and high rocky ridges are features of the site above 650m e.g. the Caherconree Baurtregaum Gormagh ridge. Baurtregaum is the highest peak within the site at 851m. The dominant habitats of this site are wet heath/dry heath/acid grass-heath mosaics on the lower slopes of</p>

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				<p>the mountains dry heaths and upland acid-grasslands on the steeper slopes and alpine heath/scree/dry heath mosaics on the higher mountain ridges and plateaus above 650m. Low plateaus (in the eastern portion of the site to the north of Knockawaddra) and etch plains (to the north west of the site i.e. south west of Camp Village) are dominated by mosaics of wet heath and blanket bog. Other habitats of importance but which cover very small areas within the site include upland oligotrophic lakes cliffs and deciduous woodland.</p>
002201	Derragh Bog SAC	<p>Cross J. &amp; Lynn D. (2013). Results of a monitoring survey of bog woodland. Irish Wildlife Manuals No. 69. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin Ireland. Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/Department%20of%20Arts%20Heritage%20and%20Gaeltacht%20(2014).%20Review%20of%20Raised%20Bog%20Natural%20Heritage%20Area%20Network">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/Department of Arts Heritage and Gaeltacht (2014). Review of Raised Bog Natural Heritage Area Network</a>. This is</p>	<p>This Coillte owned site was never afforested and the main conservation problem for the bog was drying out due to drainage associated with peat cutting in the past</p>	<p>Derragh Bog SAC 002201 consists of 37.62 ha of raised bog (8.33 ha of high bog and 29.29 ha of cutover). It includes most of the raised</p>

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		<p>available at:  <a href="http://www.npws.ie/sites/default/files/general/Final%20NHA%20Review%2017%20January%202014.pdf">http://www.npws.ie/sites/default/files/general/Final%20NHA%20Review%2017%20January%202014.pdf</a>Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project: A Continuation of the Investigation into the Conservation and Restoration of Selected Raised Bog sites in Ireland. Unpublished report NPWS Dublin.Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin.Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin.Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at:  <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a>The Interpretation Manual of European Union Habitats – EUR 27 (2007)  <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a>Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at:  <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a>NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin.NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatsbosbeheer The Netherlands.Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland:  <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>and possibly the arterial drainage of the River Inny. The drainage also has facilitated the spread of birch and the invasive conifer Lodgepole Pine onto the bog. The main drains associated with the turf cutting were blocked in 2013/14 and the Lodgepole Pine (and birch where necessary) were controlled in 2014 as part of an E.U. funded Coillte LIFE project Demonstrating Best Practice in Raised Bog Restoration in Ireland. The objective of that project was to raise the water table and restore Active Raised Bog and Bog Woodland on the site. With the blocking of drains the cutover bog appears to be re-wetting water-levels in some areas now remain high throughout the year and limited areas of wet flats and hollows are developing. As a consequence raised bog vegetation is improving in quality and bog mosses (Sphagnum spp.) including the rare Sphagnum pulchrum are regenerating. However</p>	<p>bog system known as Derragh Bog which occurs within Lough Kinale and Derragh Lough NHA (000985). The western and southern boundary of the site is contiguous with the boundary of Lough Kinale and Derragh Lough SPA (site code 004061).This bog is an example of a floodplain raised bog which borders two lakes Lough Kinale to the west and Derragh Lough to the south the River Inny to the east and wet agricultural grassland to the north. There is a full transition from the high bog to cutover bog to semi-natural birch woodland fen swamp and lake. The underlying geology of both lakes and bog is carboniferous limestone. There is a small (0.19ha) example of immature Bog</p>



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			<p>the majority of the recently cutover areas have not yet developed vegetation characteristic of the wet bog conditions. This situation is expected to improve over time as the bog surface becomes wetter.</p> <p>Derragh Bog SAC is a site of conservation significance comprising raised bog a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Although Derragh Bog is a small example of a raised bog its development in close association with the lakes and their floodplains and the relatively intact wetland transition between the two systems make it unusual in a western European context. In addition its location towards the north-eastern extreme of the range of raised bogs in Ireland and its close proximity to Moneybeg and Clare Island cSAC (002340) increases its ecological importance. The site is being actively</p>	<p>Woodland habitat that is part of a mosaic with non-typical raised bog vegetation on the eastern cutover of the SAC. It consist of a Downy birch (<i>Betula pubescens</i>) dominated wooded flush and invasive Lodgepole Pine (<i>Pinus contorta</i>) on old cutover with deep peat. An area of 0.64 ha of Degraded Raised Bog is expected to develop into Active Raised Bog in three locations on the old cutover in the long term. The area of the high bog has vegetation typical of a relative dry Midland raised bog. Much of the recent cutover area is drier with a low bog moss cover and there is some encroaching Downy Birch and Lodgepole Pine seedlings. In the older cutover there is an undulating surface with a</p>

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			<p>managed for conservation as part of the Coillte E.U. LIFE Project. Ireland has a high proportion of the total E.U. resource of Atlantic raised bog (over 50%) and so has a special responsibility for its conservation at an international level.</p>	<p>complete vegetation cover and wet to very wet depressions. The cutover bog generally grades down to Birch (<i>Betula</i> spp.) woodland with Willow (<i>Salix</i> spp.) Common Gorse (<i>Ulex europaeus</i>) and Bracken (<i>Pteridium aquilinum</i>) along the bog margins which border the River Inny and the lake shores. Along the lake shores the bog grades into rich fen and swamp habitats with alder willow and wet grassland with Purple Moor-grass communities. These almost intact wetland transitions between raised bogs and lakes are extremely rare in Western Europe.</p>
002245	Old Farm Buildings Ballymacrogan SAC	O'Sullivan P. (1994). Bats in Ireland : The Irish Naturalists' Journal. Special Zoological Supplement. 21 pp. McGuire C. (1998). Survey of lesser horseshoe bats <i>Rhinolophus hipposideros</i> (Bechstein) and other bat species in north Co. Clare Ireland. The Irish Naturalists' Journal 26: 43-50.	<p>This site is a maternity colony for <i>Rhinolophus hipposideros</i>. Approximately 80 individual bats were</p>	<p>Site comprises a series of stone outbuildings. Lesser horseshoe bats (<i>Rhinolophus</i></p>

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			<p>counted on emergence in June 2000 although numbers have exceeded 100 (threshold for international importance) in the past. It lies within the core area of the distribution of the species in Ireland. Long-term conservation prospects are excellent.</p>	<p>hipposideros) were originally found in an outbuilding which was in a derelict condition. An adjacent building was subsequently restored by a conservation organisation (Vincent Wildlife Trust) to provide better roosting conditions for the bats. Since completion the bats have successfully moved into the restored building. The bats roost in the attic/loft space. The habitat surrounding the site provides poor quality foraging for the bats but there are numerous commuting routes (along hedgerows and stone walls) to feeding areas elsewhere.</p>
002247	Toonagh Estate SAC	<p>O'Sullivan P. (1994). Bats in Ireland : The Irish Naturalists' Journal. Special Zoological Supplement. 21 pp. McGuire C. (1998). Survey of lesser horseshoe bats <i>Rhinolophus hipposideros</i> (Bechstein) and other bat species in north Co. Clare Ireland. The Irish Naturalists' Journal 26: 43-50.</p>	<p>This site is a maternity colony for <i>Rhinolophus hipposideros</i>. Over 90 individual bats were counted in August 1999.</p>	<p>This site is situated c.5 km north-west of Ennis in Co.Clare. A stable provides a nursery roost for</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			It lies within the core area of the distribution of the species in Ireland.	lesser horseshoe bats ( <i>Rhinolophus hipposideros</i> ). The bats utilise the roof space of the building. Conditions have been made more suitable by measures to temporarily darken the roost during summer (carried out by Dúchas). Surrounding habitat is estate parkland with improved pasture and mature trees. This provides good foraging habitat for the bats and is included in the site.
002249	The Murrough Wetlands SAC	Adamson J. and O'Sullivan O. (2004). Blackditch and Murrough Wetlands Management Plan 2003-2007. Unpublished Report Birdwatch Ireland.An Foras Forbartha (1976). AFF County Report for Co. Wicklow.Birdwatch Ireland (2005). Restoration & management of the Murrough wetlands for Annex 1 Habitats and Waterbirds. Interim Technical Report 2005. LIFE2003NAT/IRL/000107. Report to European Commission.Blackith R. and Blackith R. (1987). Studies on the Murrough Co. Wicklow Ireland 2: The Flesh Flies (Diptera: Sarcophaginae). Bulletin of the Irish Biogeographical Society 10:35-41.Blackith R.M. Blackith R.E. and Speight M.C.D. (1988). Studies on the Murrough Co. Wicklow Ireland 3: Carrion Beetles (Coleoptera). Bulletin of the Irish Biogeographical Society 11:28-34.Blackith R.M. Blackith R.E. Speight M.C.D. and deCoursey Williams M (1991). A first list of Diptera from the Murrough Co. Wicklow Ireland including 663 species and 140 brand new records. Bulletin of the Irish Biogeographical Society 14:185-253.Brunker J.P. (1950). Flora of the County Wicklow. Dun Dealgan Press Dundalk.Cranswick P.A. Bowler J.K. Einarsson O. Gardarsson A. McElwaine J.G. Merne O.J. Rees E.C. and Wells J.H. (1996). Numbers of Whooper Swans <i>Cygnus cygnus</i> in Iceland Ireland and Britain in January 1995: results of the	This is the most extensive series of wetland habitats on the east coast with six Annex I habitats occurring. Formerly the area of wetland was more extensive but the integrity of the site has been diminished through drainage agricultural improvement and levelling of sand hills. The railway line has influenced the development of the	The site comprises a series of coastal habitats and brackish to freshwater marshes stretching for about 15km. Drainage directly to the sea is impeded along most of the site by a shingle ridge along which runs a railway line. There are two main outlets to the sea and there is

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>International Whooper Swan Census. Wildfowl 47:23-36.Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Government Publications Stationery Office. Dublin.Curtis T. (2002a). Full report on the vegetation flora and conservation value of the Hopkin's property at Blackditch Newcastle Co. Wicklow. Unpublished Report to Birdwatch Ireland July 2002.Curtis T. (2002b). Full report on the vegetation flora and conservation value of the O'Connor property at Blackditch Newcastle Co. Wicklow. Unpublished Report to Birdwatch Ireland September 2002.Delany S. (1996). Waterfowl Counts in Ireland 1994/95: a summary of the first winter of the Irish Wetlands Bird Survey (I-WeBS). Irish Birds 5:423-432.Delany S. (1997). IWeBS Report 1995-96: Results from the second winter of the Irish Wetlands Bird Survey. IWC BirdWatch Ireland Dublin.Gibbons D.W. Reid J.B. and Chapman R.A. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. Poyser London.Hannon C. (1997). The 1995 All Ireland Tern Survey. Unpublished Report. BirdWatch Ireland Dublin.Hutchinson C. (1979). Ireland's Wetlands and their Birds. IWC Dublin.Hutchinson C. (1994). Where to Watch Birds in Ireland. Gill and Macmillan Dublin.Lack P. (1986). The Atlas of Wintering Birds in Britain and Ireland. The Bath Press. Avon.McMillan A. (1988). The wintering birds of Kilcoole/Newcastle Marshes 1987/88. In Cooney et al. Irish East Coast Bird Report 1987. Dublin.McNally A. (1987). Studies on the Murrough Co. Wicklow Ireland 1: The chemistry and phytoplankton of pools. Bulletin of the Irish Biogeographical Society 10:28-34.Salmon D.G. and Black J.M. (1986). The January 1986 Whooper Swan Census in Britain Ireland and Iceland. Wildfowl 37:172-174.Scannell M.J.P. and Synnott D.M. (1987). Census Catalogue of the Flora of Ireland. Government Publications. The Stationery Office Dublin.Sharrock J.T.R. (1976). The Atlas of Breeding Birds in Britain and Ireland. Poyser Berkhamstead.Sheppard R. (1993). Ireland's Wetland Wealth: the Birdlife of the Estuaries Lakes Coasts Rivers Bogs and Turloughs of Ireland. Irish Wildbird ConservancyDublin.Smiddy P. and Duffy B. (1997). Little Egret Egretta garzetta: a new breeding bird for Ireland. Irish Birds 6:55-56.Smiddy P. and O'Mahony B. (1997). The status of the Reed Warbler Acrocephalus scirpaceus in Ireland. Irish Birds 6:23-38.Waters R.J. Cranswick P.A. Evans J. and Politt M.S. (1996). The Wetland Bird Survey 1994-1995: Wildfowl and Wader Counts. BTO/WWT/RSPB/JNCC Slimbridge.Webb D.A. Parnell J. and Doogue D. (1996). An Irish Flora. Dundalgan Press. Dundalk. Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO Belfast.</p>	<p>entire system. It is an important site for winter wildfowl and supports internationally important nos of Branta bernicla hrota as well as nationally important numbers of several species. Sterna albifrons (Annex I Birds Directive) breeds in the site. Many other Annex I species are also present. The site is also of importance for the populations of rare invertebrate and plant species that is supports.</p>	<p>seepage into the marshes under the shingle ridge and where breaches occur. Freshwater drains into the site via the Vartry River and many drains. Freshwater springs provide a permanent source of water for a complex fen system. Other habitats present on the site include salt marsh tidal reed bed freshwater reedswamp wet grassland wet woodland mudflat dry heath and dry grassland. Parts of the site are farmed.</p>
002252	Thomastown Quarry SAC	N/A	<p>The site supports a good example of petrifying springs with several diagnostic bryophyte species. The site is also of</p>	<p>The site comprises a disused limestone quarry just north of the village of Thomastown. Bare</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>note for its general diversity of calcareous habitats over a small area. <i>Erigeron acer</i> a Red Data Book species has been recorded. A limited survey of aquatic invertebrates recorded the presence of two rare species for Ireland <i>Haliplus variegatus</i> and <i>Hesperocorixa moesta</i>. The site also supports <i>Rana temporaria</i> and <i>Triturus vulgaris</i>.</p>	<p>rock still accounts for a significant area of the site but most of it now supports wetland and grassland habitats. Water appears to flow eastwards through the site and there are several permanent ponds. Alkaline fen occurs in association with the springs and ponds as does some wet grassland. These wetland habitats are rich in bryophytes. Dry calcareous grassland generally species-rich is fairly widespread.</p>
002268	Achill Head SAC	<p>Cabot D. (1965). Cuvier's whale <i>Ziphius cavirostris</i> on Achill Island Co. Mayo. Irish Naturalists' Journal 15: 72-73. Cabot D. (1967). A sperm whale <i>Physeter catodon</i> (L.) on Achill Island Co. Mayo March 1967. Irish Naturalists' Journal 15: 326. Hanna H. (1898). Impressions of Achill: seaweeds. Irish Naturalist 7: 142-143. Hanna H. (1899). <i>Chaetomorpha crassa</i> at Achill. Irish Naturalist 8: 51. Hinch J. De W. (1911). A high level deposit of marine shells in Curraun Achill Co. Mayo. Irish Naturalist. 20: 189-193. Massy A.L. (1904). Marine Mollusca of Achill. Irish Naturalist 13: 44. Nichols A.R. (1914). Long-finned Tunny on shore of Achill Island Co. Mayo. Irish Naturalist 23: 227. Nunn J. (1995). Recording Mollusca in Ireland: Achill Island Co. Mayo. Conchologists' Newsletter 7: 441-445. Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Quigley D.T.G. (1985). Specimens of trigger fish <i>Balistes carolinensis</i> Gmelin 1789 (<i>B. capriscus</i> Gmelin) from Achill Island Co Mayo and a review of the Irish records. Irish Naturalists'</p>	<p>The Achill Head site has good examples of extremely exposed reef communities. The littoral reef contains populations of the purple sea-urchin <i>Paracentrotus lividus</i> which are vulnerable to over-exploitation. The infralittoral reef contains an exceptional <i>Alaria esculenta</i> community. There are important sponge communities in</p>	<p>Achill Head is the most westerly point of Achill Island on the north-west coast of Ireland. The site comprises the shallow waters extending from Dooega Head north-westwards to Achill Head and north-eastwards to Gubnahinneora Point. Bedrock is</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Journal 21: 474-476. Quigley D.T.G. (1986). A specimen of the barrel-fish <i>Hyperoglyphe perciforma</i> (Mitchill 1818) (<i>Lirus perciformis</i> Regan 1902) from Achill Island Co Mayo. Irish Naturalists' Journal 22: 77-78. Stephens J. (1921). Sponges of the coast of Ireland 2. The Tetraxonida (concluded) Department of Agriculture Ireland Fisheries Scientific Investigations 1920 II: 1-75. Dublin. Tatlow E.M. &amp; Praeger R.L. (1898). Impressions of Achill: marine Mollusca. Irish Naturalist 7: 139-140. Went A.E.J. (1951). Movements of salmon around Ireland. I. From Achill Co. Mayo (1948 to 1950). Proceedings of the Royal Irish Academy 54B: 169-201.</p>	<p>the circalittoral reef. Achill Head is the only pSAC where one sponge species <i>Halicnemis verticillata</i> is present (though it also occurs in outer Galway Bay). The brachiopod <i>Neocrania anomala</i> is frequent at one circalittoral reef. It is only otherwise known to occur in abundance in the Kenmare River in the south-west of the country. Exposed shallow bays with small though significant examples of intertidal sand flats are also present and add habitat diversity to the site.</p>	<p>metamorphic schist and gneiss alternating with metamorphic quartzite. High cliffs (650m) on the north-west of the island drop vertically into the sea forming steep sublittoral reefs. Landwards they sweep down to two exposed bays Keem Bay and Keel Bay that are composed of sediments.</p>
002274	Wicklow Reef SAC	<p>Costello M.J. Holomes J.M.C. McGrath D. &amp; Myers A.A. (1990). A review and catalogue of the Amphipoda (Crustacea) in Ireland. Irish Fisheries Investigations 33 (189) 1 - 70. Pleijel F. (1993). Polychaeta Phyllodocidae. Marine Invertebrates of Scandinavia 8. Oslo. Scandinavian University Press. Wyse-Jackson P.N. (1991). Distribution of Irish marine Bryozoa together with biogeographical notes relating to the chief researchers in the group. Bulletin of the Irish Biogeographical Society 14 129-183</p>	<p>This biogenic reef is well developed with sections of reef up to 0.6 m thick. It is the only documented example in Ireland making this a site of very high importance.</p>	<p>The site is located on the mid-east coast of Ireland and is just offshore from Wicklow Head Co. Wicklow. There are strong tidal streams in the area. The substrate is a mixture of cobbles bedrock and sand that is subject to the strong tidal streams of the east coast. The reef is a biogenic reef constructed by the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				polychaete Sabellaria alveolata.
002296	Williamstown Turloughs SAC	Environmental Consultancy Services (1997). Williamstown Environmental Study. Report prepared for Office of Public Works Dublin. Goodwillie R. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service O.P.W. Dublin.	The site has been ranked as the 11th most important turlough complex in Ireland. It is notable for the high diversity of vegetation communities with 14 true turlough plant communities. Rorippa islandica a Red Data Book species and a characteristic turlough species occurs. The site supports a good diversity of wintering waterfowl including Pluvialis apricaria though numbers of most species are relatively low. The site also supports a range of breeding waders notably Vanellus vanellus and Gallinago gallinago. Drainage works carried out in 1996 aimed at reducing the flood levels could have significant long-term adverse impacts on the ecological interests of the site.	The site consists of a complex of three separate turlough type wetlands: Gortduff Polleagh Lough and Curragh Lough. The turloughs are connected to the same water body with water flow in a westerly direction. The contributing catchment is small and flood levels only rise after extended periods of heavy rain. The area is underlain by carboniferous limestone. An esker ridge runs in a N-S direction along the eastern margin of the site and a further ridge lies to the north-west of the site. Other habitats included in the site are cutover bog wet grassland and dry grassland. Areas of improved grassland are included for water quality reasons.



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				Much of the site is grazed.
002299	River Boyne and River Blackwater SAC	<p>Bracken J. J. and O'Grady M. E. (1992). A review of freshwater fisheries research in Ireland. In Feehan J. (ed.) Environment and Development in Ireland pp 499-510. The Environmental Institute UCD Dublin. Central Fisheries Board 2001. Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>; February 2001. Central Fisheries Board 2002. Irish Salmon Catches. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>; January 2003. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Doris Y. Clabby K.J. Lucey and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Fahy E. (1971). A Preliminary Report on Areas of Scientific Interest in County Louth. An Foras Forbartha Dublin. Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Cavan. An Foras Forbartha Dublin. Goodwillie R. (1971). A Preliminary Report on Areas of Scientific Interest in County Westmeath. An Foras Forbartha Dublin. Goodwillie R. (1975). The Ecological Importance of Lough Shesk Co. Meath. Unpublished Report. An Foras Forbartha Dublin. Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and the Environment Proceedings of the Royal Irish Academy 97B: 1-32. King Dr Jimmy personal Communication to EcoServe 2003. Kurz I. and Costello M.J. (1999). An outline of the biology distribution and conservation of lampreys in Ireland. Irish Wildlife Manuals No. 5. 27pp. Dublin. Dúchas - The Heritage Service. Lenehan L.J. (1996). Wintering waterfowl at Newgrange Co. Meath. Irish East Coast Bird Report 1995. 75-78. Limnological Unit U.C.D. (1997). Limnological Investigations in the River Boyne at Bective / Ballinter. Unpublished Report for P.H. McCarthy &amp; Partners Dublin. Maitland P.S. (1980). Review of the ecology of lampreys in northern Europe. Canadian Journal of Aquatic Sciences 37: 1944 - 1952. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. &amp; Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. O'Grady M. (1985). A Post Drainage Fishery Rehabilitation Programme for the Stonyford River and a Long Term Management Plan for this Resource. Central Fisheries Board Dublin. O'Grady M. (1991). Rehabilitation of Salmonid Habitats in a Drained Irish River System. In: Steer M.W. (ed.) Irish Rivers: Biology and Management. Royal Irish Academy Dublin. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin. Reynolds J.D. (1998). Ireland's Freshwaters.</p>	The main channel of the Boyne contains a good example of alluvial woodland of the <i>Salicetum albo-fragilis</i> type which has developed on three alluvium islands. Alkaline fen vegetation is well represented at Lough Shesk where there is a very fine example of habitat succession from open water to raised bog. The Boyne and its tributaries is one of Ireland's premier game fisheries and offers a wide range of angling from fishing for spring salmon and grilse to sea trout fishing and extensive brown trout fishing. The site is one of the most important in eastern Ireland for <i>Salmo salar</i> and has very extensive spawning grounds. The site also has an important population of <i>Lampetra fluviatilis</i> though the distribution or abundance of this species is not well known. <i>Lutra lutra</i> is	This site comprises most of the freshwater element of the River Boyne from upriver of the Boyne Aqueduct at Drogheda the Blackwater River as far as Lough Ramor and the principal Boyne tributaries notably the Deel Stoneyford and Tremblestown Rivers. This system drains a considerable area of Cos. Meath and Westmeath and smaller areas of Cavan and Louth. The underlying geology is Carboniferous Limestone for the most part with areas of Upper Lower and Middle well represented. In the vicinity of Kells Silurian Quartzite is present while close to Trim are Carboniferous Shales and Sandstones. The

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>The Marine Institute Dublin 1998. Ryan J. (1986). Report on Lough Shesk Boyne Drainage Scheme. Internal Report. Forest and Wildlife Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Synnott D.M. (1987). <i>Juncus compressus</i> Jacq. in Ireland. Irish Naturalists' Journal 16: 92-93. The Three Rivers Project 2003. River Boyne Statistics. <a href="http://www.threeriversproject.ie">http://www.threeriversproject.ie</a> Young R. (1971). A Preliminary Report on Areas of Scientific Interest in County Meath. An Foras Forbartha Dublin.</p>	<p>widespread throughout the site. Some of the grassland areas along the Boyne and Blackwater are used by a nationally important winter flock of <i>Cygnus cygnus</i>. Several Red Data Book plants occur within the site with <i>Pyrola rotundifolia</i> <i>Poa palustris</i> and <i>Juncus compressus</i>. Also occurring are a number of Red Data Book animals notably <i>Meles meles</i> <i>Martes martes</i> and <i>Rana temporaria</i>. The River Boyne is a designated Salmonid Water under the EU Freshwater Fish Directive.</p>	<p>rivers flow through a landscape dominated by intensive agriculture mostly of improved grassland but also cereals. Much of the river channels were subject to arterial drainage schemes in the past. Natural flood-plains now exist along only limited stretches of river though often there is a fringe of reed swamp freshwater marsh wet grassland or deciduous wet woodland. Along some parts notably between Drogheda and Slane are stands of tall mature mixed woodland. Substantial areas of improved grassland and arable land are included in site for water quality reasons. There are many medium to large sized towns adjacent to but not within the site.</p>

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002306	Carlingford Shore SAC	<p>Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Farrell L. and Randall R.E. (1992). The distribution of <i>Mertensia maritima</i> (L.) Gray oyster plant in Ireland. Irish Naturalists' Journal 24: 135-140. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in: M.F. Heath and M.I. Evans (eds). Important Bird Areas in Europe: Priority sites for conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>The site has very good examples of annual driftline vegetation and perennial vegetation of stony banks and shingle. These habitats extend as a strip of varying width for up to 6 km from Cooley Point to Greenore and are mostly of good quality. The Red Data Book and legally protected <i>Mertensia maritima</i> occurs here at the southern limit of its known Irish distribution. The shoreline habitats support wintering waterfowl in moderate numbers.</p>	<p>The site comprises the entire southern shoreline of Carlingford Lough and continues to the southern part of the Carlingford peninsula. While the principal conservation interests lie in the shingle and sandy shoreline habitats the site also has intertidal sand and mud flats patches of salt marsh some areas of dry grassland and an area of mixed deciduous woodland. Tourism is an important activity in the area.</p>
002313	Ballymore Fen SAC	N/A	<p>The site supports a good example of transition mire vegetation that occurs in association with alkaline fen and incipient raised bog. It has many of the expected plant species for the habitat including the locally rare <i>Carex limosa</i> and an excellent diversity of bryophytes. The site supports the Red Data Book species <i>Pyrola</i></p>	<p>Ballymore Fen occupies a relatively wide and deep depression in drift deposits that are underlain by Carboniferous Limestone. The site is fed on both the east and west by springs and there are small streams flowing from the north-east and</p>

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			<p>rotundifolia and has the legally protected amphibian species <i>Rana temporaria</i> and <i>Triturus vulgaris</i> as well as a diverse invertebrate fauna with at least five <i>Odonta</i> species. Quality of habitats is good and the site is in a fairly natural state.</p>	<p>south of the site. The area may at one stage have been a lake of some size but at present is occupied by a transition mire complex with the characteristic lagg fen at the edges. In the wetter areas towards the centre and south of the site the vegetation is characterised by a scraw. A mosaic of fen and incipient bog vegetation occurs elsewhere with transition mire vegetation present as part of this. Scrub dominated by <i>Salix</i> spp. is invading the drier areas. The site includes fields of semi-improved grassland which surround the wetland - much of this is species-rich calcareous grassland that is lightly grazed by cattle.</p>
002319	Kilkishen House SAC	O' Mahony C. (1999). Lesser Horseshoe Bat Roost Survey South Clare Ireland 1998/99. Internal report to The Vincent Wildlife Trust unpublished.O'Sullivan P. (1994). Bats in	An internationally important hibernaculum	The site consists of a two-storey over-

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		Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp.	of <i>Rhinolophus hipposideros</i> is present in the basement of the house. This winter roost is in good condition and provides stable and undisturbed hibernating conditions for the bats. A summer roosting site in the roof is in poor condition and is vulnerable to further dereliction. Foraging areas have not yet been established. The site also supports a population of <i>Myotis nattereri</i> .	basement mansion which is currently disused and a surrounding copse of woodland. It is surrounded by parkland with mature trees. Extensive areas of woodland and a small lake are found within 500 m of the site.
002324	Glendine Wood SAC	Green P. (2001) Recording in Co. Waterford (V.C. H6) in 2000. In Rushden B.S. (ed.). Irish Botanical News 11: April 2001. BSBI.Ní Dhúill E. Smyth N. Waldren S. & Lynn D. (2015). Monitoring methods for the Killarney Fern ( <i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland.RPS Ireland (2002). Survey of the Occurrence and the Extent of the Killarney Fern ' <i>Trichomanes speciosum</i> ' in the Glendine River Valley. Unpublished report prepares by RPS Environmental Sciences Ltd. Cork.	This is an extremely important site for <i>Trichomanes speciosum</i> with 22 sporophyte gametophyte and mixed generation colonies currently known. Colony size is on average greater than is found elsewhere with the result that in comparison to other sites a very large area is occupied by the species. A very large number of sporophyte fronds of all types (sterile fertile juvenile young unfurling) have been recorded. Habitat is a classic deep ravine which is well-wooded. Site also has	Site lies 3-4 km north-east of Dungarvan in Co. Waterford. It consists of a steep-sided narrow ravine cut through a low ridge of Old Red Sandstone by the Glendine River. Woodland covers the valley sides and the land to the east and west of the mouth of the ravine. The woodland within the ravine is mostly mixed deciduous dominated by <i>Fraxinus excelsior</i>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Meles meles a Red Data Book species and the river supports Cinclus cinclus.	and Corylus avellana. The field layer is rich and varied with ferns forming a distinctive feature. Above the ravine the woodland is dominated by dense stands of the introduced Prunus laurocerasus. Small cliffs are exposed in part of the ravine.
002331	Mouds Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas The Heritage Service Dublin. Goodwillie R. (1984). Evaluation of Four Raised Bogs (Mouds Carbury Prosperous and Ballina) for Conservation. A report to Kildare County Council. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. O'Connell C. and Mooney E. (1983). A Survey to Locate Raised Bogs of Scientific Interest. Unpublished report Forest and Wildlife Service Dublin.	Mouds Bog is the largest relatively intact raised bog in Co. Kildare and thus is the most easterly site remaining in the country. Although there is extensive industrial peat extraction in the west of the site there is still a fairly large area of wet bog surface present including some active raised bog with a small soak system. The degraded bog is typical of the habitat but displays some diversity by way of a number of dry flushes. Rhynchosporion vegetation is well represented in the wetter areas and includes Drosera anglica	Mouds Bog is a large raised bog complex located 3 km north-west of Newbridge Co. Kildare. The bog occurs as two basins separated by a central mineral ridge. Approximately half the site comprises uncut high bog though this is predominantly degraded bog. Much of the western end of the site is affected by industrial extraction of peat. Old cutover surrounds the remainder of the high bog though

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			a relatively scarce species in Co. Kildare. The site contains one of the few Irish populations of the introduced insectivorous plant species <i>Sarracenia purpurea</i> . <i>Lagopus lagopus</i> a Red listed species in Ireland has been recorded.	some of this has been reclaimed for pasture grassland. Part of the cutover has been invaded by <i>Betula pubescens</i> scrub.
002337	Crosswood Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Unpublished report Forest and Wildlife Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Westmeath. Unpublished report An Foras Forbartha Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.	Although there is a relatively large amount of disturbance along the margins of the high bog the high bog supports a relatively large area of wet active raised bog. This is characterised by a high <i>Sphagnum</i> cover which includes an abundance of the rare species <i>S. pulchrum</i> and <i>S. fuscum</i> . The site also has a substantial area of degraded raised bog which exhibits a wide range of vegetation types indicative of degradation including a partially wooded flush. Crosswood bog is one of the better quality medium-sized raised bogs in Co. Westmeath and is one of a number of important medium-sized raised bogs to the	Crosswood Bog is a medium-sized midland raised bog located 5 km east of the town of Athlone. The site consists of a core of uncut high bog surrounded by cutover surfaces. Approximately one-third of the high bog is active bog the remainder being degraded. Along the southern margins of the cutover there has been extensive afforestation with conifers. Scrub woodland dominated by <i>Betula pubescens</i> is frequent in the south-western part of the cutover.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			east of Athlone.	
002338	Drumalough Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin.</p> <p>Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Unpublished report Forest and Wildlife Service Dublin.</p> <p>Fahy E. and Goodwillie R. (1974). A Preliminary Report on Areas of Scientific Interest in County Roscommon. Unpublished report An Foras Forbartha Dublin.</p> <p>National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>Drumalough bog contains good examples of raised bog habitats. There is a relatively large amount of uncut high bog of which a significant area is active bog (the remainder is classified as degraded). Rhynchosporion vegetation is well represented in the wetter areas of the bog. Both of the raised bog areas have been partially afforested recently and this combined with peripheral peat cutting has resulted in a deterioration in habitat quality though habitat diversity is high. The area of lake and associated marshy grassland add to the diversity of this site. The site is located close to the north-western limit of raised bog distribution in the Republic of Ireland.</p>	<p>Drumalough Bog is a medium-sized raised bog located 5 km north-west of Castlerea town Co. Roscommon. The site is divided into three parts two of which are areas of raised bog the third a small lake surrounded by extensive marshy grassland. The areas of uncut high bog are surrounded by extensive areas of marginal cutover bog some of which has been reclaimed for grassland. Substantial areas of the high bog have also been afforested with conifers. The site is surrounded by a number of extensive raised bog areas most of which have been either cutover or afforested.</p>
002343	Tullaher Lough and Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin.</p> <p>Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project.</p>	The main ecological interest of this site is provided by a small area	Tullaher Lough and Bog is a large diverse site which is



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Unpublished report Dúchas The Heritage Service Dublin. Douglas C. and Grogan H. (1987). Survey to Locate Raised Bogs of Scientific Interest in Counties Clare and Kerry. Unpublished report Forest and Wildlife Service Dublin. Foss P. and O'Connell C. (1991). Tullaheer Lough and Bog Wetlands Heritage Zone. Irish Peatlands Conservancy Council Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994) Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Clare. Unpublished report An Foras Forbartha Dublin. Hunt J. Newton S.F. and Murphy J. (1999). Proposed Windfarm at Moanmore Co Clare: an Assessment of Ornithological Interest. BirdWatch Ireland Conservation Report No. 99/2. BirdWatch Ireland Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>of uncut raised bog. This area though small is one of the most westerly examples of raised bog habitat in Ireland. Although the raised bog has been subject to cutting the surface is wet and has a healthy Sphagnum cover. The area of active bog is surrounded by degraded raised bog. Rhynchosporion vegetation is also represented but is largely restricted to the areas of wet bog. Two small lakes occur and these support a well-developed aquatic flora which includes nationally rare species such as Eriocaulon aquaticum and Elatine hexandra. Substantial areas of fen and transition mire occur close to the lakes and these are of good quality. The site is the focal point for a small but well-established population of Anser albifrons flavirostris. This population is of particular note as it is now the most south-westerly flock in the country. Cygnus cygnus</p>	<p>dominated by cutover bog. The site is situated 3 km south-west of Doonbeg village Co. Clare and is underlain by grey siltstone and sandstone. While the main habitat within the site is cutover bog the main ecological interest is provided by areas of raised bog lake and fen habitats. The western margins of the site comprise a mosaic of wet and semi-improved or improved agricultural grassland which are used by feeding geese.</p>

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			and several other waterfowl species occur in small numbers.	
002349	Corbo Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Unpublished report Forest and Wildlife Service Dublin. Fahy E. and Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Roscommon. An Foras Forbartha Dublin. Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.	The uncut surface of Corbo Bog contains a small but substantial area of active raised bog which includes a few small flushed areas. There is a good Sphagnum cover and species diversity including the relatively rare Sphagnum imbricatum and S. fuscum. The active area is within a larger area of degraded raised bog. The degraded bog retains a typical raised bog flora although there is little or no evidence of an active catotelm in the degraded areas. Rhynchosporion vegetation is well-developed in the wetter areas of the high bog and includes Rhynchospora fusca which is a relatively rare species in Ireland. Overall this site contains a reasonably large area of uncut high bog.	Corbo Bog is a medium sized raised bog located 7 km west of Lanesborough village in Co. Roscommon. It is one of a number of raised bogs in the area though most of these have been cut to supply peat to power stations. The bog overlies Carboniferous limestone bedrock. Almost 60% of the site is uncut high bog though most of this is classified as degraded bog. The area of high bog is L-shaped and rather narrow. Cutover bog often invaded by Betula pubescens scrub surrounds much of the high bog. Some small areas of wet grassland are included in the site.
002351	Moanveanlagh Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office	This site is of importance for the presence of active	Moanveanlagh Bog is a medium-sized

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Dublin.Douglas C. and Grogan H. (1987). Survey to Locate Raised Bogs of Scientific Interest in Counties Clare and Kerry. Unpublished report Forest and Wildlife Service Dublin.Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Kerry. Unpublished report An Foras Forbartha Dublin.Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin.National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>raised bog degraded raised bog and Rhynchosporion vegetation. Although the condition of these habitats is poor due to peat-cutting and burning and with only a very small area of active bog the site is important because it is the best remaining example of a raised bog in the south-west of the country. The presence of the scarce Sphagnum species S. imbricatum and S. fuscum is also noteworthy.</p>	<p>raised bog located on the Kerry/Limerick border 4 km east of Listowel town. The site overlies Namurian shales and grits which is unusual as most Irish raised bogs overlie limestone. There is intensive peat-cutting along the margins and this has resulted in the widespread drying out of the high bog surface. Part of the cutover had been converted to pasture grassland of varying quality. The insectivorous plant species Sarracenia purpurea has been introduced to the site and now covers a large proportion of the site surface.</p>
002356	Ardgraique Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin.Douglas C. (1987). The distribution and ecology of Sphagnum pulchrum (Braithw.) in Ireland. Glasra 10: 75-81.Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Unpublished report Wildlife Service Dublin.Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin.National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and</p>	<p>This relatively small site contains good examples of active raised bog degraded raised bog and Rhynchosporion vegetation. The site is important because of its high watertable and the</p>	<p>Ardgraique Bog is a relatively small midland/western raised bog site located north-east of Killimor village in the east of Co. Galway. The bog</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Wildlife Service Dublin.Quinn A.C.M. (1971). A Preliminary Report on Areas of Scientific Interest in Co. Galway. Unpublished report An Foras Forbartha Dublin.	relatively undisturbed conditions which prevail on the high bog in spite of some intensive peat-cutting along the high bog margins. Sphagnum cover is unusually high and the presence of large amounts of the nationally rare moss Sphagnum pulchrum demonstrates that very wet conditions prevail. A small flush on the high bog supports some unusual plant species such as Melampyrum pratense and Empetrum nigrum. A number of associated raised bog sites occur in close proximity to this site.	overlies Carboniferous limestone bedrock and has developed in a small topographical basin. Most of the surrounding land is dominated by fields of agricultural grassland. A small core of uncut high bog is surrounded by cutover which has been reclaimed in places to produce agricultural grassland. Scrub has colonised some parts of the cutover.
002953	Blackwater Bank SAC	Roche C. Lyons D.O. Farinas Franco J. & O'Connor B. (2007). Benthic surveys of sandbanks in the Irish Sea. Irish Wildlife Manual No. 29.	This site exhibits typical species diversity for offshore sandbanks in this region.	N/A
002998	West Connacht Coast SAC	Berrow S.D. Whooley P. & Ferriss S. (2002). Irish Whale and Dolphin Group cetacean sighting review (1991-2001). Irish Whale and Dolphin Group. 34pp.Berrow S.D. Whooley P. O'Connell M. & Wall D. (2010). Irish cetacean review (2000-2009). Irish Whale and Dolphin Group. 60pp.Coleman M. Philpott E. O'Donovan M. Denniston H. Walshe L. Haberlin M. & Englund A. (2009). Marine Mammal Monitoring in Broadhaven Bay SAC 2008. Project report to RSK Environment Ltd. Coastal and Marine Resources Centre University College Cork. 68pp.Englund A. Coleman M. & Collins C. (2006). Marine mammal monitoring in Broadhaven Bay: June – September 2005. Project report to RSKENS Group Plc. Coastal and Marine Resources Centre University College Cork Cork. 40pp.Gordon J. Berrow S.D. Rogan E. & Fennelly S. (1997). Acoustic and visual survey of cetaceans off the Mullet	The site represents a key habitat for the Annex II species Bottlenose Dolphin within Ireland. Survey data show that Bottlenose Dolphin occurrence within the site compares favourably with another designated site in the Lower Shannon Estuary and	The selected site extending approximately 90 km in total length encompasses two dynamic coastal water areas in the west of Ireland and a range of associated shallow marine habitats.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Peninsula Co. Mayo. Ir. Nat. J. 26(7/8): 251-259. Ingram S.N. Englund A. &amp; Rogan E. (2001). An extensive survey of bottlenose dolphins (<i>Tursiops truncatus</i>) on the west coast of Ireland. Report to The Heritage Council. No. WLD/2001/42. 17pp. Ingram S.N. &amp; Rogan E. (2003). Bottlenose dolphins (<i>Tursiops truncatus</i>) in the Shannon Estuary and selected areas of the west-coast of Ireland. Report to the National Parks and Wildlife Service. 28pp. Ingram S.N. Englund A. &amp; Rogan E. (2003). Habitat use abundance and site-fidelity of bottlenose dolphins (<i>Tursiops truncatus</i>) in Connemara coastal waters Co. Galway. Heritage Council Wildlife Grant Final Report #12314. 27pp. Ingram S. Kavanagh A. Englund A. &amp; Rogan E. (2009). Site assessment of the waters of northwest Connemara. A survey of bottlenose dolphins (<i>Tursiops truncatus</i>). Report for the National Parks &amp; Wildlife Service of Ireland. University College Cork Cork. 33pp. I.W.D.G. (1990-2011). Various published and online Irish Whale and Dolphin Group sources. These included all Survey Reports delivered via the PRECast &amp; ShOPS ship survey programmes in addition to information gathered in the ISCOPE (2003-2005) and ISCOPE II (2006-2009) projects. Mirimin L. Miller R. Dillane E. Berrow S. Ingram S. Cross T. &amp; Rogan E. (2011). Fine-scale population genetic structuring of bottlenose dolphins in Irish coastal waters. <i>Anim. Cons.</i> p1-12. O'Brien J. (2009). The inshore distribution and abundance of small cetaceans on the west coast of Ireland: Site assessment for SAC designation and an evaluation of monitoring techniques. PhD. thesis Galway-Mayo Institute of Technology. 218pp. O'Brien J.M. Berrow S.D. Ryan C. McGrath D. O'Connor I. Pesante G. Burrows G. Massett N. Klötzer V. &amp; Whooley P. (2009). A note on long-distance matches of bottlenose dolphins (<i>Tursiops truncatus</i>) around the Irish coast using photo-identification. <i>J. Cet. Res. Manage.</i> 11(1): 71-76. Ó Cadhla O. Englund A. Philpott E. Mackey M. &amp; Ingram S. (2003). Marine mammal monitoring in the waters of Broadhaven Bay &amp; northwest Mayo: 2001-2002. Report to Enterprise Energy Ireland Ltd. Coastal &amp; Marine Resources Centre University College Cork. 74pp. Ó Cadhla O. Mackey M. Aguilar de Soto N. Rogan E. &amp; Connolly N. (2004). Cetaceans and Seabirds of Ireland's Atlantic Margin. Volume II – Cetacean distribution &amp; abundance. Report on research conducted under the 1997 Irish Petroleum Infrastructure Programme (PIP). Rockall Studies Group (RSG) projects 98/6 99/38 and 00/13. 89pp. Oudejans M. (2008). Bottlenose dolphins in northwest Ireland. A study to determine population size habitat use and site fidelity in the coastal waters of County Mayo. Report to The Heritage Council Kilkenny. 29pp. Oudejans M. Ingram S. Englund A. Visser F. &amp; Rogan E. (2010). Bottlenose dolphins in Connemara and Mayo 2008-2009. Movement patterns between two coastal areas in the west of Ireland. Report to the National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin. 29pp. Oudejans M. Ingram S. Englund A. Visser F. &amp; Rogan E. (2011). The bottlenose dolphin in NW Ireland: distribution abundance and movement patterns.</p>	<p>that dolphins sampled within the site are genetically distinct from those occupying the Shannon Estuary. Overall Bottlenose Dolphin population estimates for the site also exceed that of the Shannon Estuary. The species is known to range widely within the site and it occurs within the site in all seasons while comparatively high group sizes of up to 50-65 dolphins or more have been recorded therein. Adults with young (i.e. calves) are commonly observed in summer within the site while foraging resting and social behaviour are commonly recorded at key locations. Groups of dolphins demonstrate a level of site fidelity to such locations within and between years. Sighting records from coastal and boat-based observation are also significant for the coast of Ireland and groups of Bottlenose Dolphins have been tracked from land as they transit along the Atlantic coastline. The site contains a wide array of</p>	<p>These include exposed Atlantic continental shelf waters and sheltered coastal bays diverse seabed structures including sedimentary basins and reefs prominent headlands islets and islands of various sizes. The site borders numerous existing designated sites for Annexed species and habitats and is adjacent to a wide array of coastal features e.g. sheltered bays exposed open bays estuaries coastal cliffs and sea caves several of which are also designated protected sites.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Conference paper presented to the 8th Annual Marine Biological Association Postgraduate Conference Queen's University Belfast. 24pp. Pollock C.M. Reid J.B. Webb A. &amp; Tasker M.L. (1997). The distribution of seabirds and cetaceans in the waters around Ireland. JNCC Report No. 267. Joint Nature Conservation Committee Peterborough. 167pp.Reid J.B. Evans P.G.H. &amp; Northridge S.P. (2003). Atlas of cetacean distribution in north-west European waters. Joint Nature Conservation Committee Peterborough. 76pp.SCANS-II (2008). Small Cetaceans in the European Atlantic and North Sea (SCANS-II). Final Report covering the project activities from 01.04.2004 to 31.12.2006 under Life Project Number LIFE04NAT/GB/000245. Sea Mammal Research Unit University of St. Andrews UK. 54pp.Visser F. Coleman M. Denniston H. O'Donovan M. Walshe L. Ponzio A. &amp; Cronin M. (2010). Marine mammal monitoring in Broadhaven Bay 2009. Progress report to RSK Environment Limited Group. Coastal and Marine Resources Centre University College Cork Cork. 61pp.</p>	<p>habitats and hydrographic features believed to be important for Bottlenose Dolphin including areas of strong current flow within bays or adjacent to coastal headlands islands sandbanks shoals and reefs. Harbour Porpoise Short-beaked Common Dolphin Risso's Dolphin Killer Whale and Minke Whale are also recorded within the site. The site also contains two Annex II seal species: Harbour Seal and Grey Seal which carry out breeding resting social behaviour and moulting activity at terrestrial or intertidal locations in immediate proximity to the site.</p>	
002999	Hempton's Turbot Bank SAC	<p>Aquafact (2008). Analysis of samples from the Hempton Turbot Bank. Unpublished report to the National Parks &amp; Wildlife Service of the Department of the Environment Heritage &amp; Local Government. Service M. Brown C. &amp; McDougall A.(2004). MESH Habitat Mapping: Hempton's Turbot Bank. Cruise Report LF004 13-06-04 to 17-06-04. White J. (2006). Survey Data Analysis for Hemptons Turbot Bank: An investigation into the categorisation of survey data sets for mapping a sand wave seafloor system. Undertaken as part of the INTERREG IIIB project Mapping European Seabed Habitats. Published by the Marine Institute.</p>	<p>This site is the most northerly recorded sand bank feature within Irish territorial waters. The area was the subject of extensive acoustic and ground-truthing surveys during 2004 and 2005. The sedimentary habitat was classified as conforming to Deep Circalittoral Sand and Coarse Sediment since species recorded from</p>	<p>Previous survey work at this site has revealed that the overlying sediment of this bank is quite mobile and susceptible to tidal and wind-wave forces. A multi-beam survey of the bank showed it to be characterised by significant sand wave features. The</p>

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			<p>the area are typical of that habitat type. Species identification of the benthic (bottom-living) infauna (below the surface) across all 14 survey stations sampled in the Hempton's Turbot Bank assessment yielded a total count of 59 species ascribed to 10 phyla. Of the 59 species enumerated 24 were polychaetes (segmented worms) including Syllis sp. Polygordius sp. Eusyllis blomstrandii Autolytus alexandri Autolytus inermis and Trypanosyllis zebra; 19 were crustaceans (including the barnacles Semibalanus balanoides &amp; Elminius modestus; the amphipods Parapleustes bicuspis Parapleustes assimilis; porcelain crab Pisidia longicornis hermit crab Pagurus prideaux squat lobster Galathea intermedia); 6 were molluscs (including Muculus discors and Modiolula phaseolina); 3 species were echinoderms (brittlestars sea cucumbers); 1 species was a pycnogonid (sea spiders)</p>	<p>effect of those wave forces is evident in the grading and distribution of sediments over the substrate. Granulometric analysis showed that the area ranged from gravel to fine sand with very coarse and medium sand dominating.</p>

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			<p>and 1 species was a fish (lesser sand eel (or sand lance) <i>Ammodytes tobianus</i>). Five other phyla were recorded including cnidarians (jellyfish corals) nemerteans (ribbon worms) nematodes (round worms) and bryozoans (moss animals).</p>	
004003	Puffin Island SPA	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. <i>Irish Birds</i> 5: 1-10. Brazier H. (1981). <i>Seabird Studies on Puffin Island Co. Kerry</i> 1981. Unpublished report for the Irish Wildbird Conservancy. Dublin. Cramp S. Bourne W.R.P. and Saunders D. (1974). <i>The Seabirds of Britain and Ireland</i>. Collins London. Creme G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. <i>Biology and Environment. Proceedings of the Royal Irish Academy</i> 97B: 149-156. Evans P.G.H. (1973). Report on the 1973 Expedition to the Islands of Co. Kerry. Unpublished Report Oxford University. Evans P.G.H. and Lovegrove R.R. (1974). The birds of the south-west Irish islands. <i>Irish Bird Report</i> 1973: 33-64 Forest and Wildlife Service (1986). Proposed Nature Reserve Schedule at Puffin Island Co. Kerry. Gray N. Thomas G. Trewby M. and Newton S. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland. <i>Irish Birds</i> 7: 147-156. Harris M.P. (1984). The Puffin. Poyser Calton. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wildbird Conservancy (1982). Puffin Island Nature Reserve Management Plan. Unpublished. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). <i>The Status of Seabirds in Britain and Ireland</i>. Poyser London. Merne O.J. (1989). <i>Important Bird Areas in the Republic of Ireland</i>. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). <i>Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland</i>. Poyser London. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The status and ecology of the Chough</p>	<p>Puffin island is one of the most important seabird colonies in Ireland with an assemblage of over 10000 pairs of breeding seabirds. The site had the largest population of <i>Fratercula arctica</i> and the second largest <i>Puffinus puffinus</i> population recorded in the Seabird 2000 survey plus a large population of <i>Hydrobates pelagicus</i> (populations of <i>Fratercula arctica</i> and <i>Hydrobates pelagicus</i> are both of international importance). It also supports nationally important populations of <i>Fulmarus glacialis</i> <i>Larus fuscus</i> <i>Larus marinus</i> and <i>Alca torda</i>. It is less important for <i>Rissa tridactyla</i> and <i>Uria aalge</i>.</p>	<p>Puffin Island lies approximately 0.5 km off the northern side of St Finan's Bay in south-west Co. Kerry. It is a long narrow island composed of Old Red Sandstone. The island is almost divided into two halves - the southern half is a long narrow rocky ridge while the northern half broadens into a grassy plateau. The island is surrounded by mostly steep cliffs and slopes. The vegetation of the main part of the island is a typical maritime grassy sward though nine</p>



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		Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. Final report of Birdwatch Ireland Chough Survey Team - Unpublished.	Several pairs of Pyrrhocorax pyrrhocorax breed. The site is owned by BirdWatch Ireland and is a Statutory Nature Reserve.	different plant communities have been distinguished including a small area of Calluna vulgaris heath. An Armeria maritima community dominates the slopes. In the past Puffin Island has been grazed quite heavily by sheep and Oryctolagus cuniculus is common. The site encompasses Puffin Island and a seaward extension of 500m which includes the various islets and rocks around the main island.
004008	Blasket Islands SPA	Alexander S.M.D. (1954). The birds of the Blasket Islands with special reference to Great Blasket Island Inishvickillane and Illaunboy and some notes on the adjacent mainland. Bird Study 1: 148-168. Barrington R.M. (1881). Report on the flora of the Blasket Islands Co. Kerry. Proceedings of the Royal Irish Academy Series 2: 3: 368-369. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The Second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Brazier H. and Merne O.J. (1988). The 1988 Blasket Island Expedition. Unpublished report Irish Wildbird Conservancy/Wildlife Service Dublin. Brazier H. and Merne O.J. (1989). Breeding seabirds on the Blasket Islands Co. Kerry. Irish Birds 4: 43-64. Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Evans P.G.H. and Bourne W.R.P. (1978). Auks on Inishteraght 1968-1973 and the occurrence of disease in terns. Irish Birds 1: 239-242. Evans P.G.H. and Lovegrove R.R. (1974). The birds of the south-west Irish islands. Irish Bird Report 1973: 33-64. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese	The Blasket Islands have at least 13 species of breeding seabird. It is the most important site in the country for Hydrobates pelagicus and Puffinus puffinus with internationally important populations of both. Nine other seabird species occur regularly in nationally important numbers with particularly important	The Blasket Islands are situated at the western end of the Dingle peninsula in Co. Kerry. The site comprises five of the islands in the group. Four of these Inishtookert Inishnabro Inishvickillane Tearaght Island are between 7 km and 12 km from the

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		<p>in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Goodbody I. (1955). The breeding of Leach's Petrels on Inishtearaght in 1901. Irish Naturalists' Journal 11: 346-347. Harris M.P. (1984). The Puffin. Poyser Calton. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Kiely O. and Myers A.A. (1998). Grey seal (<i>Halichoerus grypus</i>) pup production at the Inishkea Island Group Co. Mayo and Blasket Islands Co. Kerry. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 113-122. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Parkin J. (1974). Silurian rocks of Inishvickillane Blasket Islands Co. Kerry. Scientific Proceedings of the Royal Dublin Society 5A: 277-291. Praeger R.L. (1912). Notes on the flora of the Blaskets. Irish Naturalist 21: 157-163. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Smiddy P. O'Halloran J. and O'Mahony B. (2000). The birds and mammals of Beginish and Young's Island (Blaskets) Co. Kerry (1988-2001). Irish Birds 6: 593-596. Summers C.F. (1983). The grey seal <i>Halichoerus grypus</i> in Ireland. Unpublished report to the Minister of Fisheries Forestry &amp; Wildlife Dublin. Walton G.A. Kelly T.C. and McCarthy K. (1976). Expeditions to Inishtearaght July 1973 and May 1975. Unpublished report to the Royal Irish Academy Dublin. Whilde A. (1985) The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>populations for <i>Fulmarus glacialis</i> <i>Larus fuscus</i> and <i>Fratercula arctica</i>. <i>Sterna paradisaea</i> breeds in some years with up to 200 pairs in the past. In addition it is one of the few known sites in the country where <i>Oceanodroma leucorhoa</i> has bred and may still breed. The islands are traditional sites for <i>Falco peregrinus</i> and <i>Pyrhcorax pyrrhcorax</i> (several pairs of each). The Blaskets formerly had wintering populations of <i>Anser albifrons flavirostris</i> and <i>Branta leucopsis</i>. The islands have a long history of seabird recording with a major survey being undertaken in 1988. The site is one of the two most important breeding sites in the country for <i>Halichoerus grypus</i> a species listed on Annex II of the E.U. Habitats Directive. A range of notable lepidoptera species have been recorded on several of the islands.</p>	<p>mainland while the smallest island Beginish is within 2 km of the mainland. The bedrock is principally Old Red Sandstone with some outcrops of volcanic and Silurian rocks on Inishvickillane and Beginish. The islands have a very maritime climate being exposed to the prevailing Atlantic wind and swells. Sea cliffs mostly precipitous are the dominant habitat and indeed much of the vegetation of the islands consists of species typical of cliffs or cliff-tops. Other habitats are dry heath bracken dominated areas and grassland used for grazing. There are no permanent inhabitants though the larger islands were inhabited in the past.</p>
004019	The Raven SPA	<p>An Foras Forbartha (1977). A Study of the Raven Co. Wexford. An Foras Forbartha / Forest and Wildlife Service Dublin. Colhoun K. (2001). I-WeBS Report 1998-99.</p>	<p>The Raven has important bird interests being part</p>	<p>Situated on the north side of</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Rowe D. and Wilson C.J. (eds) (1996). High Skies - Low Lands. An Anthology of the Wexford Slob and Harbour. Duffry Press Wexford. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>of the Wexford Slob and Harbour complex. Of critical significance is that it forms the principal night roost for the internationally important Wexford Harbour population of Anser albifrons flavirostris. The shallow waters provide optimum conditions for divers grebes and seaduck with nationally important populations of Melanitta nigra (supports 27% of national total) Gavia stellata (one of the top sites in the country) Gavia immer Mergus serrator and Phalacrocorax carbo. It is one of the most regular sites in the country for Podiceps auritus. It also provides an important roost site and to a lesser extent feeding area for a range of other waterfowl species with nationally important numbers of Pluvialis squatarola and Calidris alba. The Raven is a traditional breeding site for Sterna albifrons with numbers of national importance in most years. Three Red Data Book plant species are known from the site as</p>	<p>Wexford Harbour the site incorporates the dynamic sand system of the Raven Point and the coastal fringe running north to Blackwater Head (a distance of over 10 km). It also includes the adjacent shallow marine waters to a distance of approximately 2 km. The Raven is an important example of an extremely dynamic coastal sand system. It contains one of the few afforested sand dune systems in Ireland though the commercial plantings have compromised the structure of the natural dune vegetation. Outside the planted areas there are good examples of a range of sand dune types including embryo dunes mobile marram dunes fixed dunes and humid dune slacks. The</p>

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			<p>well as a number of important insect species. <i>Bufo calamita</i> a Red Data Book species has been successfully introduced into the site. Part of the site is managed as a Nature Reserve.</p>	<p>site contains intertidal sand flats and some salt marsh. Sand bars and banks are a feature of the site though the configuration of these change regularly.</p>
004020	Ballyteigue Burrow SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Galvin P. (1992). The Ecology of the Brackish-water Lagoons of Wexford and East Cork. M.Sc. thesis University College Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Healy B. (1999). A survey of Irish coastal lagoons. Vol. 1 Background Description and Summary. Unpublished Report Dúchas the Heritage Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. &amp; Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Orford J.D. and Carter R.W.G. (1982). Geomorphological changes on the barrier coasts of South Wexford. <i>Irish Geography</i> 15: 70-71. Russell E. (1884). Ballyteigue District. Report to the Commissioners on the proposed drainage of the flooded lands in this district with the embankment and reclamation of the slob or sub-merged land in Ballyteigue Lough County of Wexford. Alexander Thom. Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>The site has an internationally important population of <i>Branta bernicla hrota</i> and supports nationally important numbers of <i>Tadorna tadorna Pluvialis apricaria</i> <i>Charadrius hiaticula</i> <i>Vanellus vanellus</i> <i>Limosa limosa</i> and <i>Limosa lapponica</i>. The estuarine habitats provide feeding and roosting areas for the waterfowl species though a lot of the birds also feed on the intensively managed lands of the adjacent polders. There is a small colony of breeding <i>Sterna albifrons</i> in the site though nesting may not occur every year. Salt marsh habitats are particularly well represented with one of only two extant sites in</p>	<p>The site is located on the south coast of Co. Wexford between the towns of Kilmore Quay and Cullenstown. It is comprised of a sand and shingle barrier beach approximately 8 km in length and the estuary of the River Duncormick. The extensive overlying sand spit is known as the Burrow while the estuary that it encloses is known as the Cull. The site possesses a range of coastal habitats including various types of dunes salt meadows and intertidal sand and mud flats. Former estuarine areas adjacent to the site</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Ireland which has halophilous scrub vegetation characterised by <i>Arthrocnemum perenne</i> . Within the site are 6 Red Data Book plant species and the only Irish site for the lichen <i>Fulgensia subbracteata</i> . The site is a Statutory Nature Reserve and managed for conservation.	have been reclaimed as polders and are intensively managed for agriculture.
004025	Broadmeadow/Swords Estuary SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Collins R. and Whelan J. (1993). Mute Swans in Dublin and Wicklow 1983-1992. <i>Irish Birds</i> 5: 11-22. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Goodwillie R. Ní Lamhna E. and Webb R. (1988). A Second Report on Areas of Scientific Interest in County Dublin. An Foras Forbartha Dublin. Healy B. (1994). Lagoons and other enclosed brackish waters in the Republic of Ireland. Unpublished report Department of Zoology University College Dublin. Healy B. Lyons J. and Galvin P. (1993). Environmental Impact Study of the Aquatic Fauna of the Inner Malahide Estuary Co. Dublin. Unpublished report by the Marine Research Unit Department of Zoology University College Dublin to Dublin County Council. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Madden B. Jeffrey D.W. and Jennings E. (1993). Distribution and ecology of <i>Zostera</i> in County Dublin. <i>Irish Naturalists' Journal</i> 24: 303-309. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9. Cambridge. Ní Lamhna E. (1982). The vegetation of salt marshes and sand dunes at Malahide Island Co. Dublin. <i>Journal of the Royal Dublin Society</i> 3: 111-129. O'Reilly H. and Pantin G. (1957). Some observations on the salt marsh formation</p>	The site is of high importance for wintering waterfowl and supports a particularly good diversity of species. It has an internationally important population of <i>Branta bernicla hrota</i> (4.8% of national total) and nationally important populations of a further 12 species. Of particular note are the populations of <i>Tadorna tadorna</i> (3.0% of national total) <i>Anas acuta</i> (2.9% of national total) <i>Mergus serrator</i> (2.8% of national total) <i>Pluvialis squatarola</i> (2.7% of national total) and <i>Calidris canutus</i> (3.7% of national total). The site is one of the few in eastern Ireland where substantial numbers of <i>Bucephala</i>	The site is situated in north Co. Dublin between the towns of Malahide and Swords. It comprises the estuary of the River Broadmeadow. A railway viaduct built in the 1800s crosses the site and has led to the inner estuary becoming lagoonal in character and only partly tidal. Much of the outer part of the estuary is well-sheltered from the sea by a large sand spit known as "the island". This spit is now mostly converted to golf-course. The outer

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		in Co. Dublin. Proceedings of the Royal Irish Academy 58B: 89-128. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	clangula occur. It has a regionally important population of Limosa lapponica. The site is an important and regular site for a range of autumn passage migrants especially Calidris ferruginea and Philomachus pugnax. It supports a regular flock of non-breeding Cygnus olor.	part empties almost completely at low tide and there are extensive intertidal flats. Salt marshes occur in parts of the outer estuary and in the extreme inner part of the inner estuary.
004029	Castlemaine Harbour SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehané M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	Castlemaine Harbour SPA is one of the most important sites for wintering waterfowl in the south-west. The complex is of international importance as it regularly supports in excess of 20000 waterfowl as well as an internationally important population of Branta bernicla hrota. It supports nationally important populations of at least a further seven species: Gavia stellata Anas acuta Anas penelope Charadrius hiaticula Calidris alba Limosa lapponica and Tringa nebularia. The population of Anas penelope is over 5% of the national total. The	This is a large coastal site occupying the innermost part of Dingle Bay. It extends from the lower tidal reaches of the Rivers Maine and Laune to west of the Inch and Rossbehy peninsulas (c. 16 km from east to west). The average width of the estuary is 4-5 km though it is c. 11 km at the outer limit. The site comprises the estuaries of the Rivers Maine and Laune both substantial rivers and has extensive areas of intertidal

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			<p>shallow marine waters support divers and sea duck including <i>Melanitta nigra</i>. The site provides both feeding and a range of roosting areas for the birds. <i>Pyrrhocorax pyrrhocorax</i> utilise the dunes at Inch for feeding. It supports a population of <i>Petalophyllum ralfsii</i> a species listed on Annex II of the Habitats Directive. <i>Lutra lutra</i> is also found within the site. The site has several Red Data Book plant species as well as <i>Bufo calamita</i> and <i>Rana temporaria</i>.</p>	<p>sand and mud flats. Conditions are very sheltered due to the presence of three protruding sand spits (Rossbehy Inch and Cromane) which overlie gravel bars in the outer part of the Harbour. The intertidal flats are mostly muds or muddy sands and have high densities of polychaete worms along with bivalves such as <i>Macoma balthica</i> and molluscs such as <i>Hydrobia ulvae</i>. <i>Zostera</i> is common in places. Salt marshes fringe much of the shoreline. A very large dune system occurs on the Inch peninsula. A substantial area of shallow marine water is included in the site.</p>
004037	Blacksod Bay/Broad Haven SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.A. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Curtis T.G.F. and Sheehy</p>	<p>The site supports an excellent diversity of wintering waterfowl species and is one of the most important wetland</p>	<p>Situated in the extreme north-west of Co. Mayo this site comprises a number of bays and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Hannon C. (1997). The 1995 All-Ireland Tern Survey. <i>BirdWatch Ireland Conservation Report No. 97/1</i>. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. <i>Irish Birds</i> 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). <i>Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2006/07</i>. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9. Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). <i>Seabird Populations of Britain and Ireland</i>. Poyser London. Picton B.E and Costello M.J. (eds) (1997). <i>BioMar Biotope Viewer: a guide to marine habitats fauna and flora of Britain and Ireland (Ver. 2.0)</i> Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Robinson J.A. Colhoun K. Gudmundsson G.A. Boertmann D. Merne O.J. O'Briain M. Portig A.A. Mackie K. and Boyd H. (2004). Light-bellied Brent Goose <i>Branta bernicla hrota</i> (East Canadian High Arctic population) in Canada Ireland Iceland France Greenland Scotland Wales England the Channel Islands and Spain 1960/61 - 1999/2000. <i>Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge</i>. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. IWC Dublin. While A. (1985). <i>The All Ireland Tern Survey 1984</i>. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>complexes in the west. It has internationally important populations of <i>Gavia immer</i> and <i>Branta bernicla hrota</i>. The site also supports nationally important populations of <i>Melanitta nigra</i> <i>Numenius arquata</i> <i>Limosa lapponica</i> <i>Charadrius hiaticula</i> <i>Calidris alpina</i> <i>Mergus serrator</i> and <i>Calidris alba</i>. The site provides both feeding and roosting areas for the birds though some species may also utilise areas elsewhere for feeding and/or roosting purposes. A nationally important population of <i>Calidris alpina</i> subsp. <i>schinzii</i> breeds within areas of the machair. Inishderry Island has a nationally important breeding colony of <i>Sterna sandvicensis</i> as well as nesting <i>Sterna hirundo</i> <i>Sterna paradisaea</i> and <i>Larus ridibundus</i>.</p>	<p>inlets including Sruwaddacon Bay Moyrahan Bay Traw-Kirtaun Blind Harbour Tullaghan Bay and the various sheltered bays and inlets in Blacksod Bay including Trawmore Bay Feorinyeeo Bay Saleen Harbour Elly Bay and Elly Harbour. At low tide extensive areas of intertidal sand and mudflats are exposed. These support a well-developed macro-invertebrate fauna. Seagrass (<i>Zostera marina</i>) occurs at several localities. Salt marshes which are often on a peat substrate fringe parts of the site and provide useful roosts for the wintering waterfowl. Sandy and shingle beaches are well-represented. A small island Inishderry occurs in the inner part of the bay and is used</p>



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				by nesting terns and gulls. Also included within the site are two small lakes on the Mullet Peninsula Cross Lough and Leam Lough. The underlying bedrock consists mainly of schists and gneiss.
004039	Derryveagh and Glendowan Mountains SPA	<p>Cox R.B. Eddleston C.R. and Newton S.F. (2002). Upland Bird Survey Report 2002: Donegal. BirdWatch Ireland Conservation Report No 02/04. Cromie J. (2002). Breeding status of Red-throated Diver <i>Gavia stellata</i> in Ireland. Irish Birds 7: 13-20. Fernandez D. Carroll D. and Lusby J. (2010). Pilot Merlin Survey 2010. Unpublished report prepared by BirdWatch Ireland for NPWS. Gibbons D.W. Reid J.B. and Chapman R.A. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. T. &amp; A.D. Poyser London. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish Natural Heritage. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). MacLochlainn C. (1984). Breeding and wintering bird communities of Glenveagh National Park Co. Donegal. Irish Birds 2: 482-500. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Telford M.B. (1977). Glenveagh National Park: the Past and Present Vegetation. Unpublished Ph.D. thesis National University of Ireland. Weekes L.C. (1990). A Phytosociological Study and Map of the Vegetation of Glenveagh National Park and the An Taisce Property Co Donegal. M.Sc. thesis National University of Ireland.</p>	The site supports good examples of both upland and woodland bird communities. It supports nationally important populations of breeding <i>Gavia stellata</i> Falco columbarius Falco peregrinus <i>Pluvialis apricaria</i> and <i>Calidris alpina schinzii</i> . Other species that occur include <i>Turdus torquatus</i> and <i>Lagopus lagopus</i> both being Red-listed species in Ireland. The lakes within the site provide important breeding and feeding sites for <i>Gavia stellata</i> . <i>Mergus merganser</i> which may nest in the vicinity use the lakes. The site is of importance for rare breeding passerines of Oak woods notably <i>Phylloscopus sibilatrix</i>	Derryveagh and Glendowan Mountains SPA is an extensive upland site in north-west Co. Donegal comprising Glenveagh National Park a substantial part of the Derryveagh and Glendowan Mountains and a number of the surrounding lakes. Much of the site is over 300 m above sea level rising to a peak of 678 m at Slieve Snaght The solid geology is predominantly quartzite. The substrate over much of site is peat with blanket bog and heath

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>and on occasions Phoenicurus phoenicurus. Of note is a recent breeding attempt by Nyctea scandiaca a very rare species in Ireland. Glenveagh National Park is the central location for the Aquila chrysaetos re-introduction programme which has been operating for several years. With time this species may become successfully re-established as a breeding species in Ireland.</p>	<p>comprising the principal habitats.</p>
004044	Lough Ennell SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>Lough Ennell is one of the most important midland lakes for wintering waterfowl with nationally important populations of Cygnus olor Aythya ferina Aythya fuligula and Fulica atra. The population of Aythya fuligula represents over 3% of the national total. It also attracts Pluvialis apricaria and Vanellus vanellus though these feed mainly outside of the site. At times the lake is utilised as a roost (with limited feeding) by the internationally important Midland lakes population</p>	<p>Lough Ennell is a large limestone lake. It is approximately 6.5 km long and is mostly c. 2 km wide. The River Brosna is the principal inflowing and outflow river. It is a relatively shallow lake with a maximum depth of c. 30 m. The water is hard with low colour and markedly alkaline pH. The lake is classified as a mesotrophic system</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>of <i>Anser albifrons flavirostris</i>. It supports two Red Data Book charophyte species. The site is an important trout fishery.</p>	<p>though it had been eutrophic in the past. The lake bottom is of limestone with a marl deposit. Lough Ennell supports a diverse aquatic flora with a particularly well-developed charophyte flora. Reedbeds and species-poor swamp vegetation occasionally fringe the lake particularly around the points of inflow and outflow and on the eastern shore. <i>Phragmites australis</i> is abundant in places. Much of the lakeshore is rather dry stony ground which was formerly part of the lake bed but is now exposed by drainage and colonised by calcareous grassland. Alkaline fen is also found on the lake shore. There are several islands within the lake.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
004047	Lough Owel SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Fox T. and Francis I. (2005). Greenland White-fronted Goose Study - Report of the 2004/05 National Census of Greenland White-fronted Geese in Britain. National Environmental Research Institute Denmark. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>Lough Owel is one of the most important Midland lakes for wintering waterfowl with nationally important populations of <i>Anas clypeata</i> and <i>Fulica atra</i>. The populations of both of these species represent a significant proportion - 4.7% and 6.5% of the respective all-Ireland totals. It is also of importance for diving duck including <i>Aythya ferina</i> and <i>Bucephala clangula</i>. At times the lake is utilised by the internationally important Midland lakes flock of <i>Anser albifrons flavirostris</i>. The site is an important trout fishery.</p>	<p>Lough Owel is a medium- to large-sized lake measuring approximately 6 km along its long axis and with a maximum width of 3 km. It is fed by a number of small streams and the main outflow is to the Royal Canal. Water is relatively shallow with a maximum depth of 22 m. Overlying Carboniferous limestone Lough Owel is one of the most important examples of a limestone lake in the Midlands. The water is moderately hard alkaline and virtually colourless. The lake appears to be relatively unproductive with low levels of orthophosphate and moderate chlorophyll concentrations. The lake is classified as a mesotrophic and its status has been stable in recent</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>years. Aquatic vegetation includes a number of stoneworts (<i>Chara</i> spp.). The rocky nature of the shoreline has given rise to marginal vegetation which is patchy and sparse. Apart from some reedswamp of <i>Phragmites australis</i> and <i>Scirpus lacustris</i> shoreline vegetation is dominated by occasional patches of <i>Alnus glutinosa</i>. Several small islands occur in the southern sector.</p>
004048	Lough Gara SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. <i>Irish Birds</i> 1: 293-363. Sheppard R. (1993). Ireland's Wetland</p>	<p>Lough Gara supports an internationally important population of <i>Anser albifrons flavirostris</i> and at times the numbers of <i>Cygnus cygnus</i> have exceeded the qualifying threshold for international importance. Both species use the site for roosting and to some extent for feeding. The site supports a range of other waterfowl species though all in relatively</p>	<p>Lough Gara is a shallow (maximum depth 16 m) medium-sized limestone lake. The main inflowing river is the Lung while the main outflow is the Boyle River. There are two main sections a larger northern basin and a smaller southern basin joined by a narrow channel. The lake is classified</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Wealth. IWC Dublin.	low numbers - these include <i>Anas penelope</i> and <i>Pluvialis apricaria</i> .	as a mesotrophic system. The shoreline is convoluted and has receded substantially from its original level due to various drainage schemes since the mid 19th century. The shallow lake margins have extensive swamp vegetation. The old lake shore is usually clearly visible below which a sedge-rich marsh occurs. The upper part of the shore and adjoining abandoned fields are frequently colonised by scrub and wet woodland. The site encompasses some low-lying islands. Raised bog occurs outside of the site to the south and south-west.
004049	Lough Oughter SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird	Lough Oughter is of importance for a range of wintering waterfowl. Of particular note is an internationally important population of <i>Cygnus cygnus</i> that is based in	Lough Oughter is a medium-sized lake that extends over a wide area. Its situation in submerged drumlin country accounts

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lovatt J.K. (1988). Great Crested Grebe census in County Cavan summers 1986-1988. Irish Birds 3: 575-580. Lovatt J.K. (1999). Occurrence of introduced Canada Goose <i>Branta canadensis</i> in Co. Cavan. Irish Birds 6: 432-438. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Preston K. (1976). Census of Great Crested Grebes summer 1975. Irish Bird Report 1975: 38-43. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>the area and which use the lakes as a roost. A population of Anser albifrons flavirostris of regional importance also roost on the lakes. The site supports nationally important wintering populations of four species: Podiceps cristatus Cygnus olor Anas penelope and Bucephala clangula plus a range of other wintering species such as Anas crecca and Aythya fuligula. Lough Oughter is at the centre of the breeding range of Podiceps cristatus in Ireland and the site supports in excess of 10% of the estimated national breeding total. A small colony of Sterna hirundo occurs within the site.</p>	<p>for the extremely ramified nature of its basin. The main feeders to the lake are the River Erne and the Annalee River. These flow over relatively insoluble rock (Ordovician and Silurian strata) so that the lake water is only moderately hard despite the fact that most of the immediate surroundings are on Carboniferous limestone. Lough Oughter is a shallow lake (maximum depth 10 m) and is considered to be a naturally eutrophic system. Since the 1970s the lake has however shown clear signs of organic enrichment and has most recently been classified as hypertrophic (though chlorophyll levels have dropped markedly in recent years). The lakes have a well-</p>

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				developed aquatic flora. Around much of the shorelines there are swamp and marsh communities. In places wet woodland is well-developed at the lake margins.
004050	Lough Arrow SPA	<p>Champ T. and King J.J. (1987). Lough Arrow: Water Quality and Trophic Status. Central Fisheries Board Dublin. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Tierney T.D. Dunne J. and Callanan T. (2000). The Common Scoter <i>Melanitta nigra</i> breeding in Ireland range expansion or site relocation ? Irish Birds 6: 447-452. Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A repeat survey of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p>	<p>Lough Arrow is an excellent site for breeding Podiceps cristatus the population being of national importance. A range of other duck species breed on the lake including <i>Melanitta nigra</i> and <i>Mergus serrator</i>. <i>Larus canus</i> and <i>Larus fuscus</i> breed in significant numbers on islands in the lake. The lake supports moderate numbers of wintering waterfowl. Diving ducks are well represented with <i>Aythya fuligula</i> and <i>Bucephala clangula</i> occurring in numbers of regional importance. Other species such as <i>Fulica atra</i> and <i>Tachybaptus ruficollis</i> also occur as well as small numbers of <i>Cygnus cygnus</i>. The site has been</p>	<p>Lough Arrow is a large limestone lake sheltered on three sides by hills. It has a small catchment and is fed largely by springs on the lake bed. Its average depth is 9 m to a maximum of 33 m. The lake is classified as a mesotrophic system. There is a well-developed submerged aquatic flora with a notable charophyte community. The shores of the lake are for the most part stony though several bays occur in which swamp vegetation is found in abundance. In places the reedbeds extend well out into the lake.</p>



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			<p>poorly monitored in recent years and regular monitoring may show that some of the species have populations of national importance. Lough Arrow has good fish stocks including <i>Salmo trutta</i> and <i>Anguilla anguilla</i>.</p>	
004052	Carrowmore Lake SPA	<p>Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. <i>Irish Birds</i> 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. <i>Irish Birds</i> 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1978). A survey of gulls breeding inland in the west of Ireland in 1977 and 1978 and a review of the inland breeding habit in Ireland and Britain. <i>Irish Birds</i> 1: 134-160. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A repeat survey of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. <i>Irish Birds</i> 5: 67-72.</p>	<p>There is a long established breeding colony of gulls and terns on Derreens Island. <i>Larus ridibundus</i> and <i>Larus canus</i> both nest in numbers of national importance with the latter representing over 5% of the national total. <i>Sterna sandvicensis</i> formerly had a large nesting population but has not nested in at least the last 5 years. The species does however still regularly visit the lake. A population of <i>Anser albifrons flavirostris</i> winters on the surrounding bogs and at times uses the lake for roosting and/or feeding. Relatively small numbers of wildfowl mostly diving duck occur in winter.</p>	<p>Carrowmore Lake is a large relatively shallow oligotrophic/mesotrophic lake which overlies Dalradian schists and quartzite. The lake generally has a stony bottom and shoreline. Stands of emergent swamp vegetation occur especially in sheltered areas. The lake has one substantial island Derreens Island and several small islands. These are dominated by a grassy sward. Carrowmore Lake is set in a landscape dominated by blanket bogs.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
004063	Poulaphouca Reservoir SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Creme G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. <i>Biology and Environment. Proceedings of the Royal Irish Academy</i> 97B: 149-156. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. <i>Bird Study</i> 55: 66-77. Hearn R.D. and Mitchell C.R. (2004). Greylag Goose <i>Anser anser</i> (Iceland population) in Britain and Ireland 1960/61 -1999/2000. <i>Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge.</i> Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe.</i> Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe.</i> ICBP Technical Publication No. 9. Cambridge. Robinson J.A. Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swan <i>Cygnus cygnus</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. <i>Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge.</i> Sheppard R. (1993). <i>Ireland's Wetland Wealth.</i> IWC Dublin.</p>	<p>The site is of national importance for its population of <i>Anser anser</i> which is one of the largest in the country. The site provides the main roost for the birds with feeding mostly on improved grassland outside of the site. A range of other waterfowl species occur in relatively low numbers including <i>Cygnus cygnus</i>, <i>Anas penelope</i> and <i>Bucephala clangula</i>. The reservoir attracts roosting gulls during winter most notably a large population of <i>Larus fuscus</i> which in Ireland is rare in winter away from the south coast.</p>	<p>Poulaphouca Reservoir located in the western foothills of the Wicklow Mountains was created in 1944 by damming of the River Liffey for the purpose of generating electricity from hydropower. The reservoir covers an area of approximately 20 square kilometres and is the largest inland water body in the mid-east and south-east regions. The reservoir receives water from two main sources the River Liffey at the northern end and the Kings River at the southern end. The exit is into the Liffey gorge at the western end. Underlying the reservoir are sands and gravels deposited during the last glaciation. The shores of the lake are mostly sandy. When water levels are low</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				exposed lake muds are colonised by an ephemeral flora of annual plant species.
004066	The Bull and The Cow Rocks SPA	Barrington R.M. (1900). The Migration of Birds as Observed at Irish Lighthouses and Lightships. Dublin and London. Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Evans P.G.H. and Lovegrove R.R. (1974). The birds of the south west Irish islands. Irish Bird Report 21: 33-64. Fisher J. (1952). The Fulmar. Collins London. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Poyser London. Nelson B. (1978). The Gannet. Poyser Berkhamsted. Newell R.G. Merne O.J. and Evans P.G.H. (1969). B.O.U. supported survey of seabirds off south-west Ireland August 1968. Ibis 111: 279-280.	The Bull and the Cow is one of the most important seabird colonies in the country with nationally important populations of <i>Hydrobates pelagicus</i> <i>Sula bassana</i> and <i>Fratercula arctica</i> . For <i>Sula bassana</i> it is the third largest colony in Ireland. It also supports regionally important numbers of <i>Fulmarus glacialis</i> <i>Rissa tridactyla</i> <i>Uria aalge</i> and <i>Alca torda</i> . References to breeding seabirds date back to the 1800s. Both islands are Refuges for Fauna and the Cow is state-owned.	The site comprises two very small rocky islands the Cow and the Bull situated at respective distances of approximately 2.5 km and 4 km from Dursey Head in the extreme south-west of Ireland. The islands which are of Old Red Sandstone rise to over 60 m and are generally precipitous. Vegetation is sparse and comprises a typical maritime flora. The marine area to a distance of 500 m around each island is included within the site for the benefit of the breeding seabirds. The Bull has an automated lighthouse.
004082	Greers Isle SPA	Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and	This was formerly the most important site for	This is a very small island in the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Perry K. (2004). The Breeding Performance of Sandwich Terns at the Inch Islet and Greer's Island in Northern Donegal. Unpublished NPWS Report. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>Sterna sandvicensis in the region but the colony deserted in the 1990s. It has been re-occupied in recent years and the Sterna sandvicensis population is again of national importance. Small numbers of Sterna hirundo and S. paradisaea are also present. Terns breed amongst a colony of Larus ridibundus which is of national importance. Larus canus has bred recently and the population has reached national significance.</p>	<p>enclosed and highly sheltered marine waters of Mulroy Bay. The surrounding water to a distance of 200 m is included in the site. The island is approximately 500 m from the mainland. The underlying bedrock is probably part of a metadolerite intrusion.</p>
004084	Inishglora and Inishkeeragh SPA	<p>Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Merne O.J. and Walsh A. (2003). Barnacle Geese Branta leucopsis in Ireland spring 2003. Irish Birds 7: 173-176. Mitchell C. Walsh A. Hall C. and Crowe O. (2008). Greenland Barnacle Geese Branta leucopsis in Britain and Ireland: Results of the International Census Spring 2008. WWT NPWS and BirdWatch Ireland Report. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Whilde A.</p>	<p>The site is one of the most important seabird sites in the region. Long established colonies of Hydrobates pelagicus occur on each of the main islands and these comprise the largest concentration in the region. Sterna paradisaea nests on each of the main islands in numbers of national importance and Sterna albifrons has nested in the past. Other breeding seabirds which have populations of national importance are Phalacrocorax carbo</p>	<p>The site comprises two larger islands Inishglora and Inishkeeragh and a number of smaller islets and rocks situated between 1.5 and 3.0 km (approximately) off the Mullet Peninsula. They are part of a larger grouping of similar islands with the Inishkeas and Duvillauns. Inishglora is the larger of the main islands and had</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		(1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Worden J. Mitchell C.R. Merne O.J. and Cranswick P.A. (2004). Greenland Barnacle Goose <i>Branta leucopsis</i> in Britain and Ireland: Results of the International census March 2003. The Wildfowl and Wetlands Trust Slimbridge.	Phalacrocorax aristotelis Larus fuscus and Larus argentatus. The main islands regularly support nationally important numbers of wintering <i>Branta leucopsis</i> . These are part of the internationally important flock that is centred on the Inishkea Islands. Inishglora and Inishkeeragh together with the Inishkeas and the Duvillauns support one of the largest breeding populations of <i>Halichoerus grypus</i> in Ireland.	been inhabited in the Early Christian period. Both are fairly low-lying and have a grassy maritime vegetation. A considerable area of the surrounding seas is included in the site.
004092	Tacumshin Lake SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Galvin P. (1992). The Ecology of the Brackish-water Lagoons of Wexford and East Cork. M.Sc. thesis University College Dublin. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol 1 Part 1. Background Description and Summary of the Surveys. Dúchas the Heritage Service. Healy B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bulletin of the Irish Biogeographical Society 21: 116-151. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hurley J. (1994). The South Wexford Coast Ireland - A Natural Heritage Coastline. Kilmore. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Orford J.D. and Carter R.W.G. (1982). Geomorphological changes on the barrier coasts of South Wexford. Irish Geography	Tacumshin Lake is one of the largest lagoons in the country and supports an excellent range of birds typical of lagoonal systems. In winter it is a principal roost for internationally important populations of both <i>Cygnus cygnus</i> and <i>Cygnus columbarius bewickii</i> the latter species now very localised in Ireland. Both of these swans feed mainly on improved grassland in the vicinity. There are a further 13 waterfowl species which	the site comprises a large shallow (1-2m) sedimentary lagoon separated from the sea by a long (5-6 km) gravel/sand barrier. At present there is no natural outlet to the sea and the lagoon drains through installed pipes. Winter flooding is regular. Salinity is generally low but rises as water levels fall in summer. The lagoon bed

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>15: 70-71.Praeger R.L. (1934). The Botanist in Ireland. Hodges and Figgis Dublin.Ruz M-H. (1989). Recent evolution of the southeast barrier coast of Ireland. Journal of Coastal Research 5: 523-539.Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Smiddy P. and O'Mahony B. (1997). The status of reed warbler <i>Acrocephalus scirpaceus</i> in Ireland. Irish Birds 6: 23-28. Stewart N. and Church I. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough.</p>	<p>occur in numbers of national importance including <i>Anas penelope</i> <i>Anas strepera</i> <i>Anas acuta</i> <i>Anas clypeata</i> <i>Aythya fuligula</i> <i>Fulica atra</i> <i>Pluvialis apricaria</i> <i>Vanellus vanellus</i> and <i>Limosa limosa</i>. The population of <i>Anas acuta</i> represents over 16% of the national total whilst those of <i>Anas penelope</i> <i>Anas strepera</i> and <i>Fulica atra</i> are just over 5% of the respective totals. In summer <i>Circus aeruginosus</i> is a regular visitor and nesting is a possibility. Tacumshin Lake is one of the few sites in Ireland where <i>Anas querquedula</i> is considered to breed. The site has a good breeding population of the localised <i>Acrocephalus scirpaceus</i>. Tacumshin Lake is an important site for passage waders including <i>Philomachus pugnax</i> <i>Calidris minuta</i> <i>Calidris ferruginea</i> <i>Tringa ochropus</i> and the very scarce <i>Tringa glareola</i>. The lagoon supports the Red Data charophyte species <i>Chara canescens</i> as well as populations of</p>	<p>sediments are colonised by halophytic vegetation especially <i>Salicornia</i> spp. Stands of <i>Ruppia</i> spp. and <i>Chara</i> spp. also occur. Substantial areas of the lagoon are now dominated by swamp vegetation and there are also marginal areas of wet grassland. The gravel/sand barrier is mostly covered by a sand dune system. Surrounding land is low-lying and used for agriculture both pasture and arable.</p>

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			Otanthus maritimus and Centaureum pulchellum.	
004094	Blackwater Callows SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>The site is of high importance for wintering waterfowl. It supports an internationally important population of Cygnus cygnus and nationally important populations of Anas penelope Anas crecca and Limosa limosa. The population of Limosa limosa has exceeded the threshold for international importance at times. Formerly it had a regular population of Cygnus columbarius bewickii but this no longer occurs reflecting a contraction of range at a national level. Egretta garzetta breeds locally and this species is now a regular visitor to the site. The Blackwater system is an important salmonid fishery and is of high conservation value for Salmo salar. It also supports important populations of Lampetra planeri L. fluviatilis Petromyzon marinus and Alosa fallax fallax. Lutra lutra is widespread throughout the site</p>	<p>The site comprises a 23 km stretch of the River Blackwater running in a west to east direction between Fermoy and Lismore. It includes the river channel and strips of seasonally flooded grassland within the flood plain. Sandstone ridges parallel to the river confine the area of flooding to a relatively narrow corridor. The lower stretch from Ballyduff to Lismore is more subject to flooding than the upper part. The river channel has a well-developed aquatic community along with emergent swamp vegetation in places. Most of the land above the banks is improved for agriculture with only occasional areas of fringing</p>

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				marshland wet grassland and wet woodland (mostly Salix spp.) still present. Some arable areas occur.
004098	Owenduff/Nephin Complex SPA	<p>Douglas C. Garvey L. Kelly L. O'Sullivan A. and Van Doorslaer L. (1989). A Survey to Locate Blanket Bogs of Scientific Interest in Co. Mayo. Unpublished report to the Forest and Wildlife Service Dublin. Foss P.J. and McGee E. (1987). A Survey to Locate Blanket Bogs of Scientific Interest. Unpublished report to the Forest and Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Haworth P.F. (1987). An Upland Study of West Galway. Unpublished report World Wildlife Fund UK. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Murray T. and O'Halloran J. (2003). Population estimate for Red Grouse in the Owenduff-Nephin Special Protection Area County Mayo. Irish Birds 7: 187-192. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363.</p>	<p>The Owenduff/Nephin Complex SPA is one of the largest expanses of blanket bog in the country and the site supports an excellent diversity of bird species characteristic of blanket bog and mountain habitats. Anser albifrons flavirostris regularly visit the site in winter though numbers nowadays are relatively low. The population is a sub-flock of the main Bog of Erris population (4 other sub-flocks). The site supports breeding populations of several important species notably Falco columbarius Falco peregrinus and Pluvialis apricaria. Recent studies have shown that there is a good population of Lagopus lagopus an Irish Red Data Book species. Several species listed in Annex II of the E.U. Habitats Directive occur notably Saxifraga</p>	<p>This is a large inland site which is underlain by schists and gneisses in the west and quartzites in the east and south. A large proportion of the site (c. 25%) lies above 200 m and these upland areas contain spectacular mountain cliffs and corrie lakes. Many of the mountain peaks reach altitudes of over 500 m while 721 m is the height of the tallest summit. Most of the site is drained by the Owenduff River and its complex network of tributaries and streams which generally flow in a south-east to north-west direction. Much of the land surrounding the site</p>



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			hirculus Drepanocladus vernicosus Lutra lutra and Salmo salar. Much of the site is incorporated into the Mayo National Park.	is afforested with conifers.
004100	Inishtrahull SPA	<p>Barrington R.M. (1900). Migration of Birds as Observed at Irish Lighthouses and Lightships. Dublin &amp; London. Charlesworth J.K. (1942). Survey of Inishtrahull - Part 2. Glacial erratics from Inishtrahull. Irish Naturalists' Journal 8: 29-30. Delvin T.R.E. &amp; Merne O.J. (1966). Malin Head Bird Observatory Report 1965. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Stelfox A.W. (1940). Inishtrahull Co. Donegal : A preliminary survey. Irish Naturalists' Journal 7: 238-242. Stelfox A.W. (1943). Survey of Inishtrahull - Part 4. A list of the flowering plants ferns etc. Irish Naturalists' Journal 8: 116-132. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Worden J. Mitchell C.R. Merne O.J. and Cranswick P.A. (2004). Greenland Barnacle Geese Branta leucopsis in Britain and Ireland: Results of the International Census March 2003. The Wildfowl and Wetlands Trust Slimbridge. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>The site is important as it is the most northerly seabird colony in Ireland. It supports nationally important populations of Phalacrocorax aristotelis and Larus canus and regionally important populations of Fulmarus glacialis Larus marinus and Cepphus grylle. Rissa tridactyla has recently started to nest. Terns (Sterna hirundo S. paradisaea) formerly bred but not on a regular basis or in significant numbers since the 1970s. The site has the largest population of breeding Somateria mollissima (&gt;200 pairs in 1991 and &gt;100 pairs in 2008) in Ireland. The island is used on occasions by wintering Branta leucopsis sometimes in numbers of national importance. Cliffs support the rare Ligusticum scoticum a Red Data Book species.</p>	<p>The site is situated approximately 12 km north-east of Malin Head and comprises the island of Inishtrahull and a group of islets the Tor Rocks as well as the intervening sea area. The Tor Rocks are the most northerly point of land in Ireland. The geology is Lewisian gneiss considered the oldest rock in Ireland and having affinities with the rocks of southern Greenland and some of the Hebridean Islands. The soils on Inishtrahull are thin glacial tills or peaty podzols. Most of the coastline is of relatively low cliffs the highest point of the island being only 43 m at the</p>

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			<p>The quality of the habitat is considered good with probably no significant damaging activities occurring.</p>	<p>western end. The cliffs are well indented with a number of deep clefts and off-lying rocks. The vegetation of the interior of the island is predominantly grassland. The Tor Rocks comprise six rocky pinnacles rising to an estimated 20 m above high water mark Inishtrahull was formerly inhabited but not since 1928. There is an automated lighthouse on the island.</p>
004102	Garriskil Bog SPA	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report for the Minister of State at the Department of Finance. Stationery Office Dublin. Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report to the National Parks &amp; Wildlife Service Dublin.</p>	<p>Garriskil bog is a medium-sized raised bog site which contains good examples of the Annex 1 habitats active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). A large proportion of the uncut high bog (c. 40%) comprises very wet active raised bog an unusually high figure for raised bogs in the</p>	<p>Site lies 3 km west of Lough Derravaragh in Co. Westmeath. It is bounded to the southeast and southwest by the rivers Inny and Riffey. The bog is underlain by calcareous shales with a low permeability. A substantial area of uncut high bog</p>

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			<p>eastern half of the country. The site is in the range of the midland lakes flock of wintering <i>Anser albifrons flavirostris</i> which is centred on four major lakes (Derravaragh Iron Owel and Ennel). There are 16 known feeding sites mostly on intensively managed grassland. In the past the site has been utilised by the geese but nowadays use of raised bogs is rare. <i>Falco columbarius</i> has been noted at Garriskil during the breeding season. <i>Gallinago gallinago</i> <i>Numenius arquata</i> and <i>Tringa totanus</i> also breed. <i>Tyto alba</i> has been recorded hunting along the margins of the bog and <i>Lagopus lagopus</i> is occasional.</p>	<p>remains though much of this is classified as degraded raised bog. Old cutaway bog surrounds the high bog and parts of this are dominated by <i>Betula pubescens</i> scrub.</p>
004109	The Gearagh SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. O'Reilly H. (1955). Survey of the Gearagh an area of wet woodland on the River Lee near Macroom Co. Cork. Irish Naturalists' Journal 11: 274-286. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>The site supports important populations of wintering waterfowl including swans dabbling duck diving duck and some waders. Habitat quality is good and the site provides both feeding and roost sites for the birds. Six of the</p>	<p>This site located c. 2 km south-west of Macroom comprises a stretch of the River Lee that was dammed in the 1950s as part of a hydroelectric scheme. The valley formerly held an</p>

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			<p>species have populations of national importance: <i>Cygnus olor</i> <i>Anas penelope</i> <i>Anas crecca</i> <i>Anas clypeata</i> <i>Fulica atra</i> and <i>Pluvialis apricaria</i>. Other species which occur regularly include <i>Cygnus cygnus</i> <i>Aythya fuligula</i> and <i>Vanellus vanellus</i>. The site is a Nature Reserve Ramsar site and Biogenetic Reserve.</p>	<p>extensive area of alluvial forest but only part of the forest now survives. The SPA extends from Annahala bridge westwards to Toon bridge. The principal habitat is now a shallow lake which is fringed by wet woodland scrub and grassland that is prone to flooding. At times of low water a diverse ephemeral pioneering plant community develops on the mud.</p>
004119	Loop Head SPA	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey in Ireland 1992. Unpublished report to IWC and RSPB Dublin. Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lysaght L. Mee T. Murphy J. and Tarpey T. (1994). Birds of Clare and Limerick 1982-1991. Irish Wildbird Conservancy Limerick. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland.</p>	<p>The site supports a good diversity of breeding seabirds. <i>Rissa tridactyla</i> and <i>Uria aalge</i> have populations of national importance while there are locally important populations of <i>Fulmarus glacialis</i> and <i>Alca torda</i>. <i>Pyrhocorax pyrrhocorax</i> (several pairs) breed within the site and use the maritime heath above the cliffs for feeding. It is a traditional site for <i>Falco peregrinus</i>.</p>	<p>Loop Head is situated at the most westerly point of Co. Clare. The site includes the shoreline and cliffs some adjoining maritime grassland and heath and the adjacent marine area to a distance of 500 m from the shore (where seabirds feed bathe and socialise). The vertical cliffs are impressive</p>

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				<p>extending for up to 5 km and rising to approximately 60 m and highly exposed to the open seas of the Atlantic ocean. They are composed of Carboniferous grits and flags. A number of islets and stacks occur notably Gull Island and Dermot and Grania's Rock. A lighthouse is situated on the headland.</p>
004125	Magharee Islands SPA	<p>Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey in Ireland 1992. Unpublished report to IWC and RSPB Dublin. Goodwillie R. (1976). A Preliminary Report on Areas of Scientific Interest in County Kerry. An Foras Forbartha Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Parnell J.A.N. Wyse Jackson P.S. and Akeroyd J.R. (1983). The flora of the Magharee Islands Co.</p>	<p>The site is of international importance for breeding seabirds. There is a long-established tern colony with Sterna albifrons (21% of national total in 1995) Sterna paradisaea (7% of national total in 1995) and small numbers of Sterna hirundo. Other breeding seabirds are Fulmarus glacialis Phalacrocorax carbo Phalacrocorax aristotelis Larus canus Larus fuscus and Cepphus grylle. The Phalacrocorax aristotelis and Larus canus populations are of national importance. The</p>	<p>The Magharee Islands or Seven Hogs lie about 2 km north of the Magharees Peninsula. The group includes seven main islands (Illaunimmill and Illauntannig being the largest) plus a number of holms and skerries. The islands are exposed on their west coasts and more sheltered to the east with moderately strong currents between them. The islands are composed of</p>

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		<p>Kerry. Bulletin of the Irish Biogeographical Society 7: 45-54. Picton B.E. and Costello M.J. (eds). (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0). Environmental Sciences Unit Trinity College Dublin. (Compact Disc).Walsh A. and Merne O.J. (1988). Barnacle Geese in Ireland spring 1988. Irish Birds 3: 539-550. West B. Cabot D. and Greer-Walker M. (1975). The food of the Cormorant Phalacrocorax carbo at some breeding colonies in Ireland. Proceedings of the Royal Irish Academy 75B: 285-305. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>wintering population of Branta leucopsis is of national importance and is notable as it is the most southerly population in Ireland.</p>	<p>Carboniferous limestone the larger ones having a cover of glacial boulder clay. Illaunimill and Illauntannig were at one time inhabited and both are still grazed by cattle and sheep. On these islands the main vegetation type is unimproved grassland. A maritime grassy sward occurs around the shoreline of the larger islands and also on the smaller islands. The marine areas around each island to a distance of 200 m are included in the site for the benefit of the breeding birds. The marine areas have important examples of infralittoral reef communities.</p>
004129	Ballysadare Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin.Hunt J. Derwin J. Coveney J. and Newton S. (2000).</p>	<p>Ballysadare Bay is an important component of the larger Sligo Bay complex. It supports nationally important populations of four</p>	<p>Ballysadare Bay extends for about 10 km westwards from the town of Ballysadare and is the most southerly</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>species: <i>Calidris alpina</i>  <i>Limosa limosa</i> <i>Tringa totanus</i> and <i>Tringa nebularia</i>. It also has a good diversity of other waterfowl species including <i>Branta bernicla</i> <i>hrota</i> <i>Cygnus cygnus</i> <i>Mergus serrator</i> <i>Pluvialis apricaria</i> and <i>Charadrius hiaticula</i>. The estuarine habitat is of good quality and the site provides both feeding and roost sites for the birds.</p>	<p>of three inlets comprising the larger Sligo Bay complex. The bay has an average width of c. 2 km. The estuarine channel of the Ballysadare River winds its way through the bay finally reaching the open sea near the sand spit at Culleenamore. The bay is underlain by sedimentary rocks of limestones sandstones and shales which are exposed as low cliffs and small sections of bedrock shore at several locations. The site contains extensive intertidal sand and mudflats which support good populations of macro-invertebrates. <i>Zostera</i> spp. and <i>Ruppia maritima</i> are present. Well-developed salt marshes occur at several locations around the bay. The</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				site includes part of the Strandhill dune system and some areas of wet and dry grassland.
004139	Lough Croan Turlough SPA	<p>Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Fox T. Francis I. and Walsh A. (2008). Report of the 2007/2008 International Census of Greenland White-Fronted Geese. Greenland White-fronted Goose Study and NPWS. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Goodwillie R.N. (1992). Turloughs over 10 ha - Vegetation Survey and Evaluation. Unpublished Report to National Parks and Wildlife Service Dublin. Heery S. (1996). Birds in Central Ireland. Mid-Shannon Bird Report 1992-1995. BirdWatch Ireland Kilcoole. Heery S. (2000). Birds in Central Ireland. Mid-Shannon Bird Report 1996-1999. BirdWatch Ireland Kilcoole. Hills J.P. (2003). Rare Irish breeding birds. Irish Birds 7: 157-172. Hills J.P. (2004). First annual report of the Irish Rare Breeding Birds Panel. Irish Birds 7: 375-384. National Parks and Wildlife Service. Greenland White-fronted Goose Inventory. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-Fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO Belfast.</p>	<p>Lough Croan turlough is an important site for wintering waterfowl. It regularly supports a nationally important population of Anser albifrons flavirostris which is part of the internationally important River Suck population. It also has nationally important populations of Anas clypeata and Pluvialis apricaria. The Anas clypeata population represents a substantial (&gt;5%) proportion of the all-Ireland total. Other species which occur regularly include Cygnus cygnus Anas crecca Anas acuta and Vanellus vanellus. The turlough also has breeding waterfowl species most notable Anas clypeata and Aythya ferina both rare breeders in Ireland. The wintering waterfowl are monitored annually. Much of the site is a Wildfowl Sanctuary.</p>	<p>Situated approximately 6 km west of the River Suck in Co. Roscommon Lough Croan is a linear wetland aligned north-west/south-east which lies in a flattish area of glacial till. It is split into two main parts - the east functions as a typical turlough with a wet swampy centre the west is a fen floating places which also floods in winter. In between there is undulating ground. Both basins retain some water all year round but there is little overground flow.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
004142	Cregganna Marsh SPA	Buckley P. and McCarthy T.K. (1987). Bird Communities in the Dunkellin/Levally Catchment. Unpublished report to the Wildlife Service Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. NPWS Greenland White-fronted Goose Inventory. NPWS Dublin. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. Irish Wildbird Conservancy Dublin. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363.	Cregganna Marsh is of importance as it is the principal alternative feeding site for the nationally important population of Anser albifrons flavirostris that is based at nearby Rahasane turlough. Numbers using Cregganna Marsh vary between winters but in most winters the qualifying threshold for national importance is exceeded.	Cregganna Marsh is situated just south of Oranmore and close to Galway City. The site comprises a basin with marsh and wet grassland habitat in the lower areas. It is fed by a local calcareous spring. At times of high rain the area floods. The fields above the low-lying ground are mainly improved grassland and are included within the site to lessen disturbance to the feeding geese. Small areas of scrub dry grassland and exposed limestone rock are also present.
004144	High Island Inishshark and Davillaun SPA	Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Lloyd C. (1982). Inventory of Seabird Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. and Walsh A. (2003). Barnacle Geese Branta leucopsis in Ireland spring 2003. Irish Birds 7: 173-176. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Mitchell C. Walsh A. Hall C. and Crowe O. (2008). Greenland Barnacle Geese Branta leucopsis in Britain and Ireland: results of the International Census Spring 2008. WWT NPWS and Birdwatch Ireland Report. Ussher R.J. and Warren R. (1900). Birds of	High Island Inishshark and Davillaun are utilised in winter by a nationally important population of Branta leucopsis (4.3% of the all-Ireland population total). In addition this site is an important breeding sites for seabird species with nationally important numbers of	High Island Inishshark and Davillaun are small uninhabited islands lying some 3-5 km north and west of Aughrus Point on the Co. Galway coast. Grassland is the main vegetation type found with

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Ireland. Gurney and Jackson London.	Fulmarus glacialis (2.1% of the all-Ireland total) and Sterna paradisaea (1.8%). Other breeding birds occur include Rissa tridactyla Puffinus puffinus Phalacrocorax aristotelis Larus argentatus and Larus canus.	vegetated sea cliffs dry heath exposed rock and some freshwater marsh also present. The surrounding sea to a distance of 200 m from each island is included within the site. High Island is the site of an important ancient ecclesiastical settlement.
004146	Malin Head SPA	Alcorn S. Donaghy A. and Moloney D. (2009). Corncrake Fieldwork in North and West Donegal 2009. Unpublished Report by Birdwatch Ireland for National Parks and Wildlife Service. Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Copeland A. (2002a). Corncrake Conservation on the Mayo and Donegal Mainland - Proposal for SPA Designation. Unpublished Birdwatch Ireland Report. Copeland A. (2002b). Delivering Corncrake Crex crex conservation in Ireland: Past present and future. Irish Birds 7: 33-42. Copeland A. and Madden D. (2002). Corncrake Fieldwork in the Shannon Callows 2002. Unpublished report BirdWatch Ireland. Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Sheppard R. and Green R.E. (1994). Status of the Corncrake in Ireland in 1993. Irish Birds 5: 125-138.	Malin Head SPA supports a breeding population of Crex crex and is one of a suite of sites along the western seaboard that is regularly utilised by nationally important numbers of the species. Crex crex is listed on the 2010 International Union for Conservation of Nature (IUCN) Red List of Threatened Species. This is due to population and range declines of more than 50% in the last 25 years across significant parts of its range.	Malin Head SPA comprises areas of agricultural grassland around the village of Ballygorman near Malin Head at the northern end of the Inishowen Peninsula Co. Donegal. The northern section of the site is very exposed and comprises gently undulating land used mostly for grazing. The southern section of the site centred along the Coolort River is low-lying and consists of mixed agricultural

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				land with meadow and grazing pasture.
004148	Fanad Head SPA	<p>Alcorn S. Donaghy A. and Moloney D. (2009). Corncrake Fieldwork in North and West Donegal 2009. Unpublished Report by Birdwatch Ireland for National Parks and Wildlife Service. Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Copeland A. (2002a). Corncrake Conservation on the Mayo and Donegal Mainland - Proposal for SPA Designation. Unpublished Birdwatch Ireland Report. Copeland A. (2002b). Delivering Corncrake Crex crex conservation in Ireland: Past present and future. Irish Birds 7: 33-42. Copeland A. and Madden D. (2002). Corncrake Fieldwork in the Shannon Callows 2002. Unpublished report BirdWatch Ireland. Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Sheppard R. and Green R.E. (1994). Status of the Corncrake in Ireland in 1993. Irish Birds 5: 125-138.</p>	<p>Fanad Head SPA supports a nationally important breeding population of Crex crex and is one of a suite of sites along the western seaboard that is regularly utilised by nationally breeding numbers of this species. Crex crex is listed on the 2010 International Union for Conservation of Nature (IUCN) Red List of Threatened Species. This is due to population and range declines of more than 50% in the last 25 years across significant parts of its range.</p>	<p>Fanad Head SPA comprises two areas of extensively managed grassland on the Fanad Head peninsula on the north coast of Co. Donegal. Included within the site is an area of grassland between Kinny Lough and Shannagh Lough and another area around the village of Doagh Beg on the western shore of Lough Swilly south of Fanad Head. The principal habitat present is grassland but small areas of scrub and wetlands also occur.</p>
004155	Beara Peninsula SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. Irish Birds 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. British Birds 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish</p>	<p>The site supports an important population of breeding Chough a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 58 breeding pairs were recorded within the site in the 1992 survey and</p>	<p>The Beara Peninsula SPA is a coastal site situated on the west coast of Co. Cork south-west of the town of Kenmare. It encompasses the high coast and sea</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>National Heritage. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish Birds 6: 333-344. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs Pyrrhocorax pyrrhocorax in three Irish Chough Important Bird Areas.</p>	<p>54 in the 2002/03 survey. Flocks of up to 42 birds have been recorded in September 2003. The site also holds a nationally important population of Fulmar (575 pairs) and Black Guillemot (87 individuals in 1999) as well as smaller populations of other breeding seabirds: Shag (12 pairs) Herring Gull (20 pairs) Lesser Black-backed Gull (4 pairs) and Razorbill (5 pairs) - all seabird data from 2000. The site is also used by Peregrine (4 pairs in 2002).</p>	<p>cliff sections of the western end of the peninsula from Reenmore Point/Cod's Head in the north around to the end of Dursey Island in the west and as far east as Bear Island in the south. The site includes the sea cliffs the land adjacent to the cliff edge and several upland areas further inland of the coast about Eagle Hill Knockgour Allihies and Firkeel. The high water mark forms the seaward boundary. Most of the site is underlain by Devonian sandstones and siltstones though Carboniferous rocks are found about Black Ball Head and on Bear Island; small areas of igneous rocks occur at Cod's Head Dursey Island Black Ball Head and Bear Island.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
004158	River Nanny Estuary and Shore SPA	<p>Colhoun K. (2001). I-WeBS Report 1998/99. BirdWatch Ireland Dublin. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lenehan L.J. (1991). The birds of the Meath and south Louth coast. Irish East Coast Birds Report 1990. 50-59. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Mitchell C. Walsh A. Hall C. and Crowe O. (2008). Greenland Barnacle Geese Branta leucopsis in Britain and Ireland: results of the International Census Spring 2008. WWT NPWS and Birdwatch Ireland Report. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>This is an important east coast site with nationally important populations of <i>Pluvialis apricaria</i>, <i>Haematopus ostralegus</i>, <i>Charadrius hiaticula</i>, <i>Calidris cantus</i>, <i>Calidris alba</i> and <i>Larus argentatus</i>. The population of <i>Calidris canutus</i> and <i>Calidris alba</i> are of particular note as they represent 4% and 3.8% of the respective all-Ireland totals. A range of other waterfowl species also occur including <i>Branta bernicla</i> hrota as well as <i>Larus</i> gulls. The site is of most importance as a roost area for the birds but also provides feeding habitat.</p>	<p>The site comprises the estuary of the River Nanny and sections of the shoreline to the north and south of the estuary (c.3 km in length). The estuarine channel which extends inland for almost 2 km is narrow and well sheltered. Sediments are muddy in character and edged by saltmarsh and freshwater marsh/wet grassland. The shoreline which is approximately 500 m in width to the low tide mark comprises beach and intertidal habitats. It is a well-exposed shore with coarse sand sediments. The well-developed beaches which are backed in places by clay cliffs provide high tide roosts for the birds. The village of Laytown occurs in the northern side of the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				River Nanny estuary.
004160	Slieve Bloom Mountains SPA	<p>Baton C. Pollack C. Norriss D.W. Nagle T.A. Oliver G.A. &amp; Newton S. (2006). The second national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 2005. Irish Birds 8: 1-20</p> <p>Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage.</p> <p>Heery S. (2009). Birds in Central Ireland. Fourth Mid-Season Bird Report 2004-2007. BirdWatch Ireland Kilcoole.</p> <p>Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin.</p> <p>Norriss D.W. Marsh J. McMahon. D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 1998-2000. Irish Birds 7: 1-12</p> <p>O'Flynn W.J. (1983). Population changes of the Hen Harrier in Ireland. Irish Birds 2: 337-343</p> <p>Nagle T. and Lyden J. (2004). South Munster Hen Harrier Survey 2004. Unpublished report. Irish Raptor Study Group.</p> <p>Nagle T. and Lyden J. (2005). South Munster Hen Harrier Survey 2005. Unpublished report. Irish Raptor Study Group.</p> <p>Wilson M. Gittings T. O'Halloran J. Kelly T. and Pithon J. (2005). The Distribution of Hen Harriers in Ireland in Relation to Land-use Cover and Forest Cover in Particular. COFORD Dublin.</p>	<p>Supports 3.7% of the all-Ireland population of <i>Circus cyaneus</i> and among the top 5 most important sites in the country for this species. Also the most easterly population in the country. Habitat excellent for nesting and foraging purposes. Also has nesting <i>Falco peregrine falcon columbarius</i> and <i>Lagopus lagopus</i> the later a Red Data Book Species.</p>	<p>The site lies on the Offaly-Laois border and runs along a NE-SW ridge for approximately 25km. Much of the site is over 200 m in altitude with a maximum of 527 m at Arderin. The mountains are of Old Red Sandstone flanked by Silurian rocks. Several important rivers rise within the site including the Barrow Delour and Silver rivers. Approximately 60% of the site is afforested including both first and second rotation plantations and clearfell areas. Roughly one-quarter of the site is unplanted blanket bog and heath with the remainder of the site largely rough grassland that is used for hill farming. Some stands of deciduous</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				woodland and scrub also occur especially within the river valleys.
004165	Slievefelim to Silvermines Mountains SPA	<p>Barton C. Pollock C. Norriss D.W. Nagle T. Oliver G.A. and Newton S. (2006). The second national survey of breeding Hen Harriers Circus cyaneus in Ireland 2005. Irish Birds 8: 1-20. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Heery S. (2009). Birds in Central Ireland. Fourth Mid-Season Bird Report 2004-2007. BirdWatch Ireland Kilcoole. Lynas P. Newton S.F. and Robinson J.A. (2009). The status of birds in Ireland: an analysis of conservation concern 2008-2013. Irish Birds 8(2): 149-166. Norriss D.W. Marsh J. McMahon. D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers Circus cyaneus in Ireland 1998-2000. Irish Birds 7: 1-12. O'Flynn W.J. (1983). Population changes of the Hen Harrier in Ireland. Irish Birds 2: 337-343. Wilson M. Gittings T. O'Halloran J. Kelly T. and Pithon J. (2005). The Distribution of Hen Harriers in Ireland in Relation to Land-use Cover and Forest Cover in Particular. COFORD Dublin.</p>	Supports c. 3% of the all-Ireland population of Circus cyaneus and among the top 5 most important sites in the country for the species. Habitat excellent for both nesting and foraging purposes. Also has nesting Falco peregrinus Falco columbarius and Lapopus lagopus the latter a Red Data Book species. Falco columbarius probably nests but a survey is required.	This is an extensive upland site that occurs in Counties Tipperary and Limerick. Much of the site is over 200 metres in altitude rising to 694 m at Keeper Hill. The site is underlain mainly by Silurian-aged Sandstones. Several important rivers rise within the site including the Mulkear Bilboa and Clare rivers. Approximately half of the site is afforested including both first and second rotation plantations and clear fell areas. Roughly one-quarter of the site is unplanted blanket bog and heath with both wet and dry heath present. The remainder of the site is largely rough grassland that is used for hill

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				farming. Some stands of deciduous woodland also occur especially in the river valley.
004167	Slieve Beagh SPA	<p>Barton C. Pollock C. Norriss D.W. Nagle T. Oliver G.A. and Newton S. (2006). The second national survey of breeding Hen Harriers Circus cyaneus in Ireland 2005. Irish Birds 8: 1-20. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Heery S. (2009). Birds in Central Ireland. Fourth Mid-Season Bird Report 2004-2007. BirdWatch Ireland Kilcoole. Lynas P. Newton S.F. and Robinson J.A. (2009). The status of birds in Ireland: an analysis of conservation concern 2008-2013. Irish Birds 8(2): 149-166. Norriss D.W. Marsh J. McMahon D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers Circus cyaneus in Ireland 1998-2000. Irish Birds 7: 1-12. O'Flynn W.J. (1983). Population changes of the Hen Harrier in Ireland. Irish Birds 2: 337-343. Wilson M. Gittings T. O'Halloran J. Kelly T. and Pithon J. (2005). The Distribution of Hen Harriers in Ireland in Relation to Land-use Cover and Forest Cover in Particular. COFORD Dublin.</p>	<p>The SPA is one of the strongholds for Hem Harrier in the country representing over 1% of the all-Ireland total. However when the Northern Ireland sector of Slieve Beagh is considered there were a total of 10 breeding pairs in 2005. The mix of forestry and open areas provides optimum habitat conditions for this rare bird. The early stage of new and second-rotation conifer plantation are the most frequently used nesting sites though some pairs may still nest in tall heather of unplanted bog and heath. Merlin have also been recorded within the site.</p>	<p>The Slieve Beagh SPA comprises much of the eastern and south-eastern sectors of the Slieve Beagh upland area that extends from County Monaghan into Northern Ireland. The site consists of mountain blanket bog which is well developed at the higher altitudes and especially at Eshbrack (peak of 365m). In places the bog is cutover and there are also wet and dry heaths present. The mid-slopes are afforested with plantations of various ages. The remainder of the site is rough or marginal grassland. Some of the old fields system support species-rich wet grassland</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				vegetation dominated by soft rush. Several small dystrophic lakes are present within the site.
004182	Mid-Clare Coast SPA	<p>Crowe O. Austin G.E. Colhoun K. Cranswick P. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 - 2003/04. Bird Study 55 66-77</p> <p>Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Kennedy P.G. Ruttledge R.F. and Scroope C.F. (1954). The Birds in Ireland. London &amp; Edinburgh. Llyod C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished Report Forestry and Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Area in Europe. ICBP Technical Publication No.9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Merne O.J. and Walsh A. (2003). Barnacle Geese in Ireland spring 2003. Irish Birds 7: 173-176. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Moore D. and Wilson F. (1999). National Shingle Brach Survey of Ireland 1999. Unpublished Report to the National Parks and Wildlife Service. Murphy J. (1993). Preliminary report on the Birds and Wildlife of Mutton Island Co Clare. Report to the Irish Wildbird Conservancy Clare branch. Murphy J. (1995). Visit to Mutton Island Co. Clare in May 1995. Report to the Irish Wildbird Conservancy Clare branch. Unpublished. Ruttledge R.F. (1966). Ireland's Birds. Witherby London. Ussher R.J. and Warren R. (1900). The Birds of Ireland. Guerny &amp; Jackson London. Wetlands International (2006). Waterfowl population estimates- fourth edition. Wetlands International Wageningen The Netherlands.</p>	<p>An important population of <i>Branta leucopsis</i> which at times exceeds the threshold for national importance winters on Mutton Island. Site is of particular importance for wader species of rocky and sandy shores with nationally important wintering populations of <i>Charadrius hiaticula</i> <i>Calidris maritima</i> <i>Calidris alba</i> <i>Calidris alpina</i> and <i>Arenaria interpres</i>. The <i>Calidris maritima</i> and <i>Arenaria interpres</i> populations are regularly the largest in the country and comprise 11.5% and 4.3% of the respective all-Ireland totals. <i>Gavia immer</i> is regular in winter. Mutton and Mattle Islands support a range of breeding seabirds with a nationally important population of <i>Phalacrocorax carbo</i> as well as populations of <i>Phalacrocorax aristotelis</i> <i>Larus canus</i> <i>Larus fuscus</i></p>	<p>The site stretches for approximately 14 km of the west coast of Clare from Spanish Point to Rinnamryal just west of Doonbeg. The mainland shoreline which is highly exposed to the force of the Atlantic is mostly rocky and stony with well-developed littoral reed communities. There are several sandy beaches such as at White Strand as well as areas of intertidal flats. The site has significant examples of vegetated shingle and stony banks all of which are very exposed. Several islands are included the largest of which is Mutton Island a medium sized uninhabited island</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Larus argentatus Larus marinus and Cepphus grylle.	situated approximately 1 km from Lurga Point. Mutton Island is dominated by a grassy sward with some low cliffs at the west side. Mattle Island is a small island situated approximately 2 km south of the larger Mutton Island. It is a low-lying island rising to only 12 m in the central area. A group of littoral reefs occur to the north of Mutton Island notably Carrickaneelwar and Seal Rock. A large marine area which has very good examples of sub-tidal reefs is included in the site.
004188	Tralee Bay Complex SPA	Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.A. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbirds numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important	Tralee Bay Complex SPA is an international important site supporting over 20000 wintering waterbirds including an international important population of Branta bernicla hrota. Nationally important populations of	The Tralee Bay Complex SPA is located along the coast of north Co. Kerry between Ballyheige in the north Tralee in the east and Stradbally in the west. The site includes the inner

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2007. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Robinson J.A. Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swans <i>Cygnus cygnus</i> (Iceland Population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetland Trust/Joint Nature Conservation Committee Slimbridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>21 other species also occur at the site including <i>Cygnus cygnus</i> <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i>.</p>	<p>part of Tralee Bay including Derrymore Island the inlets of Barrow Harbour and Carrahane Strand Akeragh Lough Lough Gill and much of the intertidal habitat from Scraggan Point at the northern end of the Magharees Peninsula around the coast to c. 2 km south of Ballyheige.</p>
004192	Helvick Head to Ballyquin SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. Irish Birds 5: 1-10 Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. British Birds 76: 377-401. Crowe O. Austin G.A. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough <i>Pyrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish birds 6: 333-344. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine <i>Falco peregrinus</i> breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray</p>	<p>The low heath and agricultural farmland on the cliff tops provides good foraging habitat for <i>Pyrhocorax pyrrhocorax</i>; the site is also important for <i>Falco peregrinus</i>. In addition the site has important breeding seabird populations centered around Helvick Head.</p>	<p>Helvick Head to Ballyquin SPA is a linear site situated on the south-west coast of Co. Waterford. It includes the sea cliffs and land adjacent to the cliff edge between Helvick Head in the east and Ballyquin townland in the south-west. The high water mark forms the seaward boundary except around Helvick Head where the adjacent sea area to a distance of 500 m</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs <i>Pyrrhocorax pyrrhocorax</i> in three Irish Chough Important Bird Areas.</p>		<p>from the cliff base is included.</p>
004194	Horn Head to Fanad Head SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. <i>Irish Birds</i> 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. <i>British Birds</i> 76: 377-401. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. <i>Bird Study</i> 55: 66-77. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. <i>Irish Birds</i> 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Launder C. and Donaghy A. (2008). Breeding waders in Ireland 2008: A review and recommendations for future action. Unpublished report to NPWS. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Madden B. Cooney T. and O'Donoghue A. (1997). Survey of breeding waders of machair sites in Ireland. Unpublished report to NPWS. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. <i>Irish Birds</i> 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. <i>Irish Birds</i> 7: 53-56. Mitchell C. Walsh A. Hall C. and Crowe O. (2008). Greenland Barnacle Geese <i>Branta leucopsis</i> in Britain and Ireland: results of the International Census Spring 2008. WWT NPWS and Birdwatch Ireland Report. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine <i>Falco peregrinus</i> breeding population in the Republic of Ireland. <i>Bird Study</i> 42: 20-30. Robinson J.A. Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swan <i>Cygnus cygnus</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands</p>	<p>The site holds a nationally important population of breeding <i>Pyrrhocorax pyrrhocorax</i> the sea cliffs provide breeding and roosting sites for the birds whilst the land adjacent to the cliff top provides feeding habitat. The site also supports a large population of <i>Falco peregrinus</i>. In addition the site is used by an assemblage of over 20000 breeding seabirds the cliffs around Horn Head being of particular importance. The site supports nationally important numbers of <i>Fulmarus glacialis</i> (5.1% of all-Ireland total) <i>Phalacrocorax carbo</i> (1.5%) <i>Phalacrocorax aristotelis</i> (3%) <i>Rissa tridactyla</i> (7.9%) <i>Uria aalge</i> (2.7%) and <i>Alca torda</i> (13%). In winter the site supports flocks of <i>Branta leucopsis</i> and <i>Anser albifrons flavirostris</i> that are of</p>	<p>Horn Head to Fanad Head SPA comprises a number of separate sections of the north County Donegal coastline stretching some 70 km eastwards from Dooros Point south-west of Horn Head to just south of Saldanha Head south of Fanad Head. The site includes the high coast areas and sea cliffs the land adjacent to the cliff edge and the sand dunes and lake at Dunfanaghy/Rinclevan. The high water mark forms the seaward boundary except at Horn Head where the adjacent sea area to a distance of 500 m from the cliff base is included. Sea cliffs are present along virtually all</p>

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		<p>Trust/Joint Nature Conservation Committee Slimbridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Suddaby D. Nelson T. and Veldman J. (2009). Resurvey of breeding wader populations of machair and associated wet grassland in north-west Ireland. Irish Wildlife Manuals No. XX. National Parks and Wildlife Service Department of the Environment Heritage and Local Government Dublin. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs Pyrrhocorax pyrrhocorax in three Irish Chough Important Bird Areas. Worden J. Mitchell C.R. Merne O.J. and Cranswick P.A. (2004). Greenland Barnacle Goose Branta leucopsis in Britain and Ireland: Results of the International census March 2003. The Wildfowl &amp; Wetlands Trust Slimbridge.</p>	<p>national importance.</p>	<p>the site. Almost all are greater than 10 m in height. They are often over 30 m and rise impressively to over 200 m in a few places. The geology consists of both metamorphic and igneous intrusive rocks. The metamorphic rocks are quartzites and schists. A small low-lying peninsula of metamorphic limestones occurs at Cloonmass Point and Isle just north of the Ards peninsula. Large areas of habitat included in the site are semi-natural often on unenclosed land but there is some improved and semi-improved agricultural land also. Apart from the ubiquitous and well-developed vegetated sea cliff and cliff top habitat the semi-natural habitat present include fixed dunes</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				Marram (Ammophila arenaria) dunes dune heath dune slacks machair dry heath wet grassland improved and semi-improved grassland and lakes.
004220	Corofin Wetlands SPA	Cranswick P.A. Bowler J.M. Einarsson O. Gardarsson A. McElwaine J.G. Merne O.J. Rees E.C. and Wells J.H. (1996). Numbers of Whooper Swan <i>Cygnus cygnus</i> in Iceland Ireland and Britain in January 1995: results of the international Whooper Swan census. <i>Wildfowl</i> 47: 23-36. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland. Crowe O. Austin G.A. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008a). Estimates and trends of waterbirds numbers wintering in Ireland 1994/95 to 2003/04. <i>Bird Study</i> 55: 66-77. Crowe O. Webb G. Collins E. and Smiddy P. (2008b). Waterways Bird Survey. NPWS OPW and BirdWatch Ireland Report. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Robinson J.A. Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swans <i>Cygnus cygnus</i> (Iceland Population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl & Wetland Trust/Joint Nature Conservation Committee Slimbridge. Sheppard R. (1993). Ireland's Wetland Wealth IWC Dublin.	Corofin Wetlands SPA is of high ornithological importance for supporting nationally important numbers of <i>Cygnus cygnus</i> and <i>Limosa limosa</i> supporting 1.3% and 2.4% of the all-Ireland population respectively. Corofin Wetlands supports a further 3 species of national importance; <i>Tachybaptus ruficollis</i> (3.3% of all-Ireland population) <i>Anas penelope</i> (3.2%) and <i>Anas crecca</i> (1.8%). It is also notable for its wintering <i>Anas strepera</i> population.	Corofin Wetlands SPA incorporates the lakes Inchiquin Lough Lough Atedaun and Lough Cullaun and associated calcareous wetlands. The site extends southwards to include the floodplain of the River Fergus to the west of Corofin Co. Clare. The site contains some of the best areas of oligotrophic limestone wetlands to be found in the Burren.
004233	River Nore SPA	Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. <i>Bird Study</i> 55: 66-77. Crowe O. Webb G. Collins E. and Smiddy P. (2008). Waterway Bird Survey 2008. Unpublished report to the NPWS. Cummins S. Fisher J. McKeever R.J. McNaghten L. and Crowe O.	The River Nore support nationally important numbers of <i>Alcedo atthis</i> . Other species which occur within the site include <i>Cygnus olor</i>	The River Nore SPA is a long linear site that includes the following river sections: the River Nore from the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>(2010). Assessment of the Distribution and Abundance of Kingfishers <i>Alcedo atthis</i> and Other Riparian Birds on Six SAC. Unpublished report to the NPWS. Gibbons D.W. Reid. J.B. and Chapman. R.A. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. T. &amp; A.D. Poyser London. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish birds 6: 333-344.</p>	<p>Anas platyrhynchos            Phalacrocorax carbo            Ardea cinerea            Gallinula chloropus            Gallinago gallinago and Riparia riparia.</p>	<p>bridge at Townparks (north-west of Borris in Ossory) to Coolnamuck (approximately 3 km south of Inistioge) in Co. Kilkenny; the Delour River from its junction with the River Nore to Derrynaseera bridge (west of Castletown) in Co Laois; the Erkina River from its junction with the River Nore at Durrow Mills to Boston Bridge in Co. Laois; a 1.5 km stretch of the River Goul upstream of its junction with the Erkina River; the Kings River from its junction with the River Nore to a bridge at Mill Island Co. Kilkenny. The site includes the river channel and marginal vegetation.</p>
000019	Ballyogan Lough SAC	<p>Curtis T.G.F. and Mc. Gough N. (1981). A Survey of the Wetlands of the Fergus Catchment and Adjoining Areas. Unpublished report to the Forest and Wildlife Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in</p>	<p>The site supports a typical example of <i>Cladium mariscus</i> fen in a</p>	<p>The site is located in the eastern part of the Burren</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		County Clare. An Foras Forbartha Dublin.	calcareous lake system. The fen occurs in association with Phragmites swamp and Schoenus fen and is adjacent to acidic cutover bog. The structure and functionality of the Cladium fen appears good. The occurrence of a substantial area of limestone pavement within the site adds to its conservation value.	complex. It lies within a wedge shaped basin with low hills on both sides. Ballyogan Lough is a small and shallow calcareous lake with marl deposits. Also included in site is Moyree Lough and several other very small loughs. The lakes are fringed by swamp and fen vegetation which merges with an extensive area of cutover bog in the north-eastern sector of the site. The cutover bog varies in wetness and in places supports fen communities. An extensive area of limestone pavement and scrub woodland with patches of calcareous grassland occupies the south-western part of the site.
000036	Inagh River Estuary SAC	Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington	The salt marshes at this site particularly Atlantic salt meadows and	The site comprises the estuaries of the River Inagh and the



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) <i>A Guide to the Sand Dunes of Ireland</i>. E.U.C.C. Dublin.</p> <p>Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). <i>Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94</i>. Greenland White-fronted Goose Study research report no. 8. <i>Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin</i>. Gaynor K. &amp; Browne A. (1999). <i>Survey of Irish Links Golf Courses</i>. Unpublished report for Dúchas The Heritage Service. Dublin.</p>	<p>Salicornia sand flats are well represented and of good quality. The area formerly had extensive sand dunes but the greater part of these are now developed as golf courses and excluded from site. Areas of <i>Ammophila</i> dunes and fixed dunes remain but these are very limited in extent and of only moderate quality. The site formerly had wintering <i>Anser albifrons flavirostris</i> and still has regionally important numbers of a range of waterfowl species including <i>Pluvialis apricaria</i>.</p>	<p>Dealagh River. The tidal sections of these rivers merge at O'Brien's Bridge and then flow through a narrow channel between two sand dune spits and into Liscannor Bay. The most frequent habitat at the site is wet grassland which occurs behind the salt marshes and along the river channels. Some swamp vegetation occurs along the river channels and there are areas of mixed woodland and wet woodland just below Ennistimon. On the seaward side of the dune spits there are sandy beaches and a boulder beach. The intertidal sand flats to the low tide mark are included.</p>
000093	Caha Mountains SAC	<p>Cross J. (1982). Heath Survey. Unpublished data. Forest and Wildlife Service Dublin. Curtis T.G.F. and McGough H.N. (1988). <i>The Irish Red Data Book: 1 Vascular Plants</i>. Wildlife Service Dublin. Berrow S.D. Mackie K.L. O. Sullivan O. Sheppard K.B. Mellon C. Coveney J.A. (1993) <i>The second International Cough Survey in Ireland 1992</i>. <i>Irish Birds</i> 5: 1-10. Mooney E. and Goodwillie R.N. <i>Mountain Blanket Bog Survey 1991</i>. Draft report to the National Parks and Wildlife Service Dublin. Moore J.J. (1966).</p>	<p>Site is of high scientific interest because of the large area of upland blanket bog which features an excellent example of a saddle bog.</p>	<p>This upland site is underlain by old red sandstone. The average altitude within the site is 420m though a few</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Minuartia recurva (All.) Sching and Theil. New to the British Isles. Irish Naturalists' Journal 15 : 130-132. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. NPWS (2016) Conservation Objectives: Caha Mountains SAC 000093. Version 1. National Parks and Wildlife Service Department of Arts Heritage Regional Rural and Gaeltacht Affairs. Platts E.A. and Speight M.C.D. (1988) The taxonomy and distribution of the Kerry Slug <i>Geomalacus maculosus</i> Allman 1843 (Molusca: Arionidae) with a discussion of its status as a threatened species. Irish Naturalists' Journal 22: 417-430. Scannell M.J.P. (1985) Caha Mountains Co Cork - A report of a BSBI fieldtrip. BSBI News 44 : 29. Stewart N. (undated) A list of rare bryophytes in Ireland. National Parks and Wildlife Service Dublin.</p>	<p>In addition to the bog there are good examples of siliceous rock and scree and some reasonable examples of alpine heath and wet heath. Oligotrophic lakes are a feature of the site as well as food example of dystrophic lakes. <i>Minuartia recurva</i> a protected and Red Data Book species has at this site its only station in the British Isles. <i>Falco peregrinus</i> <i>Circus cyaneus</i> and <i>Pyrhocorax pyrrhocorax</i> Annex I Bird Directive species occur within the site. <i>Lutra lutra</i> also occurs. <i>Geomalacus maculosus</i> is widespread throughout the site. A notable assemblage of bryophytes have been recorded.</p>	<p>peaks extend to 630m. The site features glacial valleys and corries such as that within which Barley Lake occurs. A broad boggy plateau studded with small lakes occurs at about 420m. Substantial cliffs are present in the north-western part of the site. Afforestation is carried on outside of the site.</p>
000097	Lough Hyne Nature Reserve and Environs SAC	<p>Costello M.J. and Holmes J.M.C. (1991). Bibliography of Lough Hyne to 1990. pp. 172-175 in: Myers A.A. Little C. Costello M.J. &amp; Partridge C.J. (Eds.). The Ecology of Lough Hyne. Royal Irish Academy Dublin. Myers A.A. Little C. Costello M.J. and Partridge C.J. (Eds.). (1991). The Ecology of Lough Hyne. Royal Irish Academy Dublin. Wilson K. (1984). A bibliography of Lough Hyne (Inc) 1687-1982. Journal of Life Sciences of the Royal Dublin Society 5. 1-11.</p>	<p>Lough Hyne is of very great national and international importance as it has an extremely high number of habitats and communities within a very small area with both very high species diversity and a large number of rare species. The reef communities</p>	<p>The site is situated on the south coast just to the east of Roaringwater Bay. From the open coast which is exposed to the prevailing south-westerly winds there is a narrow inlet Barlogue Creek</p>

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			<p>are unusual in that they far more characteristic of more open waters and occur at shallower depths than in open waters. The shallow bay and marine cave habitats are also of high importance and very good quality. The very protected nature of Lough Hyne allows scientific studies to be carried out safely and this site has and will continue to be used to considerably advance our knowledge of marine species and their ecology. The Red Data Book plant species <i>Kickxia elatine</i> occurs within the site. The deciduous woodland while mostly mixed is of some local importance. The site supports breeding <i>Falco peregrinus</i> and <i>Pyrhocorax pyrrhocorax</i>.</p>	<p>which leads to the extremely sheltered bay Lough Hyne. An area of large boulders with strong tidal streams known as 'the rapids' connects the Lough with Barlogue Creek. The structure of the Lough is such that there is a restricted tidal flow into the Lough and a more prolonged outflow. The tidal range in the Lough is approximately 1 m but is 3.5 m in Barlogue Creek. Tragumna Bay to the east of Lough Hyne forms part of the site. The terrestrial component of the site includes woodland mostly mixed though with some parts fairly pure native deciduous as well as heath scrub marsh and swamp vegetation. A small lake Ballyally Lough is included in site.</p>

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000102	Sheep's Head SAC	<p>Goodwillie R.N. (1986). Report on Areas of Scientific Interest in County Cork. Unpublished report to Cork County Council. Conservation Advisory and Amenity Service.</p> <p>Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin.</p> <p>Shorten M.G.M. (1992). Areas of Scientific Interest for Birds in Cork. Unpublished report to Cork County Council. Irish Wildbird Conservancy.</p> <p>Berrow S.D. Mackie K.L. O. Sullivan O. Sheppard K.B. Mellon C Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10.</p> <p>Platts E.A. and Speight M.C.D. (1988). The taxonomy and distribution of the Kerry Slug <i>Geomalacus maculosus</i> Allman 1843 (Molusca: Arionidae) with a discussion of its status as a threatened species. Irish Naturalists' Journal 22: 417-430.</p>	<p>This site is important for a variety of reasons. It includes a large area of heath varying from dry to wet heath which is relatively intact and undisturbed and is of good quality. Two rare species of flora are found on the site: <i>Tuberaria guttata</i> and <i>Viola lactea</i> the latter protected. The site has minor importance for the seabirds that occur but it is notable for the density of choughs (<i>Pyrrhocorax pyrrhocorax</i>) that are found. The Kerry Slug (<i>Geomalacus maculosus</i>) occurs in the open heath habitat.</p>	<p>A narrow ridge of sandstone which encloses a number of linear basins filled either by peat bogs or lakes. The dominant vegetation of the site is a mosaic of dry heath wet heath and humid grassland which is mainly found on the rocky ridges. Rock outcrops commonly on the site. Sea cliffs are found mostly on the western side of the site. These support small seabird populations. The site is very exposed and subject to strong south-westerly winds.</p>
000109	Three Castle Head to Mizen Head SAC	<p>Berrow S.D. Mackie K.L. O. Sullivan O. Sheppard K.B. Mellon C Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10.</p> <p>Goodwillie R. (1986). A preliminary report on areas of scientific interest in County Cork. 2nd Edition. An Foras Forbartha Dublin.</p> <p>Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin.</p> <p>Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin.</p> <p>Shorten M.G.M. (1992). Areas of Scientific Interest for Birds in Cork. A submission to the Cork County Council on the review of the Cork County Development Plan 1991 from the Irish Wildbird Conservancy.</p>	<p>Most south-westerly example in Ireland of vegetated sea cliffs and dry heath and good example of these habitats on sandstone. Both habitats fairly extensive in area and of good quality. Three Red Data plant species occur - <i>Tuberaria guttata</i> <i>Viola lactea</i> and <i>Asplenium</i></p>	<p>Situated in the extreme south-west of Co. Cork this very exposed site consists of two ridges of Old Red Sandstone separated by a low-lying area. The cliffs run for c.6 km and reach up to 130 m in height. Sea stacks</p>

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			<p>billotii. Also a prostrate form of Cytisus scoparius. Site has very important population of Pyrrhocorax pyrrhocorax one of highest densities in country. Also a good diversity of breeding seabirds though most populations are relatively low.</p>	<p>and islets are frequent. Soils are mainly shallow peats and are vegetated predominantly by dry heath. Exposed rock is frequent. Areas of dry grassland some of which is partly improved also occur. Where depressions occur lakes ponds or swamp type vegetation are found. The largest lake is Dun Lough. Grazing is main landuse within site. Area is renowned for its scenic beauty.</p>
000116	Ballyarr Wood SAC	Cross J.R. (1988). Schedule for Proposed Nature Reserve at Ballyarr Wood Co. Donegal. Unpublished report for the Forest and Wildlife Service Dublin.	<p>One of the few remaining semi-natural oak woods in north-west Ireland forming an important link in the national network of woodland reserves. Contains good quality oak wood of the Blechno-Quercetum petraea coryletosum with a diverse range of structural elements.</p>	<p>A small oak wood on the eastern flank of a ridge of quartzite hills with a terrain of rocky ridges separated by narrow sometimes marshy defiles. A soil cover of glacial drift varies in thickness and gives rise to a diversity of woodland structural and floristic</p>

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				elements.
000138	Durnesh Lough SAC	<p>Costello M.J. Holmes J.M.C. McGrath D. and Myers A.A. (1989). A review and catalogue of the Amphipoda (Crustacea) in Ireland. Irish Fisheries Investigations Series B (Marine) 33: 3-70</p> <p>Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin.</p> <p>Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin.</p> <p>De Grave S. and A.A. Myers. (1997). The occurrence of <i>Pontocrates arcticus</i> in Ireland and the confirmation of <i>Gammarus chevreuxi</i> as an Irish species (Crustacea: Amphipoda). Ir. Nat. J. 25: 10</p> <p>Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin.</p> <p>Good J.A. (1999). Irish coastal lagoon survey 1998. Vol V. Dúchas.</p> <p>Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. biogeogr. Soc. 21: 21-66.</p> <p>Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. Bull. Ir. biogeogr. Soc. 21: 2-21.</p> <p>Healy B. (1999). Irish coastal lagoon survey 1998. Vol 1 Part 1. Background Description and summary of the surveys. Dúchas.</p> <p>Healy. B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bull. Ir. biogeogr. Soc. 21: 116-151.</p> <p>Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. 2. Inventory of lagoons and saline lakes. Report to the National Parks and Wildlife Service Dublin.</p> <p>Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge.</p> <p>Oliver G.A. (1999). Irish coastal lagoon survey 1998. Vol IV. Dúchas.</p> <p>Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. biogeogr. Soc. 21: 66-115.</p> <p>Roden C. (1999). Irish coastal lagoon survey 1998. Vol III. Dúchas.</p> <p>Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p> <p>Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>An important example of a sedimentary lagoon noted for its large size. Despite the artificial inlet channel the lagoon is relatively well conserved. Flora is diverse with two species of <i>Ruppia</i> and the Red Data Book charophyte <i>Chara canescens</i>. Fauna is also diverse with 48 taxa recorded including six lagoonal specialists and at least two rare species (<i>Gammarus chevreuxi</i> <i>Cordylophora caspia</i>). Based on geomorphology flora and fauna the lagoon is ranked amongst the best 10 lagoons in the country. Site also has a good example of <i>Molinia</i> meadows. A nationally important population of <i>Anser albifrons flavirostris</i> is regular at the site. <i>Cygnus cygnus</i> is also regular and at times occurs in numbers of international importance. A range of other waterfowl species occur in numbers of regional or local importance though</p>	<p>Situated along the southern part of Donegal Bay site comprises a range of coastal and wetland habitats. The underlying geology is limestone but this is covered by a thick layer of clay drift deposits in the form of drumlins. Durnesh Lough is a large low salinity (0-7 ppt) shallow (&lt;1.5 m) sedimentary lagoon of a very unusual type in that the barrier is composed of a combination of drumlins high sand dunes and a remnant cobble barrier. The inlet is now an artificial pipe which runs through the sandhills and allows sea water to enter through a malfunctioning sluice. Swamp vegetation freshwater marsh poor fen and wet</p>

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			<p>numbers of <i>Cygnus olor</i> often exceed national importance.</p>	<p>grassland occurs around the lagoon and also in low-lying areas to the west and south of Durnesh Hill. Site also includes sand dunes a cobble storm beach and intertidal sand flats. Some improved pasture is included for the benefit of geese and swans.</p>
000147	Horn Head and Rinclevan SAC	<p>Anonymous (1988). Refuge for Fauna (Horn Head) Designation Order. Statutory Instrument No. 99 of 1988. Stationery Office Dublin. Bassett J.A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Bleasdale A. and Conaghan J. (1996). A Botanical Assessment of Lurgabrack Dunes Dunfanaghy Co. Donegal. Unpublished report to the National Parks and Wildlife Service Dublin. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Hart H.C. (1898). Flora of County Donegal. Dublin. Holyoak D.T. (1999). Report on surveys of <i>Petalophyllum ralfsii</i> in Co. Sligo and Co. Donegal Western Ireland 31 July-7 August 1999. Unpublished report to National Parks &amp; Wildlife Service Dublin. Holyoak D.T. (2002). Rare plant report: <i>Petalophyllum ralfsii</i> in Horn Head and Rinclevan cSAC. Unpublished report to National Parks &amp; Wildlife Service Dublin. Holyoak G. (2002). Records of land and freshwater Mollusca in East Donegal (H34) and West Donegal (H35). Unpublished report. Holyoak G. (2005). Widespread occurrence of <i>Vertigo geyeri</i> (Gastropoda: Vertiginidae) in north and west Ireland. Irish Naturalists' Journal 28: 141-150. Hunt J. Derwin J. Coveney J. and Newtown S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. BirdLife International (BirdLife Conservation Series No. 8) Cambridge. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report to Forest and Wildlife Service Dublin. Lockley R.M. (1966). The distribution of grey and</p>	<p>The fixed dune habitat is extensive in area and of good quality and is considered one of the best examples in County Donegal. Humid dune slacks and dunes with <i>Salix repens</i> are well represented and of good quality. There are also moderate to good examples of shifting marram dunes and embryonic dunes. The area of machair is small in extent and only of moderate quality. Lurgabrack dunes support a well-developed bryophyte flora which includes rare species such as <i>Bryum marratii</i> and <i>Thuidium abietinum</i>. The site supports an</p>	<p>This coastal site is located to the west of Dunfanaghy village in north Co. Donegal. The bedrock geology is dominated by quartzite (which forms the Horn Head cliffs) interspersed with smaller amounts of schist and metadolomite bedrock elsewhere. Extensive areas of sand dominate the south-western and eastern portions of the site while peaty podsols with occasional rock outcrops dominate in the north. New</p>

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		<p>common seals on the coasts of Ireland. The Irish Naturalists' Journal 15: 136-143. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190. McConnell B.J. and Long C.B. (1997). Geology of North Donegal. A Geological Description to Accompany the Bedrock Geology 1: 10000 Scale Map Series Sheet 1 and Part of Sheet 2 North Donegal. Geological Survey of Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Praeger R.L (1934). The Botanist in Ireland. Hodges &amp; Figgis Dublin. Roden C. (2002). The Distribution of <i>Najas flexilis</i> in County Donegal in 2002. Report prepared for National Parks and Wildlife Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Stewart N. (1993). Rare Bryophytes in Ireland: Unpublished report to the National Parks and Wildlife Service Dublin. Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. Unpublished report to the Minister of Fisheries Forestry and Wildlife Dublin. Whelan K.F. Zintl A. and Poole W.R. (1996). A Survey of Brown Trout and Eel Populations of the New Lake Port Lough and Sessiagh Lough Dunfanaghy Co. Donegal. Unpublished report Salmon Research Agency. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>important population of <i>Najas flexilis</i> and recently discovered populations of <i>Petalophyllum ralfsii</i> and <i>Vertigo geyeri</i>. Two further Red Data Book plant species <i>Ligusticum scoticum</i> and <i>Agrostemma githago</i> have been recorded from the site though it is unlikely that the latter now occurs as it is considered extinct in Ireland. The cliffs at Horn Head are of high importance for seabirds supporting an internationally important population of <i>Alca torda</i> and nationally important populations of <i>Fulmarus glacialis</i> <i>Rissa tridactyla</i> and <i>Uria aalge</i>. The Annex I Bird Directive species <i>Falco peregrinus</i> and <i>Pyrhacorax pyrrhacorax</i> breed within the site. Regular wintering populations of <i>Cygnus cygnus</i> <i>Anser albifrons flavirostris</i> and <i>Branta leucopsis</i> occur (latter two of national importance) along with a variety of other waterfowl species. Breeding waders are also found notably <i>Calidris</i></p>	<p>Lake is a slightly brackish waterbody which was formed in the 1920s when blown sand (from the dunes to the west) blocked the outlet which connected Rinclevan Strand to the sea. The site comprises a complex of coastal habitats of which open marine areas sea-cliff sand dunes (various types) blanket bog and heath occupy the largest areas. Other habitats which occur include intertidal sand and mud flats wet grassland and improved grassland. The main land uses within the site are agriculture (mostly grazing) and recreational activities.</p>



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			<p>alpina a Red Data Book species. A small to medium sized population of <i>Halichoerus grypus</i> occurs.</p>	
000163	Lough Eske and Ardnamona Wood SAC	<p>Beasley C. R. and Roberts D. (1996). The current distribution and status of freshwater pearl mussel <i>Margaritifera margaritifera</i>. L. 1758 in north-west Ireland. Aquatic conservation: Marine and Freshwater Ecosystems 6:169-177. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001. Darlington Amenity Research Trust. (1972). Eske and Gartan Loughs - Plans for Development and Conservation. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.G. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Kerney M.P. (1968). Mapping Land and Freshwater Mollusca in Ireland Easter 1968. Irish Naturalists' Journal 16: 85-89. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. Northern Regional Fishery Board (1994). A Survey of Salmonid Stocks and Habitat for the Eske System Co. Donegal. Northern Regional Fishery Board. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO Belfast. Young R. (1973). A Report on Areas of Biological and Geological Interest in County Donegal. Unpublished report to Donegal County Council An Foras Forbartha Dublin.</p>	<p>This is a high quality site which includes a wide variety of habitats and species several of which are rare in Ireland. The stand of old Oak woodland is a particularly fine example of this type of habitat and one that is generally rare in Ireland. The lake is a good example of the type and is notable for the stock of Arctic Charr (<i>Salvelinus alpinus</i>) that it holds. The site supports an important population of <i>Salmo salar</i>. A good example of poor intermediate fen vegetation occurs at the north end of the lake. The petrifying spring habitat is fairly restricted in area though has at least two diagnostic bryophyte species. The site supports a good population of <i>Margaritifera margaritifera</i>. The site holds many plant species that are rare in Ireland or</p>	<p>This is a diverse site most of which comprises a soft-water lake Lough Eske which occupies a large glacial-scoured hollow. Two rivers enter the lake one from the north one from the south-east. A third river the R. Eske is the lake outflow situated in the south. A large area of old Oak (<i>Quercus</i> sp.) woodland Ardnamona Wood is found on the western side of the lake. Areas of freshwater marsh fen blanket bog flush heath scrub and a variety of woodland and grassland types also occur within the site. The site is situated on a geological transition zone being</p>

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			in County Donegal including Trichomanes speciosum and Omalotheca sylvatica which are legally protected.	underlain by Dalradian schist and gneiss on the east and lower Carboniferous sandstone and limestone (predominantly the former) to the west and south.
000174	Curraghchase Woods SAC	Cross J. Conservation Report On Adare Forest. Internal report of Forest and Wildlife Service Dublin. (Undated). Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and the Environment Proceedings of the Royal Irish Academy 97B: 1-32. O'Connor M. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Unpublished Internal Report prepared for Coillte Teo. O'Sullivan P. (1994). Bats In Ireland. The Irish Naturalists' Journal. Special zoological supplement. 21pp.	Curraghchase House is one of just two known Lesser Horseshoe sites (Rhinolophus Hipposideros) in County Limerick. As the number of bats is >50 all year round it is a site of international importance. The woodlands include areas of both alluvial forests and Taxus baccata woods. While both have been disturbed by planting with commercial forest they still retain key diagnostic characters and species and both areas display natural regeneration. The occurrence of Taxus woods is of particular note due to the very limited distribution in Ireland for this habitat.	The site consists largely of mixed woodland (Deciduous- native and non-native; commercial conifers). Lakes and fens run the length of the woods. The site is on a limestone ridge overlain by glacial drift. Lesser Horseshoe Bats inhabit the cellars of the former mansion Curraghchase House. The bats are present throughout the year. The surrounding woodland and wetland habitats are ideal for foraging bats.
000190	Slieve Tooley/Tormore	Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C Coveney J.A. (1993). The	An excellent diversity of	This large

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	Island/Loughros Beg Bay SAC	<p>second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Conaghan J. (1998). A Survey of Rare Plant Species in County Donegal. Volume A: Protected and Threatened Species. A Report to the National Parks and Wildlife Service Dúchas. Curtis T.G.F. (1991). An inventory of sand-dunes in Ireland. In: A Guide to the Sand Dunes of Ireland (edited by M.B. Quigley). Fodhla Printing Company Ltd. Dublin. Curtis T.G.F and McGough H.N. (1988). The Irish Red Data Book. 1 - Vascular Plants. The Stationery Office Dublin. Douglas C. Dunnels D. Scally L. and Wyse Jackson M.B. (1990). A survey to locate Lowland-Highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished Report to the National Parks and Wildlife Service Dublin. Gallagher K.A. Wheeler A.J. and Orford J.D. (1996). An assessment of the heavy metal pollution of two tidal marshes on the north-west coast of Ireland. Biology and the Environment Proceedings of the Royal Irish Academy 96B: 177-188. Hart H.C. (1898). Flora of County Donegal. Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority sites for conservation I: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Naturalists' Journal 15: 136-143. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in the Republic of Ireland. Unpublished Report to the Wildlife Service Dublin. Mooney E. and Goodwillie R. (1991). Mountain Blanket Bog Survey 1991. Unpublished Draft Report to the National Parks and Wildlife Service Dublin. Moorkens E.A. (2001). An Inventory of Mollusca in Potential SAC Sites with Special Reference to Vertigo Species 2000 Survey. A report for Dúchas the Heritage Service National Parks and Wildlife. Unpublished. Praeger R.L (1934). The Botanist in Ireland. Hodges Figgis Dublin. Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. A report to the Minister for Fisheries Forestry and Wildlife Dublin.</p>	<p>coastal and upland habitats are present at this remote and largely undisturbed site. Vegetated sea cliffs are very well represented extending for approximately 16 km and reaching over 200 m in height. Of particular note are the very good examples of decalcified fixed dunes with lesser amounts of fixed dunes with <i>Empetrum nigrum</i>. There are extensive areas of both lowland and upland blanket bog parts of which are of good quality. Alpine heath with characteristic species such as <i>Juniperus communis</i> subsp. <i>nana</i> and <i>Arctostaphylos uva-ursi</i> occurs on shallow peat in the more exposed areas. The legally protected plant <i>Pilularia globulifera</i> occurs as does the Red Data Book species <i>Saxifraga oppositifolia</i>. The rugged site provides habitat for <i>Falco peregrinus</i> <i>Falco columbarius</i> and an important population of <i>Pyrhhorax pyrrhacorax</i>. The extensive cliffs</p>	<p>coastal/upland site is situated west of Ardara village Co. Donegal. Approximately 50% of the site lies above an altitude of 200 metres giving it a truly montane feel. The dominant rock type within the site is resistant and unyielding quartzite with small areas of schist and gneiss in the lower intervening valleys. The most extensive habitats within the site are blanket bog heath open marine areas and sea-cliff with smaller areas of additional habitats including upland wet grassland oligotrophic lake sand-dune salt-marsh and decalcified dune heath. The Slieve Tooley plateau is one of the largest (c. 2500 km sq.) remaining areas of unafforested upland in the country and must</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>especially at Tormore support seabird colonies including auks. An important herd of Halichoeris grypus breeds probably the third largest in the country. Lutra lutra is resident within the site. A population of Vertigo angustior was discovered at Glen Bay dunes in 2000.</p>	<p>be considered to be one of the best remaining unbroken expanses of wilderness.</p>
000231	Barroughter Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance. Stationery Office Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Raised Bogs of Scientific Interest. Internal report to the Forest and Wildlife Service Dublin.</p>	<p>Barroughter bog is a small raised bog site which contains good examples of the priority Annex I habitat active raised bog and the non-priority habitats degraded raised bog and depressions on peat substrates (Rhynchosporion). The bog lies along the western shores of Lough Derg and as a result there are some good vegetation transitions between the lake margins and high bog evident. The locally rare plant species Sphagnum pulchrum and Rhynchospora fusca have been recorded from wet pools and lawns on the high bog.</p>	<p>This site is underlain by dark grey muddy fossiliferous carboniferous limestones with a low permeability. The subsoils are dominated by limestone till with calcareous shell marl and pure sand in places. Overall the limestone till has a low permeability. The bog formed in a floodplain of the adjacent lake and river and lies in a regional ground water discharge area. Upwelling is seen to the NE.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
000248	Cloonmoylan Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance Dublin. Kelly L. Doak M. and Dromey M. (1995) Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Raised Bogs of Scientific Interest. Internal report to the Forest and Wildlife Service Dublin.	Cloonmoylan Bog is a large raised bog site which supports very good examples of the Annex I habitats active raised bog bog woodland degraded raised bog and Rhynchosporion vegetation. The site contains one of the largest remaining areas of uncut raised bog surface in east Galway. Of particular ecological note is the presence of large flushed area in the northern half of the site which contains areas of bog woodland. A number of relatively rare plant species i.e. Frangula alnus and Sphagnum pulchrum have been recorded growing within the site recently and these add to the ecological interest.	This site is predominantly underlain by dark grey muddy fossiliferous carboniferous limestones interbedded with calcareous shales. The Eastern section is underlain by walsortian carboniferous limestone. Both have low permeabilities. A SW/NE fault runs under the site. This is co-incident with a flush. The subsoils are predominately clay rich tills with low permeability. The bog lies in a basin separated from Lough Derg by a bedrock ridge.
000285	Kilsallagh Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report for the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Grogan H. (1985). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon Part II. Internal report to the Forest and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin.	Kilsallagh Bog is a small to medium sized raised bog which contains examples of the Annex I habitats active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). although much of the high bog surface has	This site is underlain by low permeability fossiliferous limestone bedrock which is overlain by clayey tills. Lake clays were noted at the south of the bog. The bog lies on high ground which

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>been dried-out somewhat by peripheral cutting and drainage a well-developed raised bog flora exists which includes rarer Sphagnum species such as <i>S. fuscum</i> and <i>S. imbricatum</i>. This site is one of a number of raised bogs in the Ballymoe/Glenamaddy region of east Galway. Together these sites form the largest and most important cluster of relatively intact raised bog sites in the country. Killsallagh Bog supports <i>Lagopus lagopus</i> and <i>Rana temporaria</i> both Red Data book species.</p>	<p>forms part of the River Suck catchment. There is a surface catchment divide across the centre of the bog. A portion of the high bog has been afforested within the past 20 years. Part of the cutover bog has been converted to wet or improved grassland.</p>
000299	Lough Cutra SAC	<p>Curtis T.G.F. and Mc. Gough N. (1981). A Survey of the Wetlands of the Fergus Catchment and Adjoining Areas. Unpublished report to the Forest and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Jennings O'Donovan &amp; Partners and Southern Water Global (1997). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Volumes 1 &amp; 2. Unpublished report prepared for the Office of Public Works Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Macdonald R.A. (1987). The breeding population and distribution of the Cormorant in Ireland. Irish Birds 3: 405-416. O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp.</p>	<p>The site supports an internationally important winter roost for <i>Rhinolophus hipposideros</i>. Maximum number recorded has been 93 individuals. Good quality foraging habitat surround the roost sites. The bats' summer roosting sites have not yet been established. Lough Cutra is a long-established breeding site for <i>Phalacrocorax carbo</i>. The colony is of regional</p>	<p>Lough Cutra is a large oligo-mesotrophic lake lying on limestone but with much sediment washed down from the sandstone hills to the east (Slieve Aughty Mountains). The Owendalulleegh River is the main inflowing river. The shoreline is often stony or sandy it</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			importance though has been of national importance in the past. Lake supports wintering waterfowl including Cygnus cygnus though numbers are relatively low.	is peat fringed. Marginal wetland vegetation includes well-developed reed beds in sheltered bays as well as localised patches of swamp and fen vegetation. Woodland occurs around much of the lake shore. Much of this is planted though wet woodland with native species is also represented. The lake has a number of islands some of which are wooded. Lough Cutra Castle is included in the site as it supports hibernating bats. The winter bat roosts comprise a passageway underneath the Castle and a wine cellar. Parkland in the vicinity of the castle is included in the site for the benefit of the bats.
000319	Pollnacknockaun Wood Nature Reserve SAC	Cross J.R. (1977). Conservation Report on Woodford Forest. Unpublished report to Forest & Wildlife Service Dublin. Cross J.R. (1979). Schedule for Proposed Nature Reserves at Pollnacknockaun Rosturra and Derrycrag Wood Woodford Co. Galway. Kelly	The site is important since it contains fragments of an ancient	This site is dominated by a coniferous

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		D.L. (1975). Native Woodlands in Western Ireland with Especial Reference to the Killarney Region. Unpublished Ph.D. thesis Trinity College Dublin. McCracken E. (1971). The Irish Woods Since Tudor Times. David & Charles Newton Abbot.	woodland which until recently was one of the most extensive in Ireland; the relatively fertile soils support the Coryletosum subassociation of the Blechno-Queretum a relatively rare community type in Ireland. The woodland acts as a refuge for flora and fauna which are otherwise scarce in the locality. Furthermore the site provides an excellent opportunity to re-create an area of oak woodland.	plantation much of which has been recently clear-felled. Fragments of old oak woodland occur in blocks and bands particularly in the south-western part of the site (which is a nature reserve). Small areas of wet and mixed woodland also occur. The underlying rock is Old Red Sandstone. The soils vary from thin acidic podzols to deeper gleyed brown-earths.
000324	Rosroe Bog SAC	Douglas C. and Grogan H. (1987). A Survey to Locate Lowland Blanket Bogs of Scientific Interest in Connemara Co. Galway. Unpublished report to the Wildlife Service Dublin.	This is a significant example of western lowland blanket bog though relatively small in size. The surface is fairly uniform with some well-developed wet areas supporting depressions on peat substrate (Rhynchosporion). There are however no natural pool systems. Dry heath occurs in association with the bog especially on higher areas. Some relatively scarce plant species confined to	The site is situated on the edge of a peninsula in Bertraghboy Bay Connemara Co. Galway. It overlies a bedrock of granite and is characterised by gently undulating areas of blanket bog interspersed by scattered rocky ridges with heath vegetation. Two small lakes Rosroe Lough and White



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			western Ireland such as <i>Eriocaulon aquaticum</i> and <i>Daboecia cantabrica</i> occur on the site.	Lough lie within the site and add to the habitat diversity. A large <i>Phragmites australis</i> swamp with an assemblage of poor fen species occurs in a channel which connects to White Lough. Areas of old cutaway bog now colonised by bog and heath vegetation occur particularly along the seaward margin of the site.
000365	Killarney National Park Macgillycuddy's Reeks and Caragh River Catchment SAC	<p>Anon. (1990). Killarney National Park - Management Plan. Office of Public Works Dublin. Ashe P. (1982). Ecological and taxonomic studies on the Chironomidae (Diptera : Nematocera): I. A study of the Chironomidae of the River Flesk south-west Ireland. II. A catalogue of the Chironomid genera and sub-genera of the world including synonyms. Ph.D. Thesis National University of Ireland Dublin. Ashe P. &amp; Murray D.A. (1980). <i>Nostocladia</i> a new sub-genus of <i>Cricotopus</i> (Diptera: Chironomidae) pp. 105-111. In Murray D.A. (ed.) <i>Chironomidae - Ecology Systematics Cytology &amp; Physiology</i>. Pergamon Press Oxford. Batten L.A. (1976). Bird communities of some Killarney woodlands. <i>Proceedings of the Royal Irish Academy</i>. 76B: 285-313. Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. &amp; Coveney J.A. (1992). The Second International Cough Survey Ireland 1992. Unpublished report to IWC Dublin and RSPB Belfast. Bracken J.J. (1998). The Killarney Valley. In: <i>Studies of Irish Rivers and Lakes. Essays on the occasion of the XXVII Congress of Societas Internationalis Limnologiae (SIL)</i>. Moriarty C. (ed.) Dublin Marine Institute pp. 145-167. Carruthers T.D. (1991). Greenland White-fronted Goose studies in the Killarney National Park. A Progress Report 1991-1992. Unpublished report to National Parks &amp; Wildlife Service Dublin. Carruthers T.D. &amp; Gosler A.G. (1995). The breeding bird communities of the Killarney yew wood. <i>Irish Birds</i> 5: 308-318. Carruthers T.D. &amp; Larner J. (1993). <i>Birds of the Killarney National Park</i>. Office of Public Works Dublin. Central Fisheries Board (2001). <i>Irish Salmon Catches 2000</i>. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Chandler P.J. (1972). The distribution of snail-killing flies (Dipt. sciomyzidae) <i>Proc. Transactions</i></p>	This site is of great ecological importance. It includes the most extensive oakwoods in the country with some of the best bryophyte communities in Europe; Ireland's only sizable stand of Yew; excellent examples of blanket bog alluvial woodland; good quality oligotrophic lakes some of which support rare glacial relicts; unpolluted rivers with aquatic vegetation and rare invertebrates and fish; and several other annexed habitats. The site also supports 12 Annex II species of flora	This is the largest terrestrial site in Ireland and encompasses the mountains and lakes of the Iveragh Peninsula and the Paps range. It is the most mountainous region of Ireland and includes the highest peak Carrauntoohil at 1039 m. The underlying rock is almost entirely Old Red Sandstone although carboniferous limestone occurs on the east side of

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>of the British Entomological Society 5: 1-21.Clabby P.J. Lucey J. McGarrigle M.C. Bowman J.J. Flanagan P.J. &amp; Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part One : General Assessment. Environmental Research Unit Dublin.Curtis T.G.F. &amp; MhicDaeid C. (1981). Mullahanattin Glencar Co. Kerry 21-23 July. Watsonia 13(3). Curtis T.G.F. &amp; McGough H.N. (1988). The Irish Red Data Book. 1. Vascular Plants. Stationery Office Dublin. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. and Lehane M. (eds). (1999). Water Quality in Ireland 1995-97. Statistical compendium of River Quality Data Environmental Protection Agency.Douglas C. Garvey L. Kelly L. &amp; O'Sullivan A. (1989). Survey to Locate Blanket Bogs of Scientific Interest in Counties Sligo and Kerry. Unpublished report to Forest &amp; Wildlife Service Dublin.Dowling C. O'Conner M. O'Grady M.F. &amp; Clynes E. (1981). A baseline survey of the Caragh an unpolluted river in south-west Ireland: topography and water chemistry. Journal of Life Sciences Royal Dublin Society 2(2): 137 - 45.Dowling C. O'Connor J.P. &amp; O'Grady M.F. (1981). A baseline survey of the Caragh an unpolluted river in south-west Ireland: observations on macroinvertebrates. Journal of Life Sciences Royal Dublin Society. 2: 147-159. Dowling C. O'Connor J.P. &amp; O'Grady M.F. (1978). The Caragh River Survey 1974-1977. Final report section 3: studies on the macroinvertebrates. National Science Council of Ireland. Doyle G.J. (1982). Minuartio-Thlaspietum alpestris (Vioetea calamariae) in Ireland. Journal of Life Sciences Royal Dublin Society. 3: 143-146.Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin.Fitzgerald R. (1994). Protected and Threatened Flora Survey of Co. Kerry. Unpublished report to the National Parks &amp; Wildlife Service Dublin. Flanagan P.J. &amp; Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1983/84-1993/94. GWFG Study Research report No. 8. Goodwillie R. (1976). A Preliminary Report on Areas of Scientific Interest in County Kerry. An Foras Forbartha Dublin. Hart H.C. (1882). Report on the botany of the Macgillycuddy Reeks. Proceedings of the Royal Irish Academy 2. Sci. III: 573. Heuff H. (1980). The Vegetation of Irish Lakes. Part 2. Unpublished report to the Forest &amp; Wildlife Service Dublin. Heuff H. &amp; Horkan K. (1984). Caragh. In Whitton B.A. (ed.) Ecology of European Rivers. pp.366-384. Blackwell Scientific Publications. Hutchinson C.D. (1979). Ireland's Wetlands and their Birds. Irish Wildbird Conservancy Dublin. Iremonger S.F. (1986). An Ecological Account of Irish Wetland Woods; with Particular Reference to the Principle Tree Species. Unpublished Ph.D. Thesis Trinity College Dublin.Irish Fisheries (2001). Irish fisheries angling reports. <a href="http://www.irishfisheries.com/">http://www.irishfisheries.com/</a>: 18 January 2001.Kelly D.L. (1975). Native Woodlands in Ireland with Especial Reference to the Region of Killarney. Ph.D. Thesis Trinity College Dublin.Kelly D.L. (1981). The native forest</p>	<p>and fauna six Annex I bird species and at least 33 Irish Red Data Book species. Many rare bryophytes and invertebrates are also present several at their only known Irish locations.</p>	<p>Lough Leane. Glacial processes have shaped the sandstone into dramatic ridges and valleys including the well wooded Killarney valley. A wide range of semi-natural habitats are present along with some improved land and forestry in the Caragh River catchment. Generally the proximity of the site to the Atlantic in the south-west ensures a strong oceanic influence.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>vegetation of Killarney south-west Ireland. An ecological account. Journal of Ecology 69: 437-472. Kurt I. &amp; Costello M.J. (1996). Current Knowledge on the Distribution of Lampreys and some other Freshwater Fish Species listed in the Habitats Directive in Ireland. Unpublished report National Parks &amp; Wildlife Service Dublin. Lavery T. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottemburg 1775 (Lepidoptera: Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-198. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in the Republic of Ireland. Unpublished report to the Forest &amp; Wildlife Service Dublin. Lotschert W. (1982). The heavy metal content of some Irish plants. Journal of Life Sciences Royal Dublin Society. 3: 261-266. Lucey J. Bowman JJ Clabby K.J. Cunningham P. Lehane M. MacCarthaigh M. McGarrigle M.L. and Toner P.F. (1999). Water Quality in Ireland 1995-1997. Environmental Protection Agency Wexford. MhicDaeid C. (1976). A Phytosociological and Ecological Study of Vegetation of Peatlands and Heaths in the Killarney Valley. Ph.D. Thesis Trinity College Dublin. Mitchell F.J.G. &amp; Averis A.B.G. (1988). Atlantic Bryophytes in Three Killarney Woods. Unpublished report Macauley Land Use Research Institute/Nature Conservancy Council Edinburgh. Mooney E. &amp; Goodwillie R. (draft report 1991). Mountain Blanket Bog Survey 1991. Report in preparation to the National Parks &amp; Wildlife Service Dublin. Moorkens E.A. (1995). Mapping of Proposed SAC Rivers for <i>Margaritifera margaritifera</i>. Unpublished report to National Parks &amp; Wildlife Service Dublin. Murray D.A. &amp; Ashe P. (1981). A description of the pupa of <i>Buchonomyia theinemanni</i> Fittkau with notes on its ecology and on the phylogenetic position of the subfamily <i>Buchonomyiinae</i> (Diptera Chironomidae). Spixiana 4: 55-68. Murray D.A. &amp; Ashe P. (1981). A description of the larvae and pupa of <i>Eurycnemus cassipes</i> (Panzer) (Diptera : chironomidae). Ent. Scand. 12: 357-361. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. Norton M.A. Dowling C. O'Grady M.J. &amp; Clynes E. (1978). The Caragh River Survey 1974-1977: Final report section 2: physico-chemical investigation. National Science Council of Ireland. NPWS (2017) Conservation Objectives: Killarney National Park Macgillycuddy's Reeks and Caragh River Catchment SAC 000365. Version 1. National Parks and Wildlife Service Department of Culture Heritage and the Gaeltacht. O Maoileidigh N. (1990). A Study of Fish Populations in the Killarney Lakes. Ph.D. Thesis. National University of Ireland. O'Sullivan A. Byrne C. &amp; MhicDaeid E.C. (1995). Information on populations of Annex II plant species recorded in SAC No. 365. Unpublished report to the National Parks &amp; Wildlife Service Dublin. O'Sullivan P. (1994). Bats in Ireland. Special supplement to the Irish Naturalists' Journal. Platts E.A. &amp; Speight M.C.D. (1988). The taxonomy and distribution of the</p>		

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Kerry slug <i>Geomalacus maculosus</i> Allman 1843 (Mollusca: Arionidae) with a discussion of its status as a threatened species. Irish Naturalists' Journal 22: 417-430. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co. Dublin. Ruttledge R.F. &amp; Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Scully R.W. (1916). Flora of County Kerry. Hodges Figgis &amp; Co. Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Speight M.C.D. (1972). Ground beetles (Col. Carabidae) from the Bourne Vincent National Park. Irish Naturalists' Journal 17: 226-230. Speight M.C.D. (1976). <i>Amara montivaga</i> Sturm (Col. Carabidae) in Ireland. Ent. Mon. Mag. 111 (1337-1339): 200. Speight M.C.D. &amp; de Courcy Williams M. (1981). <i>Macrophyta duodecempunctata</i> Nematius <i>frenalis</i> and <i>Pamphilius gyllenhalii</i>: sawflies (Hymenoptera: Symphyta) new to Ireland. Irish Naturalists' Journal 20: 345-347. Speight M.C.D. (1988). <i>Ectaetia platyscelis</i> <i>Setisquamalanchaea setisquama</i> &amp; <i>Suillia humilis</i>: insects new to Ireland. Bulletin of the Irish Biogeographical Society 11: 22-27. Speight M.C.D. (1988). The Irish cerambycid fauna (Coleoptera: cerambycidae). Bulletin of the Irish Biogeographical Society 11: 41-76. Stewart N. (undated). Bryophyte and Lichen Reports. Unpublished reports to the National Parks &amp; Wildlife Service Dublin. Visser G. &amp; Zoer J.A. (1976). Abbreviated report of a botanical and malacological study performed in the south-western part of Ireland. Unpublished report Research Institute for Nature Management Leersum the Netherlands. Went A.E.J. (1947). Irish Salmon 1945. Scientific Proceedings of the Royal Dublin Society 24(19): 165-178. Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO Belfast. Whittow J.B. (1975). Geology and Scenery in Ireland. Penguin Harmondsworth. Willmot A. (1983). An ecological survey of the ferns of the Killarney district Co. Kerry Ireland. Fern Gazette 12: (5).</p>		
000370	Lough Yganavan and Lough Nambrackdarrig SAC	<p>Curtis T.G.F. (1991). An Inventory of Sand Dunes in Ireland. In: Quigley M.B. (Ed). A Guide to the Sand Dunes of Ireland. 42-46. European Union for Dune Conservation and Coastal Management. Gresson R.A.R. and O'Dubhda S. (1974). The Distribution of the Natterjack Toad <i>Bufo calamita</i> Laur. in County Kerry. Irish Naturalists' Journal 18: 97-103. Heuff U. (1978). The Vegetation of Irish Lakes. Unpublished report to the Forest and Wildlife Service Dublin. O'Connor P.G. and Jeal F. (1984). Some notes on the distribution of <i>Bufo calamita</i> Laur. The Natterjack Toad in Ireland deriving from a survey conducted in 1975. Bulletin of the Irish Biogeographical Society 8: 30-41. Platts E.A. and Speight M.C.D. (1988). The Taxonomy and Distribution of the Kerry Slug <i>Geomalacus maculosus</i> Allman (1843) (Mollusca: Arionidae) with a discussion of its status as a threatened species. Irish Naturalists' Journal 22: 417-430. Visser G. and Zoer J.A. (1970). Abbreviated Report of a Botanical and Malacological Study Performed in the Southwestern Part of Ireland. Research Institute for Nature Management Lersum</p>	<p>Site has good and somewhat unusual examples of two annexed habitats - a residual inland fixed dune system and a shallow oligotrophic lake system. <i>Geomalacus maculosus</i> is common within the site. The very localised and Red Data Book species <i>Bufo calamita</i> breed Lough</p>	<p>Site comprises Lough Yganavan and two considerably smaller loughs L. Nambrackdarrig and an unnamed lough. They lie 1-2 km from the coastline. Yganavan is a shallow lake (Max. depth 0.8m) and is noted for its</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		The Netherlands.	Nambrackdarrig being its most inland station in Ireland.	very brown soft water. The lakes have sandy beds and mostly stony shores - the stones provide cover for Bufo calmita and Geomalacus maculosus. A residual sanddune system with a heath type character occurs along the south-east to northeast shore of Yganavan. A feature of this habitat is that it floods periodically giving rise to unusual invertebrate and plant communities. The sandy-heath grades into blanket bog mostly cutaway. The two small loughs are surrounded by cutaway bog. Part of the site is a Nature Reserve.
000375	Mount Brandon SAC	Berrow S.D. Mackie K.L. O'Sullivan O. Shepherd K.B. Mellon C. & Coveney J.A. (1992). The 2nd International Chough Survey of Ireland. Unpublished report to IWC Dublin and RSPB Belfast. Curtis T.G.F. & McGough H.N. (1988). The Irish Red Data Book 1. Vascular Plants. Stationery Office Dublin. Curtis T.G.F. (1993). Polygonum viviparum L in Ireland and with particular reference to the flora and vegetation of the Mount Brandon range Co. Kerry. Irish Naturalists' Journal 24: 274-280. Hart H.C. (1885). Notes on the plants of some of the mountain ranges of Ireland. Proceedings of	This site is of high ecological importance for the alpine and arctic-alpine heath and cliff communities it supports. These feature a number of Irish Red Data Book	This site ranges from sea-level to sea cliffs which are among the highest in Ireland up to Mount Brandon which at 952 m is

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>the Royal Irish Academy 4: 211-251. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report to the Forest &amp; Wildlife Service Dublin. Mooney E. &amp; Goodwillie R.N. (draft 1992). Mountain Blanket Bog Survey 1991. In preparation for National Parks &amp; Wildlife Service Dublin. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. NPWS (2016) Conservation Objectives: Mount Brandon SAC 000375. Version 1. National Parks and Wildlife Service Department of Arts Osvald H. (1949). Notes on the vegetation of British and Irish mosses. Acta Phytogeographica Svecica. 26: 1-62. Scully R.W. (1916). Flora of County Kerry. Hodges Figgis &amp; Co. Dublin. Stelfox A.W. (1948). Hart's station for <i>Polygonum viviparum</i> in Kerry and its flora. Irish Naturalists' Journal. 9: 121-123. Stewart N. (undated). A list of Rare Bryophytes in Ireland. Unpublished report to the National Parks &amp; Wildlife Service Dublin. Visser G. &amp; Zoer J.A. (1976). Abbreviated Report of a Botanical and Malacological Study Performed in the South-western part of Ireland. Research Institute for Nature Management Leersum the Netherlands.</p>	<p>species including the protected <i>Polygonum viviparum</i>. A notable assemblage of bryophytes and lichens has been recorded. The range in altitude is also of note and intact examples of both lowland and mountain blanket bog occur. The large scraw at Coumanare Bog is better developed than any similar feature found during the NPWS Mountain Blanket Bog Survey 1991. The site provides the most elevated location in Ireland for a number of species. <i>Trichomanes speciosum</i> an Annex II species occurs at several locations within the site. The site also supports a population of <i>Margaritifera margaritifera</i>. Two Annex I Bird Directive species <i>Falco peregrinus</i> and <i>Pyrhocorax pyrrhocorax</i> breed within the site.</p>	<p>the highest peak outside of the Macgillycuddy Reeks. The predominant rocks are Devonian (Old Red Sandstone and Dingle Beds) with some pre-Devonian rocks also present. The highest ridges and cliffs support arctic-alpine communities. The lower flatter ridges and gentle slopes support blanket bog and heath while the steeper slopes support upland grassland and generally dry heath. Beneath the substantial cliffs and scree areas there are a number of oligotrophic corrie lakes including a string of paternoster lakes beneath the Brandon range. Numerous streams drain the site.</p>
000382	Sheheree (Ardagh) Bog SAC	<p>Conaghan J.P. (1995). The Ecology of <i>Eriophorum gracile</i> and <i>Eriophorum latifolium</i> in Ireland. Ph.D. Thesis National University of Ireland Galway. Goodwillie R. (1972). A Preliminary Report on Areas of Ecological and Geological Interest in Co. Kerry. An Foras Forbartha Dublin. MhicDaeid E.C. (1976). A Phytosociological and Ecological</p>	<p>This small confined raised bog site contains areas of active raised bog degraded raised bog carr</p>	<p>This site is underlain by relatively impermeable</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Study of the Vegetation of Peatlands and Heaths in The Killarney Valley. Ph.D. Thesis University Of Dublin Trinity College. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites In Ireland. An internal report to National Parks and Wildlife Service Dublin.	woodland and marsh/rich-fen vegetation. It is the only remaining raised bog site with an intact surrounding lagg system in the country and this makes it of especially high ecological interest. In addition the site is the most south-westerly example of a raised bog habitat in the country and is one of only two significant examples of the habitat in Co. Kerry. The presence of the protected semi-aquatic plant species Eriophorum gracile which is only known from c. 25 sites in Ireland adds to the ecological interest of the site.	muddy limestone bedrock. This is overlain by clayey tills with some old red sandstone clasts. The high ground surrounding the site consists of clayey till deposits with patches of gravel. This site developed in a small kettlehole lake with a gradual terrestrialisation leading to the formation of a raised bog. The land surrounding the bog is dominated by agricultural grassland.
000404	Hugginstown Fen SAC	Young R. (1972). A Preliminary Report on Areas of Scientific Interest in County Kilkenny. Unpublished report An Foras Forbatha Dublin.	The site supports an important example of alkaline fen vegetation and is considered one of best sites in the south-east region. It has a diverse vegetation including some scarce plants such as Oenanthe fistulosa. The site is in a fairly natural state and quality is generally good. Some rare insects have been recorded notably	The site occupies a narrow low-lying basin on limestone glacial till overlying acid Old Red Sandstone. It comprises a relatively large wetland dominated by swamp and fen vegetation. The wetland has a small catchment and is partly fed by iron

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Lestes dryas and Parhelophilus consimilis. Rana temporaria is common at the site.	rich springs. The northern part of the site is dominated by Phragmites swamp but much of the remainder consists of species-rich fen partly developed on floating mats of Carex diandra with beds of Typha latifolia or Phragmites scattered throughout and especially adjacent to spring areas. Species-rich Junco-Molinion grassland occurs in drained areas at the southern and northern ends of the site and around the margins at the peat-mineral interface. Surrounding land is mainly improved grassland used for pasture.
000407	The Loughans SAC	Breen C. (1972). Report on field meeting Urlingford Co Kilkenny. Watsonia 9195. Young R. (1972). A Preliminary Report on Areas of Ecological & Geological Interest in Co. Kilkenny. Unpublished report to Kilkenny County Council. An Foras Forbartha Dublin. Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin.	This turlough is the highest in altitude and also at the SE margin of the range of this habitat - 55km from similar sites by Lough Derg. The vegetation shows	The Loughans is a shallow basin surrounded by pasture land with low banks of calcareous drift extending out from



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			relatively little diversity (10 out of a possible 32 types) but includes many plants rare in the county for example it is the only site for <i>Rorippa islandica</i> and <i>Chenopodium rubrum</i> .	the northern side. Some of these carry a species-rich heathy grassland with scattered bushes. There are two shallow ponds with aquatic plants but most of the floor dries out in summer and is grazed. Swallow holes occur in the SE corner and on the western side. The internal channels seem to have no real drainage effect.
000455	Dundalk Bay SAC	Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Fahy E. (1972). A preliminary report on areas of scientific interest in County Louth. An Foras Forbartha Dublin. Hunt J. Derwin J. Coveney J. & Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath & M.I. Evans eds. <i>Important Bird Areas in Europe: Priority sites for conservation 1: Northern Europe</i> . Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) <i>Important Bird Areas in Europe</i> . ICBP Technical Publication No. 9. Cambridge. Moore D. & Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks & Wildlife Service Dublin. Praeger R.L. (1934). <i>The Botanist in Ireland</i> . Hodges Figgis & Co Dublin. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i> . IWC Dublin. White J. (1981). Notes on Irish vegetation: No. 1 The vegetation of shingle in Co. Louth. <i>Bulletin of the Irish Biogeographical Society</i> 5: 1-4.	Estuaries and particularly intertidal sand and mud flats are well represented at this site. The site contains the largest expanse of intertidal flats on the east coast. The bay is fringed in places by salt marshes with good examples of <i>Salicornia</i> sand flats Atlantic salt meadows and to a lesser extent Mediterranean salt meadows. The quality of estuarine habitats is generally good. The site has excellent examples of	The site is a large bay-like estuarine complex extending c.15 km from north to south and on average between 2-3 km in width. It contains the estuaries of a number of moderately sized rivers principally the Castletown the Flurry the Fane and the Glyde/Dee. These rivers drain fairly intensive agricultural catchments and the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>perennial vegetation of stony banks with the Red Data Book plant <i>Crambe maritima</i>. The site is of high importance for wintering waterfowl with internationally important populations of <i>Branta bernicla</i> <i>hrota</i> <i>Calidris canutus</i> and <i>Limosa lapponica</i>. It also supports nationally important populations of a further 16 species including <i>Pluvialis apricaria</i>. The overall site is also of international importance as it regularly has in excess of 20000 wintering waterfowl.</p>	<p>Castletown flows through Dundalk town and serves the port. The site has a marked tidal range. The estuaries of the Castletown and Flurry rivers are well sheltered and have extensive salt marshes. Post-glacial raised beaches are a feature of the shoreline. Some agricultural fields which adjoin the bay are included in the site for ornithological interests.</p>
000475	Carrowkeel Turlough SAC	Goodwillie R.N. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to the National Parks and Wildlife Service.	<p>Carrowkeel has a high habitat diversity for such a small area as well as clear zonation in its grassland vegetation. The northern scraw contains <i>Alisma lanceolatum</i> - the only turlough where it is known to occur while the lake has some nesting waterfowl. Overall the site differs markedly from adjacent turloughs. Arterial drainage in the Robe (1.9 km distant) seems to have had very</p>	<p>The turlough basin is linear for the most part but expands over fields at the north end where flooding is less frequent. The floor retains two water bodies in summer linked by a semi-permanent channel. The northern is a small scraw over a spring the southern a shallow reed-filled lake. An artificial</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			little impact on this site.	channel has been dug at the south end but appears ineffective for drainage.
000476	Carrowmore Lake Complex SAC	<p>Anon. (1981). Areas of Scientific Interest in Ireland. An Foras Forbartha Dublin.</p> <p>Douglas C. Garvey L. Kelly L. O'Sullivan A. and van Doorslaer L. (1989). A Survey of Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to the Wildlife Service Dublin.</p> <p>Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin.</p> <p>Foss P.J. and McGee E. (1987). A Survey to Locate Blanket Bogs of Scientific Interest in County Mayo. Unpublished report to the Wildlife Service Dublin.</p> <p>Fox A.D. Norriss D.W. Strand D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 to 1993/94. National Parks and Wildlife Service Dublin and Greenland White-fronted Goose Study.</p> <p>Goodwillie R. (1979). A Preliminary Report on Areas of Scientific Interest in County Mayo. Unpublished report to Mayo County Council An Foras Forbartha Dublin.</p> <p>Grimmet R.F.A. and Jones T.A. (1989). Important bird areas in Europe. International Council for Bird Preservation Technical Publication No. 9. International Waterfowl and Wetlands Research Bureau.</p> <p>Hannon C. Berrow S.D. and Newton S.F. (1997). The Status and Distribution of Breeding Sandwich Sterna sandvicensis Roseate S. Dougallii Common S. Hirundo Arctic S. paradisrea and Little Terns S. Albifrous in Ireland in 1995. Irish Birds 6: 1-22.</p> <p>Hutchinson C. (1979). Ireland's Wetlands and their Birds. Irish Wildbird Conservancy Dublin.</p> <p>Lloyd C. (1982). Report on the Breeding Seabird Inventory and its Use for Selecting Nationally and Internationally Important Colonies in Ireland. Unpublished report to the Forest and Wildlife Service Dublin.</p> <p>Lloyd C. Tasker M. and Partridge K. (1991). Status of seabirds in Britain and Ireland. Poyser London.</p> <p>Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A Repeat Survey of Gulls Breeding Inland in Counties Donegal Sligo Mayo and Galway with Recent Counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p> <p>Whilde A. (1985). The 1984 All Ireland tern survey. Irish Birds 3 1-32.</p>	<p>An important site in the region for birds with long established breeding colonies of Sterna sandvicensis S. paradisaea Larus ridibundus and L. canus on Derreen's Island and a range of wintering birds on the lake. Surrounding lands to the east of the lake are used by wintering Anser albifrons flavirostris. The site is also valuable for the large area of intact blanket bog particularly at Largan More which includes a flush holding one of only three known populations of Saxifraga hirculus in the country as well as a recently discovered population of Drepanocladus vernicosus. Depressions on peat substrates (Rhynchosporion) is well represented within the bog complex. Boglands used by breeding Pluvialis apricaria and Falco columbarius.</p>	<p>A large shallow oligotrophic/mesotrophic lake with extensive blanket bog to the east overlying Dalradian schists and quartzite. Minerotrophic flush vegetation and wet grassland occur along tributary and stream banks. Heath vegetation with Erica erigena fringes much of the Carrowmore Lake shore. Grassy islands occur in Carrowmore Lake.</p>

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000480	Clyard Kettle-holes SAC	<p>Goodwillie R (1979). A Preliminary Report on Areas of Scientific Interest in County Mayo. An Foras Forbartha Dublin.R. Goodwillie &amp; Associates (2000). Flood Relief Scheme at Ballynacarragh Kilmaine Co. Mayo. Control of Thomastown Turlough. A report for Engineering Services Division Office of Public Works. Dublin. Unpublished.</p>	<p>At least one of the turloughs in the site Coollisduff is of good quality and significant conservation value. This is oligotrophic in character and displays good transitions between vegetation communities. Further survey is required to assess the conservation value of the entire complex. A series of small lakes within the Coollisduff turlough/Clyard area supports Cladium fen. While the extent of the fen is small it is typical of the habitat. Site supports locally important numbers of wintering waterfowl.</p>	<p>The site comprises four separate turlough type wetlands situated to the south-east of Ballinrobe in Co. Mayo. Each occupies a basin in a gently undulating topography of glaciated tills. Water levels fluctuate and most of the small lakes and ponds dry out entirely or largely in summer. The natural drainage pattern of these wetlands is not fully understood owing to underground drainage features but it appears some drainage is south towards Ballynacarragh. Most of the ponds and small lakes at the main Clyard wetland support swamp vegetation. Other habitats present include native scrub and low woodland wet grassland and improved pasture the latter included</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				for hydrological reasons.
000485	Corraun Plateau SAC	Douglas C. Garvey L. Kelly L. and O'Sullivan A. (1989). Survey to Locate Blanket Bogs of Scientific Interest in Mayo. Wildlife Service. Internal Report. Goodwillie R. (1979). Survey of Corraun Plateau. AFF. Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular plants. Wildlife Service Dublin. Stewart N.F. (undated) A List of Rare Bryophytes in Ireland. Internal report to the National Parks and Wildlife Service Dublin. Foss P.J. and Doyle G.J. and Nelson E.C. (1987). The distribution of <i>Erica erigena</i> R. Ross in Ireland. <i>Watsonia</i> . 16: 311-327. Whittow J.B. (1974). Geology and scenery in Ireland. Harmondsworth. Praeger R.L. (1904). The flora of Achill Island. <i>Ir. Nat.</i> 13: 265-289. Praeger R.L. (1934). The Botanist in Ireland. Dublin. Synnott D. (1982). An Outline of the Flora of Mayo. <i>Glasra</i> 9: 13-114 National Botanic Gardens.	The site is important for the large though often disturbed areas of alpine heath dry heath wet heath and juniper scrub habitats. Blanket bog is also present and within this is an area of relatively intact high plateau bog. The Red Data Book species <i>Saussurea alpina</i> is found on high rocky ledges. The largest colony of <i>Erica erigena</i> in Ireland is found on the heaths at Mallaranny and also occurs elsewhere in the site.	The geology at the site is varied. The area around Mallaranny is underlain by Dalradian schists while Corraun Mountain is underlain by Dalradian schists and quartzites. The southern coast is underlain by old red sandstone. The site consists of a steep mountain and summit plateau at Corraun (524m) and other high summits above Lough Cullydoo (541m) and 360m in the vicinity of Claggan Mountain (360m) at the east of the site. The area is dominated by heath type vegetation in combination with pockets of peat and rock. Oligotrophic lakes are present at the north of the site. The main landuse is grazing with peat-cutting in

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				parts.
000532	Oldhead Wood SAC	Neff M.J. (1972). Conservation Report Oldhead Wood Doo Lough Forest Co. Mayo. Unpublished report to the Forest and Wildlife Service Dublin. Goodwillie R. (1979). A Preliminary Report on Areas of Scientific Interest in County Mayo. Unpublished report prepared for Mayo County Council An Foras Forbartha Dublin. Gorham E. (1954). The soils and vegetation of a western Irish relict woodland. Journal of Ecology 42 497-504.	A hyper-oceanic woodland of the Blechno-Quercetum petraea scapanietosum one of a very few intact examples in the region and one of the only sites directly adjacent to the coast. Mature woodland grades into scrub and heath with ascending altitude. Exceptionally high humidity and abundant development of epiphytic bryophytes and lichens including Lobaria pulmonaria. A good example of dry heath in an exposed location and includes the localised Daboecia cantabrica. Woods and heath support typical bird fauna including several species on the edge of their European range notably Caprimulgus europaeus.	A small oak woodland confined to the lee side of two exposed rocky knolls (106-150m) situated on a coastal promontory in Clew Bay. Complex geology of igneous rocks mainly silurian; felstone and dolerite overlain by loamy brown earths merging into peaty podsols on the hill tops. Trees display the effects of exposure and deterioration in soil with altitude being tall and well developed at low levels but degenerating to low windswept scrub on the hills.
000566	All Saints Bog and Esker SAC	Cross J.R. (1987). Unusual stands of Birch on bogs. Irish Naturalists' Journal 22: 305-310. Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin. Fojt W. (1988). Field Excursion To Ireland. International Mires Group. Nature Conservancy Council. Pp 15-22. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J.	This site contains good examples of the Annex I priority habitats active raised bog bog woodland and orchid-rich dry grassland. In addition it contains examples of the non-priority habitats	The site is located in an area dominated by low permeability shales which are overlain by ridges of high permeability gravels. One of

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		<p>Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in M.F. Heath and M.I. Evans (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report to National Parks and Wildlife Service Dublin. Ó Críodáin C. (1992). Conservation of Grassland Sites of Scientific Interest in Ireland. A Preliminary Report. National Parks and Wildlife Service Dublin. O'Connor J.P. and Speight M.C.D. (1987). <i>Macrosiphum albifrons</i> <i>Dicthenidia bimaculata</i> <i>Callaspidia defonscolombi</i> and <i>Xyalaspis petiolata</i>: insects new to Ireland. Irish Naturalists' Journal 22: 199-201. Speight M.C.D. (1990). <i>Hippodamia 13-punctata</i> (Coleoptera : Coccinellidae) and other insects from All Saints Bog Co. Offaly Ireland. Bulletin of the Irish Biogeographical Society 13: 200-212.</p>	<p>degraded raised bog and Rhynchosporion vegetation. The <i>Betula</i> woodland is of high quality and is the best developed bog woodland of its type in Ireland. The site supports a rich invertebrate fauna including several insect species which are rare in Ireland or found only on this site. Part of the Little Brosna flock of Greenland White-fronted Geese (<i>Anser albifrons flavirostris</i>) may occasionally use the site during disturbance on the Little Brosna Callows. Another species listed on Annex I of the Birds Directive Merlin (<i>Falco columbarius</i>) is also found on the site. The esker grassland on the site supports a large population of the rare orchid <i>Orchis morio</i>. Other rare plant species <i>Erigeron acer</i> and <i>Galeopsis angustifolia</i> the latter protected in Ireland are found in a quarry on the southern side of the site.</p>	<p>these runs east/west under the bog to form two basins. The ridge is co-incident with the <i>Betula</i> bog woodland. The southern side of the site is bounded by an esker ridge which supports a small area of orchid-rich grassland and in which are found several gravel quarries one of which supports rare plant species.</p>
000580	Mongan Bog SAC	<p>Bond K.G.M. (1984). Invertebrates of Irish midland raised bogs: part 3. Lepidoptera. Bulletin of the Irish Biogeographical Society 8: 103-110. Cross J.R. (1990). The Raised</p>	<p>Mongan Bog is an example of a small to</p>	<p>The bedrock underlying this site</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Bogs of Ireland: their Ecology Status and conservation. Unpublished report for the Minister of State at the Department of Finance. Stationery Office Dublin. Doyle T. (1990). A Study of Decomposition on Mongan Bog a Raised Bog in Co Offaly. Ph.D. Thesis Trinity College Dublin. Doyle T. and Dowding P. (1990). Decomposition and aspects of the physical environment in the surface layers of Mongan Bog. In: Doyle G.J. (ed.). Ecology and Conservation of Irish Peatlands. Pp.163-171. Royal Irish Academy Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Good J.A. (1985). Invertebrates of Irish midland raised bogs: part IV. Notes on terrestrial insects. Bulletin of the Irish Biogeographical Society 9: 2-5. Higgins D.G. (1984). Invertebrates of Irish midland raised bogs: part 1. Araneae Opiliones Chilopoda. Bulletin of the Irish Biogeographical Society 8: 91-97. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin. Madden B. (1987). The birds of Mongan Bog Co Offaly. Irish Birds 3: 441-448. Madden B. (1990). Primary production and nutrient cycling in Mongan Bog a raised bog in Co. Offaly. Unpublished Ph.D. thesis National University of Ireland. Madden B. and Doyle G.J. (1990). Primary Production on Mongan Bog. In G. J. Doyle (ed.). Ecology and Conservation of Irish peatlands. Pp. 147-161. Royal Irish Academy Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. Reynolds J.D. (1984). Invertebrates of Irish midland raised bogs: part 2. Odonata Aquatic Hemiptera Trichoptera. Bulletin of the Irish Biogeographical Society 8: 98-102. Tubridy M. (ed). (1984). Creation and Management of a Heritage Zone at Clonmacnoise Co. Offaly Ireland. Final Report EEC Contract No. 6611/12. Environmental Sciences Unit Trinity College Dublin. Tubridy M. (ed.) (1986). The Heritage of Clonmacnoise. Environmental Sciences Unit Trinity College Dublin in association with County Offaly vocational educational committee.</p>	<p>medium sized raised bog site which contains examples of the Annex I habitats active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). The centre of the site is dominated by a core of uncut high bog which contains an unusually large number of pools dominated by open water. The uncut high bog core is surrounded by old cutover surface which is regenerating into a mosaic of heath and low scrub. The relatively rare sedge Rhynchospora fusca has been recorded from wet pools within the site. In the past the bog was used by wintering Anser albifrons flavirostris but the geese appear to have deserted the site in recent years. The site supports breeding Numenius arquata and Gallinago gallinago.</p>	<p>is low permeability fossiliferous limestone. This is overlain by permeable sands and gravels mainly derived from limestone. The peat layer is underlain by relatively impermeable lake clays. Esker ridges of sands and gravels lie to the north and south of the site. Part of the old cutover bog has been converted to improved grassland and this is included in the site for hydrological reasons.</p>
000592	Bellanagare Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report for the Minister of State at the Department of Finance Dublin. Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Part I. Internal report to the Forest and Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project:</p>	<p>Bellanagare Bog is the largest remaining raised bog system in the country. The site contains very good</p>	<p>This bog is underlain by muddy carboniferous limestone with a low permeability.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin. Lavery T.A. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottenburg 1775 (Lepidoptera: Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-199. van Swaay C.A.M. and Warren M.S. (eds.) (2003). Prime Butterfly Areas in Europe - Priority Sites for Conservation. National Reference Centre for Agriculture Nature and Fisheries Ministry of Agriculture Nature Conservation and Fisheries the Netherlands.</p>	<p>examples of the priority Annex I habitat active raised bog and the non-priority habitats degraded raised bog (capable of regeneration) and depressions on peat substrates (Rhynchosporion). It is a rather unusual site in that it is in many ways transitional between raised and blanket bog. Because of the unusual undulating topography of the bog surface the site contains a large number of flushes which occur in areas of surface water movement. The rare plant species <i>Sphagnum pulchrum</i> and <i>Rhynchospora fusca</i> have been recently recorded from wet pools and lawns on the high bog areas.</p>	<p>The sub-soils are dominated by clayey limestone till. The site lies on an upland area at the top of a surface catchment divide. The peat is concentrated on ridges with flushes in between.</p>
000604	Derrinea Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Unpublished report to the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Internal report to the Wildlife Service Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation of Selected Raised Bog Sites in Ireland. An internal report to the National Parks and Wildlife Service Dublin. National Parks and Wildlife Service (1922-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>Derrinea bog is a small raised bog site which contains examples of the Annex I habitats active raised bog degraded raised bog and depressions on peat substrates (Rhynchosporion). A small area of heath developed over a till</p>	<p>This bog lies in an undulating plateau area of sand and gravel deposits. The area is probably underlain by low permeability fossiliferous limestone which is overlain by highly permeable sandy</p>

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			<p>mound occurs and this adds to the ecological/geomorphological interest of the site. The site is an example of a western raised bog and although it is rather small in comparison to other raised bog sites in the country the quality of the habitats is good. A number of other raised bogs and calcareous lakes lie in close proximity to this site and together they constitute one of the most important ecological areas in the east Mayo/Roscommon region.</p>	<p>subsoils. The bog probably developed due to the formation of an impermeable iron pan. There is a till ridge to the south of the site and a drumlin feature to the north-west. A river forms much of the northern and eastern boundary of the site.</p>
000607	Errit Lough SAC	Heuff H. (1984). The Vegetation of Irish Lakes. Part 2. Unpublished report to the Forest and Wildlife Service Dublin.	<p>A typical example of the small marl lakes in this region with zonations of Chara beds dependant on exposure and water depth well demonstrated.</p>	<p>A medium sized marl lake part of a series of similar lakes in the upper part of the Boyle River catchment. The lake has exposed stoney shores and some sheltered bays with sparse reedbed development. Surrounding lands are a mixture of pasture grassland raised bog and commercial conifer</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				plantation.
000627	Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	<p>Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Cawley M. (1996). Notes on some non-marine mollusca from Co Sligo and Co Leitrim including a new site for <i>Vertigo geyeri</i> Lindholm. Irish Naturalists? Journal 25: 183-185. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Sligo. An Foras Forbartha Dublin. Jennings O'Donovan &amp; Partners (1998). Sligo Main Drainage Waste Water Treatment Works. Environmental Impact Statement Main Report Volumes 1 and 2. Report prepared for Sligo Corporation. Kurzl. and Costello M.J. (1999). An outline of the biology distribution and conservation of lampreys in Ireland. Irish Wildlife Manuals No.5. Dúchas The Heritage Service Department of the Arts Heritage Gaeltacht and the Islands Dublin Ireland. Lockley R.M. (1966). The distribution of grey and common seals on the coasts of Ireland. Irish Naturalists? Journal 15: 136-143. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moorkens E.A. (1997). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and <i>V. geyeri</i>. Unpublished report National Parks &amp; Wildlife Service Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. and Flynn J. (1980). An assessment of the status of the common seal (<i>Phoca vitulina vitulina</i>) in Ireland. Biological Conservation 17: 115-123. Warner P. (1983). An assessment of the breeding populations of common seal (<i>Phoca vitulina vitulina</i> L.) in the Republic of Ireland during 1979. Irish Naturalists? Journal 21: 24-26. Warner P. (1984). Report on the Census of Common Seals (<i>Phoca vitulina vitulina</i>) in the Republic of Ireland during 1984. Unpublished document to the Forest &amp; Wildlife Service Dublin. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keefe C. (2004). Harbour seal population</p>	<p>The estuarine and intertidal sand and mud flat habitats at this site are extensive in area generally of good quality and show a good diversity of species and biotopes. <i>Zostera</i> spp. occur. These habitats are considered typical for the north-west region. The fixed dunes and shifting <i>Ammophila</i> dunes are small in area and only of moderate quality though embryonic dunes are well represented. The site has a good example of petrifying springs with tufa formations with several species of bryophyte typical of the Cratoneurion. The springs occur along seepage zones in clay sea cliffs. The site supports an area of Juniper scrub. The site has a nationally important colony of <i>Phoca vitulina</i>. Site is important for occurrence of the Annex II mollusc <i>Vertigo angustior</i> and the lamprey species <i>Petromyzon marinus</i> and <i>Lampetra fluviatilis</i>. A good diversity of</p>	<p>This large coastal site is made up largely of two estuarine bays Sligo Harbour and Drumcliff Bay. These are the estuaries of the Garavoge and Drumcliff rivers respectively. The estuaries are well sheltered and have extensive intertidal sand and mud flats. Coney Island provides the main shelter for Sligo Harbour while a sandy/grassy spit protrudes from the Rosses peninsula and provides shelter for inner Drumcliff Bay. The site continues to the north-west of Drumcliff Bay to include the shallow marine waters of Brown's Bay. A series of small islands notably Ardbolin occur here. Other coastal habitats are represented</p>

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		<p>assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139. Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Roderick T. (2009). Seal counts from Drumcliff Bay. Unpublished National Parks &amp; Wildlife Service data June 2007 - May 2008</p>	<p>waterfowl winter at site notably internationally important populations of <i>Branta leucopsis</i> and <i>Branta bernicla hrota</i>. Site has regular populations of <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i> both Annex I Bird Directive species and eight other species winter in nationally important numbers. <i>Phalacrocorax carbo</i> has a nationally important breeding colony and small numbers of other breeding seabirds occur.</p>	<p>including sand dunes salt marshes sandy and boulder beaches and bedrock shoreline. In addition there is a scattering of dry grassland wet grassland swamp vegetation and broad-leaved woodland. Improved grassland is included for the benefit of wintering geese. The site is largely underlain by Carboniferous limestone but acidic rocks are also found at Rosses Point. An excellent series of fossilised corals occur at Serpent Rock in the north west of the site. The town of Sligo a substantial urban centre with a regional port is located along the eastern boundary of the Sligo Harbour section of the site. Agriculture is the dominant landuse in the surrounding catchments.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
000646	Galtee Mountains SAC	Hart H.C. (1881). On the botany of the Galtee Mountains Co. Tipperary. Proceedings of the Royal Irish Academy (Ser. 2) 3 (Science) : 392-402.Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin.Fahy E. (1974). A preliminary report on areas of scientific interest in County Tipperary. Unpublished report for Tipperary County Council An Foras Forbartha Dublin.Mooney E.P. Goodwillie R.N. and Douglas C. (1991). Survey of Mountain blanket bogs of scientific interest. Unpublished draft report to the National Parks and Wildlife Service Dublin.	One of the highest inland mountain ranges in Ireland with extensive areas of dry heath alpine heath montane blanket bog and upland grassland including species-rich nardus grassland. The cliffs above the corries support arctic-alpine vegetation including the Red Data species <i>Cardaminopsis petraea</i> in one of its two Irish localities and several other notable Irish varieties. Site contains two known territories of <i>Falco peregrinus</i> .	An inland mountain range reaching 920m derived from folding of old red sandstone and silurian rocks with a series of small corrie lakes on the northern side and encompassing the headstreams of numerous tributaries of the river Suir. Site includes high level montane blanket bog alpine heath dry heath and montane cliffs.
000665	Helvick Head SAC	Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin.Madden B. Hunt J. and Norriss D. (2003). National Peregrine Survey 2002. Unpublished report to National Parks and Wildlife Dúchas The Heritage Service McGrath D. and Walsh P. (1990). Where to Watch Birds in Waterford. Irish Wildbird Conservancy Waterford. McGrath D. and Walsh P. (1996). The breeding population of Kittiwakes on the south coast of Ireland 1985-95. Irish Birds 5: 375-380. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (in prep.). The Status of Breeding Seabirds in Britain and Ireland. Walsh P. and McGrath D. (1988). Waterford Bird Report 1976-1986. Irish Wildbird Conservancy Waterford. Young R. (1972). A Preliminary Report on Areas of Scientific Interest in County Waterford. An Foras Forbartha Dublin.	The site supports typical examples of vegetated sea cliffs and coastal <i>Erica-Ulex</i> dry heath with a south to south-east facing aspect. Both habitats have good structures and are functioning well. Helvick Head is an important seabird colony and has a nationally important breeding population of <i>Rissa tridactyla</i> and regionally important numbers of <i>Fulmarus glacialis</i> <i>Larus argentatus</i> <i>Uria aalge</i> <i>Alca torda</i> and <i>Cephus grylle</i> . The site	Helvick Head is at the tip of an east-north-east facing promontory on the southern side of Dungarvan Harbour. It forms the eastern extremity of a broad sandstone ridge which extends west as far as Cork City and is the most northern of the (Hercynian) parallel folds in the rocks of the south-west of Ireland. The beds of rock dip quite

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>supports Pyrrhocorax pyrrhocorax though suitable nesting and foraging habitat is limited and is a traditional nesting site for Falco peregrinus.</p>	<p>steeply at this point so that the cliffs which rise to over 60 m are formed of a series of semi-vertical ribs with small gullies between them especially at the eastern end. The site extends over 3.5 km of coastline from Helvick Head to Muggort's Bay. In addition to dry heath and sea cliffs the site comprises dry grassland rocky shore and some shingle. A marine area to a distance of 500 m from the cliff base occurs in the eastern part of the site and is for the benefit of nesting seabirds.</p>
000671	Tramore Dunes and Backstrand SAC	<p>Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Farrell M. (1995). Recreation in Coastal Dune Systems with Reference to Tramore Sand Dunes. B.A. Thesis Waterford Regional College. Falvey J.P. Costello M.J. and Dempsey S. (1997) Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Ferguson I.K. (1968) Notes on the flora</p>	<p>Tramore dunes are a fine example of a sand spit developed on a shingle ridge and represents one of the few dunes systems on the south coast of Ireland. The fixed dunes are substantial in area though species diversity is low due to the absence of grazing. The fixed</p>	<p>Site is situated approximately 1 km east of Tramore Co. Waterford on the south-east coast. Site comprises a shallow and sheltered intertidal area known as the Back Strand enclosed by a</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>of Co. Waterford. Irish Naturalists? Journal 16: 94-97. Ferguson I.K. and Ferguson L.F. (1974) Further notes on the flora of Co. Waterford. Irish Naturalists? Journal 18: 85-87. Ferguson I.K. and Ferguson L.F. (1974) Polygonum maritimum L. new to Ireland. Irish Naturalists? Journal 18: 95. Kelleher D. (1996) The Impact of Recreation on Coastal Dunes. Case Study : Tramore Co. Waterford. B.Sc. Thesis Univeristy College Dublin. McGrath D. and Walsh P. (1990) Where to Watch Birds in Waterford. Irish Wildbird Conservancy Waterford. Merne O.J. (1989) Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Praeger R.L (1934) The Botanist in Ireland. Hodges &amp; Figgis Dublin. Scannell M.J.P. and Ferguson I.K. (1969) Zostera in Co. Waterford. Irish Naturalists? Journal 16: 176-177. Sheppard R. (1993) Ireland's Wetland Wealth. IWC Dublin. Young R. (1972) A preliminary report on areas of scientific interest in County Waterford. An Foras Forbartha Dublin.</p>	<p>dunes are complemented by small though good examples of shifting marram dunes and embryonic dunes. The salt marshes are of the lagoon type a rare type in Ireland and both Atlantic and Mediterranean communities are well represented. The intertidal sand and mud flats are of moderate size and have Zostera communities. Five Red Data Book plant species have been known from the site and one Polygonum maritimum has its only Irish station here. Site supports important wintering waterfowl populations with Branta bernicla hrota in international numbers and seven other species in numbers of national importance. Two species listed on Annex I of the Birds Directive occur - Pluvialis apricaria and Limosa lapponica.</p>	<p>substantial sand spit Tramore Burrow. The extreme inner part of the intertidal area is particularly well sheltered as it is bounded by an embankment with a narrow gap. Here salt marsh vegetation Spartina swards and communities of Salicornia and other annuals thrive. The spit is dominated by a substantial dune system and on the seaward side there is a fine sandy beach with a shingle element. The land to the north and east of the site is fairly intensive agricultural land while to the west the town of Tramore encroaches with the city landfill adjacent to the site. Recreational activities is the main landuse within the site.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
000685	Lough Ennell SAC	<p>Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part One. Environmental Research Unit Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. W: Grimmett R.F.A. and Jones J.A. (Eds.) Important Bird Areas in Europe. ICBP Technical Publication No.9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. National Parks and Wildlife Service Dublin.</p>	<p>This lake is one of the most important midland limestone lakes but the quality of the water has been poor owing to severe eutrophication in the 1970's. There has been improvement however and in 1990 it was classified as mesotrophic. A good diversity of charophytes have been recorded including some of the rare species of calcareous water. Some good alkaline fen fringes the lake in parts. <i>Lutra lutra</i> and <i>Lampetra planeri</i> occur at the site as well as some important invertebrate species. The site is an important bird area and has wintering <i>Anser albifrons flavirostris</i>. Further improvement in water quality would increase the value of this site.</p>	<p>Lough Ennell is a large open steep-sided limestone lake situated on the River Brosna within the Shannon catchment. The water is hard with low colour and markedly alkaline Ph. Maximum depth is 30m though the lake is generally much shallower. Much of the lakeshore is stony - wetland vegetation including reedswamp and alkaline fen fringe the lake in places particularly at the points of inflow and outflow of the Brosna and at the south west and south east shores. Mixed woodland much of it with a wet wood character occurs in places. Some improved grassland used by feeding <i>Anser albifrons flavirostris</i> is included in site. The lake is surrounded by</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				generally good quality pasture land.
000696	Ballyteige Burrow SAC	<p>Bowman J.J. Clabby K.J. Lucey J. Mc Garrigle M.L. and Toner P.H. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford.Brady Shipman and Martin (1992). Wexford Coastline. Coastal Zone Management Plan. Unpublished report to Wexford County Council. Carter R.W.G. and Wilson P. (1991). Chronology and geomorphology of the Irish dunes. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Couhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin.Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Galvin P. (1992). The Ecology of the Brackish-water Lagoons of Wexford and East Cork. M.Sc. thesis University College Dublin.Good J.A. (1999). Irish Coastal Lagoon Survey 1998. Vol V. Unpublished Report Dúchas the Heritage Service Dublin.Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Healy B. (1999). A survey of Irish coastal lagoons. Vol. 1 Background Description and Summary. Unpublished Report Dúchas the Heritage Service Dublin.Martins J. (1998). A Species Based Approach to the Conservation of Ireland's Threatened Vascular Plant Species using Complementary in situ and ex situ Methodologies. Unpublished Ph.D. thesis. University of Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Mitchell M.E. and Scannell M.J. (1977). Fulgensia subbracteata (Nyt.) Poelt in Ireland.. Irish Naturalists' Journal 19: Nairn R.G.W. (1986). Spartina anglica in Ireland and its potential impact on wildfowl and waders - a review. Irish Birds 3: 215-228. Nooren M.J. and Schouten M.G.C. (1976). Coastal Vegetation Types and Soil Features in South-East Ireland. Doctoraal Verslag. Catholic University of Nijmegen. Oliver G.A. (1999). Irish Coastal Lagoon Survey. 1998. Vol IV. Aquatic fauna. Unpublished Report Dúchas the Heritage Service Dublin. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bulletin of the Irish Biogeographical Society 21: 66-116.Orford J.D. and Carter R.W.G. (1982). Geomorphological changes on the barrier coasts of South Wexford. Irish Geography 15: 70-71.Roden C. (1999). Irish Coastal</p>	<p>The Burrow sand spit contains an excellent range of dune habitats of which the fixed dunes and eu-Atlantic decalcified dunes are of particular note for their extent and quality. The fixed dunes are particularly species-rich and contain a flora characteristic of the south-east coast of Ireland. Salt marsh habitats are also particularly well developed with very good examples of both Atlantic and Mediterranean salt meadows and one of only two extant sites in Ireland which has halophilous scrub vegetation characterised by Arthrocnemum perenne. Although the lagoon habitat within the site is largely artificial the biological community is notably rich and characteristically lagoonal with at least 11 lagoonal fauna specialists and several rare species.</p>	<p>Site is located on the south coast of Co. Wexford between the towns of Kilmore Quay and Cullenstown. Comprised of a sand and shingle barrier beach approximately 8 km in length and the estuary of the River Duncormick. The extensive overlying sand spit is known as the Burrow while the estuary that it encloses is known as the Cull. Site possesses a range of coastal habitats including various types of dunes salt meadows and intertidal sand and mud flats. An interesting feature of the dunes is the occurrence of large dry hollows in which the sand has been almost completely stripped away to reveal the underlying shingle.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Lagoon Survey 1998. Vol. III Flora. Unpublished Report Dúchas the Heritage Service Dublin. Russell E. (1884). Ballyteige District. Report to the Commissioners on the proposed drainage of the flooded lands in this district with the embankment and reclamation of the slob or submerged land in Ballyteige Lough County of Wexford. Alexander Thom. Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Wallace E. (1995). Aspects of the Ecology of Arthrocnemum perenne in Ireland. Unpublished study University College Cork.</p>	<p>Site has 6 Red Data Book plant species and is the only Irish site for the lichen Fulgensia subbracteata. Site supports important concentrations of waterfowl in autumn and winter including Pluvialis apricaria and Limosa lapponica and an internationally important population of Branta bernicla hrota. Has a small colony of breeding Sterna albifrons.</p>	<p>These depressions contain unusual assemblages of plant species. The site has a series of drainage channels and a small pond which now have lagoonal characters. Most of site is a Statutory Nature Reserve and managed for conservation. Former estuarine areas adjacent to the site have been reclaimed as polders and are intensively managed for agriculture.</p>
000709	Tacumshin Lake SAC	<p>Barnes R.S.K. (1989). Coastal lagoons of Britain: an overview and conservation appraisal. Biological Conservation 49: 295-313. Carter R.W.G. and Orford J.D. (1980). Gravel barrier genesis and management: A contrast. Proceedings Coastal Zone 80 American Society of Civil Engineers . 1304-1320. Carter R.W.G. and Orford J.D. (1982). The South and East Coasts of County Wexford. Field Guide No. 4: Irish Association for Quaternary Studies. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Galvin P. (1992). The ecology of the brackish-water lagoons of Wexford and East Cork. M.Sc. thesis University College Dublin. Good J.A. (1999). Irish coastal lagoon survey 1998. Vol V. Dúchas. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. Biogeogr. Soc. 21: 21-66. Hatch P. and Healy B. (1998). Aquatic vegetation of Irish coastal lagoons. Bull. Ir. biogeogr. Soc. 21: 2-21. Healy B. (1999). Irish coastal lagoon survey 1998. Vol 1 Part 1. Background Description and summary of the surveys. Dúchas. Healy. B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bull. Ir. Biogeogr. Soc. 21: 116-</p>	<p>Site provides an excellent example of a shallow generally oligohaline percolation lagoon. One of the largest and best examples of its type in the country and one of the largest lagoonal habitat of any type in the country. Flora and fauna diverse and typically brackish. Has the Red Data Book charophyte Chara canescens and several rare lagoonal fauna specialists</p>	<p>Situated on the south Wexford coast site comprises a large shallow (1-2 m) sedimentary lagoon separated from the sea by a long (5-6 km) gravel/sand barrier. At present there is no natural outlet to the sea and the lagoon drains through installed pipes. The pipes are not of sufficient</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>151.Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. 2 . Inventory of lagoons and saline lakes. Report to the National Parks and Wildlife Service Dublin.Hurley J. (1994). The South Wexford Coast Ireland - a natural heritage coastline. Telecom Eireann 31 pp.Merne O.J. &amp; Curtis T.G.F. (1988). Proposed Nature Reserve Schedule at Tacumshin Lake Co. Wexford. Unpublished document. National Parks &amp; Wildlife Service Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Oliver G.A.. (1999). Irish coastal lagoon survey 1998. Vol IV. Dúchas.Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. Biogeogr. Soc. 21: 66-115.Orford J.D. and Carter R.W.G. (1982). Geomorphological changes on the barrier coasts of South Wexford. Irish Geography 15: 70-71.Praeger R.L (1934). The Botanist in Ireland. Hodges &amp; Figgis Dublin.Roden C. (1999). Irish coastal lagoon survey 1998. Vol III. Dúchas.Ruz M-H. (1989). Recent evolution of the southeast barrier coast of Ireland. Journal of Coastal Research 5: 523-539.Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Stewart N. &amp; Church I. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough.</p>	<p>(Notonecta viridis Enochrus halophilus Ochthebius marinus). The gravel/sand barrier is an important geomorphological feature and has the very rare and Red Data Book species Otanthus maritimus. Dunes are of moderate quality. Important for waterfowl in autumn and winter. Has nationally important populations of eight species and particularly important for Anas strepera and Anas acuta (11% and 14% of respective national totals). Used by the Annex I Bird Directive species Cygnus cygnus and Pluvialis apricaria and occasionally by Cygnus columbianus bewickii.</p>	<p>capacity to prevent winter flooding. Salinity is generally low but rises as water levels fall in summer. The lagoon bed sediments are colonised by halophytic vegetation especially Salicornia spp. Substantial areas of the lagoon are now dominated by swamp vegetation and there are also marginal areas of wet grassland. The gravel/sand barrier is mostly covered by a sand dune system. Surrounding land is low-lying and used for agriculture both pasture and arable.</p>
000729	Buckronev-Brittass Dunes and Fen SAC	<p>Brunker J.P. (1950). Flora of County Wicklow. Dundalgan Press Dundalk. Cross J.R. (ed.) (1981). Ecological/Hydrological Report on Buckronev MarshCo. Wicklow. Unpublished Report to Forest &amp; Wildlife Service Dublin. Curtis T.G.F. (1976). A Preliminary Report on Areas of Scientific Interest in County Wicklow. Unpublished report prepared for Wicklow County Council. An Foras Forbartha Dublin.Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin.Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S.</p>	<p>The site contains a range of well-developed dune types which are typical of those found in eastern Ireland. The dune systems are fairly extensive in area and generally of good quality. Of particular note are the fixed dunes the</p>	<p>An extensive sand dune and fen system that covers an 8 km stretch of the coastline of Co. Wicklow. The site contains three sand dune systems - Brittass Bay Buckronev and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Mawhinney K.A. (1970). Brittas Bay: A Planning and Conservation Study. An Foras Forbartha Dublin. Mawhinney K.A. (1971). Brittas Bay Study Part 2: Conservation and Recreational Use of the Beach and Dunes. An Foras Forbartha Dublin. Praeger R.L (1934). The Botanist in Ireland. Hodges and Figgis Dublin.</p>	<p>decalcified fixed dunes (Calluno-Ulicetea) the humid dune slacks the dunes with Salix repens and the shifting Marram dunes. Buckronefen is a fine example of a diverse wetland system including alkaline fen and is one of the most important examples in eastern Ireland. The site is particularly notable for its eastern flora and fauna. In addition to five Red Data Book plant species there are a number of nationally scarce species including an abundance of Thelypteris palustris and Galium uliginosum. The invertebrate fauna is of high interest with some rare species including Machimus cowini. Sterna albifrons has bred at the site in the past.</p>	<p>Pennycomequick. Sediment source is mainly siliceous (low shell fragment content) with maximum carbonate levels of 3.5%. The dunes have cut off the outflow of a small river at Mizen Head and a large fen has developed. Its proximity to Dublin City makes Brittas Bay a very popular recreational area. Parts of the dune systems have already been developed as caravan parks and golf course. Part of the Buckronefen dune system has been acquired by National Parks and Wildlife for conservation use.</p>
000930	Clare Glen SAC	<p>Fahy (undated). A Preliminary Report on Areas of Scientific Interest in County Tipperary (N.R.). Unpublished report prepared for Tipperary County Council An Foras Forbartha Dublin. Grundwell A.G. (1980). Proceedings of the British Bryological Society. The Irish Meeting August 1979. Bulletin of the British Bryological Society 36 9-11. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (Trichomanes speciosum Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland.</p>	<p>An important site for its remnants of old oak wood and an interesting and rich bryoflora including the only station in Ireland for Fissidens exiguus. The ravine includes a population of Trichomanes speciosum.</p>	<p>A steep-sided ravine cut into Old Red Sandstone surrounded by mixed woodland and pockets of old oak wood. The Clare river flows east to west</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				through the ravine and incorporates a series of waterfalls fast-flowing ripples and pool sections. The site is of interest geologically for the stratigraphy of Old Red Sandstone and fossil ripple works.
000979	Corratirrim SAC	Anonymous (1986). A Preliminary Report on Areas of Scientific Interest in County Cavan. 2nd Edition. An Foras Forbartha Dublin. Reilly P. (1996). Plant records from Co. Cavan (H30). Irish Naturalists' Journal 25: 189. Reilly P.A. (2001). The Flora of County Cavan. National Botanic Gardens Glasnevin Occasional Paper No. 13. Stationery Office Dublin.	The site supports a small but well developed area of limestone pavement which includes areas of 'clints' and 'grykes' and some shattered limestone. The site has a reasonably good limestone flora including the scarce <i>Cystopteris fragilis</i> . An important outlier for this habitat the site is the only documented example in eastern Ireland. Good transition is shown to associated habitats including acidic heath and grassland. The legally protected and Red Data species <i>Pseudorchis albida</i> has been recorded as well as a number of other scarce species for the county. The site is on the border with Co. Fermanagh Northern	The site is located in the north-west of Co. Cavan where Carboniferous limestone underlies the shales and grits that form the Cuilcagh Mountains. At Corratirrim the limestone protrudes and results in an interesting diversity of habitats. In addition to limestone pavement the principal habitats are heath and acidic grassland on peat and mineral soils. In hollows and at the base of slopes the heath is wet and bog mosses ( <i>Sphagnum</i> spp.)

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Ireland.	occur.
001040	Barley Cove to Ballyrisode Point SAC	<p>Berrow S.D. Mackie K.L. O' Sullivan O. Shepherd K.B. Mellon C. and Coveney J. (1993). The 2nd International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Curtis T.G.F. (1991). An inventory of sand dunes in Ireland. In: Quigley M.B. (ed). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Goodwillie R. (1986). Report on Areas of Scientific Interest in County Cork. Unpublished report to Cork County Council. An Foras Forbartha Dublin. Hannon C. (1995). 1995 All Ireland Tern Survey. Unpublished report Birdwatch Ireland. Hatch P. (1996). A Survey of the Vegetation of Irish Coastal Lagoons Summer 1996. Unpublished report to National Parks and Wildlife Service Dublin. Healy B. Oliver G. Hatch P. and Good J. (1997). Coastal Lagoons in the Republic of Ireland - Inventory of Lagoons and Saline Lakes. Unpublished report to National Parks and Wildlife Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report to the Wildlife Service Dublin. Moore D. and Wilson F. (1999). National Shingle Survey of Ireland. Unpublished report to National Parks and Wildlife Dublin. Nawes P.T.J. (1993). Orchis morio at Barley Cove Co. Cork (H3). The Irish Naturalists' Journal 24: 222. Picton B.E. and Costello M.J. (eds) (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Shorten M.G.M. (1992). Areas of Scientific Interest for Birds in Cork. Prepared for Cork County Council by Irish Wildbird Conservancy. Wilde A. (1993). The All Ireland Tern Survey. Unpublished Report prepared for I.W.C. and R.S.P.B.</p>	<p>The fixed dune habitat at this site is of moderate size and quality but is of particular note as it is one of the only examples of the habitat in County Cork. It occurs with good examples of other coastal habitats and there is an excellent transition from intertidal flats and sandy beach through dunes and salt meadows to brackish lagoon. The dry heath is a very fine example of maritime heath with a southern element. It is particularly notable for the concentration of rare plants three of which receive legal protection <i>Asplenium billotii</i> <i>Lotus subbiflorus</i> and <i>Viola lactea</i>. The site is very important for <i>Pyrrhocorax pyrrhocorax</i> providing both nesting sites and feeding habitat. The site supports locally important concentrations of wintering waterfowl and breeding seabirds.</p>	<p>The site straddles a 10km stretch of coastline near Mizen Head in west Co. Cork. The underlying geology is Old Red Sandstone which has a NE - SW folding. The site comprises a range of coastal habitats which in addition to the listed annexed types include a brackish lake (artificial in origin) and tidal river rocky bedrock shoreline low cliffs and a marine area. Heath is the dominant habitat and is varied ranging from shallow dry soils to wet peaty soils. At Brow Head and east of Crookhaven there are the remains of formerly worked copper mines. The beach sand at Barley Cove is notably calcareous and white in colour. Grazing and tourism</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				related recreational activities are the primary landuses within the site and in surrounding areas.
001043	Cleanderry Wood SAC	Goodwillie R. (1986). Report on Areas of Scientific Interest in County Cork. Unpublished report for Cork County Council. Green P. (2000). The highlights of recording for the Atlas 2000 in SW Ireland 1999. In Rushden B.S. (ed). Irish Botanical News 10: March 2000. BSBI. Ní Dhúill E. Smyth N. Waldren S. & Lynn D. (2015). Monitoring methods for the Killarney Fern ( <i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland.	Although relatively small this is a very fine example of a western oakwood in an extreme coastal location. It is well developed as regards structure and is functioning normally (regeneration observed). There are no alien species. The occurrence of <i>Dryopteris aemula</i> is of note as it is listed as Vulnerable in Europe. The location and steep aspect would suggest that this wood is under no direct threat from development. Similar areas of intact woodland of this quality are relatively scarce. The site is also of importance as it supports a recently discovered population of <i>Trichomanes speciosum</i> .	The site is located on the southern shore of the Kenmare River Inlet in Co. Kerry. It is on a steep slope directly above the sea. Part of the site includes low cliffs and bedrock shore. Apart from woodland the site mainly comprises a mosaic of heath rock outcrops and acid grassland. The heath varies from wet heath to dry heath. Derryvegal Lough (Upper) and a small outlet stream is included in the site. Area is more or less in a natural state with only some light grazing.
001070	Myross Wood SAC	Goodwillie R.N. (1986). Report on Areas of Scientific Interest in County Cork. Unpublished report to Cork County Council. Conservation and Amenity Advisory Service Dublin. Fitzgerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife	The importance of this site lies in the large population of <i>Trichomanes speciosum</i>	Remnant areas of native broad-leaved woodland occur on cliffs and on steep

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Service Dublin. Ní Dhúill E. Smyth N. Waldren S. & Lynn D. (2015). Monitoring methods for the Killarney Fern ( <i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland.	probably one of the largest in the country that it supports.	rocky slopes near the head of a narrow sea inlet Glandore Harbour. An important population of <i>Trichomanes speciosum</i> (over 90 fronds and an abundance of gametophytes recorded in 1992) occurs in small waterfalls and on earth banks by a stream.
001090	Ballyness Bay SAC	Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Carter R.W.G. and Wilson P. (1991). Chronology and geomorphology of the Irish dunes. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. (1991b). The flora and vegetation of sand dunes in Ireland. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Holyoak G. (2002). Records of land and freshwater Mollusca in East Donegal (H34) and West Donegal (H35). Unpublished report. Rutherford J.H. (1979). The Sand Dune Morphology of Ballyness Spit. Unpublished M.Sc. Thesis. University of Ulster Coleraine. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.	The site contains two important dune systems that are of moderate size and quality. The fixed dunes are of particular note and these occur in association with embryonic dunes shifting white dunes and a limited area of humid dune slack. The dunes are highly dynamic having been formed and maintained by a tidal 'pump' action. Blown-over dunes are a feature as is the large area of unvegetated dune known as 'Big Dune'. A good example of a very sheltered estuarine complex with extensive	The site is situated on the north-west coast of Donegal near the towns of Falcarragh and Gortahork. The underlying rock is pelite with some areas of limestone and quartzite. Site comprises a large very sheltered intertidal estuarine system which receives the flows of three small to medium sized rivers - the Tullaghobeg River the Glenna River and the Owenawillin River. The outer part of



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>sand flats exposed at low tide. Some of the intertidal flats have a rich macroinvertebrate fauna and <i>Zostera</i> is present. The site supports significant numbers of waterfowl in autumn and winter with nationally important concentrations of <i>Charadrius hiaticula</i> and <i>Calidris alba</i>. <i>Pluvialis apricaria</i> visit the site regularly but in small numbers. A population of the rare mollusc <i>Vertigo geyeri</i> has recently been recorded from a base-rich flush within the site.</p>	<p>the bay is marked by two substantial sand dune systems at Dooley and Drumnatinney. Other habitats present in small amounts include salt marsh dry grassland wet grassland and heath. Site is of high scenic value and the dunes are a prominent feature of the Donegal coastline. Site is also of cultural importance containing a number of listed national monuments.</p>
001179	Muckish Mountain SAC	<p>Young R. (1973). A Report on Areas of Biological and Geological Interest in County Donegal. Unpublished report to Donegal County Council. An Foras Forbartha Dublin. Douglas C. Dunnells D. Scally L. and Wyse Jackson M.B. (1990). A Survey to Locate Lowland-highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the Wildlife Service Office of Public Works Dublin. Wilson P. (1990). Clast size variations on talus: some observations from northwest Ireland. <i>Earth Surface Processes and Landforms</i> 15: 183-188. Wilson P. (1990). Morphology sedimentological characteristics and origin of a fossil rock glacier on Muckish Mountain northwest Ireland <i>Geografiska Annaler</i> 72A : 237-247. Wilson P. (1988). Recent sand shadow development on Muckish Mountain Co Donegal <i>Irish Naturalists' Journal</i> 22 : 529-531. Synnott D.M. (1984). Notes on <i>Salix phylicifolia</i> L. and related Irish willows <i>Glasra</i> 7 : 1-10.</p>	<p>Muckish Mountain supports a good example of dwarf alpine heath on its summit an extensive area of quartzite cliffs and small areas of blanket bog about its base. The mountain is notable for the presence of an oceanic-montane bryophyte flora that includes several rare species and of a number of uncommon montane and arctic-alpine vascular</p>	<p>This site is dominated by Muckish Mountain a large flat-topped mountain flanked by quartzite and schist scree and by deposits of sand. Heath is the dominant vegetation type on the site with the mountain top supporting alpine heath. Large areas</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>plant species including two Red Data Book species. The presence of Falco peregrinus on the site is of interest. The site includes an important geomorphological feature - a fossil rock glacier.</p>	<p>of scree both unvegetated and with a heath vegetation occur. Blanket bog frequently associated with streams occurs mainly on the margins of the site - much of this has been degraded by peat extraction. Two small lakes are found in the north-eastern section of the site.</p>
001190	Sheephaven SAC	<p>Bassett J.A. (1983). Report on the Conservation of Irish Coastal Sites - Machair in Ireland. Unpublished report to the Department of Fisheries and Forestry Dublin.          Bassett J.A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20.          Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.). A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin.          Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104.          Hart H.C. (1898). Flora of County Donegal. Dublin.          Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190.          McConnell B.J. and Long C.B. (1997). Geology of North Donegal. A Geological Description to Accompany the Bedrock Geology 1: 10000 Scale Map Series Sheet 1 and part of Sheet 2 North Donegal. Geological Survey of Ireland Dublin.          McGrath D. Costello M.J. and Emblow C. (2000). The hermit crab Diogenes pugilator (Roux 1829) in Irish waters. Biology and Environment Proceedings of the Royal Irish Academy 100B: 115-118.          Neff M.J. (1973). Conservation Report Ards Forest. Unpublished report Forest and Wildlife Service Dublin.          Picton B.E. and Costello M.J. (eds). (1997). BioMar Biotope Viewer: a guide to marine habitats fauna and flora of Britain and Ireland (Ver. 2.0). Environmental Sciences Unit Trinity College Dublin. (Compact Disc).          Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.          Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird</p>	<p>This site is of importance for the extensive area of fixed dune habitat the overall quality of which is good. The occurrence of a small area of machair of medium quality is also of note. Good examples of mobile marram dunes and both Mediterranean and Atlantic salt meadows also occur. Extensive intertidal mud and sand flats occur and the site is the most northerly in Ireland for the rare hermit crab Diogenes pugilator. An area of old oak woodland while small and only of moderate quality is of</p>	<p>This extensive coastal site is dominated by intertidal mud and sand flats and sand dune areas with smaller areas of salt marsh lake dry heath scrub and woodland present. It is located to the north-east of Creeslough village along the northern coast of Co. Donegal. The bedrock geology of the site is quite varied with schist (at least 2 types) quartzite and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Conservancy Dublin. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.	note because of the scarcity of this habitat in Donegal. The site supports a population of <i>Petalophyllum ralfsii</i> as well as some locally scarce plants such as <i>Arctostaphylos uva-ursi</i> and <i>Orobancha rubra</i> . The Annex I Bird Directive species <i>Branta leucopsis</i> utilises the site as well as moderate numbers of a range of other waterfowl species.	metadolerite present. Areas of outcropping rock however are relatively rare. The main landuse within the site and in surrounding areas is sheep and cattle grazing. Large areas of fixed dune south of Rosepenna have recently been developed as golf courses.
001195	Termon Strand SAC	Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Good J.A. (1999). Irish coastal lagoon survey 1998. Vol V. Dúchas. Good J.A. and Butler F.T. (1998). Coastal lagoon shores as a habitat for Staphylinidae and Carabidae (Coleoptera) in Ireland. Bull. Ir. biogeogr. Soc. 21: 21-66. Goss Custard S. J. Jones J.A. Kitching and Norton T. A. (1979). Tidepools of Carrigathorna and Barloge Creek. Philosophical Transactions of the Royal Society of London. Series B 287: 1-44. Healy B. (1999). Irish coastal lagoon survey 1998. Vol 1 Part 1. Dúchas. Healy. B. and Oliver G.A. 1998. Irish coastal lagoons: summary of a survey. Bull. Ir. biogeogr. Soc. 21: 116-151. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal lagoons in the Republic of Ireland. Vol. 2. Inventory of lagoons and saline lakes. Report to the National Parks and Wildlife Service Dublin. Oliver G.A.. (1999). Irish coastal lagoon survey 1998. Vol IV. Dúchas. Oliver G.A. and Healy B. (1998). Records of aquatic fauna from coastal lagoons in Ireland. Bull. Ir. biogeogr. Soc. 21: 66-115. Roden C. (1999). Irish coastal lagoon survey 1998. Vol III. Dúchas. Wyse Jackson P.N. (1991). Distribution of Irish marine Bryozoa together with biographical notes relating to the chief researchers in the group. Bull. Ir. biogeogr. Soc. 14: 129-18.	Maghery Lake is one of only 15 silled lagoons in the country in good state of preservation and the best example in Co. Donegal. Flora is particularly valuable with both species of <i>Ruppia</i> <i>Zostera marina</i> and the most northerly occurrence and only site in Ulster for the Red Data charophyte <i>Lamprothamnion papulosum</i> . The lagoon is faunistically diverse with up to 7 specialist lagoon invertebrate species and several rare species ( <i>Jaera ischiosetosa</i> <i>Conopeum seurati</i> <i>Athete aquatalis</i> ). Overall a good example of a type	This relatively small low-lying coastal site is situated about 5 km west of Dunglow in west Co. Donegal. It is sheltered by the Termon headland or peninsula to the north and the higher ground associated with Croghy Head to the south. The primary scientific importance of the site is Maghery Lough an example of a lagoon. Maghery Lough is fringed by reedbeds on its western and southern sides with

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			of lagoon which is relatively rare in the country.	dry heath on the slightly higher rocky ground to the east. Other habitats in the site include intertidal sand flats a sandy beach at Maghery Strand low sand hills sandy dry grassland and wet grassland.
001209	Glenasmole Valley SAC	Colgan N. (1904). Flora of the County Dublin. Hodges Figgis & Co. Dublin. Doogue D. Nash D. Parnell J. Reynolds J. & Wyse Jackson P. (1998) Flora of County Dublin. The Dublin Naturalists' Field Club Dublin. Fuller B.S.D. (1985). A Botanical Historical and Geomorphological Investigation of a Woodland in Lower Glenasmole Co. Dublin to Assess its Value for Conservation. Unpublished B.A. (Mod.) Thesis Botany Dept. Trinity College Dublin. Goodwillie R. & Fahy E. (1973). A Provisional List of Areas of Scientific Interest in County Dublin. Unpublished report for Dublin County Council. Goodwillie R. & Ni Lamhna E. (1988). An Updated List of Areas of Scientific Interest in County Dublin. Unpublished report for Dublin County Council. Madden B. Conaghan J. Keely B. & Smal C. (1997). An Ecological Study of the Glenasmole Valley in relation to Proposed Development Work at the Lower Reservoir. Unpublished report prepared for Dublin Corporation. Piper R. (1970). Glenasmole Orchids. Unpublished manuscript held by Department of the Environment Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co Dublin. Statham I. (1977). A note on tufa-depositing springs in Glenasmole Co. Dublin. Irish Geography 10: 14-18.	The site has important examples of petrifying springs. The physical and chemical properties of the springs have been studied. Good examples of orchid rich calcareous grassland including <i>Pseudorchis albida</i> (legally protected) and <i>Orchis morio</i> (Red Data Book species) are found. The quality of grassland is variable owing to agricultural improvement. <i>Molinia</i> meadows are also represented. Several other Red Data Book plant species occur along with a host of rare or scarce plant species for Co. Dublin. The botany of this site has been well studied since the 19th century. The site has <i>Alcedo atthis</i> and is	Glenasmole Valley lies at the northern foothills of the Dublin and Wicklow Mountains. It is a glaciated valley with drift deposits consisting of fluvioglacial sands and gravels of varying thickness and rich in Carboniferous limestone occurring on the slopes. Spring lines occur along both sides of the northern part of the valley. The River Dodder flows through the valley and within the site the river has been impounded to form two reservoirs. Associated with the reservoirs are areas

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>important for bats with four Red Data Book species present (Pipistrellus pipistrellus Nyctalus leisleri Myotis daubentoni Plecotus auritus).</p>	<p>of swamp and marsh vegetation. The valley is heavily wooded mostly with mixed woodland of both deciduous and coniferous species but also some native woodland. Dry calcareous pasture grassland improved to varying degrees is a main habitat of the valley sides and occurs in association with wet grassland and in places of seepage fen or marsh type vegetation.</p>
001228	Aughrusbeg Machair and Lake SAC	<p>NPWS (2013b) The Status of EU Protected Habitats and Species in Ireland. Habitat Assessments Volume 2. Version 1.0. Unpublished Report National Parks and Wildlife Services. Department of Arts Heritage and the Gaeltacht Dublin Ireland.O Connor Á. (2015) Habitats Directive Annex I lake habitats: a working interpretation for the purposes of site-specific conservation objectives and Article 17 reporting. Unpublished Report National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland.Roden C. M. (1999). A Survey of Coastal Lakes in Counties Galway Mayo Sligo and Donegal. Report produced for the Heritage Council. Unpublished.Roden C. Murphy P. and Ryan J. (2017) A report on the 2017 fieldwork undertaken as part of the 2015-18 Najas lake survey for NPWS. Unpublished Report to the National Parks and Wildlife Service DCHG Dublin.Stewart N.F. and Church J.M. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC. Petersborough.Stewart N.F. (2017) A Review of the Irish Records for Stoneworts (Charophytes). Unpublished Report to the National Parks and Wildlife Service DCHG Dublin.</p>	<p>The aquatic vegetation of Aughrusbeg Lake is unusual and has a high conservation value. Overall it is a very clear softwater species-rich lake and based on current interpretations (O Connor 2015) is best described as a 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoeto-Nanojuncetea lake. Small patches of the</p>	<p>The site is located on the western seaboard approximately 2 km west of the village of Cleggan in Co. Galway. It comprises a range of terrestrial intertidal and marine habitats. The area is underlain by Omey granite. Aughrusbeg Lough is surrounded mostly by coastal heath</p>

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			<p>submerged vegetation may conform to 3110 while other areas are dominated by Chara spp. and could be aligned with the hard water lake habitat (3140). Aghrusbeg Lake was surveyed in 1999 by Cillian Roden in a Heritage Council-funded study and in September 2017 by Cilian Roden Paul Murphy and Jim Ryan as part of the NPWS Mixed Najas flexilis lake habitat study. The lake is on granite bedrock and is separated from the sea by a small machair plain creating sloping granite shores other than at the western end where there is a well-developed sand-shelf. It was ranked as having the highest conservation importance of the 15 coastal lakes surveyed in 1999 (Roden 1999). The 2017 survey recorded 29 species including seven Potamogeton species one Potamogeton hybrid and three-species each of the charophytes Chara and Nitella in 21 relevés. Euphotic depth was 5.2 m. The sand-shelf at the</p>	<p>with frequent outcropping rock. At its western side it is separated from the sea by a narrow machair plain. Lough Atalia is a tidal lake that is connected to the sea by a narrow intertidal inlet. An area of marine water is included as well as several small islands (Dog Island Roeillaun Gooreen Island). Other habitats include sandy and shingle beaches and rocky shoreline.</p>

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			<p>western end supports a population of what appears to be <i>Chara muscosa</i> (Roden 1999; Roden et al. 2017). <i>Chara muscosa</i> is closely related to and may even be an ecologically-induced form of <i>Chara contraria</i> (Stewart 2017). It was described from Mullaghderg Lough which remains its only definite world location but no longer occurs in this site (Roden et al. 2017; Stewart 2017).</p>	
001285	Kiltiernan Turlough SAC	<p>Goodwillie R. (1992). Turloughs Over 10 ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin. Madden B. and Heery S. (1999). Census of Wintering Wetland Grids in South Galway (Gort-Ardrahan Catchment) Winter 1998/99. Internal Report prepared for Dúchas the Heritage Service (National Parks and Wildlife). Southern Water Global Ltd. and Jennings O'Donovan and Partners (1997). An Investigation of the Flooding Problems in the Gort - Ardrahan Area of South Galway. Vols. 1 and II. Internal Report for Dúchas the Heritage Service (National Parks and Wildlife) and for The Office of Public Works.</p>	<p>The basin is split between two landowners and the level of land use is very different. The eastern (non-intensive) end is of fine quality and its vegetation is typical of a fairly dry turlough with considerable species diversity. The Red Data Book plant species <i>Viola persicifolia</i> and <i>Frangula alnus</i> are found here in this section. The western end is part of an intensive dairy farm and there is little interest in the vegetation.</p>	<p>Kiltiernan is a simple linear depression running SW from the main Galway-Limerick road. There are small cliffs and rock outcrops with bushes at its eastern end but to the west these are replaced with smoother fields of pasture. The basin slopes towards the NE so at this end there are a few semi-permanent pools. Conversely the SW end has other depressions</p>

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				that only flood in very high groundwater levels.
001321	Termon Lough SAC	<p>Duigan C. and Frey D.C. (1987). <i>Eurycercus glacialis</i> in Ireland (Cladocera Chydoridae). <i>Int. Revue Ges. Hydrobiol.</i> 72: 235-249. Goodwillie R. (1992). Turloughs over 10ha - Vegetation Survey and Evaluation. Unpublished report to National Parks and Wildlife Service Dublin. Jennings O'Donovan and Partners (1999). Termon Flood Alleviation Scheme. Preliminary Design Report Preliminary Ecological Assessment Report and Cost Benefit Analysis. Internal Report for OPW. Madden B. and Heery B. (1999). Census of Wintering Wetland Birds in South Galway (Gort-Ardrahan Catchment) Winter 1998/99. Unpublished report prepared for Dúchas the Heritage Service. Reynolds J.D. and Marnell F. (1999). New records of <i>Eurycercus glacialis</i> (Cladocera: Chydoridae) in turloughs in south-east Galway. <i>The Irish Naturalists' Journal</i> 26: 177-180. Southern Water Global Ltd and Jennings O'Donovan and Partners (1997). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Vols. I and II. Internal Report prepared for Dúchas the Heritage Service (National Parks and Wildlife) and for the Office of Public Works.</p>	<p>Termon North is a eutrophic system unusual in that it retains a substantial area of water until late in the year. This means that the aquatic plant community has full reign to develop. The late exposure of water also means that the annuals such as <i>Alopercurus aequalis</i> can survive. Termon South or Termon Lough is without drainage. It is a good example of a turlough at the wet end of the range with one of the largest stands of reedswamp. Although rare species have not been found the relatively rare oligotrophic vegetation on marl does occur. Rosemeade Turlough is located north of Termon North. This turlough seems to be more typical than either of the Termon sites. The vegetation is uniform and flooded for a relatively short period in winter. The turlough is fringed on the western</p>	<p>Termon North is an unusual turlough as it retains a substantial area of water until late in the year sometimes not drying out completely. This means that the aquatic community has full reign to develop resulting in a dense vegetation of Potamogeton and other species. The late exposure of the bed also means that annual terrestrial species are a feature in most years. Termon Lough is a wet turlough that seems to have become wetter since it was mapped in the 1890s. It lies in flattish morainic countryside on the Galway/Clare border. The main area is now a dense reedswamp underlain by marl deposits which</p>



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			<p>side by scrub including <i>Rhamnus cartharticus</i>. The rare <i>Eurycercus glacialis</i> is frequent with marsh snails and many invertebrate carnivores. Crustacean species diversity is relatively high also.</p>	<p>show at the edges. Drier vegetation is of small extent though a small area of limestone pavement rises in the N.E. corner.</p>
001430	Glen Bog SAC	<p>Kelly D.L. and Iremonger S.F. (1997) Irish wetland woods: the plant communities and their ecology. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 97B: 1-32. Madden B. Hunt J. and Norriss D. (2003 in preparation). National Peregrine Survey 2002. Report to National Parks &amp; Wildlife Duchas the Heritage Service. Young R. (1971). A Preliminary Report on Areas of Scientific Interest in County Limerick. An Foras Forbartha Dublin.</p>	<p>The site has an important and fairly extensive example of a type of alluvial woodland (<i>Alnus glutinosa</i> - <i>Carex paniculata</i> community) that is considered genuinely rare in Ireland. The woodland has developed naturally in a former lake basin and is dominated by native species. Its quality is good and it appears to be functioning in a natural state. The quarry on site supports a pair of <i>Falco peregrinus</i>. <i>Rana temporaria</i> is abundant in the wet woodland.</p>	<p>The site is situated approximately 2 km to the south-east of Lough Gur in Co. Limerick. Glen Bog is now dominated by wet woodland. The woodland does not flood but is permanently waterlogged. In addition to Glen Bog the site includes the summit and southern slopes of Knockderc which rises to 143 m. Knockderc is composed of an igneous intrusive porphyritic rock while the rest of the site is underlain by Lower Carboniferous limestone. Habitats on the hill include scrub bracken and acidic grassland.</p>

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				There is some exposed rock as well as a disused quarry.
001432	Glenstal Wood SAC	Ní Dhúill E. Smyth N. Waldren S. & Lynn D. (2015). Monitoring methods for the Killarney Fern ( <i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin.	The main importance of this site is in the population of <i>Trichomanes speciosum</i> that it holds. The species was first recorded here in 1852; in 1934 it was said to be found here "in more than one spot"; while in 1949 a "fine clump" of the plant was seen. The glen is quite species-rich and supports a rich flora of flowering plants ferns bryophytes and lichens. <i>Prunus padus</i> a threatened species in Ireland was reported from the site in 1881.	The site is situated on the western foothills of the Slievefelim Mountains. It comprises stands of oak woodland around Glenstal Castle and Abbey and extending north-eastwards along a narrow glen cut into Old Red Sandstone. The glen is approximately 1.5km long and narrows at its north-eastern end to a rocky ravine. A small stream runs the length of the glen along its floor.
001459	Clogher Head SAC	Anonymous (1981). Areas of Scientific Interest in Ireland. An Foras Forbartha Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin. Rippey I. (1991). Golden samphire ( <i>Inula crithmoides</i> ) in Co. Lough. Irish Naturalists' Journal 23: 26.	The site includes examples of two Annex I habitats dry heath and vegetated sea cliffs. A number of scarce vascular plant species <i>Inula crithmoides</i> <i>scilla verna</i> <i>Trifolium striatum</i> and <i>Trifolium ornithopodioides</i> (the last-named not recorded	Clogher Head is a low rocky headland composed of Silurian rocks set in a low-lying coastline of sands clays and mud overlooking the Irish Sea. It comprises an area of dry heath

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			recently) have been reported from the site.	vegetation flanked by low rocky vegetated sea cliffs. The area surrounding the site is intensively farmed.
001513	Keel Machair/Menaun Cliffs SAC	<p>Bassett J.A. &amp; Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Berrow S.D. Mackie K.L. O' Sullivan O. Shepperd K.B. Mellon C. Coveney J.A. (1993). The second International Cough Survey in Ireland 1992. Irish Birds 5: 1-10. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Crawford I. Bleasdale A. and Conaghan J. (1996). Biomar Survey of Irish Machair Sites 1996. A report submitted to the National Parks &amp; Wildlife Service Dublin. Geological Survey of Ireland (1993). Geology of Mayo. Department of Transport Energy and Communications Dublin. Holyoak D.T. (1999). Report on Surveys of Petalophyllum ralfsii in Co. Mayo and Co. Galway Western Ireland 16-22 April 1999. Unpublished report to Duchas The Heritage Service National Parks and Wildlife Dublin. Lockhart N. (1998). Report on Survey of Petalophyllum ralfsii at Keel Machair Co. Mayo. Unpublished report to Duchas The Heritage Service National Parks and Wildlife Dublin. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in the Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Madden B. Cooney T. O'Donoghue A. Norriss D.W. and Merne O.J. (1998). Breeding waders of machair systems in Ireland in 1996. Irish Birds 6: 177-190. Nairn R.G.W. and Sheppard J.R. (1985). Breeding birds of sand dune machair in north-west Ireland. Irish Birds 3: 53-70. Praeger R.L. (1904). The Flora of Achill Island. Irish Naturalist 13: 265-289. Stewart N. (1993). Unpublished report to the National Parks &amp; Wildlife Service on the location of rare bryophytes in Ireland.</p>	<p>This site is important because of the presence of the priority Annex I habitat machair though the quality of the habitat has been reduced by heavy grazing and recreational use. A fairly typical example of alpine and sub-alpine heath also occurs though this has been degraded by sheep grazing. Also of importance is a fine example of a stony beach which occurs adjacent to the machair. Associated with the machair is a large population of the Annex II liverwort Petalophyllum ralfsii. Two legally protected plant species occur Lathyrus japonicus and Mentha pulegium. A variety of rare bryophytes have been recorded including Philonotis rigida Cyclocladon laetevirens Bryum marratii and</p>	<p>This relatively large coastal site located along the mid-western coast of Achill Island Co. Mayo comprises a complex of coastal and upland habitats. The dominant bedrock within the site is quartzite with an extensive flat area of blown sand occurring between Trawmore Strand and Keel Lough. The principal habitats are heaths varying from wet to dry blanket bog sea cliffs (up to 250 m) machair and lakes. Other habitats which occur in small amounts are freshwater marsh sandy beach and a shingle/stony ridge. The tall quartzite cliffs which</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			Bryum calophyllum. The site supports wintering <i>Cygnus cygnus</i> and breeding <i>Falco peregrinus</i> and <i>Pyrhocorax pyrrhocorax</i> . Some breeding waders and breeding seabirds are also found.	dominate the south-western shore lend a very scenic quality to the site.
001626	Annaghmore Lough (Roscommon) SAC	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Goodwillie R. and Fahy E. (1974). A Preliminary Report on Areas of Scientific Interest in County Roscommon. Unpublished report An Foras Forbartha Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy. Dublin.	The site contains a good example of alkaline fen vegetation. While the extent of the habitat is relatively small it supports a range of typical species including scarce plants such as <i>Eriophorum latifolium</i> and several orchid species. Alkaline fen is nowadays a scarce habitat in Co. Roscommon. A population of <i>Vertigo geyeri</i> has been recorded at this site as recently as 2001. This is the only known location for this rare mollusc in Co. Roscommon and one of the few sites in western Ireland. Annaghmore Lough supports a good diversity of wintering waterfowl with nationally important populations of <i>Anas crecca</i> and <i>Anas clypeata</i>	Annaghmore Lough is located 5 km north-west of Strokestown Co. Roscommon. It lies within a network of small lakes in a rolling drift-covered landscape. The shoreline slopes gently to the lake and these low-lying margins are extensively flooded in winter. In summer when water levels recede substantial areas of this shallow calcareous lake dry out leaving flat expanses of exposed marl. In addition to fen vegetation there are extensive areas of reed swamp and wet grassland around the margins

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			and small numbers of <i>Cygnus cygnus</i> and <i>Pluvialis apricaria</i> . The birds commute to other wetlands in the district.	of the lake. A stream exits the lake at the south-east and flows through a low-lying area of wet grassland - this floods regularly and has a turlough character. This site includes a smaller less calcareous lake Lough Nablarnagh to the south of Annaghmore. An area of cutover bog is associated with this lake. A small area of limestone pavement adds habitat diversity to the site.
001656	Bricklieve Mountains & Keishcorran SAC	An Foras Forbartha (1981). Areas of Scientific Interest in Ireland. An Foras Forbartha Dublin. Cotton C. Cawley M. and Roden C. (1994). Botanical note on the occurrence of <i>Pseudochoris albida</i> in Sligo (H28) Leitrim (H29) and Galway (H15 H16 and H17). Irish Naturalists' Journal. 24 : #468-471. Herries Daves G.L. and Stephens N. (1978). Ireland. Methuen London. Lavery T.A. (1993). A review of the distribution ecology and status of the marsh fritillary <i>Euphydryas aurinia</i> Rottenburg 1775 (Lepidoptera: Nymphalidae) in Ireland. Irish Naturalists' Journal 24: 192-199. O'Connor W. (Ecofact Environmental Consultants)(2007). Monitoring of crayfish in Irish lakes. Unpublished interim report to NPWS Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co. Dublin. Stewart N. (undated). List of rare Irish Bryophytes. Unpublished. National Parks and Wildlife Service Dublin. Webb D.A. (1947). The vegetation of Carrowkeel a limestone hill in north-west Ireland. Journal of Ecology 35 : 105-129.	The site is important as it supports a very wide range of habitats. These include limestone cliffs extending 10-30m eutric scree the unusual combination of blanket bog and wet heath on limestone abundant dry heath a variety of grassland types including mineral rich acidic and wet and dry meadows scrub on the cliffs and scattered throughout the	The site is a good example of a karst region and contains many sink holes caves dry valleys and pavements at heights up to 260m. The slopes bounding the Bricklieve Plateau display striking terraces broken by south-eastward trending gullies developed along

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			<p>grasslands and a small patch of deciduous woodland. The fen at the south-west side of the site is very diverse and unusual in that it occurs as high as 118m. The site includes a fine turlough Lough Gowra at a very high altitude for the habitat(112m). Rare plants at the site include Red Data Book species <i>Draba incana</i> <i>Rorippa islandica</i> <i>Viola persicifolia</i> and <i>Pseudorchis albida</i> as well as the charophyte <i>Chara vulgaris</i> var. <i>papillata</i> and many rare mosses and liverworts. Lough na Leibe holds a good population of <i>Austropotamobius pallipes</i>. The site supports a population of <i>Euphydryas aurinia</i>.</p>	<p>minor fault-planes. Ecologically the site is extremely diverse and the most interesting features are the presence of peat and acidic grasslands on limestone and the occurrence of a fen at a relatively high altitude of 118 m. The site has many archaeologically interesting megalithic tombs some of considerable size and erected 4500 years ago before peat formed. A system of roads traverse the site and tourism is encouraged.</p>
001766	Magherabeg Dunes SAC	<p>Brunker J.P. (1950). Flora of County Wicklow. Dundalgan Press Dundalk. Curtis T.G.F. (1976). A preliminary report on areas of scientific interest in County Wicklow. Unpublished report prepared for Wicklow County Council. An Foras Forbartha Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin.</p>	<p>Despite its small size this site is important as a fine example of an intact sand dune system which shows the various developmental stages of dunes with embryonic dunes white dunes grey fixed dunes and decalcified fixed dunes all represented. A fine</p>	<p>Situated on the south Co. Wicklow coast and extending south from Ardmore Point for up to 2 km this site comprises a mature dune system and adjacent drift banks. The Three Mile Water River</p>

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			<p>transition is also shown between sand dunes and drift banks the latter wooded with native deciduous species. Also present is a good example of petrifying springs on the cliff-face at Ardmore. The quality of all the habitats is good. A rare hybrid sedge <i>Carex x grossii</i> (<i>C. hirta</i> x <i>C. vesicaria</i>) has been recorded.</p>	<p>flows through the site before entering the sea. Some swamp vegetation occurs behind the dunes. The drift banks are covered by deciduous woodland and dense scrub. Bedrock and low cliffs are exposed at Ardmore Point and Ardmore Head is covered by dry grassland and scrub.</p>
001858	Galmoy Fen SAC	Galmoy Mine Project - Environmental Impact Statement. Prepared by EOLAS for ARCON. 1992.	<p>The site contains a good example of alkaline fen vegetation that has developed partly due to cutting of a former raised bog. Fen habitat is rare in the region. The site contains a typical range of species including <i>Schoenus nigricans</i> and supports the Red Data Book species <i>Rana temporaria</i> and <i>Lepus timidus hibernicus</i>.</p>	<p>Galmoy Fen is situated 7 km north of Johnstown in Co. Kilkenny. It lies in a depression and is underlain by Carboniferous limestone. The central part of the site comprises an area of cutover raised bog with numerous peat-cuttings resulting in a mosaic of dry peat banks and wet peaty pools. The pools have become flooded with base-rich groundwater and now support</p>

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				alkaline fen vegetation. A large area of fen vegetation surrounds the central part of the site; this area has a number of large pools that support calcicole species. Other habitats present on the site include scrub wet grassland improved grassland dry calcareous grassland and a small area planted with Picea sitchensis. A stream brings water to the site on its north-east side. Surrounding landuse is mainly agricultural.
001919	Glenade Lough SAC	Byrne C. O'Sullivan A. & MhicDaeid C. (1995). Rare Plant Survey 1995 - Glenade Lough Co. Donegal. Unpublished report to the National Parks & Wildlife Service Dublin. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. & Toner P.F. (1992). Water Quality in Ireland 1987-1990. Environmental Research Unit Dublin. Heuff H. (1984). The Vegetation of Irish Lakes. Unpublished report to the Forest & Wildlife Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin. Lucey J.& McGarrigle M.L. (1987). The distribution of the freshwater crayfish in Ireland. Irish Fisheries Investigations 29A: 1-13.	An interesting system considered more mesotrophic in physical and chemical characters than eutrophic. Has a wide diversity of vegetation from well developed Potamogeton communities to species more associated with nutrient poor water such as Isoetes lacustris. Also	Glenade Lough is situated on the upper reaches of the Bonet River within a valley between the Arroo and Benbulbin Mountain ranges. Site is underlain by carboniferous limestone which confers a



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>has <i>Najas flexilis</i>. Quality of system is good with no evidence of artificial nutrient inputs. Has a good population of <i>Austropotamobius pallipes</i> and is a site for a genetic research programme on Irish crayfish. Although small an important site of high quality.</p>	<p>calcareous nature to the lake. The water is clear well aerated and relatively nutrient poor. Lake shore is stony or sandy. Marginal vegetation is well developed with reed swamp calcareous fens and flushes and wet grassland. Broad-leaved woodland and dry grassland also occur. Surrounding areas are mainly of pasture though not intensively managed.</p>
001975	Ballyhoorisky Point to Fanad Head SAC	<p>Bassett J.A. &amp; Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of the Royal Irish Academy 85B: 1-20. Berrow S.D. Mackie K.L. O. Sullivan O. Shepperd K.B. Mellon C Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Bullock-Webster G.R. (1919). A new <i>Nitella</i> (<i>N. spanioclema</i>). Irish Naturalist 28: 1-3. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Fay P. (1996). The rare and protected flora of coastal areas in Counties Galway Mayo Sligo and Donegal. Unpublished report to the National Parks and Wildlife Service Dublin. Holyoak G. (2002). Records of land and freshwater Mollusca in East Donegal (H34) and West Donegal (H35). Unpublished report. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Roden C.M. (1999). A Survey of Coastal Lakes in Counties Galway Mayo Sligo and Donegal. Report produced for the Heritage Council.</p>	<p>The site is of importance for vegetated sea cliffs and perennial vegetation of stony banks both habitats being extensive in area and of good quality. The cliffs support important populations of the Red Data Book species <i>Ligusticum scoticum</i>. Lakes are also well represented both oligotrophic and hard-water categories. These include some of the best examples of base-rich nutrient-poor lakes in the</p>	<p>Situated in north Donegal this site covers more than 18 km of coastline and displays a wide range of coastal habitats. The bedrock geology of the site is dominated by granite (western and northern section) and quartzite (eastern and southern section). The coastline is variable</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Unpublished. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Stewart N.F. and Church J.M. (1992). Red Data Books of Britain and Ireland: Stoneworts. JNCC Peterborough. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>county and contain a range of rare plant species including <i>Najas flexilis</i> and the stonewort <i>Nitella spanioclema</i> (probably endemic). Machair occurs but is in a degraded state. A population of the rare <i>Vertigo angustior</i> has been discovered recently within the site. Site has breeding <i>Falco peregrinus</i> and <i>Pyrhocorax pyrrhocorax</i>. Of national importance for wintering <i>Clangula hyemalis</i> and <i>Calidris alba</i>. One of largest populations of <i>Somateria mollissima</i> in the country.</p>	<p>with rocky headlands and cliffs interspersed with sandy bays and low shoreline. The cliffs are generally low but reach 120 metres south of Fanad Head. Sandy habitats including machair are frequent. The machair merges with a number of coastal oligotrophic lakes in the north-west of the site. This calcareous influence has resulted in the presence of a species-rich wetland flora. Other habitats present include open marine waters shingle beach heath and blanket bog. The main landuse is grazing by sheep and cattle.</p>
001976	Lough Gill SAC	<p>Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001.Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Part One General Assessment. Environmental Research Unit Dublin. Cotton D.C.F. (1982). <i>Coenagrion lunulatum</i> (Charpentier) (Odonata: Coenagridae) new to the British Isles. Entomologists' Gazette 33: 213-214. Cotton D.C.F. (1993). Ecological Study of Lough Gill - to Predict the Effects of the Sligo and Environs Water Supply Scheme on the Flora</p>	<p>An important example of a lake which appears to be naturally eutrophic. Quality generally good though blooms of blue-green algae in recent years indicate some</p>	<p>Lough Gill is a moderate to large sized lake lying immediately east of Sligo town. It is fed by the River Bonet and drains into the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>and Fauna with Suggestions for Future Management. Report prepared in conjunction with Jennings O'Donovan and Partners for Sligo County Council. Cotton D.C.F. and Cawley M. (1993). New records for vascular plants from Cos. Sligo (H28) and Leitrim (H29). Irish Naturalists' Journal 24: 288-295. Colhoun K. (1998). I-WeBS Report 1996-97. BirdWatch Ireland Dublin. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Flanagan P.J. and Toner P.F. (1975). A preliminary survey of Irish lakes. An Foras Forbartha Water Resources Division. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Sligo. An Foras Forbartha Dublin. Jennings O'Donovan and Partners (1994). Sligo and Environs Water Supply Scheme. Ecology Study. Report prepared for Sligo County Council. Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and Environment - Proceedings of the Royal Irish Academy 97B: 1-32. Kurz I. and Costello M.J. (1998). An Outline of the Biology Distribution &amp; Conservation of Lampreys in Ireland. Irish Wildlife Manual No. 5 Dúchas The Heritage Service. O'Reilly P. (1991). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London. Praeger R.L. (1932). Some noteworthy plants found in or reported from Ireland. Proceedings of the Royal Irish Academy 41B (4): 95-124. Praeger R.L. (1934). The Botanist in Ireland. Hodges &amp; Figgis Dublin. Round F.E. and Brook A.J. (1959). The phytoplankton of some Irish loughs and an assessment of their trophic status. Proceedings of the Royal Irish Academy 60B (4): 167-191. Thompson E. Ryan S. and Cotton D.C.F. (1998). Management Plan for the Lough Gill Catchment. Sligo County Council. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Whilde A. Cotton D.C.F. and Sheppard R. (1993). A repeat survey of gulls breeding in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p>	<p>artificial enrichment. Significant areas of alluvial forest occur along the Garvoge River (Osmunda - Salicetum atrocineria type) and at the mouth of the River Bonet (Carici remotae - Fraxientum type). Old oak woodland of varying quality is well scattered along the shoreline and on some of the islands and is an important example of this habitat for western Ireland. At least six Red Data Book plant species have been recorded from site. Site has three species of lamprey and Austropotamobius pallipes. The lake and its associated rivers support an important population of Salmo salar. Lutra lutra has a good population within the site. Of minor importance for birds though the site has a small breeding colony of Sterna hirundo. A wide range of rare or scarce invertebrates are known from the site as well as several Red Data Book mammal species including Martes martes.</p>	<p>sea via the Garvogue River a short wide and slow flowing river which passes through Sligo town. The lake lies along the junction between old metamorphic rocks to the south and limestone to the north. The water of the lake is thus influenced by both acidic and alkaline inputs although nearly all the basin lies over limestone. The lake is 8 km by 2-3 km and has an area of 1400 ha. It is a deep lake with maximum depth at 31 m. Islands are a feature of the lake. Much of the shoreline is wooded and there is also some swamp vegetation wet grassland and scrub along the shoreline. The lake is an important salmonid and coarse fishery and is used for a range of recreational</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				activities. The site also includes the Shanvans and Owenmore rivers.
002005	Bellacragher Saltmarsh SAC	Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and the Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Praeger R.L (1934). <i>The Botanist in Ireland</i> . Hodges & Figgis Dublin.	Although small in area this is a typical example of west coast salt meadow of the fringe type on a peat substrate. Both Atlantic and Mediterranean types of salt meadow are represented. Turf fucoids are a feature and a community of this type was first described from Bellacragher. Quality moderate to good. Owing to its proximity to the public road the site is easily accessible and is used for educational purposes.	Bellacragher Bay is a very sheltered inlet situated to the north-west of Mallaranny in Co. Mayo. The site is situated on the eastern side of the bay. The salt marsh is of the fringe type and occurs mostly on a peat substrate though some patches occur on the stony shoreline. The width of the fringe varies in places being up to 20 m. On the landward side of the salt marsh fringe the habitat is generally bog or damp acidic grassland. Other habitats within the site are stony shoreline intertidal flats a small sandy beach and some damp grassland. The salt marsh is grazed by sheep.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
002010	Old Domestic Building (Keevagh) SAC	O'Sullivan P. (1994). Bats in Ireland: The Irish Naturalists' Journal. Special Zoological supplement. 21pp.	As >100 Lesser Horseshoe Bats ( <i>Rhinolophus hipposideros</i> ) use this site as a summer breeding site it is a site of international importance. It is also important because it is situated along the eastern limit of the species' distribution in Ireland.	This site consists of a large two-storey derelict dwelling situated near Quin village County Clare. It is used by >100 Lesser Horseshoe Bats as a summer breeding site. The bats roost in the roof space. The surrounding mature trees and hedgerows are suitable foraging habitats for the bats.
002037	Carrigeenamronety Hill SAC	N/A	The importance of this site lies in the presence of <i>Trichomanes speciosum</i> . Thirteen plants were recorded from the site in 1976. These were growing in clefts in rock.	Carrigeenamronety Hill is an eastern lower outlier of the Ballyhoura Mountains which straddles the border of Counties Cork and Limerick. It is underlain by old red sandstone and silurian rocks and its summit is crowned by an imposing escarpment of silurian conglomerate rock. Heath forms the dominant vegetation of the site especially in the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>higher sections. Areas of unimproved Molinia grassland and improved grassland are found at lower altitudes. Commercial forestry occurs commonly on the hill outside the site and on other high ground to the west.</p>
002041	Old Domestic Building Curraglass Wood SAC	<p>Mc Aney C.M. (1994). The Lesser Horseshoe Bat in Ireland - past present and future. Folia Zoological 43 (4): 387 - 392. O' Sullivan. P. (1994). Bats in Ireland. The Irish Naturalists' Journal. Special Zoological Supplement. 21pp.</p>	<p>As this site is used by &gt;100 Lesser Horseshoe Bats (<i>Rhinolophus hipposideros</i>) it is a site of international importance. Repair work undertaken at the site improved conditions by increasing the internal temperature and by excluding light windows and a door below the loft were blocked to secure the site.</p>	<p>This site consists of a small two-roomed stone dwelling situated in Rossacruie Wood North of Kilgarven Co. Kerry. It is used by &gt; 100 Lesser Horseshoe Bats as a summer breeding site. The bats gain access through an opening over a doorway at the rear of the building and through a window leading to a small loft. The bats hang from the roof timbers in the loft. The surrounding wood provides suitable foraging habitat and shelter for bats as they</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				commute to the - at present - unknown hibernation site.
002070	Tralee Bay and Magharees Peninsula West to Cloghane SAC	<p>Anon (??). The An Taisce Report on the Lough Gill Natural Heritage Site. Unpublished report. Anon (1974). Report on wetlands of international and national importance in the Republic of Ireland. Forest &amp; Wildlife Service Dublin. Anon (1998). Conservation plan for a Natura 2000 site: Tralee Bay cSAC and SPA Co. Kerry.</p> <p>Unpublished report (Draft II) by Dúchas The Heritage Service. Berrow S.D. Mackie K.L. O' Sullivan O. Shepherd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5:1-10. Bowman J.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Environmental Research Unit Dublin. Colhoun K. (1998). I-WeBS Report 1996-97: Results of the third winter of the Irish Wetlands Bird Survey. BirdWatch Ireland Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book: 1 Vascular Plants. Wildlife Service Dublin. Delany S. (1996). I-WeBS Report 1994-94: Results of the first winter of the Irish Wetlands Bird Survey. BirdWatch Ireland Dublin. Delany S. (1997). I-WeBS Report 1995-96: Results of the second winter of the Irish Wetlands Bird Survey. BirdWatch Ireland Dublin. Falvey J.P. Dempsey S. and Costello M.J. (1997). Survey of estuarine intertidal sites in Ireland. Unpublished report to NPWS by ESU Trinity College Dublin. Gibbons M. (1981). Reproduction demography and feeding of the Natterjack Toad Bufo calamita in Co. Kerry 1981. A report to the Forest and Wildlife Service. Goodwillie R. (1972). A preliminary report on areas of ecological and geological interest in Co. Kerry. An Foras Forbartha Dublin. Gresson R.A.R. and Dubhda S. (1971). Natterjack Toads Bufo calamita Laur. at Castlegregory and Fermoy Co. Kerry. INJ 17 (1): 9-11. Gresson R.A.R. and Dubhda S. (1974). The distribution of the Natterjack Toad Bufo calamita Laur. in Co. Kerry. INJ 18 (4): 97-103. Guilcher A. and King C.A.M. (1961). Spits tomboles and tidal marshes in Connemara and west Kerry Ireland. Proc. R.I.A. 61:283-338. Harrington T.J. (1990). A report on the golf course development at Castlegregory Co. Kerry - its impact on the flora and fauna. Unpublished report. Healy B. and Oliver G. Hatch P. &amp; Good J. (1997). Inventory of lagoons and saline lakes. Report prepared for NPWS Dublin. Healy B. and Oliver G.A. (1998). Irish Coastal lagoons: summary of a survey pp. 116-150 Bull. Ir. biogeog. Soc. No. 21. Hutchinson C. (1979). Ireland's wetlands and their birds. IWC Dublin. McCarthy T.K. Staunton M. Hasset D. and Gibbons M. (1983). Observations on the distribution and demography of breeding colonies of Natterjack Toads Bufo calamita in Ireland. A report to the Forest and Wildlife Service. O' Connor P.G. and Jeal J. (1975). Some notes</p>	<p>The site is very important in terms of (a) the variety of sublittoral sediment communities in which a number of rare species occur and good examples of littoral and sublittoral reef communities; (b) the extensive intertidal habitats which support internationally important numbers of wintering waders and wildfowl including several which are listed in Annex I of the EU Birds Directive and (c) the fringing coastal habitats which provide excellent examples of a number of Annexed habitats (most notably the fixed dunes &amp; dune slacks at Maherabeg which are among the most species-rich examples of these habitats in Ireland and the lagoon known as Lough Gill which is important geomorphologically). These coastal habitats also support populations of the Annex II species <i>Petalophyllum ralfsii</i></p>	<p>Tralee Bay and Magharees Peninsula west to Cloghane SAC comprises a very diverse area of important coastal habitats. The site forms a unit of interconnecting coastal habitats stretching from inner Tralee Bay west to Fenit Harbour and Brandon Bay. The Magharee peninsula consists of Lower Carboniferous limestone. Bedrock in the rest of the bay is composed of Middle Carboniferous limestone and Old Red Sandstone. Tralee Bay itself is shallow sheltered and sedimentary. Subsidiary inlets within Tralee Bay (Bealathaleen Creek and Barrow Harbour) are</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>on the distribution of <i>Bufo calamita</i> Laur. the Natterjack Toad in Ireland deriving from a survey conducted in 1975. Bull. Ir. biogeog. Soc. No. 8. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Speight M.C.D. (1982). <i>Arcochera globulus</i> <i>Limnia paludicola</i> and <i>Sphaerophoria loewi</i>: insects new to Ireland. Ir. Nat. J. 20(9):369-372. Stewart N. (c1993). Bryophyte Report. Unpublished report to NPWS Dublin. Stewart N.F. and Church J.M. (1992). Red Data Book of Britain &amp; Ireland: Stoneworts. JNCC Peterborough. Whilde A. (1993). Threatened mammals birds amphibians and fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO Belfast. Wyse Jackson P. (1990). A summary assessment of the environmental impact of the development of the Castlegregory Golf Course on the vegetation and ecology of the Castlegregory Dune Complex Dingle Peninsula Co. Kerry Ireland. Unpublished report. Wyse Jackson P. (c1993). The vegetation and ecology of the sand dunes of the Magherree Peninsula Castlegregory Co. Kerry with particular reference to the Maherabeg commonage Castlegregory Co. Kerry. A summary report. Hugh-Jones D.L. (1994). Farming the European flat oyster (<i>Ostrea edulis</i>) in Ireland today. Bulletin of the Aquaculture Association of Canada 94 (4): 3 - 8. O' Connor B.D.S. (1987). The benthic communities of the west coast of Ireland. Proceedings of the 3rd Annual Lough Beltra Workshop. Galway 25th February 1987.</p>	<p>along with a range of other interesting species of flora and fauna including the largest Irish breeding population of the Red Data Book species Natterjack Toad (<i>Bufo calamita</i>). This site contains a stand of alluvial woodland that is assigned to the <i>Corylo-Fraxinetum deschampsietosum</i> subassociation. While small in area and subject to disturbance wet woodland is rare on the Dingle peninsula. The site includes areas of species-rich wet grassland referable to EU Habitats Directive Annex I habitat <i>Molinia</i> meadows. <i>Lutra lutra</i> has a regular presence within the site. The importance of the SAC is enhanced by the fact that it contains two SPAs (Tralee Bay and Lough Gill) two nature reserves (Derrymore Island and Tralee Bay) and a wildfowl sanctuary (Lough Gill).</p>	<p>extremely sheltered. Within the site there are several types of coastal habitat the dominant and most ecologically important of which are estuarine habitats (mudflats and sandflats not covered by water at low tide Atlantic and Mediterranean salt meadows &amp; <i>Salicornia</i> swards) dune-complexes ('white-dunes' grey-dunes and dune-slacks) and a lagoon. The site features large expanses of intertidal mudflats often fringed with saltmarsh vegetation. Distinct areas of estuarine habitat within the site have their own unique characteristics e.g. Derrymore Island is unusually rich in species and biotopes. Plant species are typically scarce on the mudflats although</p>



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				<p>there are some Eelgrass beds (<i>Zostera</i> spp.) and patches of green algae (e.g. <i>Ulva</i> sp. and <i>Enteromorpha</i> sp.). The main macro-invertebrate community which has been noted from the mud-flat areas are a <i>Hediste-Macoma-Nephtys</i> community. The dominant invertebrate communities of sandflats within the site are <i>Polychaetes</i> and <i>Cerastoderma edule</i> in medium to fine sandy shores and <i>Arenicola marina</i> and bivalves in mid to lower shore muddy flats. In the transition zone between mudflats and saltmarsh specialised colonisers of mud predominate: swards of <i>Spartina anglica</i> frequently occur in sheltered areas of mudflat particularly in the vicinity of</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>                     Derrymore Island. Less common are swards of <i>Salicornia europaea</i> agg. Saltmarsh vegetation frequently fringes the mudflats &amp; the most important and extensive areas of this habitat are around Blennerville Derrymore Island and Fermoy. The dominant type of saltmarsh present is Atlantic salt meadow over mud. Turf fucoids (<i>Fucus</i> spp.) are associated with areas of Atlantic salt meadow in the site. Areas of Mediterranean salt meadows are sometimes associated with the above habitat. The site contains a large shallow natural sedimentary lagoon Lough Gill (circa. 170ha-200ha). The lagoon has a long artificial sluiced outlet and salinity is rather low (&lt;1% except near the                 </p>

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				<p>outlet). Shoreline vegetation is composed mainly of reed beds while aquatic vegetation in the lagoon includes typical species such as <i>Ruppia maritima</i>. The fauna includes one lagoon specialist <i>Lekanesphaera hookeri</i>. Sand dunes comprise a significant portion of the terrestrial habitat of this site including four Annexed habitats: Shifting Dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) Humid dune slacks Dunes with <i>Salix repens</i> and the priority habitat Fixed Dunes with herbaceous vegetation (grey dunes). The dune complex stretches along the southern shoreline of the site from the seaward side of Derrymore Island westward to Cloghane. The most</p>

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				extensive and most important area of the dune complex comprises the Magharees Tombola and it is here that the priority Fixed dune habitat is most extensive within the site.
002074	Slyne Head Peninsula SAC	<p>Bassett A. (1993). Report on the Conservation of Irish Coastal Sites - Machair in Ireland. Unpublished report to Department of Fisheries and Forestry Dublin. Bassett A. and Curtis T.G.F. (1985). The nature and occurrence of sand-dune machair in Ireland. Proceedings of Royal Irish Academy 85(B):1-20. Berrow S.D. Whooley P. &amp; Ferriss S. (2002). Irish Whale and Dolphin Group cetacean sighting review (1991-2001). Irish Whale and Dolphin Group. 34pp. Berrow S.D. Whooley P. O'Connell M. &amp; Wall D. (2010). Irish cetacean review (2000-2009). Irish Whale and Dolphin Group. 60pp. Costelloe J. &amp; Keegan B.F. (1984). Littoral and benthic investigations on the west coast of Ireland - XIX. Synonymy diagnostic morphology distribution and life-style of <i>Aslia lefevrei</i> (Barrois 1882) (Holothurioidea: Echinodermata). Proceedings of the Royal Irish Academy 84B: 29-35. Curtis T.G.F. (1991). An Inventory of Sand Dunes in Ireland. In: Quigley M.B. (Ed.) A Guide to the Sand Dunes of Ireland. European Union for dune conservation and management. Dunne J. (1976). Littoral and benthic investigations on the west coast of Ireland - V. (Section A: Faunistic and ecological studies.) A contribution to the biology of the leopard-spotted goby <i>Thorogobius ephippiatus</i> (Lowe) (Pisces: Teleostei: Gobiidae). Proceedings of the Royal Irish Academy 76B: 121-132. Healy G. (1994). Lagoons and Other Enclosed Brackish Waters in the Republic of Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Healy B. Oliver G. Hatch P. and Good J. (1997). Coastal Lagoons in the Republic of Ireland. Volume II. Inventory of Lagoons and Saline Lakes. Unpublished report to the National Parks and Wildlife Service Dublin. Healy B. (1998). Survey of Irish Coastal Lagoons 1996 and 1998. Volume I Part 2. Lagoons Surveyed in 1998. Unpublished report to Dúchas the Heritage Service Dublin. Heuff H. (1984). The vegetation of Irish lakes. Unpublished report to the Forest and Wildlife Service Dublin. Ingram S.N. Englund A. &amp; Rogan E. (2003). Habitat use abundance and site-fidelity of bottlenose dolphins (<i>Tursiops truncatus</i>) in Connemara coastal waters Co. Galway. Heritage Council Wildlife Grant Final Report #12314. 27pp. Ingram S.</p>	The site has an excellent diversity of both terrestrial and marine habitats as well as rare plant and animal species. Machair in particular is well developed and extensive. Machair grades into other coastal habitats as well as species rich heath communities including dry heath and juniper scrub and calcareous grasslands. A notable feature of the site is the presence of at least one good example of alkaline fen within the machair plain. <i>Molinia</i> meadows are scattered through the site while there are several good examples of lowland hay meadows. A notable variation in lake types is a feature of the site including hard water	This site comprises the entire Slyne Head peninsula west of Ballyconnelly in Connemara and includes much of Mannin Bay. The underlying rock is mainly gneiss with a narrow band of granite along the western part. There is a strong oceanic influence over the entire site and wind blown sand is a feature. The landscape is generally low-lying dominated by rocky heath and grassland some semi-improved with numerous lakes ranging from deep oligotrophic types

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Kavanagh A. Englund A. &amp; Rogan E. (2009). Site assessment of the waters of northwest Connemara. A survey of bottlenose dolphins (<i>Tursiops truncatus</i>). Report for the National Parks &amp; Wildlife Service of Ireland. University College Cork Cork. 33pp.I.W.D.G. (1990-2011). Various published and online Irish Whale and Dolphin Group sources. These included all Survey Reports delivered via the PReCast &amp; ShOPS ship survey programmes in addition to information gathered in the ISCOPE (2003-2005) and ISCOPE II (2006-2009) projects. Keegan B.F. O'Connor B.D.S. &amp; Konnecker G.F. (1985). Littoral and benthic investigations on the west coast of Ireland - XX. Echinoderm aggregations. Proceedings of the Royal Irish Academy 85B: 91-99. Mirimin L. Miller R. Dillane E. Berrow S. Ingram S. Cross T. &amp; Rogan E. (2011). Fine-scale population genetic structuring of bottlenose dolphins in Irish coastal waters. Anim. Cons. p1-12. Picton B.E. and Costello M.J. (Eds) (1997). BioMar Biotope Viewer: a guide to marine habitats fauna and flora of Britain and Ireland (Ver. 2.0). Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis Dublin. Roden C.M. (1999). A Survey of Coastal Lakes in Counties Galway Mayo Sligo and Donegal. Report produced for the Heritage Council. Unpublished. Sides E.M. Picton B.E. Emblow C.S. Morrow C.C. Foster-Smith R. Davies J. and M.J. Costello. (1996). Kilkieran Bay and its environs revisited. Field survey report Environmental Sciences Unit Trinity College Dublin. Van Groenendael J.H. Hochstenbach S.M.H. Van Mansfeld M.J.H. Roozen A.J.M. (1979). The Influence of the Sea and of Parent Material on Wetlands and Blanket Bog in West Connemara Ireland. Catholic University Nijmegen. Van Groenendael J.H. Hochstenbach S.M.H. Van Mansfeld M.J.H. Roozen A.J.H. and Westhoff V. (1982). The influence of the sea on the vegetation of lakes in southwest Connemara. In: White J. (Ed.) Studies on Irish vegetation. Royal Dublin Society Dublin.</p>	<p>lakes with Chara formations. Mannin Bay has very good examples of a range of sediment communities that contain rare species. The littoral sediments composed of dead maerl are unusual in Ireland and are geologically and biologically interesting. Rare invertebrate species include <i>Glycera gigantea</i> <i>Marphysa bellii</i> <i>Gari depressa</i> <i>Laevicardium crassum</i> <i>Tapes aureus</i>. The high species richness of the bivalve communities in Mannin Creek is also of importance. Sublittorally there are a very high number of sediment communities within the bay. The dense maerl beds with dense seagrass are particularly noteworthy. The association of these two important species is known from only three sites in Ireland. The occurrence of <i>Najas flexilis</i> and <i>Petalophyllum ralfsii</i> adds to the interest of the site. The <i>Petalophyllum</i> population is by far the largest known population</p>	<p>to shallow brackish systems. The coastal fringe is varied with saltmarshes dunes and expanses of machair. Intertidal sand-flats and hard rock shores also occur. Mannin Bay is a relatively small shallow bay. Its north-westerly aspect and islets and rocks at the mouth afford a little shelter from Atlantic swells. Conditions become more sheltered towards the head of the bay and are extremely sheltered in Mannin Creek. Tidal streams are weak. The sublittoral sediments are dominated by maerl and sea grass.</p>

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			<p>in Ireland and also in the world. The presence of <i>Pyrrhocorax pyrrhocorax</i> <i>Sterna sandvicensis</i> and <i>S. hirundo</i> add to the importance of the site. The site provides habitat for the Annex II cetacean species <i>Tursiops truncatus</i> and this includes use by groups of dolphins during the breeding season for foraging and for social behaviour. Bottlenose Dolphins may be potentially vulnerable to intensification of regional fishing activity via the removal of key biological resources and entanglement in fishing gear. Recreational boat use or marine tourism activity by the human population may cause disturbance to natural behaviours and impact negatively on the species in marine waters within the site.</p>	
002130	Tully Lough SAC	<p>Byrne C. Mhic Daeid C. &amp; O'Sullivan A. (1995). Rare Plant Survey 1995 - Tully Lough. Unpublished report National Parks &amp; Wildlife Dublin. Farrell L. (1978). Record of <i>Najas flexilis</i> at Tully Lough NPW Protected Plant Database.</p>	<p>Tully Lough is a typical small oligotrophic lake partly surrounded by semi-natural bog and wet grassland vegetation. The aquatic vegetation is well</p>	<p>Site is situated in Connemara c.4 km north-west of Letterfrack and just over 1 km from the coast. Tully Mountain towers</p>

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			<p>developed. The quality of the lake water appears good despite some likely input of nutrients from agricultural run-off. <i>Najas flexilis</i> has been recorded in the past and probably still occurs. A building on Heath Island has a nationally important nursery roost of <i>Myotis nattereri</i> a Red Data Book bat species.</p>	<p>above the site to the south-west. Lake is fringed in parts by reedbeds and other swamp vegetation. A feature of the lake is a series of small islands mostly wooded the largest of which is Heath Island. Lake is immediately surrounded to the east south and north-east by blanket bog (some relatively intact) and wet grassland which has been partly improved. To the west and south-west the land has been more intensively improved for pasture. Main landuse in area is grazing by cattle and sheep.</p>
002141	Mountmellick SAC	<p>Moorkens E.A. (1997). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> V. <i>moulinsiana</i> and V. <i>geyeri</i>. Unpublished report National Parks &amp; Wildlife Service Dublin.</p>	<p>Site contains a relict population of <i>Vertigo moulinsiana</i>. Confirmed record for 1997. Typical wetland habitat. All recently surveyed sites with confirmed populations of this</p>	<p>Site comprises a disused section of the Grand Canal at Dangan's Bridge approximately 3 km east of Mountmellick in Co. Laois. The habitat is</p>

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			speceis are considered important.	fen type vegetation with Typha latifolia Glyceria maxima and Iris pseudacorus. At present the site is not used for any particular activity.
002147	Lisduff Fen SAC	Moorkens E.A. (1995). Mapping of Proposed SAC Area for Vertigo geyeri at Lisduff Fen Co. Offaly. Unpublished report to the National Parks and Wildlife Service Dublin.	A small though relatively intact fen system. Petrifying springs with heavy tufa formations occur along the stream in the southern end of the site. An important site for Vertigo geyeri with a series of recent records including confirmed presence in 1995.	Lisduff Fen is located at Kilcoman crossroad approximately 4 km south-east of Birr. The fen system includes areas dominated by Phragmites australis some wet grassland areas of Betula/Salix scrub and communities tending towards raised bog. There are also some pools. Part of a small stream which enters the fen at the south end is included. Landuse in surrounding areas is mainly pasture for cattle.
002158	Kenmare River SAC	Bleasdale A. and Conaghan J. (1998). A Baseline Vegetation Survey of Derrynane National Historic Park. Unpublished report to National Parks & Wildlife Service Dublin. Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account	Kenmare River has very high conservation interest with very good quality examples of large shallow bays reefs and	Kenmare River is a long and narrow south-west facing bay situated in the south-west of



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. de Grave S. (1990). Sublittoral Survey on Selected Sites in Roaringwater Bay Berehaven (Bantry Bay) and Kenmare River. BIM Goodwillie R. (1976). A Preliminary Report on Areas of Scientific Interest in County Kerry. An Foras Forbartha Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Tern <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albigrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Kelleher C. (1999). Lesser Horseshoe Bat Summer Roost Survey Cork/Kerry Region Ireland 1999. Internal Report to The Vincent Wildlife Trust unpublished. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report to Forest and Wildlife Service Dublin. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Moorkens E.A. (1997). An Inventory of Mollusca in Potential SAC Sites with Special Reference to <i>Vertigo angustior</i> <i>V. moulinsiana</i> and <i>V. geyeri</i>. Unpublished report to National Parks and Wildlife Service Dublin. O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. The Irish Naturalists' Journal 21: 484 - 488. Praeger R.L. (1888). Marine shells from the Kenmare River. The Irish Naturalist 8: 164. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis &amp; Co Dublin. Wilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Wyse Jackson P.S. (1983). Comments on the status and ecology of <i>Simethis planifolia</i> (L.) Gren. in Co. Kerry. Bulletin of the Irish Biogeographical Society 8: 13-18. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp. Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2007). An assessment of harbour seal population size and distribution in the Republic of Ireland during the 2003 moult season. J. Zool. Lond. 273 Issue 2: 131-139. Cronin M.A. (2007). The abundance habitat use and haul-out behaviour of harbour seals (<i>Phoca vitulina vitulina</i>) in southwest Ireland. PhD thesis University College Cork 263 pp. Cronin M.A. Kavanagh A. and Rogan E. (2008). The foraging ecology of the harbour seal (<i>Phoca vitulina vitulina</i>) in Ireland. Report to the Marine Institute. Project ST/05/12. 145pp. Harrington R. (1990). 1989 survey of breeding herds of common seal <i>Phoca vitulina</i> with reference to previous surveys. Report to the National Parks &amp; Wildlife Service. 10pp. Heardman C. O'Donnell D. and McMahon D. (2006). The status of the harbour seal <i>Phoca vitulina</i> L. in inner Bantry Bay Co. Cork and inner Kenmare River Co. Kerry 1964-2004. Irish Naturalists Journal 28(5): 181-191. Lyons D.O. (2004). Summary of National Parks &amp; Wildlife</p>	<p>marine caves. It has a very wide range of communities from exposed coast to ultra sheltered areas and there is an extremely high number (24) of rare and notable species. The sea fan <i>Swiftia pallida</i> is only known in Ireland from Kenmare River where it is recorded in several circalittoral sites. <i>Eunicella verrucosa</i> a widespread but locally distributed sea fan is recorded at two sites in the lower circalittoral reef. At both sites it occurs with <i>Swiftia pallida</i> the only place where this association is known to occur. Important habitat forming species present are the seagrass <i>Zostera marina</i> and the coralline algae <i>Lithothamnion corallioides</i> which form biogenic reefs. Kenmare River is the only area where the brachiopod <i>Neocrania anomala</i> is commonly found and unusually it occurs in exposed areas. There are two good examples of vegetated shingle banks and at least 6 separate</p>	<p>Ireland. It is a deep drowned glacial valley approximately 12 km wide at the mouth and 55 km long. Dursey Island marks the south-west point. The bedrock is mainly Old Red Sandstone with Devonian - Carboniferous marine clastics on the south-west coast. It is deeply fissured in a NE/SW direction. The bedrock is emergent throughout the length of the bay. Exposure to prevailing winds and swells at the mouth diminishes toward the head of the bay. Numerous islands and inlets along the length of the bay provide further areas of additional shelter in which a variety of habitats and unusual communities occur. The coastal fringe is dominated by a</p>

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		<p>Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp. Summers C.F. Warner P.J. Nairn R.G.W. Curry M.G. &amp; Flynn J. (1980). An assessment of the status of the common seal <i>Phoca vitulina vitulina</i> in Ireland. <i>Biol. Conserv.</i> 17: 115-123. Warner P.J. (1983). An assessment of the breeding populations of common seals (<i>Phoca vitulina vitulina</i> L.) in the Republic of Ireland during 1979. <i>Ir. Nat. J.</i> 21: 24-26. Warner P.J. (1984). Report on the census of common seals (<i>Phoca vitulina vitulina</i>) in the Republic of Ireland during 1984. Unpublished report to the Forestry &amp; Wildlife Service.</p>	<p>salt meadows with both Atlantic and Mediterranean types represented. Shifting marram dunes fixed dunes and dry heath the latter with the legally protected plant <i>Simethis planifolia</i> are well represented while a small though significant example of vegetated sea cliffs occurs in the Derrynane area. The site includes many areas of coastal dry heath. There is a long established population of the mollusc <i>Vertigo angustior</i> in the dunes at Derrynane. The site includes areas of Calaminarian grassland about Allihies. The site has internationally important summer and winter roosting sites for <i>Rhinolophus hipposideros</i>. It also supports important populations of <i>Lutra lutra</i> and <i>Phoca vitulina</i>. <i>Sterna</i> terns breed on the islands mainly <i>S. paradisaea</i> but <i>S. hirundo</i> in some years and <i>S. albifrons</i> at least in 1995.</p>	<p>mosaic of dry and wet heath along with patches of blanket bog coastal grassland and exposed rock. The heath is particularly well developed at Derrynane Bay which supports a fine dune system. Also present are small areas of deciduous woodland and fresh-water marsh.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
002159	Mulroy Bay SAC	<p>Brennan A.T. (1945). Notes on the distribution of certain marine algae on the west coast of Ireland. Irish Naturalists' Journal 8: 252-254. Charlesworth J.K. (1924). The glacial geology of the north-west of Ireland. Proc. Roy. Ir Acad. 36B 174-314. Fahy E. (1983). Feeding ecology of feral rainbow trout <i>Salmo gairdneri</i> Richardson in Mulroy Bay an Atlantic sea lough. Irish Naturalists' Journal 21(3): 103-107. Gibb D.C. (1957). The free-living forms of <i>Ascophyllum nodosum</i> (L.) le Jol. Journal of Ecology 45: 49-83. Holmes J.M.C. and Gotto R.V. (1987). Some ascidicolous copepods new to British and Irish waters. Irish Naturalists' Journal 22(8): 340-343. Minchin D. (1981). The scallop <i>Pecten maximus</i> in Mulroy Bay. Fisheries Bulletin (Dublin) 1: 21pp. Minchin D. (1988). Couch's goby <i>Gobius couchi</i> (Teleostei: Gobiidae) from Irish waters. Journal of Fish Biology 33: 821-822. Minchin D. Duggan C.B and King W. (1987). Possible effects of organotins on scallop recruitment. Marine Pollution Bulletin 18(11): 604-608. Morton O. (1978). Some interesting records of algae from Ireland. Irish Naturalists' Journal 19(7): 240-242. Parkes H.M. (1958a). A general survey of the marine algae of Mulroy Bay Co. Donegal (to be continued). Irish Naturalists' Journal 12(12): 324-330. Parkes H.M. (1958a). A general survey of the marine algae of Mulroy Bay Co. Donegal II. Irish Naturalists' Journal 12(12): 324-330. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21(11): 484-488. Praeger R.L. (1894). Fauna of Mulroy Bay Donegal. Irish Naturalist. 3: 113-114. Sheard J.W. (1968). The zonation of lichens on three rocky shores of Inishowen Co. Donegal. Proceedings of the Royal Irish Academy 66B: 101-112. Somerfield P. (1985). A study of <i>Haminea navicula</i> (Da Costa) and its environment the Wee Sea County Donegal. Mod. Theses Zoology Trinity College Dublin.</p>	<p>Mulroy Bay has high conservation interest due to very important examples of large shallow inlets and bays and reefs. It has a wide range of communities from exposed coast to ultra sheltered areas. The tide swept communities of the main channel and the sheltered and extremely sheltered communities in the Broad Water and North Water are unusual in Ireland. Broad Water is hydrographically and biologically unusual being isolated from the open sea and subject to a reduced tidal range. Several species are present which are at or near the northern limits of their range (<i>Dudresnaya verticillata</i>, <i>Aeolidiella alderi</i> and <i>Stolonica socialis</i>) or the southern limits of their range (<i>Odonthalia dentata</i>). The rich <i>Limaria hians</i> beds in the Moross Channel are unique in Ireland and the low shore rapids at Broadwater are unusually species rich (81 species). Additional rare</p>	<p>Mulroy Bay is an extremely sheltered narrow inlet situated in the north west of Ireland. It is approximately 20 km in length and 2 km wide at the mouth. The bay is the most convoluted of the marine inlets in north-west Ireland. It has three significant narrows only 100 - 150 m across where the current is very strong (3 - 5 knots). Mulroy Bay is a glacial fiard. The Moross peninsula which separates the North Water from the Broad Water is a large glacial drumlin. Bedrock is principally metamorphic quartzite limestone and schist and gneiss with intrusive granite at the mouth. Some small islands are included in site.</p>

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			<p>algal species (Ascophyllum nodosum var mackii Fucus ceranoides var ramosissima and Codium bursa) have been found in the bay which were not found by BioMar. Additional rare faunal specimens include the scarce octocoral Parerythropodium corallioides and a species of parasitic copepod new to Britain and Ireland. Lutra lutra occurs within the site. The site supports wintering waterfowl in low numbers.</p>	
002162	River Barrow and River Nore SAC	<p>Bowman K.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency. Wexford. Browne A. Dunne F. and Roche N. (2000). A Survey of Broadleaf Woodlands in three SACs: Barrow-Nore River Unshin and Lough Forbes. Unpublished report to National Parks and Wildlife Dublin. Central Fisheries Board (2000). Electro-fishing Survey of the Arrigle System. Unpublished report. Central Fisheries Board Dublin. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2001. Central Fisheries Board (2003). Irish Salmon Catches 2001. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>: February 2003. Colhoun K. (2001). I-WeBS Report 1999-2000. BirdWatch Ireland Dublin. Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Government Publications Stationery Office. Dublin. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Doris Y. Clabby K.J. Lucey and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Dromey M Johnston B. and Keane S. (1994). Ecological Survey of the Barrow Navigation. Part I. Internal Report to the Waterways Division of the Office of Public</p>	<p>The site supports many Annexed habitats including the priority habitats of alluvial woodland and petrifying springs. Quality of habitat is generally good. The site also supports a number of Annex II animal species - Salmo salar Margaritifera margaritifera M.m. durrovensis Alosa fallax fallax Austropotamobius pallipes Petromyzon marinus Lutra lutra Lampetra fluviatilis and L. planeri. Annex I Bird</p>	<p>This site consists of most of the freshwater stretches of the Barrow/Nore River catchments. The Barrow is tidal as far upriver as Graiguenamanagh while the Nore is tidal as far upriver as Inishtioige. The site also includes the extreme lower reaches of the River Suir and all of the estuarine component of</p>

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		<p>Works.Fahy E. (1975). A Preliminary Report on Areas of Scientific Interest in County Carlow. An Foras Forbartha Dublin.Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin.Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Laois. An Foras Forbartha Dublin.FitzGerald R. (1990-94). National Parks and Wildlife Service Protected and Threatened Flora Survey. Unpublished report to National Parks and Wildlife Service Dublin.Forest and Wildlife Service (1977). Proposed Nature Reserve in Callan Wood. Unpublished Report Dublin.Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83-93/94. National Parks and Wildlife Service.Garrett W. (2001). Old Woodland Survey. Internal Report to Coillte Teo.Gibbons D.W. Reid J.B. and Chapman R. A. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. Poyser. London.Goodwillie R. (1979). A Preliminary Report on Areas of Scientific Interest in County Wexford. An Foras Forbartha Dublin.Goodwillie R. (1989). Report on the Habitats of Abbeyleix Estate.Kelly D.L and Fuller B.S.D. (1988). Ancient Woodland in Central Ireland: does it exist? In F. Salbitano (ed.) Human Influence on Forest Ecosystem Development in Europe. P. 363-369. ESF FERN-CNR Pitagora Editrice Bologna.King J.J. (2002). Investigations on shad species in Irish waters paper presented at Royal Irish Academy National Commission for Hydrobiology Annual Meeting 2002.Kurz I. and Costello M.J. (1996). Proposed Special Areas of Conservation for Lampreys and Shads. Internal report to National Parks and Wildlife.Kurz I. and Costello M.J. (1996b). Current Knowledge on the Distribution of Lampreys and some other Freshwater Fish Species listed in the Habitats Directive. Internal report to National Parks and Wildlife Service.Lelek A. (1980). Threatened Freshwater Fishes in Europe. Nature and Environment Series No. 18. Council of Europe. Strasbourg.Lucey J. (1995). The Distribution of Anodonta cygnea (L.) and Anodonta anatina (L.) (Mollusca: Bivalvia) in Southern Irish rivers and streams with records from other areas Ir. Nat. J.25: 1 - 8.Lucey J. (1993). The Distribution of Margaritifera margaritifera (L.) in Southern Irish Rivers and Streams. J. Conch. Lond. 34: 301-310.Lucey J. and McGarrigle M.L. (1987). The Distribution of the Crayfish in Ireland. Irish Fisheries Investigations Series A (Freshwater) No. 29.Malone O' Regan. (1997). Environmental Impact Statement for New Ross Port Company on River Barrow Training Works. Maitland P.S. (1972). Key to British Freshwater Fishes. Freshwater Biological Association Scientific Publication No. 27. Freshwater Biological Association. Ambleside. Maitland P.S. (1980). review of the ecology of lampreys in northern Europe. Canadian Journal of Aquatic Sciences 37: 1944-1952.McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford.McGrath D. and Walsh P. (1990). Where to</p>	<p>species include Anser albifrons flavirostris Falco peregrinus Cygnus cygnus Cygnus columbianus bewickii Limosa lapponica Pluvialis apricaria and Alcedo atthis. A range of rare plants and invertebrates are found in the woods along these rivers and rare plants are also associated with the saltmarsh.</p>	<p>Waterford Harbour extending to Creadan Head. The larger of the many tributaries include the Lerr Fushoge Mountain Aughavaud Owenass Boherbaun and Stradbally Rivers of the Barrow and the Delour Dinin Erkina Owveg Munster Arrigle and King's Rivers on the Nore. Both rivers rise in the Old Red Sandstone of the Slieve Bloom Mountains. They traverse limestone bedrock for a good proportion of their routes though the middle reaches of the Barrow and many of the eastern tributaries run through Leinster Granite. A wide range of habitats associated with the rivers are included within the site including substantial areas of woodland (deciduous mixed)</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Watch Birds in Waterford. Irish Wildbird Conservancy Waterford. Moorkens E.A. (1995). Internal report on Freshwater crayfish for National Parks and Wildlife. Moorkens E.A. (1995b). Mapping of Proposed SAC Area for Margaritifera margaritifera on the Mountain River Co. Carlow. An internal report for the National Parks and Wildlife Service. Moorkens E.A. (1996). Studies on the Biology and Ecology of Margaritifera in Ireland. PhD. Thesis. Trinity College Dublin. Moorkens E.A. Costello M.J. and Speight M.C.D. (1992). Status of the Freshwater pearl Mussel Margaritifera margaritifera and M.M. Durrovenses in the Nore Barrow and Suir River tributaries South East Ireland. The Irish Naturalists' Journal 24: 127-131. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. NPWS 2010. Site investigations for Sabellaria alveolata (Honey-comb worm) biogenic reefs. Unpublished report. NPWS (2011) Conservation Objectives: River Barrow and River Nore SAC 002162. Version 1. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht. O'Grady M. and Sullivan T. (1994). A fishery survey of the Nore catchment and a development plan for this resource. Central Fisheries Board Dublin. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: on Anglers Guide. Merlin Unwin Books London. Quigley D.T.G. (1996). Status and conservation of euryhaline fish in Irish waters. Aquatic Conservation: Marine and Freshwater Ecosystems Bol. No. 6. pp. 313-318. Quigley D.T.G. and Flannery K. (1996). Endangered freshwater fish in Ireland in Kirchhofer A. and Hefti D. (Eds) Conservation of Endangered Freshwater Fish in Europe Birkhauser Verlag Basel Switzerland. Reynolds J.D. (1982). Notes on the Irish Distribution of Freshwater Crayfish. Bulletin of the Irish Biogeographical Society No. 6. Reynolds J.D. (1998). Ireland's Freshwaters. The Marine Institute Dublin 1998. Seaward M.R.D. (1975). Some observations on the status of the lichen genus <i>Lobaria</i> in south east Ireland. The Irish Naturalists' Journal 18 248-250. Sheppard R. (1993). Ireland's Wetland Wealth: the Birdlife of the Estuaries Lakes Coasts Rivers Bogs and Turloughs of Ireland. Irish Wildbird Conservancy Dublin. SRFB. (2001). Electro-fishing survey of the Glenlahan River. Unpublished. SRFB. (2110) Electro-fishing survey of the Barrow catchment. Unpublished. Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO. Belfast.</p>		<p>dry heath wet grassland swamp and marsh vegetation salt marshes a small dune system biogenic reefs and intertidal sand and mud flats. Areas of improved grassland arable land and coniferous plantations are included in the site for water quality reasons.</p>
002170	Blackwater River (Cork/Waterford) SAC	<p>Bowman K.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Central Fisheries Board (1988). Preliminary Survey of the Upper River Blackwater Catchment Cos. Cork and Kerry and Recommendations for the Development of the Fishery. CFB Dublin (Unpublished) Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001. Central Fisheries Board (2003). Irish Salmon</p>	<p>The site supports important examples of a range of Annex I habitats notably estuaries intertidal mudflats and sandflats perennial</p>	<p>The River Blackwater is one of the largest rivers in Ireland draining a major part of Co. Cork and parts of</p>

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		<p>Catches 2001. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2003.Chesney H.C.G. Oliver P.G. and Davis G.M. (1993). <i>Margaritifera durrovensis</i> Phillips (1928): taxonomic status ecology and conservation. <i>Journal of Conchology</i> 34: 267-299.Conservation Services (2000). Electro-fishing report for the project 'Environmental Appraisal for the proposed natural gas pipeline from Rochestown to Dungarvan'. Unpublished. Cranswick P.A. Bowler J.M. Einarsson O. Gardarsson A. McElwaine J.G. Merne O.J. Rees E.C. and Wells J.H. (1996). Numbers of Whooper Swans <i>Cygnus cygnus</i> in Iceland Ireland and Britain in January 1995: results of the International Whooper Swan Census. <i>Wildfowl</i> 47:23-26.Curtis T.G.F. and McGough H.N. (1988). <i>The Irish Red Data Book. 1: Vascular Plants.</i> Stationery Office Dublin.Delany S. (1996). Waterfowl Counts in Ireland 1994/95: a summary of the first winter of the Irish Wetlands Bird Survey (I-WeBS). <i>Irish Birds</i> 5:423-432.Delany S. (1997). IWeBS Report 1995-96: Results from the second winter of the Irish Wetlands Bird Survey. IWC BirdWatch Ireland Dublin.Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Doris Y. Clabby K.J. Lucey and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford.Ecofact (2002). Report on a Fisheries Study on the River Lickey. Unpublished.Falvey J.P. Dempsey S. and Costello M.J. (1997). Survey of Estuarine Intertidal Sites in Ireland. Unpublished report to National Parks and Wildlife.Farrell L. (1982). The distribution of <i>Leucojum aestivum</i> L. in Ireland. <i>The Irish Naturalists' Journal</i> 20: 483-489.Garrett W. (2001). Old Woodlands Survey. Internal Report to Coillte Teoranta Dublin.Gibbons D.W. Reid J.B. and Chapman R.A. (1993). <i>The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991.</i> Poyser London.Goodwillie R. (1986). Report on Areas of Scientific Interest in County Cork (2nd ed.). An Foras Forbartha Dublin.Herries Davies G.L. and Stephens N. (1978). <i>The Geomorphology of the British Isles: Ireland.</i> Methuen and Co. Ltd London.Hutchinson C. (1979). Ireland's Wetlands and their Birds. IWC Dublin.Hutchinson C. (1994). Where to Watch Birds in Ireland. Gill and Macmillan Dublin.Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: The plant communities and their ecology. <i>Biology and Environment: Proceedings of the Royal Irish Academy</i> 97B: 1-32.Kurz I. and Costello M.J. (1996a). Current Knowledge on the Distribution of Lampreys and some other Freshwater Fish Species listed in the Habitats Directive in Ireland. Unpublished report to National Parks and Wildlife Dublin.Kurz I. and Costello M.J. (1996b). Proposed Special Areas of Conservation for Lampreys and Shads. Unpublished report to National Parks and Wildlife Dublin.Lack P. (1986). <i>The Atlas of Wintering Birds in Britain and Ireland.</i> The Bath Press Avon.Lehane B.M. Giller P.S. O'Halloran J. and Walsh P.M. (2000). Conifer forest location and fish populations in southwest Ireland. Verh.</p>	<p>vegetation of stony banks salt meadows floating river vegetation alluvial forests and oak woodlands. Most of these are of good quality and extensive in area. The Blackwater system is an important salmonid fishery and is of high conservation value for <i>Salmo salar</i>. Also supports important populations of <i>Lampetra planeri</i> L. <i>fluviatilis</i> <i>Petromyzon marinus</i> and <i>Alosa fallax fallax</i>. Substantial populations of <i>Margaritifera margaritifera</i> occur while <i>Austropotamobius pallipes</i> is found in the Awbeg River. <i>Lutra lutra</i> is widespread throughout the site and has been subject to detailed surveys. <i>Trichomanes speciosum</i> occurs at one location. Annex I bird species present in the site include breeding <i>Egretta garzetta</i> <i>Alcedo atthis</i> and <i>Falco peregrinus</i> and wintering <i>cygnus cygnus</i> and <i>Pluvialis apricaria</i>. A good diversity of other winter waterfowl species also occurs.</p>	<p>Cos. Kerry Limerick Tipperary and Waterford. The site consists of most of the freshwater stretches of the system as well as the estuarine component at Youghal. Tidal influence extends almost to Cappoquin. The Blackwater rises in the east Kerry uplands where Namurian grits and shales build the low heather-covered plateaux. In the lowlands in the Mallow district it passes over limestone and later cuts through ridges of Old Red Sandstone to the south of Cappoquin. Main tributaries include the Rivers Lickey Bride Allow and Awbeg. A wide range of habitats associated with the rivers are included within the site including substantial areas of woodland</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Internat. Verein. Limnol 27:1116-1121. Lelek A. (1980). Threatened Freshwater Fishes in Europe. Nature and Environment Series No. 18. Council of Europe Strasbourg. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Lucey J. and McGarrigle M.L. (1987). The distribution of the Crayfish in Ireland. Irish Fisheries Investigations Series A (Freshwater) No. 29. Lucey J. (1993). The distribution of <i>Margaritifera margaritifera</i> (L.) in southern Irish rivers and streams. Journal of Conchology 34: 301-310. Lucey J. (1995). The distribution of <i>Anodonta cygnea</i> (L.) and <i>Anodonta anatina</i> (L.) (Mollusca: Bivalvia) in southern Irish rivers and streams with records from other areas. The Irish Naturalists' Journal 25: 1-7. Maitland P.S. (1972). Key to British Freshwater Fishes. Freshwater Biological Association Scientific Publication No. 27. Freshwater Biological Association Ambleside. Maitland P.S. (1980). Review of the ecology of lampreys in northern Europe. Canadian Journal of Aquatic Sciences 37: 1944-1952. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Dublin. Moorkens E.A. (1996). Studies on the Biology and Ecology of <i>Margaritifera</i> in Ireland. Unpublished Ph.D. thesis. Trinity College Dublin. Moorkens E.A. Costello M.J. and Speight M.C.D. (1992). Status of the Freshwater Pearl Mussel <i>Margaritifera margaritifera</i> and <i>M.M. Durrovensis</i> in the Nore Barrow and Suir river tributaries south east Ireland. The Irish Naturalists' Journal 24: 127-131. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency. Ní Dhúill E. Smyth N. Waldren S. &amp; Lynn D. (2015). Monitoring methods for the Killarney Fern (<i>Trichomanes speciosum</i> Willd.) in Ireland. Irish Wildlife Manuals No. 82. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Ireland. NPWS (2012) Conservation Objectives: Blackwater River (Cork/Waterford) SAC 002170. Version 1.0. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht. O'Connor M. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 8 - Dromana Yew Woodland. Unpublished Internal Report prepared for Coillte Teo. O'Connor M. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 9 - Dromana Bridge Alluvial Woodland. Unpublished Internal Report prepared for Coillte Teo. O'Connor M. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 10 - Castleblagh Alluvial Woodland. Unpublished Internal Report prepared for Coillte Teo. O'Connor M. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 11 - Gurteen Alluvial Woodland. Unpublished Internal Report prepared for Coillte Teo. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London. O'Sullivan W.M. (1991). The distribution of Otters <i>Lutra lutra</i> within a major Irish river system the Munster Blackwater catchment 1988-90.</p>		<p>(deciduous mixed) scrub wet grassland swamp and marsh vegetation bog salt marshes and intertidal sand and mud flats. Areas of improved grassland arable land and coniferous plantations are included in the site for water quality reasons.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>The Irish Naturalists' Journal 11: 442-446.O'Sullivan W.M. (1994). Summer diet of Otters on part of the River Blackwater catchment. The Irish Naturalists' Journal 24: 349-354.O'Sullivan W.M. (1996). Otter Conservation: factors affecting survival with particular reference to drainage and pollution within an Irish river system. In: Reynolds J.D. (ed) The Conservation of Aquatic Systems. 117-133. Royal Irish Academy Dublin.Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin.Quigley D.T.G. (1996). Endangered freshwater fish in Ireland. Sherkin Comment 21: 10.Quigley D.T.G. and Flannery K. (1994). Endangered freshwater fish in Ireland. Presented at symposium on endangered freshwater fish in Europe in Bern Switzerland September 1994. Journal of Aquatic Science.Quigley D.T.G. (1996). Status and conservation of euryhaline fish in Irish waters. pp. 313-318.Quigley D.T.G. and Flannery K. (1996). Endangered freshwater fish in Ireland in Kirchhofer A. and Hefti D. (Eds) Conservation of Endangered Freshwater Fish in Europe Birkhauser Verlag Basel Switzerland. Reynolds J.D. (1982). Notes on the Irish distribution of the freshwater crayfish. Bulletin of the Irish Biogeographical Society 6: 18-24.Reynolds J.D. (1998). Ireland's Freshwaters. The Marine Institute Dublin 1998. Ross E. (2001). An Assessment of the Distribution Abundance and Recruitment Levels of the Pearl Mussel <i>Margaritifera margaritifera</i> (L) in the Licky River (Co. Waterford). Report to the Heritage Council Kilkenny.Salmon D.G. and Black J.M. (1986). The January 1986 Whooper Swan census in Britain Ireland and Iceland. Wildfowl 37: 172-174.Scannell M.J.P. and Synnott D.M. (1987). Census Catalogue of the Flora of Ireland. Stationery Office Dublin.Seaward M.R.D. (1976). Further recent records of <i>Lobaria</i> from SE Ireland. Irish Naturalists Journal 18: 336.Seaward M.R.D. (1975). Some observations on the status of the lichen genus <i>Lobaria</i> in south east Ireland.The Irish Naturalists' Journal 18: 248-250.Sharrock J.T.R. (1976). The Atlas of Breeding Birds in Britain and Ireland. Poyser Berkhamstead.Sheppard R. (1993). Ireland's Wetland Wealth. Irish Wildbird Conservancy Dublin.Smiddy P. (1991). Bats and Bridges. The Irish Naturalists' Journal 10: 425-426.Smiddy P. (1993). The status of the Otter in east Cork and west Waterford. The Irish Naturalists' Journal 25: 236-240.Smiddy P. (1996). The waterfowl of the Blackwater Estuary (Youghal Harbour) Cos. Waterford and Cork. The Irish Naturalists' Journal 25: 157-165.Smiddy P. (1997). Report on Cormorant numbers on the Blackwater River an estuary between Youghal and Cappoquin. Unpublished report to National Parks and Wildlife Dublin.Smiddy P. and O'Sullivan O. (1996). Forty-third Irish Bird Report 1995. Irish Birds 5: 445-474.Smiddy P. and Duffy B. (1997). Little Egret <i>Egretta garzetta</i>: a new breeding bird for Ireland. Irish Birds 6: 55-56.Smiddy P. and O'Mahony B. (1997). The status of the Reed Warbler <i>Acrocephalus scirpaceus</i> in Ireland. Irish Birds 6: 23-28.Smiddy P. (2002). The status of the freshwater mussel <i>Margaritifera margaritifera</i> (L.) in east Cork and part of Waterford Ireland. Bulletin of the Irish Biogeographical Society 24: 153-158.Smiddy P. (2002). Breeding of the Little</p>		

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Egret <i>Egretta garzetta</i> in Ireland 1997-2001. Irish Birds 7: 57-60.SRFB. (1991). Electro-fishing survey of the Blackwater Catchment. Unpublished.SRFB. (1995). Electro-fishing survey in Munster Blackwater. Unpublished.SRFB. (1999). Electro-fishing survey in areas of the Munster Blackwater. Unpublished.Sullivan Tom. (2002). (personal communication to Duchas) SRFB Clonmel.Sweeney P. (2002). An Ecological Assessment of the Licky River. Unpublished report commissioned by the Licky Concern Group.Waters R.J. Cranswick P.A. Evans J. and Politt M.S. (1996). The Wetland Bird Survey 1994-1995: Wildfowl and Wader Counts. BTO/WWT/RSPB/JNCC Slimbridge.Webb D.A. Parnell J. and Doogue D. (1996). An Irish Flora (7th edn). Dundalgan Press Dundalk.Went A.E.J. and Kennedy M. (1976). List of Irish Fishes. (3rd edn). Stationery Office. Dublin.While A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO Belfast.Wilson J. and Smiddy P. (1988). Bottle-nose Dolphin <i>Tursiops truncatus</i> (Montagu). The Irish Naturalists' Journal 22: 542.Young R. (1972). A Report on Areas of Scientific Interest in County Waterford. An Foras Forbartha Dublin. Young R. (1976). A Preliminary Report on Areas of Scientific Interest in County Waterford. An Foras Forbartha Dublin.</p>		
002172	Blasket Islands SAC	<p>Alexander S.M.D. (1954). The Birds of the Blasket Islands with special reference to Great Blasket Island. Inishvickillane and Illaunboy and some notes on the adjacent mainland. Bird Study 1: 148-168.Barrington R.M. (1881). Report on the flora of the Blasket Islands Co. Kerry. Proceedings of the Royal Irish Academy Series 2: 3: 368-369.Berrow S.D. Mackie K.L. O'Sullivan O. Shepperd K.B. Mellon C. and Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10.Berrow S.D. and Rogan E. (1998). Incidental capture of cetaceans in Irish waters. Irish Naturalists' Journal 26: 22-31.Berrow S.D. Whooley P. and Ferriss S. (2002). Irish Whale and Dolphin Group Cetacean Sighting Review (1991-2001). 34pp. Irish Whale and Dolphin Group. Brazier H. and Merne O.J. (1989). Breeding seabirds on the Blasket Islands Co. Kerry. Irish Birds 4: 43-64.Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London.Evans P.G.H. (1973). Report on the 1973 Expedition to the Islands of Co. Kerry. Unpublished report.Evans P.G.H. and Lovegrove R.R. (1974). The birds of the south-west Irish islands. Irish Bird Report 1973: 33-64.Evans P.G.H. and Bourne W.R.P. (1979). Auks on Inishtearaght 1968-1973 and the occurrence of disease in terns. Irish Birds 1: 239-242.Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland white-fronted Geese in Ireland and Britain 1982/83 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin.Goodbody I. (1955). The breeding of Leach's Petrels on Inishtearaght in 1901. Irish Naturalists' Journal 11:346-347.Hamilton A.C. and Holligan P.M. (1966). The</p>	<p>The site has good examples of exposed infralittoral and circalittoral reef communities. Species richness can be high. The rare red alga <i>Schizymenia dubyi</i> occurs in the infralittoral zone and notable sponge nudibranch anthozoan and hydroid species also occur in the area. Sea caves occur on several of the islands though the flora and fauna of the caves has not been studied. Vegetated sea cliffs are very well represented on most of the islands and the site is</p>	<p>The Blasket Islands are situated at the end of the Dingle peninsula in Co. Kerry. The site includes all of the islands in the group as well as a substantial area of the surrounding seas. There are six main islands plus some smaller islands islets and sea stacks. The largest island Great Blasket is separated from the mainland by the Blasket Sound a distance of some 2 km. The</p>

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		<p>Flora of the Blasket Islands. Unpublished report.Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8).Irish Whale and Dolphin Group (2002). IWDG Cetacean Sighting Scheme : Harbour Porpoise. Contract report to Dúchas. Unpublished. Kiely O. and Myers A.A. (1998). Grey seal (<i>Halichoerus grypus</i>) pup production at the Inishkea Island Group Co. Mayo and Blasket Islands Co. Kerry. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 113-122.Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin.McCarthy P.M. and Holligan P.M. (1984). Inishvickillane Co. Kerry: an important lichen site. Irish Naturalists' Journal 21: 266-274.Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge.Nunn J.D. (1994). The marine Mollusca of Dingle Peninsula Co. Kerry and the neighbouring coastline. Conchologists' Newsletter 7: 281-286.O'Riordan C.E. (1975). Rare and interesting marine fauna from the Dingle Bay area Co. Kerry. Irish Naturalists' Journal 18: 129-132.O'Riordan C.E. (1978). An appreciation of Michael Long's contribution to our knowledge of the marine zoology of Co. Kerry. Irish Naturalists' Journal 19: 177-178.Parkin J. (1974). Silurian rocks of Inishvickillane Blasket Islands Co. Kerry. Scientific Proceedings of the Royal Dublin Society A5: 277-291.Praeger R.L. (1912). Notes on the flora of the Blaskets. Irish Naturalist 21: 157-163.Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin.Preston C.D. Pearman D.A. and Dines T.D. (2002). New Atlas of the British and Irish Flora. University Press Oxford.Quigley D.T.G. and Flannery K. (2002). Leucoptic harbour porpoise <i>Phocoena phocoena</i> (L.). Irish Naturalists' Journal 27: 170.Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.Smyth M. Berrow S. Nixon E. and Rogan E. (2000). Polychlorinated biphenyls and organochlorines in by-caught harbour porpoises <i>Phocoena phocoena</i> and common dolphins <i>Delphinus delphis</i> from Irish coastal waters. Biology and Environment 100B: 85-96. Summers C.F. (1983). The Grey Seal <i>Halichoerus grypus</i> in Ireland. Unpublished report to the Minister of Fisheries Forestry and Wildlife Dublin.Walton G.A. Kelly T.C. and McCarthy K. (1976). Expeditions to Inishtearaght July 1973 and May 1975. Unpublished report to the Royal Irish Academy Dublin.Cronin M. Duck C. Ó Cadhla O. Nairn R. Strong D. and O'Keeffe C. (2004). Harbour seal population assessment in the Republic of Ireland: August 2003. Irish Wildlife Manuals No. 11. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government. 7 Ely Place Dublin 2 Ireland. 34 pp.Cronin M and Ó Cadhla O. (2004). Aerial surveying of grey seal breeding colonies on the Blasket Islands Co. Kerry the Inishkea Group Co. Mayo and the Donegal coast during the 2003 breeding season. Report to the National Parks &amp; Wildlife</p>	<p>an extreme oceanic outpost for the habitat in a European context. The cliffs are all of good quality with little or no interference from man. Dry heath the most western example in the country occurs on several of the islands. The site is one of the two most important breeding sites in the country for <i>Halichoerus grypus</i> with c. 600 animals in a recent survey. The site is of significance for the occurrence of <i>Phocoena phocoena</i> with relative high abundances recorded and presents high quality habitat for this marine mammal. The Blasket Islands have at least 15 species of breeding seabird with internationally important populations of <i>Hydrobates pelagicus</i> and <i>Puffinus puffinus</i>. Six other seabird species occur in nationally important numbers including <i>Sterna paradisaea</i> and in addition it is one of the few known sites in the country where <i>Oceanodroma leucorhoa</i></p>	<p>smallest island Beginish occurs close to Great Blasket while the other islands (Inishtooskert Inishnabro Inishvickillane Tearaght Island) are between about 7 km and 12 km from the mainland. The bedrock is principally Old Red Sandstone with some outcrops of volcanic and Silurian rocks on Inishvickillane and Beginish. The islands have a very maritime climate being exposed to the prevailing Atlantic wind and swells. Sea cliffs mostly precipitous are the dominant terrestrial habitat and indeed much of the vegetation of the islands consists of species typical of cliffs or cliff-tops. Other habitats are dry heath bracken dominated areas and grassland used for grazing. There</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. Coastal &amp; Marine Resources Centre University College Cork. 10pp.Cronin M.A. Duck C.D. and Ó Cadhla O. (2007). Aerial surveying of grey seal breeding colonies on the Blasket Islands Co. Kerry the Inishkea Group Co. Mayo and the Donegal coast Ireland. J. Nat. Conserv. 15 (2): 73-83.Kiely O.R.M. (1998). Population biology of grey seals (<i>Halichoerus grypus</i> Fabricius 1791) in western Ireland. PhD. thesis for the National University of Ireland University College Cork. Ireland.Lyons D.O. (2004). Summary of National Parks &amp; Wildlife Service surveys for common (harbour) seals (<i>Phoca vitulina</i>) and grey seals (<i>Halichoerus grypus</i>) 1978 to 2003. Irish Wildlife Manuals No. 13. National Parks &amp; Wildlife Service Department of Environment Heritage and Local Government 7 Ely Place Dublin 2 Ireland. 67pp.Ó Cadhla O. Strong D. O'Keeffe C. Coleman M. Cronin M. Duck C. Murray T. Dower P. Nairn R. Murphy P. Smiddy P. Saich C. Lyons D. and Hiby A.R. (2007). An assessment of the breeding population of grey seals in the Republic of Ireland 2005. Irish Wildlife Manuals No. 34. National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 60pp. Ó Cadhla O. and Strong D. (2007). Grey seal moult population survey in the Republic of Ireland 2007. Report to the National Parks &amp; Wildlife Service Department of the Environment Heritage and Local Government Dublin Ireland. 22pp.Berrow S.D. O'Brien J. O'Connor I. and McGrath D. (2007). Abundance Estimate and Acoustic Monitoring of Harbour porpoise <i>Phocoena phocoena</i> in the Blasket Islands candidate Special Area of Conservation. Report to the National Parks and Wildlife Service. Irish Whale and Dolphin Group. 23pp.Berrow S.D. Hickey R. O'Connor I. and McGrath D. (2008). Small Cetacean Site Survey Investigations 2008. Report to the National Parks and Wildlife Service. Irish Whale and Dolphin Group. 24pp.Berrow S.D. O'Brien J. O'Connor I. and McGrath D. (2009). Abundance Estimate and Acoustic Monitoring of Harbour porpoise (<i>Phocoena phocoena</i> (L.)) in the Blasket Islands' candidate Special Area of Conservation. Biology and Environment: Proceedings of the Royal Irish Academy 109B No.1: 35-46.Pollock C. Reid J.B. Webb A. and Tasker M.L. (1997). The distribution of seabirds and cetaceans in the waters around Ireland. JNCC Report No. 267. Reid J.B. Evans P.G.H. and Northridge S.P. (2003) Atlas of Cetacean distribution in north-west European waters. Joint Nature Conservation Committee. 75pp.Rogan E. and Berrow S.D. (1996). Review of Harbour porpoises <i>Phocoena phocoena</i> L. in Irish waters. Report of the International Whaling Commission 46: 595-605.</p>	<p>breeds or has bred. Falco peregrinus and Pyrrhocorax pyrrhocorax also breed. The Blaskets formerly had wintering populations of Anser flavirostris albifrons and Branta leucopsis.</p>	<p>are no permanent habitations though Great Blasket was inhabited until 1953.</p>
002173	Blackwater River (Kerry) SAC	<p>Bowman J.J. Clabby K.J. Lucey J. McGarrigle M. &amp; Toner P. (1996). Water Quality in Ireland 1991-1994. Environmental Protection Agency Wexford. Central Fisheries Board (1995). A preliminary investigation into the decline of salmon stocks in Kenmare Bay in 1994. Central Fisheries Board. Dublin. Unpublished. Central Fisheries Board</p>	<p>This site has an extensive network of good quality watercourses which support one of the</p>	<p>This site is situated on the south-western slopes of the Macgillycuddy</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>(2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001. Central Fisheries Board (2003). Irish Salmon Catches 2001. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2003. Lucey J. (1993). The distribution of <i>Margaritifera margaritifera</i> (L.) in southern Irish rivers and streams. <i>Journal of Conchology</i> 34: 301-310. Lunnon R. (1996). Otter (<i>Lutra lutra</i> L.) Distribution in Ireland. In: Reynolds J.D. (ed.) <i>The Conservation of Aquatic Systems</i> pp 110-116. Royal Irish Academy. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an anglers guide. Merlin Unwin Books. London. O'Sullivan P. (1994). Bats in Ireland. Special supplement to the <i>Irish Naturalists' Journal</i>. Pembroke J. (2001). The Kerry Blackwater Fishery: Annual Summary. Platts E.A. and Speight M.C.D. (1988). The taxonomy and distribution of the Kerry Slug <i>Geomalacus maculosus</i> Allman 1843 (Mollusca: Arionidae) with a discussion of its status as a threatened species. <i>Irish Naturalists' Journal</i> 22: 417-430. Praeger R.L (1934). <i>The Botanist in Ireland</i>. Hodges Figgis Dublin. Scully R.W. (1916). <i>Flora of County Kerry</i> Hoggis Figgis Ltd. Dublin. South Western Regional Fisheries Board (2002). Information from Rod Catches Fish counters and predictive salmon models. Unpublished data.</p>	<p>largest populations of <i>Margaritifera margaritifera</i> in the country and has a population of <i>Lutra lutra</i>. The rivers are also important salmonid fisheries and are of high importance for the conservation of <i>Salmo salar</i>. The site contains an internationally important population of <i>Rhinolophus hipposideros</i> (&gt;150 individuals) and includes both the breeding site and the surrounding foraging habitat. <i>Geomalacus maculosus</i> is frequent within the site where suitable open heath habitat occurs. The site includes areas of dry heath.</p>	<p>Reeks overlooking the Kenmare River inlet. The underlying geology is Old Red Sandstone. The site comprises most of the catchment of the Blackwater River system. Two other main rivers the Kealduff and Derreendarragh link into the Blackwater and these rivers are characterised by having numerous tributary streams. The rivers rise at altitudes of up to 600 m and flow quite rapidly over their journey of about 10 km to the sea. The principal habitats within the site are upland grassland and various types of heaths. The grassland is improved to varying extents. Where the peat is deeper blanket bog has developed though much of this is now cutaway. Deciduous woodland occurs</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				along some of the rivers. Coniferous afforestation is a significant landuse within the site.
002176	Leannan River SAC	<p>Central Fisheries Board (1994). A survey of salmonid stocks in the Leannan catchment with management recommendations for the spring salmon fishery. Central Fisheries Board. Unpublished. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>:February 2001. Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. and Toner P.F. (1992). Water Quality in Ireland 1987-1990. Environmental Research Unit Dublin. Cromie J. (2002). Breeding status of Red-throated Diver <i>Gavia stellata</i> in Ireland. Irish Birds 7: 13-20. Doris Y. Clabby K.J. Lucey J. and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Heuff H. (1984). The Vegetation of Irish Lakes. Unpublished report to Forest and Wildlife Service Dublin. Igoe F. O'Grady M.F. Tierney D. and Fitzmaurice P. (2003). Arctic char <i>Salvelinus alpinus</i> (L.) in Ireland - A millenium review of its distribution and status with conservation recommendations. Biology and Environment 103 B: 9-22. Lindsey Clarke. Northern Regional Fisheries Board provided information in a letter to EcoServe received in February 2003. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Moorkens E.A. (1995). Mapping of Proposed SAC Rivers for <i>Margaritifera margaritifera</i>. Unpublished report to the National Parks and Wildlife Service Dublin. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an anglers guide. Merlin Unwin Books London. Roden C. (2002). The Distribution of <i>Najas flexilis</i> in County Donegal in 2002. Report prepared for Dúchas the Heritage Service Dublin.</p>	<p>Gartan Lough and Lough Akibbon are excellent examples of oligotrophic lakes of sandy plains. The aquatic flora is diverse and includes an important population of the rare and legally protected <i>Najas flexilis</i> as well as scarce species such as <i>Pilularia globulifera</i>. Habitat quality is good. The site supports an important population of <i>Margaritifera margaritifera</i> with over 1000 individuals estimated in 1995 and an age range from comparatively young to elderly (c.80+ years). The system is of importance for the conservation of <i>Salmo salar</i> and is notable as a good spring and grilse salmon river with extensive spawning habitats and good water quality. <i>Lutra lutra</i> is well distributed throughout. Lough Gartan has a population of <i>Salvelinus</i></p>	<p>The site comprises the River Leannan and its main tributaries and lakes. The river from source to sea measures 46 km and drains a catchment area of 282 km. The Bullaba River drains off the Glendowan Mountains and flows into Lough Gartan. The Leannan River flows from Lough Gartan in a north-easterly direction passes through Lough Fern and then onwards in an easterly direction through the town of Rathmelton and into Lough Swilly. The main tributaries within the site are the lower Glashagh and Lurgy. Lough Gartan and the connected Lough Akibbon are</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			alpinus. A number of Red Data Book plant species occur within the site including <i>Trollius europaeus</i> , <i>Pseudorchis albida</i> and <i>Omalotheca sylvatica</i> . An important roost for <i>Nyctalus leisleri</i> occurs at Ramelton. <i>Gavia stellata</i> an extremely rare breeding bird in Ireland nests within the site.	oligotrophic lakes while Lough Fern is a mesotrophic or naturally eutrophic system. After leaving the higher ground in the vicinity of Gartan Lough the River flows mostly through agricultural lands. Other habitats within the site include wet grassland improved grassland broad-leaved deciduous woodland scrub wet heath and freshwater marsh.
002177	Lough Dahybaun SAC	Clabby K.J. Lucey J. McGarrigle M.L. Bowman J.J. Flanagan P.J. & Toner P.F. (1992). Water Quality in Ireland 1987-1990. Environmental Research Unit Dublin. Mhic Daeid C. Byrne C. and O'Sullivan A (1995). Rare Plant Survey 1995 Lough Dahybaun. Unpublished report to National Parks and Wildlife Service Dublin.	While there is good recent information on the presence of <i>Najas</i> at this site the quality of the habitat is considered poor. Without appropriate management the long-term survival of <i>Najas</i> at this site is at risk.	Situated in a large expanse of blanket bog in north Mayo Lough Dahybaun is a fairly typical small to medium sized oligotrophic lake. Most of the bog surrounding the lake has been severely damaged by cutting and afforestation.
002180	Gortacarnaun Wood SAC	N/A	This oak woodland is classified as <i>Blechno-Quercetum petraeae</i> var. <i>coryletosum</i> . It is a good	Site is situated in the foothills of the Slieve Aughty Mountains

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			example of the type and of significant size though it has been managed for timber extraction for a long period and there are few old trees. It has good canopy and understorey structure but ground layer is restricted due to shading and grazing. Regeneration is good. Similar sized woods are scarce.	approximately 2 km east of Lough Cutra. Northern boundary is marked by the Owendalulleagh River. While site is dominated by deciduous woodland there is an area of open heath habitat with colonising Betula trees and also an area of wetland vegetation with wet grassland flush and fen vegetation. A stream and some drains run through the site. Main landuses within site are woodland management and grazing. Surrounding areas are used for afforestation and rough grazing.
002193	Ireland's Eye SAC	Colgan N. (1904). Flora of the County Dublin. Hodges Figgis and Co. Dublin. Curtis T.G.F. (1991a). A site inventory of the sandy coasts of Ireland. In Quigley M.B. (ed.) A Guide to the Sand Dunes of Ireland. E.U.C.C. Dublin. Cooney T. Marsh J. & Merne O.J. (1990). A new Gannet colony on Ireland's Eye Co. Dublin. Irish East Coast Bird Report 1989 66-69. Doogue D. Nash D. Parnell J. Reynolds S. & Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Goodwillie R. (1988). A preliminary report on areas of scientific interest in County Dublin. 2nd Edition. An Foras Forbartha Dublin. Hart H.C. (1887). Flora of Howth. Hodges Figgis & Co. Dublin. Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Lloyd C. (1982). Inventory of seabird breeding colonies	Island has a small though significant example of vegetated stony or shingle habitat of the type which fringes sandy beaches. It also contains an example of vegetated sea cliffs and has two Red Data Book species Crambe maritima and	Situated c. 1.5 km north of Howth Ireland's Eye is a small uninhabited island. The underlying geology is Cambrian greywackes and quartzites. These rocks form



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1988). Recent changes in breeding seabird population in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987 69-77. Moore D. & Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks & Wildlife Service Dublin. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis & Co Dublin.	Hyoscyamus niger. Excellent diversity of breeding seabirds (up to 12 species) with four species in numbers of national importance and also a recently established gannet ( <i>Sula bassana</i> ) colony the only one on the east coast. Traditional site for <i>Falco peregrinus</i> .	impressive cliffs along the northern and eastern sides of the island reaching up to 69 m. Elsewhere the island is covered by glacial drift. A sandy beach backed by shingle and low sand hills occurs at Carrigeen Bay on the western shore. An extensive area of bedrock shore is exposed at low tide to the south of the island. The main habitat on the island is a mix of dry grassland and bracken. Owing to its proximity to the mainland the island is popular with day-trippers and also has educational value.
002202	Mount Jessop Bog SAC	Cross J. & Lynn D. (2013). Results of a monitoring survey of bog woodland. Irish Wildlife Manuals No. 69. National Parks and Wildlife Service Department of Arts Heritage and the Gaeltacht Dublin Ireland. Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/</a> Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project: A Continuation of the Investigation into the Conservation and Restoration of Selected Raised Bog sites in Ireland. Unpublished report NPWS Dublin. Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS	Mount Jessop Bog cSAC is a site of considerable conservation significance comprising raised bog a rare habitat in the EU and one that is becoming increasingly scarce and under threat in Ireland. It contains good examples of the EU Habitats	Mount Jessop Bog SAC (002202) comprises 71.91 ha of raised bog (25.7 ha of high bog and 46.21 ha cutover) which occupies the south-eastern section of Mount Jessop Bog NHA

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Dublin.Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. &amp; Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin Ireland.Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin.Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at:  <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a>The Interpretation Manual of European Union Habitats – EUR 27 (2007)  <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a>Kelly L; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at:  <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a>NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin.NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatabosbeheer The Netherlands.Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland:  <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>Directive Annex I habitat (7120) Degraded Raised Bog (capable of regeneration) which is being restored to the priority Annex 1 habitat Active Raised Bog (7110) and a small area of the Annex 1 priority habitat Bog Woodland (91D0) which is developing on the cutover. The site already supports a good diversity of raised bog microhabitats including some hummock/hollow complexes and rewetted cutover bog. Ireland has a high proportion of the total EU resource of Atlantic raised bog (over 50%) and so has a special responsibility for its conservation at an international level. The site is being actively managed for conservation as part of the Coillte EU LIFE Project and most of the required restoration measures have already been carried out. Those measures that remain or are ongoing should be achievable with average effort. An After LIFE management plan is being developed by</p>	<p>(001450). Mount Jessop Bog NHA is a small Midland raised bog developed in a basin and surrounded by areas of higher mineral ground. The original area of the bog in the early 1800s was 195.8 ha but due to domestic turf cutting the high bog area in 2010 was 65.8 ha. The SAC is bordered by raised bog and cutover to the west and north and agricultural grassland to the east and south. Within the SAC approximately 31 ha (44%) both high bog and cutover was afforested with conifer plantations between 1973 and 1975. Only 11% (8.0 ha) remained open high bog. The remainder of the cutover developed either into birch and willow scrub (19.5 ha) or remained open</p>

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			<p>Coillte for the future conservation management of the SAC. The SAC is located within the raised bog Mount Jessop Bog NHA (001450) the conservation management of which should support the redevelopment of Active raised bog and Bog Woodland in the SAC.</p>	<p>areas (12.5 ha) dominated by heath and bog species especially those adjacent to the former turf cutting areas in the south east of the site which were being used as spreadgrounds. Turf cutting has not been observed on this site since the project commenced. On the remaining area of open high bog much of the vegetation is typical of Midland Raised Bog type. Some small hummocks of <i>S. austinii</i> and <i>S. fuscum</i> (s.l.) occur. In places Sphagnum hummocks supports the Midland raised bog indicator species Bog Rosemary (<i>Andromeda polifolia</i>) and Cranberry (<i>Vaccinium oxycoccos</i>). There is also a record of the liverwort <i>Pleurozia purpurea</i> in the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>NHA. This is one of the Western raised bog indicators suggesting that this bog has transitional features between the two types of raised bog in Ireland. Lodgepole Pine (<i>Pinus contorta</i>) which is invading the open bog is being controlled as part of the restoration plan for the site. The conifer plantations were felled and the intensive drainage system associated with the plantations were blocked by 2013 as part of an EU funded LIFE project so as to raise the water table and restore Active Raised Bog on the site. Prior to the felling there were relatively few bog species present in the plantations except along fire breaks and at plantation margins. With the clear-felling and blocking of drains there are</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>indications that the high bog is re-wetting and water-levels in some areas now remain high throughout most of the year. Limited areas of wet flats and hollows are developing and more typical raised bog vegetation has returned. However the majority of the restored areas have not yet developed vegetation characteristic of the wet bog. Two areas covering 1.14 ha in the northern and western sections of the SAC have been identified by hydrological modelling and ground survey as Degraded raised bog (7120) habitat and are showing significant indications of recovery. The main areas are on the open bog to the west of the formerly afforested area and in the north west of the</p>

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				<p>                     clear-felled area. These areas now have standing surface water in the hollows and pools for most of the year and considerable areas of regenerating Sphagnum species. It is considered that these areas will support some areas of Active raised bog within 10-20 years and that this habitat will continue to develop and spread over the following decades. In addition an area of developing Bog Woodland (91D0) (0.23 ha) exists on cutover in the south east of the site. This is expected to mature and develop further over time as the cutover rewets fully. It is also expected that 0.29 additional hectares of very wet clear-fell on cutover adjacent to the Bog Woodland will develop into Active Raised Bog in the                 </p>

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				medium to long term. Finally it is estimated that restoration works carried out on this site will benefit the conservation of 2 ha of Active raised bog and 0.25 ha Degraded Raised Bog in the adjacent area of Mount Jessop Bog NHA (001450). It is also expected that Wet Birch woodland will develop within 8.82 ha of very wet clear-fell on cutover adjacent to the Bog Woodland in the medium to long term. Some of it may develop into additional Bog Woodland (91D0) areas.
002205	Wooddown Bog SAC	Department of Arts Heritage and Gaeltacht (2014). National Raised Bog SAC Management Plan - Draft for Consultation - 17 January 2014. This is available at: <a href="http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/">http://www.npws.ie/peatlandsturf-cutting/nationalraisedbogsacmanagementplan/</a> Derwin J. and Mac Gowan F. (2000). Raised Bog Restoration Project: A Continuation of the Investigation into the Conservation and Restoration of Selected Raised Bog sites in Ireland. Unpublished report NPWS Dublin. Derwin J. Gabbett M. Keane S. Long M. and Martin J. (2002). Raised Bog Natural Heritage Areas Project. Unpublished report NPWS Dublin. Fernandez F. Connolly K. Crowley W. Denyer J. Duff K. & Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals No. 81. National Parks and Wildlife Service Department of Arts Heritage and Gaeltacht Dublin	The Degraded Raised Bog habitat in Wooddown Bog SAC is of conservation significance as it has the potential for restoration to Active Raised Bog which is a priority habitat in the EU and one that is scarce and under threat in Ireland. Despite the	Wooddown Bog SAC (002205) comprises 49.87 ha of raised bog (22.94 ha of high bog and over 26.93 ha cutover) which occupy the eastern end of Wooddown Bog NHA (Site Code 000694).

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		<p>Ireland.Fernandez F. Crowley W. &amp; Wilson S. (2012) Raised Bog Monitoring Survey. National Parks and Wildlife Service Department of Environment Heritage and Local Government Dublin.Fernandez Valverde F.; Fanning M.; McCorry M.; Crowley W. (2005). Raised bog monitoring project 2004-2005: Part 1 - Summary Report. Report to NPWS.Fernandez Valverde F.; MacGowan F.; Farrell M.; Crowley W.; Croal Y.; Fanning M.; McKee A-M. (2006). Assessment of impacts of turf cutting on designated raised bogs. A Report to the Research Section of the National Parks and Wildlife Service. This is available at:  <a href="http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf">http://www.npws.ie/publications/archive/Valverde_et_al_2006_Turf_cutting_assessment_Vol_1_-_Summary.pdf</a>The Interpretation Manual of European Union Habitats – EUR 27 (2007)  <a href="http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf">http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf</a>Kelly L.; Doak M. and Dromey M. (1995). Raised Bog Restoration Project an investigation into the conservation and restoration of selected raised bog sites in Ireland. Internal report to the National Parks and Wildlife Service Dublin. This is available at:  <a href="http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf">http://www.npws.ie/publications/archive/Kelly_et_al_1995_Raised_Bog_Restoration_Vol_3_-_Site_reports.pdf</a>NPW (1995 - 2002). Natura 2000 SAC Site Assessment Form. Unpublished report National Parks and Wildlife Dublin.NPWS (1992 - 1994). National ASI Re-survey. Unpublished report National Parks and Wildlife Service Dublin.Schouten M.G.C. (2002). Conservation and Restoration of Raised Bogs: Geological Hydrological and Ecological Studies. Department of Environment and Local Government Dublin Ireland/ Staatsbosbeheer The Netherlands.Link(s): Coillte LIFE Project website - Demonstrating Best Practice in Raised Bog Restoration in Ireland:  <a href="http://www.raisedbogrestoration.ie/">http://www.raisedbogrestoration.ie/</a></p>	<p>relatively small area of Degraded raised bog present the restoration actions have resulted in active redevelopment of the habitat towards Active Raised Bog which add to the diversity and scientific value of the site. The site is being actively managed for conservation as part of the Coillte EU LIFE Project and most of the required restoration measures have already been carried out. However some significant threats remain and an After LIFE management plan is being developed for the future conservation management of the SAC. The SAC is located within the raised bog Wooddown Bog NHA (000694) the conservation management of which should support the maintenance and improvement Degraded Raised Bog in the SAC.</p>	<p>Wooddown Bog is a Midland type raised bog developed in a basin. The SAC is bordered by open high bog on its northern and western margins by forestry on cutover bog on its eastern margin and by agricultural grassland on its southern side. All the SAC except for approximately 8.5 ha of high bog and cutover in the northwest was afforested in 1973-5 with conifer plantations. The remaining open high bog vegetation has a Midlands raised bog species composition but shows signs of significant drying out due to past drainage and turf cutting. When the conifers in the SAC were removed in 2011 all the intensive drainage system associated with it were blocked by 2013 as</p>



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				<p>part of an EU funded LIFE project so as to raise the water table and restore Active Raised Bog (ARB) on the site. Prior to the felling there was relatively few bog species present on the afforested section. With the clear-felling of conifers and blocking of drains there are indications that the high bog is re-wetting. As a consequence raised bog vegetation has returned to the formerly afforested areas of the high bog. However the majority of the restored areas have not yet developed vegetation characteristic of the wettest conditions and there is a considerable amount of conifer and birch regeneration occurring in these areas. Several potential areas of</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>Degraded Raised Bog (DRB) were identified by hydrological modelling. The most westerly of these is adjacent to a drain on the SAC boundary which cannot currently be closed and so it is not expected to recover until the drain is blocked. Another three areas of Degraded Raised Bog together comprise about 1.5 ha and occur in the central-southern section of the site. These now have standing surface water in the hollows and pools for most of the year with considerable areas of regenerating bog mosses. There is a wooded flush on the cutover in the northern section of the SAC. With further drain blocking on the high bog and cutover this may have the potential to</p>

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				develop into the priority habitat Bog Woodland (91D0) as elements of this habitat already occur in the NHA. Wet birch woodland is also developing on the middle section of the site. This habitat type may also evolve into Bog Woodland in the future at this location.
002214	Killeglan Grassland SAC	Curtis T.G.F. and McGough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Government Publications Stationery Office. Dublin. Webb D.A. Parnell J. and Doogue D. (1996). An Irish Flora. Dundalgan Press. Dundalk. Whilde A. (1993). Threatened Mammals Birds Amphibians and Fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO. Belfast.	Species rich calcareous grassland covers 81% of the site and in places forms a mosaic with scrub and shattered limestone outcrops. Grazing intensity is low although agricultural reclamation has seen the demise of some areas of the site in recent years. The site is one of the most important sites in Ireland for the legally protected species of orchid orchis morio (Flora Protection Order 1987).	The underlying geology of the site is Lower Carboniferous Limestone overlain by thin rendzina soils. The topography is undulating and there are many outcropping limestone boulders.
002241	Lough Derg North-East Shore SAC	Anonymous (1990). Lough Derg An International Water Park. Proposals prepared by the Lough Derg Working Group. Bowman K.J. Clabby K.J. Lucey J. McGarrigle M.L. and Toner P.F. (1996). Water Quality in Ireland 1991-1994. Environmental Protection	This site supports a wide range of habitats including Alkaline fens	This site incorporates part of the water body of

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Agency. Wexford.Coillte Teo. (undated). Portumna Forest Park (Sustainable Forest Management Plan).Curtis T.G.F. and Gough H.N. (1988). The Irish Red Data Book 1: Vascular Plants. Government Publications Stationery Office. Dublin.Delany S. (1996). Waterfowl Counts in Ireland 1994/95: a summary of the first winter of the Irish Wetland Bird Survey (I-WeBS). Irish Birds 5:423-432.Delaney S. (1997). IWeBS Report 1995-96: results from the second winter of the Irish Wetland Bird Survey. IWC BirdWatch Ireland Dublin.Dunford B. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 14 - Kilenamelly Alluvial Woodland. Unpublished Internal Report prepared for Coillte Teo.Dunford B. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 15 - Kilenamelly Yew Woodland. Unpublished Internal Report prepared for Coillte Teo.Dunford B. (2003). LIFE-Nature Woodland Restoration Project Proposal 2003 - Ecologists Report. Project Site No. 16 - Portumna Wood. Unpublished Internal Report prepared for Coillte Teo.Fahy E (1970s). County Report for Tipperary North Riding. An Foras Forbartha.Flanagan P.J. and Toner P.F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha.Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83-1993/94. NPWGibbons D.W. Reid J.B. and Chapman R.A. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. Poyser. London.Heery S. (1996). Birds in Central Ireland: Mid-Shannon Bird Report 1992-1995. BirdWatch Ireland Dublin.Hannon C. (1997). The 1995 All Ireland Tern Survey. Unpublished Report BirdWatch Ireland.Hutchinson C. (1979). Ireland's Wetlands and their Birds. IWC Dublin.Joint Nature Conservancy Council 2003. Ecological requirements of river brook and sea lamprey. Online pdf. Document.<a href="http://english-nature.org.uk/LIFEinUKRivers/index.html">http://english-nature.org.uk/LIFEinUKRivers/index.html</a>Kelly D.L. and Iremonger S.F. (1997). Irish wetland woods: the plant communities and their ecology. Biology and the Environment Proceedings of the Royal Irish Academy 97B: 1-32.Kurz I. and Costello M.J. (1999). An outline of the biology distribution and conservation of lampreys in Ireland. Irish Wildlife Manuals No. 5. 27pp. Dublin. Dúchas The Heritage Service.Kurz I. and Costello M.J. (1996). Proposed Special Areas of Conservation for Lampreys and Shads. Internal report to National Parks and Wildlife.Kurz I. and Costello M.J. (1996b). Current Knowledge on the Distribution of Lampreys and some other Freshwater Fish Species listed in the Habitats Directive. Internal report to National Parks and Wildlife.Lack P. (1986). The Atlas of Wintering Birds in Britain and Ireland. The Bath Press. Avon.Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London.Lucey J. and McGarrigle M.L. (1987). The Distribution of the Crayfish in Ireland Irish Fisheries Investigations. Series A (Freshwater) No. 29.Lucey J. (1995). The Distribution of Anodonta cygnea (L) and Anodonta anatina (L) (Mollusca: Bivalvia) in Southern Irish Rivers and Streams with</p>	<p>Juniper scrub formations limestone pavement Yew woodlands alluvial woodlands and Cladium fen. It also supports the only known population in the country for the Irish Red Data Book species Inula salicina. Other scarce plant species found here include Sorbus aria and Rhamnus catharticus. The endangered fish species Coregonus autumnalis has its European stronghold in Lough Derg. The open water areas of the lake itself are important for wintering wildfowl. Goat island holds a breeding colony of Sterna hirundo. A subflock of Anser albifrons flavirostris uses the callow lands around Slevoir Bay in Winter. A good population of Cygnus olor occurs.</p>	<p>Lough Derg and includes most of the northern lake shore and approximately one-third of the northeast shoreline. Lough Derg itself is the lowest order lake on the River Shannon and is one of the largest freshwater bodies in Ireland. Most of the lake overlies Carboniferous Limestone which outcrops along the shores but some old Red Sandstone occurs on the eastern side. The site is of high scenic value and is a well known angling and tourism area.</p>

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		<p>records from other areas. I. Nat. Journal. Vol 25 No. 1Macdonald R.A. (1987). The breeding population and distribution of the Cormorant in Ireland. Irish Birds 3: 405-416.Maitland P.S. (1972). Key to British Freshwater Fishes. Freshwater Biological Association Scientific Publication No. 27. Freshwater Biological Association. Ambleside.Maitland P.S. (1980). Review of the ecology of lampreys in northern Europe. Canadian Journal of Aquatic Sciences 37: 1944-1952.Maitland P.S. (1994). The ecology of lampreys (Petromyzonidae) in the Loch Lomond area Hydrobiologia 290 105-120. Maitland P.S. (1996). Threatened Fishes of the British Isles with Special Reference to Ireland. In: J.D. Reynolds (ed.) 1996 The Conservation of Aquatic Systems 84-100. Royal Irish Academy Dublin.Moorkens E. A. (1995). Internal report on Freshwater Crayfish for National Parks and Wildlife.Moorkens E. A. (1995b). Mapping of Proposed SAC Area for Margaritifera margaritifera on the Mountain River Co. Carlow. An internal report for the National Parks and Wildlife.McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. O'Connor W. (1998). ESB Fisheries Conservation Annual Report. May 1997-April 1998. ESB Fisheries Conservation Section Clare.O'Connor W. (Ecofact Environmental Consultants) 2003. Personal Communication to EcoServe.Praeger R.L. (1974). The Botanist in Ireland. EP Publishing Limited. England.Reynolds J.D. (1982). Notes on the Irish Distribution of Freshwater Crayfish. Bull. Ir. Biogeog. Soc. No.6.Reynolds J.V. (1990). The breeding Gulls and Terns of the Islands of Lough Derg. Irish Birds 4: 217-226.Ross E.D. (1988). The Reproductive Biology of Freshwater Mussels in Ireland with observations on their distribution and demography. Submitted to the National University of Ireland for the Degree of Doctor of Philosophy.Scannell J.P. and Synnott D.M. (1987). Census Catalogue of the Flora of Ireland. Government Publications. The Stationery Office. Dublin.Sheppard R. (1993). Ireland's Wetland Wealth: the Birdlife of the Estuaries Lakes Coasts Rivers Bogs and Turloughs of Ireland. Irish Wildbird Conservancy.Stewart N.F. and Church J.M. (1992). Red Data Books of Britain and Ireland: Stoneworts. Joint Nature Conservation Committee. Peterborough.Wilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO. Belfast.</p>		
002250	Carrowmore Dunes SAC	<p>Bleasdale A. (1998). An Assessment of the Scientific Interest of the Dune System at White Strand Doonbeg Co Clare. The Heritage Council Kilkenny.Brennan A.T. (1945). Notes on the distribution of certain marine algae on the west coast of Ireland. Irish Naturalists' Journal 8:252-254.Casley B. (1974). Acrothrix gracilis Kylin on the Galway and Clare coasts. Irish Naturalists' Journal 18:20-21.Costelloe J. Keegan B.R. and Kinnecker G.F. (1986). Rocky subtidal assemblages on the west coast of Ireland. Hydrobiologia 142:97-111.Cullinane J.P. (1978). A preliminary account of the</p>	<p>The site displays an excellent example of intertidal reefs. The bedrock shore has high species diversity (96 species in the low shore and 121 species in the</p>	<p>The site is located on the west coast and comprises Doughmore Bay and part of the more sheltered Doonbeg Bay.</p>

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		<p>distribution of <i>Cordylecladia erecta</i> (Grev.) J.G.Ag. (Rhodophyta: Rhodymeniales) in Ireland and the British Isles. Scientific Proceedings of the Royal Dublin Society Series A:6: 49-58. Series A:5: 475-490.Curtis T.G.F. (1991). A site inventory of the sandy coasts of Ireland - their types and distribution. Pp. 6-17 in: Quigley M.B. (Ed.). A Guide to the Sand Dunes of Ireland. European Union for Dune Conservation and Coastal Management c/o Department of Geography Trinity College Dublin.Delany S. (1997). I-WeBS Report 1995-96: Results from the Second Winter of the Irish Wetland Bird Survey. IWC Birdwatch Ireland Dublin.Farran G.P. (1949). <i>Stenoteuthis pteropus</i> (Steenstrup) on Co. Clare shore. Irish Naturalists' Journal 9:277-278.Guiry M.D. and Maggs C.A. (1985). Notes on Irish marine algae - 7. <i>Gigartina teedii</i> (Roth) Lamour. (Rhodophyta). Irish Naturalists' Journal 21: 490-493.Kinahan J.R. (1863). Notes on the marine fauna of the west coast of Clare. Proceedings of the Natural History Society of Dublin 99-103.McHugh Consultants (1998). Doonbeg Golf Course and Tourism Development EIS. Irish National Golf Club Limited.Moorkens E.A. (1999). Molluscan Survey of the pNHA and pSAC Areas Associated with Carrowmore Marsh and the Dune System at White Strand Doonbeg Co. Clare. Unpublished report to National Parks and Wildlife Dublin.Murray P.J. (1972). The occurrence of <i>Mytilicola intestinalis</i> Steuer on the coasts of counties Galway and Clare. Irish Naturalists' Journal 17: 198-199.O'Loughlin E.F.M. (1989). Notes on the distribution of <i>Calliostoma zizyphinum</i> (L.) (Mollusca) on the shores and shallow waters of the Irish coast. Bulletin of the Irish Biogeographical Society 12: 22-30.Picton B.E. (1985). Anthozoa (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488.Ryland J.S. and Nelson-Smith A. (1975). Littoral and benthic investigations on the west coast of Ireland - IV. (Section A: Faunistic and Ecological Studies.) Some shores on counties Clare and Galway. Proceedings of the Royal Irish Academy 75B: 245-266.Sheppard R. (1993). Ireland's Wetland Wealth: the Birdlife of the Estuaries Lakes Coasts Rivers Bogs and Turloughs of Ireland. Irish Wildbird Conservancy Dublin.Webster A. (1972). A note on <i>Corallina squamata</i> Ellis as it occurs in the eulittoral zone in counties Clare and Galway. Irish Naturalists' Journal 17: 267-268.Whilde A. (1993). Irish Red Data Book 2: Vertebrates. HMSO. Belfast.</p>	<p>sublittoral frings) good zonation and with a wide variety of habitats due to the structure of the shore. The variety of habitats and the zonation are typical for this type of shore and therefore is a good example of this shore type. Rare species recorded are the shrimp <i>Alpheus macrocheles</i> and the red algae <i>Phyllopora sicula</i> and <i>Pterosiphonia pennata</i>. The brown algae <i>Bifurcaria bifurcata</i> which has a limited distribution in Ireland also occurs at the site. The site is also important as it supports a good example of the priority Annex I habitat fixed dunes with herbaceous vegetation. Also present are the Annex I habitats embryonic shifting dunes and Marram dunes. The site is used in some cases intermittently for feeding and roosting by a variety of bird species. The site supports a population of the EU Habitats Directive Annex II mollusc species <i>Vertigo angustior</i>.</p>	<p>Geologically the site is of Upper Carboniferous sandstone and shale. Doughmore Bay is a wide gently sloping bay with jagged bedrock to the north and south. The bedrock has boulders cobbles pebbles gravel and coarse sand in the large fissures and crevices that run horizontally along the shore. White Strand a fine sandy beach with extensive intertidal sand flats occurs between the bedrock shores. An extensive area of shallow marine water is included. The terrestrial component of the site comprises the remnant of a formerly more intact dune system and includes examples of embryonic shifting marram and fixed dunes. Soils are pure coarse grained</p>

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				sand at the beach which increase in organic content moving inland.
002256	Ballyprior Grassland SAC	Byrne Dr. Clare Ph.D. Thesis. Ó Críodáin Colman (1992). Conservation of Grassland sites of Scientific Interest in Ireland. A Preliminary Report. National Parks & Wildlife Service Dublin. Rotheroe Maurice. Report on Waxcap Grasslands.	An estimated 35 hectares 45% of the site area consists of the Annex 1 Priority Habitat orchid-rich calcareous grassland which supports a rich diversity of both calcicole and calcifuge species the latter occurring on mineral poor drift. The site has an exceptionally rich mycoflora and this is a better indication of grassland quality (in terms of continuity lack of disturbance and low nutrient status) than the vascular flora. The Irish Hare <i>Lepus timidus hibernicus</i> recorded as occurring in the site. This sub-species is listed in Annex III of the Bern Convention and in the Red Data Book as Internationally Important. It is legally protected by the Wildlife Act (1976).	The site consists of a limestone plateau supporting open calcareous grassland with occasional rocky scarps and valleys but with little surface water and no streams. Soils are thin on the plateau but deeper with local drift in low areas and valley bottom. Scrub of <i>Crataegus monogyna</i> <i>Prunus spinosa</i> <i>Rubus fruticosus</i> with bracken <i>Pteridium aquilium</i> or Gorse Scrub of <i>Ulex europaea</i> is frequent in the east and north of the site. Scrub woodland of predominantly Hazel <i>Corylus avellana</i> with <i>Fraxinus excelsior</i> and a well developed ground flora occurs in the

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				extreme west of the site. There are also a few ponds scattered within the site.
002257	Moanour Mountain SAC	N/A	This site supports good examples of heath vegetation typical for the region.	The site occurs on the north-western slope of Moanour Mountain an outlying ridge of the Galtee Mountains. Much of the remainder of this mountainous ridge has been afforested. A fine altitudinal transition is seen from upland acid grassland on mineral soil at the lower elevations to wet and dry heaths on peats higher up. The wet heath grades into incipient blanket bog at the highest level. The only landuse in the site is grazing by sheep.
002259	Tory Island Coast SAC	Berrow S.D. Mackie K.L. O' Sullivan O. Shepperd K.B. Mellon and C Coveney J.A. (1993). The second International Chough Survey in Ireland 1992. Irish Birds 5: 1-10. Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. Irish Birds 6: 159-176. Guiry M.D. (1978). A consensus and bibliography of Irish seaweeds. Cramer Vaduz 287pp Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S.	The vegetated sea cliffs and perennial vegetation of stony banks at this site are of good quality and are fairly extensive. The lagoon which occurs	Tory Island is a remote though inhabited island lying some 11 km off the north-west Donegal coast. It is



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>hirundo Arctic S. paradisaea and Little Terns Salbifrons in Ireland in 1995. Irish Birds 6: 1-22. Healy B. (1999). Irish Coastal Lagoon Survey 1998. Vol 1 Part 1. Background Description and summary of the surveys. Dúchas. Healy B. Oliver G.A. Hatch P. and Good J.A. (1997). Coastal Lagoons in The Republic of Ireland. Vol. 2 . Inventory of lagoons and saline lakes. Report to the National Parks and Wildlife Service Dublin. Lloyd C. (1982). Inventory of seabird breeding colonies in Republic of Ireland Unpublished report Forestry and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in The Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. NPWS (2010). Desk study of Submerged or partly submerged sea caves features along the Donegal coast. Unpublished report. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484-488 Praeger R.L (1934). The Botanist in Ireland. Hodges &amp; Figgis Dublin. Roden C. 1999. Irish coastal lagoon survey 1998. Vol III. Dúchas. Sheppard R. (1995). Hybrid Tree x House Sparrow in County Donegal. Irish Birds 3: 319-320. Young R. (1973). Report on Areas of Ecological and Geological Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>behind the stony barrier is a good example of a sedimentary lagoon a relatively rare type in Ireland. The site has many good examples of submerged reef communities. Species richness is high in the infralittoral reef and in the circalittoral reef. The BioMar project recorded ten species considered uncommon and of conservation importance; the sponges <i>Axinella damicornis</i> <i>Phakellia ventilabrum</i> <i>Raspailia aculeata</i> <i>Spongionella pulchella</i>; the hydroid <i>Gymnangium montagui</i>; the soft corals <i>Alcyonium glomeratum</i> <i>Isozoanthus sulcatus</i>; the sea slug <i>Crimora papillata</i>; the tunicate <i>Diazona violacea</i> and the bryozoan <i>Pentapora foliacea</i>. Two rare species were also recorded; the sea anemone <i>Hormathia coronata</i> and the brown algae <i>Carpomitra costata</i>. The population of the rare brown algae <i>Carpomitra costata</i> seems to be the most important in the national</p>	<p>approximately 4 km in length and 1 km in width. The bedrock is mainly igneous granite with a few dolerite intrusions. The extreme eastern section however is made up of more erosion resistant Ards Quartzite and high sea-cliffs occur here rising to 86 m. Cliffs continue along the north and western coastline while the southern shoreline consists of a broad band of bedrock shore and boulder beach. At the base of the sea cliffs intertidal sea caves are regular features. Shingle is well represented along the south-west shoreline and forms an effective barrier to impound a small lagoon Lough Ayes. Heath and cutaway bog occupies much of the interior of the island and especially the northern part in</p>

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			<p>territory. The fragile deep-water communities are well conserved. Two Red Data Book plants occur <i>Ligusticum scoticum</i> and <i>Crambe maritima</i>. The site supports important seabird populations especially of <i>Alca torda</i> and <i>Fratercula arctica</i>. A small colony of <i>Hydrobates pelagicus</i> occurs and also breeding <i>Falco peregrinus</i> <i>Pyrhacorax pyrrhacorax</i> and <i>Sterna albifrons</i>. The interior of the island is part of an SPA and is particularly important for its population of <i>Crex crex</i>.</p>	<p>from the cliffs. Other habitats include small shallow lakes marsh vegetation wet grassland and dry grassland. The infralittoral bedrock and boulder reef communities of Tory Island are moderately to extremely exposed to wave action. In general the shallow reefs on the north side are steeply sloping while those on the south side have a more gentle incline and may be a mixture of bedrock and boulders. The circalittoral reefs on the south side of the island are extremely exposed to wave action whilst those on the northern side are relatively sheltered and only moderately exposed to wave action. The circalittoral reef ranges in depth from 30 - 43 m. The</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				reef varies in structure from a steep sided gully with an overhang; gently sloping bedrock that frequently has gullies ridges or short vertical steps to flat bedrock with boulders on sand with outcrops of ridged bedrock.
002262	Valencia Harbour/Portmagee Channel SAC	<p>Beaumont W.I. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part II.- the benthos (dredging and shore-collecting). IX. Report on the Lucernaridae. Proceedings of the Royal Irish Academy Series III: 5: 806-811. Beaumont W.I. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part II.- the benthos (dredging and shore-collecting). VII. Report on the results of dredging and shore-collecting. Proceedings of the Royal Irish Academy Series III: 5: 754-798. Beaumont W.I. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part II.- the benthos (dredging and shore-collecting). XII. Report on the opisthobranchiate Mollusca. Proceedings of the Royal Irish Academy Series III: 5: 832-854. Beaumont W.I. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part II.- the benthos (dredging and shore-collecting). XI. Report on the Nemertea. Proceedings of the Royal Irish Academy Series III: 5: 815-831. Browne E.T. (1896). The medusae of Valencia Harbour County Kerry. Irish Naturalist 5: 179-181. Browne E.T. (1897). The hydroids of Valencia Harbour. Irish Naturalist 6: 241-246. Browne E.T. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part I.- the pelagic fauna. II. Report on the Medusae (1895-98). Proceedings of the Royal Irish Academy Series III: 5: 694-736. Browne E.T. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part I.- the pelagic fauna. I. Notes on the pelagic fauna (1895-98). Proceedings of the Royal Irish Academy Series III: 5: 667-693. Delap M. and Delap C. (1905). Notes on the plankton of Valencia Harbour 1899-1901. Annual Report of Fisheries Ireland 1902-3 part II app. 1(i): 3-19. Delap M. and Delap C. (1906). Notes on the plankton of Valencia Harbour 1902-05. Fisheries Ireland Scientific Investigations 1905 part VII(i): 141-159. Delap M.J. (1924). Further notes on the plankton of Valencia Harbour 1906-1923. Irish Naturalist 33: 1-6. Gamble F.W. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part I.-</p>	<p>The site contains important and good quality examples of large shallow inlets and bays intertidal sand and mud flats and has several species of high conservation importance that do not occur in the rest of the country. There is a seagrass bed in the sublittoral fringe at the northern entrance to the Portmagee Channel. To the south of the seagrass bed in the muddy sediments at the north mouth of the channel at approx. 5m BCD is an extraordinary community: two important species of burrowing anemone occur in addition to two scarce nudibranch</p>	<p>Valencia Harbour and the Portmagee Channel is an inlet that is located on the south-west coast of Ireland in the lee of Valencia Island. Bedrock is Old Red Sandstone. The site is sheltered and shallow and it contains a variety of sediments which range from a mixture of cobbles pebbles and gravel to very soft mud. Several small islands occur at the entrance to Portmagee Channel.</p>

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		<p>the pelagic fauna. IV. The Chaetognatha. Proceedings of the Royal Irish Academy Series III: 5: 745-747. Gamble F.W. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part II.- the benthos (dredging and shore-collecting). X. Report on the Turbellaria. Proceedings of the Royal Irish Academy Series III: 5: 812-814. Gamble F.W.C. (1896). Notes on a zoological expedition to Valencia Island Co. Kerry. Shore collecting and dredging. Irish Naturalist 5: 129-136. Herdman W.A. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part I.- the pelagic fauna. V. The pelagic Tunicata. Proceedings of the Royal Irish Academy Series III: 5: 748-751. Hill S. Burrows M. and Hawkins S. (1998). Intertidal reef biotopes: an overview of dynamic and sensitivity characteristics for conservation management of marine SACs. Picton B.E. (1985). Anthozoans (Coelenterata: Anthozoa) new to Ireland and new records of some rarely recorded species. Irish Naturalists' Journal 21: 484 - 488. Picton B.E and Costello M.J. eds. (1997). BioMar Biotope Viewer: a Guide to Marine Habitats Fauna and Flora of Britain and Ireland (Ver. 2.0) Environmental Sciences Unit Trinity College Dublin. (Compact Disc). Thompson I.C. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part I.- the pelagic fauna. III. Report on the free-swimming Copepoda (1895-98). Proceedings of the Royal Irish Academy Series III: 5: 737-744. Weiss F.E. (1900). The fauna and flora of Valencia Harbour on the west coast of Ireland. Part II.- the benthos (dredging and shore-collecting). VIII. Report on the Algae. Proceedings of the Royal Irish Academy Series III: 5: 799-805.</p>	<p>species scarce and vulnerable sea pens and an echinoderm of conservation importance. Perhaps most noteworthy is the anemone <i>Edwardsia delapiae</i> which was first described from <i>Zostera marina</i> beds on the shore at Valencia Island. It had not been recorded since its original description in 1928 until the BioMar survey rediscovered a small population occurring in fine mud. Other sediment communities in Valencia Harbour and the Portmagee Channel are characterized by the delicate seapen <i>Virgularia mirabilis</i>. Additional important sediment communities are the maerl beds that occur where currents are stronger in the narrows at the south of the Portmagee Channel and the representative estuarine sediment community on the shore of the Valencia River. The reef communities within the site are also of importance. The littoral reefs have an unusually</p>	

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			<p>high number of community types (16). On the north coast of Valencia Island is a small population of the purple sea urchin <i>Paracentrotus lividus</i>. The unusual hydroid <i>Aglaophenia kirchenpaueri</i> is present in the infralittoral reefs of Valencia Harbour and species richness there can be high (70 species) in the upper infralittoral reef west of Perch rock. The ascidian <i>Pycnoclavella aurilucens</i> is present in both infralittoral and circalittoral communities. <i>Phoronis psammophila</i> is a rare phoronid species that is not recorded from the British Isles but was recorded by BioMar on three occasions all of which were in the Valencia Harbour/Portmagee Channel area.</p>	
002280	Dunbeacon Shingle SAC	<p>Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks &amp; Wildlife Service Dublin.</p>	<p>While small in area this site contains a good example of vegetated shingle ridges occurring in association with salt marsh lagoon and heath habitats. It supports a typical flora including</p>	<p>The site is located in Dunmanus Bay in the extreme south-west of Co. Cork. It comprises a mosaic of coastal habitats with substantial areas of salt marsh</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			lichens and is of high quality.	including pools freshwater marsh and heath. Scrub woodland and a small area of wet woodland is also present. An area of unmanaged damp grassland and some areas of improved grassland are included.
002295	Ballinduff Turlough SAC	Delany S. (1997). I-WeBS Report 1995-96. Report of the Second Winter of the Irish Wetland Bird Survey. IWC BirdWatch Ireland Dublin. Duigan C. and Frey D.G. (1987). <i>Eurycerus glacialis</i> in Ireland (Cladocera Chydoridae). Int. Revue. Ges. Hydrobiol. 72: 235-249. Jennings O'Donovan & Partners and Southern Water Global (1997). An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway. Volumes 1 & 2. Unpublished report prepared for the Office of Public Works Dublin. Madden B. and Heery S. (1999). Census of Wintering Wetland Birds in South Galway (Gort-Ardrahan Catchment) Winter (1998/1999). Unpublished report prepared for Duchas the Heritage Service Dublin.	Ballinduff Turlough offers an excellent range of vegetation types characteristic of turloughs with many communities well developed and little grazed. The prominence of <i>Littorella uniflora</i> in several different vegetation types the development of <i>Rhamnus</i> woodland and the unusual swallow hole and aquatic vegetation are the main features. The site supports part of an internationally important population of <i>Cygnus cygnus</i> and also at times <i>Cygnus columbianus bewickii</i> . A rare invertebrate species <i>Eurycercus glacialis</i> (Cladocera Chydoridae) occurs.	The site is situated in the limestone lowlands of South Galway. It occupies a narrow basin with rock outcrops in the northern half and drift to the south. The turlough is late-draining and a linear pool persists into summer in some years and re-floods easily. The site is probably controlled by a complex area of swallow holes and subsidence below the houses at Coolfin (to the west). The ground along the southern edge is very soft with temporary springs. During

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				floods the site drains overland towards Coole Lough to which it is hydrologically connected. There is a transition in nutrient status apparent from NE-SW. For water quality reasons areas of improved grassland are included in the site.
002301	River Finn SAC	<p>Bracken J. J. and O'Grady M. E. (1992). A review of freshwater fisheries research in Ireland. In Feehan J. (ed.) Environment and Development in Ireland pp 499-510. The Environmental Institute UCD Dublin. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Central Fisheries Board (2001). Irish Salmon Catches 2000. <a href="http://www.cfb.ie/">http://www.cfb.ie/</a>; February 2001. Creme G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. Biology and Environment. Proceedings of the Royal Irish Academy 97B: 149-156. Doris Y. McGarrigle M.L. Clabby K.J. Lucey J. Neill M. Flanagan M. Quinn M.B. Sugrue M. and Lehane M. (1999). Water quality in Ireland 1995-1997. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Doris Y. Clabby K.J. Lucey and Lehane M. (2002). Water Quality in Ireland 1998-2000. Statistical Compendium of River Quality Data. Electronic Publication on Disk. Environmental Protection Agency Wexford. Douglas C. Dunnells D. Scally L. and Wyse Jackson M. (1990). A Survey to Locate Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the National Parks and Wildlife Service Dublin. Flanagan P.J. and Toner P. F. (1975). A Preliminary Survey of Irish Lakes. An Foras Forbartha Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Loughs Agency (2000). Mr P. Boylan provided information in a letter to Duchas dated the 4th September 2000. Loughs Agency 2001. Personal correspondence from Danny Loughridge to Marie Dromey Duchas. McGarrigle</p>	This extensive site contains good examples of the Annex 1 habitats lowland oligotrophic lakes blanket bog transition mires and wet heath. Water quality of the lakes is good as is that in most of the rivers and streams (majority classified as unpolluted). The blanket bog which is best developed in the Owendoo/Cloghervaddy area is typical upland bog and is fairly extensive in area. The Finn is an important system for <i>Salmo salar</i> being an excellent grilse river with extensive spawning habitats. The Finn system sustains one of the only stable spring salmon	This site comprises almost the entire freshwater element of the River Finn and its tributaries - the Corlacky the Reelan sub-catchment the Sruhamboy Elatagh Cummirk and Glashagh and also includes Lough Finn where the river rises. Lough Derg and a section of River Derg and the tidal stretch of the Foyle north of Lifford to the border are also part of the site. The underlying geology is Dalradian Schists and Gneiss for the

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. &amp; Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds.). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mooney E. Goodwillie R.N. and Douglas C. (1991). Survey of Mountain Blanket Bogs of Scientific Interest. Unpublished draft to the National Parks &amp; Wildlife Service Dublin. O'Reilly P. (1998). Trout and Salmon Rivers of Ireland: an Anglers Guide. Merlin Unwin Books London. Praeger R.L. (1934) . The Botanist in Ireland. Hodges Figgis &amp; Co Dublin. Reynolds J.D. (1998). Ireland's Freshwaters. The Marine Institute Dublin 1998. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Young R. (1973). A Preliminary Report on Areas of Scientific Interest in County Donegal. An Foras Forbartha Dublin.</p>	<p>populations in the country. The rivers and lakes support important populations of <i>Lutra lutra</i>. The upland habitats support a number of important bird species notably <i>Falco peregrinus</i> and <i>Falco columbarius</i> (Annex I species) and <i>Lagopus lagopus</i> and <i>Turdus torquatus</i> (both Red Data Book species). Lough Derg supports the largest colony of <i>Larus fuscus</i> in Ireland. The section of the River Foyle within the site along with a contiguous stretch in of the river in Northern Ireland supports important populations of waterfowl in autumn and winter with an internationally important population of <i>Cygnus cygnus</i> and nationally important numbers of <i>Anser anser</i> <i>Anas crecca</i> and <i>Phalacrocorax carbo</i>. <i>Salvelinus alpinus</i> occurs in Lough Finn and possibly Lough Derg. A Red Data Book plant species <i>Cephalanthera longifolia</i> is known from the site.</p>	<p>most part though quartzites and Carboniferous Limestones are present in the vicinity of Castlefinn. The hills around Lough Finn are also on quartzite. The mountains of Owendoo and Cloghervaddy are of granite felsite and other intrusive rocks rich in silica. The rivers in the western upland part of the site flow mainly through peat based soils while eastwards of the Ballybofey area the main Finn channel passes though fairly intensive agricultural land. In addition to rivers lakes bog and heath the site includes native broad-leaved and mixed woodland scrub wet grassland and freshwater marsh. Intertidal mudflats and extensive reedbeds occur</p>



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				<p>along the River Foyle. Improved grassland and arable land are included for water quality reasons. The Finn passes through a number of medium sized towns notably Lifford Castlefinn Stranolar and Ballybofey.</p>
002314	Old Domestic Buildings Rylane SAC	<p>O' Mahony C. (1999). Lesser horseshoe bat roost survey South Clare Ireland 1998/99. Internal report to The Vincent Wildlife Trust unpublished. O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp.</p>	<p>This site supports an internationally important summer roost of <i>Rhinolophus hipposideros</i>. The cottage is in good condition and provides stable and undisturbed summer roosting conditions for the bats. It is one of a number of maternity roosts known from within a 5km radius and is located in an area with a large population of lesser horseshoe bats. Foraging areas and winter hibernation sites have not yet been established although it may be linked to a known hibernaculum situated approximately 3km away (Newgrove House).</p>	<p>The site consists of a disused stone cottage situated approximately 5 km north-west of Tulla in Co. Clare. The site is surrounded by agricultural land.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
002318	Knockanira House SAC	O' Mahony C. (1999) Lesser horseshoe bat roost survey South Clare Ireland 1998/99. Internal report to The Vincent Wildlife Trust unpublished. O'Sullivan P. (1994). Bats in Ireland. Irish Naturalists' Journal Special Zoological Supplement 21pp.	This site supports an internationally important summer roost of <i>Rhinolophus hipposideros</i> . Knockanira House is unused undisturbed and in relatively good condition. It is located in an area highly populated with lesser horseshoe bats. It is one of two known maternity roosts within a 5km distance where a combined total of up to 300 bats are counted each summer (approximately 200 in Newhall House and 100 in Knockanira House). However a much larger number of lesser horseshoe bats are counted every winter from three SAC designated hibernacula within a similar 5km radius (up to 576 in Newhall Edenvale and 200 in Pouladatig - 776 in total). Foraging areas for the bats at Knockanira have not yet been established.	The site consists of an old two storey disused farm house situated approximately 10 km to the south-west of Ennis in Co. Clare. The bats roost in the attic. The site is surrounded by agricultural land with tree lines and hedgerows and some small copses of broadleaved woodland.
002333	Knockacoller Bog SAC	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Laois. Unpublished report An Foras Forbartha Dublin. Kelly L. Doak M. and Dromey M.	Although Knockacoller Bog is a relatively small raised bog site it does occur close to the	Knockacoller Bog is a small midland raised bog situated 5 km south-west of

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>(1995). Raised Bog Conservation Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin. O'Connell C. and Mooney E. (1983). Survey to Locate Midland Raised Bogs of Scientific Interest. Unpublished report Forest and Wildlife Service Dublin.</p>	<p>southern limit of raised bog development and thus is important from a biogeographical perspective. Sphagnum growth is good in the central active area and includes the relatively rare species <i>S. imbricatum</i> and <i>S. fuscum</i>. Some pools are present. The part of the high bog that is classified as degraded is rather dry and often has a uniform vegetation dominated by <i>Calluna vulgaris</i> or <i>Narthecium ossifragum</i>. <i>Rhynchosporion</i> vegetation is largely confined to the active central core of the bog but supports the relatively rare <i>Rhynchospora fusca</i>. Knockacoller Bog together with Coolrain Bog which lies 4 km to the west forms an important southerly outpost for raised bog distribution.</p>	<p>Mountrath village Co. Laois. The bog overlies sandy calcareous till which in turn overlies Carboniferous limestone bedrock. Uncut high bog accounts for approximately 40% of the site area with cutover surface dominating the remainder. The uncut bog surface contains a wet central active area which may have arisen due to slumping of the surface. Part of the cutover has been colonised by <i>Betula pubescens</i> scrub and woodland (10-12m high) which adds to habitat diversity. A small part of the cutover has been reclaimed for grassland.</p>
002340	Moneybeg and Clareisland Bogs SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Derwin J and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas The Heritage Service Dublin. Goodwillie R. (1972). A Preliminary Report on Areas of Scientific Interest in County Westmeath. Unpublished report An Foras Forbartha Dublin. Hammond R.F. (1979). The Peatlands of Ireland. An</p>	<p>This site contains good examples of active raised bog degraded raised bog and <i>Rhynchosporion</i> vegetation. The areas of raised bog support a</p>	<p>Moneybeg and Clareisland Bogs are two small raised bogs separated by approximately 400 metres which are</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Foras Talúntais Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>well-developed peatland flora and contain a number of wet pool areas. Of the two areas it appears that Moneybeg Bog contains higher quality raised bog habitat although the margins of Moneybeg have a more extensive surrounding cutover area. Along the northern edge of Clareisland Bog there is a well-preserved and relatively undisturbed transition from raised bog to lakeshore scrub which is a rare feature in Irish raised bogs. These raised bogs occur close to the north-easterly limits of raised bog distribution in the Republic of Ireland and this increases their conservation value.</p>	<p>situated along the southern shores of Lough Sheelin. Most of the site area lies within Co. Westmeath with a small portion lying within Co. Meath. Clareisland Bog is long and narrow in outline while Moneybeg has a more ovoid shape. The areas of uncut high bog are classified mainly as degraded raised bog. The high bog is surrounded by cutover areas. There has been some planting of conifers in the cutover margins in recent decades. Land surrounding the site to the south is dominated by agricultural grassland. The main road which runs between the villages of Finnea and Ross traverses both areas of bog.</p>
002341	Ardagullion Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project.</p>	<p>Although Ardagullion Bog is rather small in terms of raised bog sites the bog</p>	<p>Ardagullion is a small raised bog located 6 km north-</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Unpublished report Dúchas The Heritage Service Dublin. Farrell L. (1972). A Preliminary Report on Areas of Scientific Interest in County Longford. Unpublished report An Foras Forbartha Dublin. Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Re-survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>retains a relatively large and wet central area which is classified as active bog. The structure of the active bog is good having a high cover of Sphagnum including the rather rare <i>S. imbricatum</i> a classic pool/hummock system and a wet flush. The remainder of the high bog is a typical example of degraded raised bog. A substantial area of Rhynchosporion vegetation is present most of which is associated with the wet central active area. A number of other relatively intact raised bogs lie to the south thus forming an interlinked complex of sites.</p>	<p>east of Edgeworthstown Co. Longford. The site comprises a substantial area of uncut high bog though much of this is classified as degraded. The site includes areas of conifer plantation and recently felled plantation - such areas have been included in order to protect the hydrological integrity of uncut high bog areas. Although there are a number of old drains on the high bog surface most of these have infilled with vegetation. Surrounding areas of cutover support areas of <i>Betula pubescens</i> scrub while parts have been converted to pasture grassland of varying quality.</p>
002347	Camderry Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Grogan H. (1986). Survey to Locate Raised Bogs of Scientific Interest in Counties Longford Westmeath and Mayo. Unpublished report Forest and Wildlife Service Dublin. Hammond R.F. (1979). The Peatlands of Ireland. An Foras</p>	<p>Camderry Bog is one of the larger raised bog sites in east Galway (281 ha). Although there is a large area of high bog</p>	<p>Camderry Bog is a relatively large raised bog site which lies 12 km north-east of</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Talúntais Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin. National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.</p>	<p>present most of this is in a relatively dry state at present because of peripheral peat cutting and burning and is classified as degraded. A few small active areas of bog growth occur with the largest in the south-western corner of the site. Rhynchosporion vegetation is present but is not considered to be particularly well represented. Despite the dry nature of the site two of the rarer Sphagnum species <i>S. fuscum</i> and <i>S. imbricatum</i> still occur in some quantity. <i>Lagopus lagopus</i> a Red listed species in Ireland has been recorded.</p>	<p>Mountbellew in east Co. Galway. The bog overlies Carboniferous limestone bedrock which is covered by a clayey/stoney limestone till. The bog has developed in interdrumlin depressions and a small low drumlin runs through a section of the site separating the main lobe from the south lobe. A large proportion of the site (c.70%) comprises uncut high bog. However c.10% of this high bog area is afforested with conifers. Cutover bog some with scrub and wet grassland occur around the margins of the high bog.</p>
002352	Monivea Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin. Douglas C. and Mooney E. (1984). Survey to Locate Raised Bogs of Scientific Interest in Counties Galway (E) and Roscommon. Unpublished report Wildlife Service Dublin. Hammond R.F. (1979). The Peatlands of Ireland. An Foras Talúntais Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Conservation Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report National Parks and Wildlife Dublin. National Parks and Wildlife</p>	<p>This site contains significant to good examples of active raised bog degraded raised bog and Rhynchosporion vegetation and it is one of the most westerly examples of a relatively</p>	<p>Monivea Bog is a medium-sized raised bog site located 1.5 km to the south-east of Monivea village Co. Galway. The site overlies</p>

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		<p>Service (1992-1994). National Areas of Scientific Interest Survey. Unpublished report National Parks and Wildlife Service Dublin.Quinn A.C.M. (1971). A Preliminary Report on Areas of Scientific Interest in Co. Galway. Unpublished report An Foras Forbartha Dublin.</p>	<p>intact raised bog in the Republic of Ireland. Although the area of active raised bog is small the condition of the habitat is good with a high Sphagnum cover that includes the scarce species <i>S. fuscum</i> and <i>S. imbricatum</i>. Pools within the site support populations of <i>Rhynchospora fusca</i> a rather rare species in Ireland. The occurrence of a small lake and associated flush is a relatively rare feature in Irish raised bogs and the presence of these habitats adds to the interest of the site.</p>	<p>Carboniferous limestone bedrock and the Killaclogher river runs close to the eastern edge. Approximately 60% of the site area is occupied by uncut high bog with the remainder cutover some of which has been afforested or colonized by scrub. Small areas of the cutover have been converted to semi-improved grassland. A striking feature of the site is the occurrence of a small lake and an associated linear drainage feature which traverses the site in a north-west to south-east direction. This drainage feature effectively divides the high bog into two lobes.</p>
002354	Tullaghanrock Bog SAC	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report to the Minister of State at the Department of Finance. Stationery Office Dublin.Derwin J. and MacGowan F. (2000). Raised Bog Conservation Project. Unpublished report Dúchas The Heritage Service Dublin.Fahy E. and Goodwillie R. (1974). A Preliminary Report on Areas of Scientific Interest in County Roscommon. Unpublished report An Foras Forbartha Dublin.National Parks and Wildlife Service (1992-1994). National Areas of Scientific Interest Re-survey. Unpublished report</p>	<p>This site while relatively small in size is an important raised bog complex and is of particular note as it occurs at the north-western limit of raised</p>	<p>Tullaghanrock bog is a small raised bog situated 2 km north-east of Ballaghadereen village Co. Roscommon. The</p>

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		National Parks and Wildlife Service Dublin.	bog distribution in the Republic of Ireland. The site displays good examples of active raised bog degraded raised bog and Rhynchosporion vegetation. There has been relatively low levels of disturbance in the past and thus the bog is one of the best preserved in the country at present. Of particular note are the near-natural vegetation transitions from bog to river along the eastern margins of the site.	site lies between a disused railway line and the Lung river and as a result of the difficult access the site is relatively undisturbed and intact. Most of the site comprises uncut high bog which is surrounded by a narrow fringe of cutover bog. Part of the cutover has been converted to pasture grassland of varying quality. Small areas of coniferous forestry occur both within and along the margins of the site.
004017	Mongan Bog SPA	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report for the Minister of State at the Department of Finance. Stationery Office Dublin. Fox A.D. Norriss D.W. Stroud D.A. & Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks & Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report to the National Parks & Wildlife Service Dublin. Madden B. (1987). The Birds of Mongan Bog. Irish Birds 3: 441-448. Tubridy M. (ed.) (1984). Creation and Management of a Heritage Zone at Clonmacnoise Co. Offaly Ireland. Final report EEC Contract No. 6611/12. Environmental Sciences Unit Trinity College Dublin. Tubridy M. (ed.) (1986). The Heritage of Clonmacnoise. Environmental Sciences Unit Trinity	Site is an important example of a relatively intact midland raised bog. Has been used as a feeding and roost site by part of the River Suck population of Anser flavirostris albifrons. Appears to be seldom used nowadays which probably reflects a trend in recent years away from usage of raised bog sites. Supports breeding Gallinago gallinago and probably Numenius	Mongan Bog is a relatively intact raised bog situated close to Clonmacnoise and the Shannon callows. The surface is noticeably wet with a well developed hummock-hollow topography. The peat layer is underlain by relatively impermeable lake



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		College Dublin.	arquata. An important site for invertebrates with several rare species recorded. Mongan is one of the most studied raised bog sites in the country.	clays bog which overlies permeable sands and gravels mainly derived from limestone. The underlying geology is low permeability fossiliferous limestone. The peat basin is surrounded by esker ridges to the north and south.
004022	Ballycotton Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore D. and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished report to National Parks and Wildlife Service Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Smiddy P. and O'Mahony B. (1997). The status of reed warbler <i>Acrocephalus scirpaceus</i> in Ireland. Irish Birds 6: 23-28.</p>	<p>The site supports an excellent diversity of wintering waterfowl species and has nationally important populations of nine species: <i>Anas crecca</i>, <i>Charadrius hiaticula</i>, <i>Pluvialis apricaria</i>, <i>Pluvialis squatarola</i>, <i>Vanellus vanellus</i>, <i>Limosa limosa</i>, <i>Limosa lapponica</i>, <i>Numenius arquata</i> and <i>Arenaria interpres</i>. Formerly it was of importance for <i>Cygnus columbianus bewickii</i> but the birds have abandoned the site since the reversion of the lagoonal habitat to estuarine conditions. Ballycotton Bay is also important for wintering gulls especially <i>Larus</i></p>	<p>Situated on the south coast Ballycotton Bay is an east-facing coastal complex which stretches northwards from Ballycotton towards Garryvoe a distance of c. 3 kilometres. The site is characterised by two sheltered inlets which receive the flows of several small rivers. The southern inlet had been lagoonal in character (Ballycotton Lake) but breaching of the shingle barrier in recent times has seen the area revert back to estuarine</p>

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			<p>fuscus in autumn and early-winter. Larus fuscus and Larus canus occur in numbers of national importance. Passage waders such as Philomachus pugnax and Calidris minuta are regular especially in autumn. The site provides both feeding and roosting areas for the waterfowl species. Acrocephalus scirpaceus breeds at the site which is near the western edge of the range of the species in Ireland. Wintering bird populations are well monitored. The Red Data Book plant Crambe maritima occurs.</p>	<p>conditions. The principal habitat is intertidal sandflats which are mostly well exposed. Sandy beaches are well represented. Salt marshes fringe the flats in the sheltered inlets and these provide high tides roosts. Fringes of Phragmites australis occur where there are freshwater influences. The site includes some marginal grassland fields which are used by a range of waterfowl species. A small area of shallow marine water is also included.</p>
004023	Ballymacoda Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Goodwillie R. (1986). Areas of scientific interest in Co. Cork. Report prepared for Cork County Council. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M.</p>	<p>Ballymacoda Bay is the second most important site for wintering waterfowl on the south coast after Cork Harbour. The site has internationally important numbers of Limosa limosa and Larus fuscus and is the most important site in the country for Larus fuscus</p>	<p>The site comprises of the estuary of the Womanagh River a substantial river which drains a large agricultural catchment. The inner part of the site is well sheltered by a stabilised sandy peninsula (Ring</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Nairn R.G.W. (1986). <i>Spartina anglica</i> in Ireland and its potential impact on wildfowl and waders - a review. Irish Birds 3: 215-228. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Smiddy P. (1992). The waterfowl of Ballymacoda Co Cork. Irish Birds 4: 525-548. Smiddy P. (1998). The distribution of wetland birds at Ballymacoda Co Cork: a preliminary report 1971-88. Unpublished. NPW Dublin.</p>	<p>during autumn. Nationally important numbers of a further 16 species are found in the site. Of particular note is that it holds 9.6% of the national total for <i>Pluvialis apricaria</i> 9.2% of the total for <i>Pluvialis squatarola</i> 4.3% for <i>Limosa lapponica</i> and 3.2% for <i>Calidris alpina</i>. Ballymacoda Bay is a regular site for passage waders such as <i>Philomachus pugnax</i> <i>Calidris ferruginea</i> and <i>Numenius phaeopus</i>. It is also an important site for wintering gulls especially <i>Larus canus</i>. The site provides both feeding and roosting areas for the waterfowl species and habitat quality for most of the estuarine habitats is very good. Wintering bird populations have been well monitored since the 1970s.</p>	<p>peninsula) and includes the tidal section of the river as far as Crompton Bridge. Sediments here are mostly muds or muddy sands and salt marshes are well developed. The outer part of the site is well exposed and sediments here are mostly fine rippled sands. An area of shallow marine water is included. Usage of the site is low with low-level recreation on the sandy beaches.</p>
004028	Blackwater Estuary SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Falvey J.P. Costello M.J. and Dempsey S. (1997) Survey of Intertidal Biotopes in Estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird</p>	<p>The Blackwater Estuary is of high ornithological importance for wintering waterfowl providing good quality feeding areas for a diversity of waterfowl species. At</p>	<p>The Blackwater Estuary SPA is a relatively small sheltered south-facing estuary which extends from below Youghal</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Waterford. McGrath D. and Walsh P. (1990). Where to Watch Birds in Waterford. Irish Wildbird Conservancy Waterford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Smiddy P. (1996). The waterfowl of the Blackwater Estuary (Youghal Harbour) Cos. Waterford and Cork. Irish Naturalists' Journal 25: 157-165. Smiddy P. and O'Sullivan O. (1998). The status of the Little Egret <i>Egretta garzetta</i> in Ireland. Irish Birds 6: 201-206.</p>	<p>high tide the birds roost along the shoreline and salt marsh fringe. The site supports an internationally important population of <i>Limosa limosa</i> (over 5% of the national total). It supports a further eight species in numbers of national importance: <i>Tadorna tadorna</i> <i>Anas penelope</i> <i>Pluvialis apricaria</i> <i>Vanellus vanellus</i> <i>Calidris alpina</i> <i>Numenius arquata</i> <i>Tringa totanus</i> and <i>Tringa nebularia</i>. A population of <i>Limosa lapponica</i> exceeds the threshold for national importance in some winters. <i>Egretta garzetta</i> breeds locally and the Blackwater Estuary is a main feeding area. The site is important for gulls and attracts substantial numbers of <i>Larus fuscus</i> in autumn and winter. The Blackwater Estuary has been well-studied with waterfowl counts extending back to 1974.</p>	<p>Bridge to the Ferry Point peninsula close to where the river enters the sea. It comprises a section of the main channel of the River Blackwater. At low tide intertidal flats are exposed. On the eastern side the intertidal channel extending as far as Kinsalebeg and Moord Cross Roads is included while on the west side the site includes much of the estuary of the Tourig River. The intertidal sediments are mostly muds or sandy muds reflecting the sheltered conditions of the estuary. The sediments have a macrofauna typical of muddy sands with polychaete worms and bivalves well-represented. Salt marshes occur along the sheltered inlets. A low-lying field which provides an important roost</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				is included.
004030	Cork Harbour SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. and O'Halloran J. (1984). The waterfowl of Cork Harbour. Irish Birds 2: 445-456. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. O'Donoghue P.D. and O'Halloran J. (1994). The behaviour of a wintering flock of whooper swans <i>Cygnus cygnus</i> at Rostellan Lake Cork. Biology and Environment Proceedings of the Royal Irish Academy 94B: 109-118. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Smiddy P. O'Halloran J. Coveney J.A. Leonard P.G. and Shorten M. (1995). Winter waterfowl populations of Cork Harbour: an update. Irish Birds 5: 285-294. Wilson J. O'Mahony B. and Smiddy P. (2000). Common Terns <i>Sterna hirundo</i> breeding in Cork Harbour. Irish Birds 6: 597-599.</p>	<p>Cork Harbour is an internationally important wetland site regularly supporting in excess of 20000 wintering waterfowl for which it is amongst the top five sites in the country. It supports an internationally important population of <i>Tringa totanus</i>. A further 15 species have populations of national importance with particularly notable numbers of <i>Tadorna tadorna</i> (9.6% of national total) <i>Anas clypeata</i> (4.5% of total) <i>Anas acuta</i> (4.2% of total) and <i>Phalacrocorax carbo</i> (4.1% of total) occurring. It has regionally important populations of <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i>. Passage waders are regular including <i>Philomachus pugnax</i> and <i>Tringa erythropus</i>. It is an important site for gulls in winter and autumn especially <i>Larus canus</i> and <i>Larus fuscus</i>. The site provides both feeding and roosting areas for the waterfowl species.</p>	<p>Cork Harbour is a large sheltered bay system with several river estuaries - principally those of the Rivers Lee Douglas Owenboy and Owenacurra. The site comprises the main intertidal areas of Cork Harbour including all of the North Channel the Douglas Estuary inner Lough Mahon Monkstown Creek Lough Beg the Owenboy Estuary Whitegate Bay and the Rostellan inlet. Owing to the sheltered conditions the intertidal flats are often muddy in character. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Otherwise birds roost on stony shorelines and in some areas fields adjacent to the</p>

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			<p>The quality of most of the estuarine habitats is good. The wintering birds have been well-monitored since the 1970s. The site has a breeding colony of <i>Sterna hirundo</i> which is of national importance. The colony is monitored annually and the chicks ringed.</p>	<p>shore. Some shallow bay water is included in the site. Cork Harbour is adjacent to a major urban centre and a major industrial centre.</p>
004034	Trawbreaga Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. <i>Biology and Environment Proceedings of the Royal Irish Academy</i> 98B: 87-104. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson CD. (1979). <i>Ireland's Wetlands and their Birds</i>. Irish Wildbird Conservancy Dublin. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). <i>Important bird areas in the Republic of Ireland</i>. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Walsh A. (1994). <i>Barnacle Geese in Ireland spring 1993 and 1994</i>. <i>Irish Birds</i> 5: 151-156. Merne O.J. and Walsh A. (2002). <i>Barnacle Geese in Ireland spring 1999</i>. <i>Irish Birds</i> 7: 53-56. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i>. IWC Dublin.</p>	<p>The site is notable as the most northerly wetland in Ireland. The area is frequented by a wintering flock of <i>Branta leucopsis</i> which uses the site but also nearby grassland areas for feeding. Numbers regularly exceed the threshold for national importance. It supports an internationally important population of <i>Branta bernicla hrota</i> and a good diversity of other waterfowl species including <i>Cygnus cygnus</i> and <i>Limosa lapponica</i> though all in relatively low numbers. It is a regular site for <i>Larus</i> gulls in winter. Good quality intertidal habitat with both feeding and roosting areas is present.</p>	<p>Situated on the extreme north Donegal coast close to Malin Head Trawbreaga Bay is a very sheltered sea bay with a narrow strait to the open sea at the north-west end. There is a sandy peninsula Dooagh Isle to its west. It is fed by a number of small rivers or streams (Ballyboe River Donagh River Glennagannon River and others). An estimated 80% of the bay area is exposed at each low tide. Sediments are a mix of mud and sand flats with some stony/rocky</p>

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			<p>Trawbreaga Bay is a designated Wildfowl Sanctuary.</p>	<p>substrates. Mats of green algae occur on the open flats and Fucus spp. on the stones. In places the intertidal flats merge with salt marshes. Surrounding landuse is mostly low intensity agriculture.</p>
004043	Lough Derravaragh SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>Lough Derravaragh is one of the most important midland lakes for wintering waterfowl. It supports nationally important populations of Tachybaptus ruficollis Cygnus olor Aythya ferina Aythya fuligula and Fulica atra. The Aythya ferina population is of particular note as it represents over 6% of the national total. At times the lake is utilised by the internationally important midland lakes population of Anser albifrons flavirostris. A regionally important population of Cygnus cygnus occurs along with a range of other species such as Podiceps cristatus Anas penelope and Bucephala clangula.</p>	<p>Lough Derravaragh is a medium- to large-sized lake of relatively shallow water (maximum depth 23 m). It extends along a SE-NW axis for approximately 8 km. The Inny River a tributary of the River Shannon is the main inflowing and outflowing river. It is a typical limestone lake with water of high hardness and alkaline pH. It is classified as a mesotrophic system. A notable feature is the range of charophytes that occur in the lake (8 species recorded). A</p>

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				range of marginal habitats have been created as a result of drainage of the River Inny. At the western end of the lake are extensive areas of swamp dominated by Phragmites australis. Elsewhere along the shore there is freshwater marsh vegetation dominated by Carex spp. Deciduous woodland fringes the lake at some areas.
004046	Lough Iron SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	Lough Iron is one of the most important Midland lakes for wintering waterfowl. It supports an internationally important population of Anser albifrons flavirostris and is the main feeding site for this flock which uses a suite of Midland lakes. It also has nationally important populations of Cygnus cygnus, Anas penelope, Anas crecca, Anas clypeata and Pluvialis apricaria and regionally important numbers of a range of other species including	Lough Iron is a small- to moderately-sized Midland lake. It is situated on the Inny River which flows from Lough Derravaragh approximately 5 km to the north-east. Lough Owel occurs a few kilometres to the south-east and is hydrologically connected to Lough Iron by a stream. The underlying geology is limestone and the



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			<p>Anas acuta Aythya ferina Aythya fuligula and Fulica atra. The site is of particular value as it provides both feeding and roost sites for the various species.</p>	<p>lake is mesotrophic in character. Drainage of the River Inny in the 1960s has led to a dramatic drop in the level of the lake and this in turn has led to the development of freshwater marsh and wet grassland on what was previously lake bed. The dominant wetland plant species along the margins of the lake are Phragmites australis and Phalaris arundinacea. Molinia caerulea forms large expanses of wet grassland above the lake shore. There are also patches of calcareous fen and some wet woodland dominated by Betula pubescens. The lake is surrounded by agricultural land much of which is managed intensively - the</p>

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				grassland fields which are used by geese and swans for feeding purposes are included in the site. These are also used by duck species such as Anas penelope and waders. Some conifer plantations along the western shore of the lake are included in the site to provide screening for feeding birds.
004061	Lough Kinale and Derragh Lough SPA	Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Wetlands International (2002). Waterfowl Population Estimates. 3rd edn. Wetlands International Wageningen.	Despite very variable water quality in recent decades Lough Kinale and Derragh Lough remain an important site for wintering waterfowl especially diving duck. The site supports nationally important populations of two species: Aythya ferina and Aythya fuligula. A large population of Cygnus olor occurs. Fulica atra whilst still occurring in substantial numbers formerly had a population of national importance. A range of other species are found	Lough Kinale is a relatively small lake that is situated immediately downstream of Lough Sheelin and is at the top of the catchment of the Inny River a main tributary of the River Shannon. Derragh Lough a much smaller system is connected to Lough Kinale and the Inny River outlet. This is a typical limestone system and is very shallow (maximum

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			<p>in relatively low numbers including Podiceps cristatus and Anas platyrhynchos. Birds commute between this site and the nearby and much larger Lough Sheelin.</p>	<p>depth of Kinale is c. 4 m). The trophic status of the lake has varied greatly since the 1970s due to pollution from mainly agricultural sources. It was recently (1998-2000) classified as a highly eutrophic system. Lough Kinale has two main basins almost separated by swamp formations. Reed swamp is frequent around the lakes with a calcium-rich small sedge marsh present along parts of the shore. The lake was formerly an important trout fishery. Areas of bog occur around the margins of the lakes in places but some of these have been planted with conifers.</p>
004062	Lough Mask SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Creme G.A. Walsh P.M. O'Callaghan M. and Kelly T.C. (1997). The changing status of the lesser black-backed gull <i>Larus fuscus</i> in Ireland. Biology and Environment Proceedings of the Royal Irish Academy 97B: 149-156. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted</p>	<p>Lough Mask is one of the most important sites in the country for nesting <i>Larus ridibundus</i> <i>Larus canus</i> and <i>Larus fuscus</i> accounting for 8.4% 1.7%</p>	<p>Lough Mask at over 8000 ha is the sixth largest lake in the country. It extends for over 14 km along its long axis</p>

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		<p>Goose Study Wales and National Parks and Wildlife Service Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Igoe F. O'Grady M.F. Byrne C. Tierney D. and Fitzmaurice P. (2003). Arctic char Salvelinus alpinus (L) in Ireland - a millennium review of its distribution and status with conservation recommendations. Biology and Environment Proceedings of the Royal Irish Academy 103B: 9-22. Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehané M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. McGarrigle M.L. and Champ W.S.T. (1999). Keeping pristine lakes clean: Loughs Conn and Mask western Ireland. Hydrobiologia 395/396: 455-469. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Poyser London. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1978). A survey of gulls breeding inland in the west of Ireland in 1977 and 1978 and a review of the inland breeding habit in Ireland and Britain. Irish Birds 1: 134-160. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin. Whilde A. Cotton D.C.F. and Sheppard J.R. (1993). A repeat survey of gulls breeding inland in Counties Donegal Sligo Mayo and Galway with recent counts from Leitrim and Fermanagh. Irish Birds 5: 67-72.</p>	<p>and 10% of the respective national totals. It also supports a nationally important colony of Sterna hirundo. In winter the site has a range of waterfowl especially diving duck with the Aythya fuligula population being of national importance. It also supports Cygnus cygnus and is visited at times by part of the Erriff / Derrycraff population of Anser albifrons flavirostris. The lake has a population of Salvelinus alpinus a Red Data book species and is an important site for Lutra lutra. Lough Mask is an important salmonid fishery.</p>	<p>and is on average about 5 km in width. The underlying geology is of Carboniferous limestones with some shales and sandstones. The main inflowing rivers are the Cloon Robe and the stream from Lough Carra to the north-east. The main outflow is to Lough Corrib to the south. The lake is shallow off the eastern shore but considerably deeper off the western where there is a long narrow trench with a maximum depth of 58 m. The water of the lake is moderately hard. During the 1990s the trophic status of Lough Mask has changed from oligotrophic to mesotrophic due to a steady increase in phytoplankton growth. The eastern part of the lake is edged by a low-</p>

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				<p>lying shoreline which is subject to winter flooding. An intricate mixture of plant communities has developed on the limestone with bare pavement scrub-dominated pavement dry grassland and heath. The western shoreline is less diverse and lacks the limestone communities. Islands are a feature of the lake especially in the south-east sector.</p>
004069	Lambay Island SPA	<p>Baring C. (1907). Historical notes. In: Contributions to the Natural History of Lambay County Dublin. Irish Naturalist 6: 17-19.Cooney G. (1993). Lambay: an island on the horizon. Archaeology Ireland 7: 24-28.Cramp S. Bourne W.R.P. and Saunders D. (1974). The Seabirds of Britain and Ireland. Collins London.Doogue D. Nash D. Parnell J. Reynolds S. and Wyse Jackson P. (1998). Flora of County Dublin. Dublin Naturalists' Field Club Dublin. Fisher J. (1952). The Fulmar. Collins London.Hart H.C. (1983). The Birds of Lambay Island Co. Dublin. The Zoologist 155-164 225-226.Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: Birdlife International (Birdlife Conservation Series No. 8).Hutchinson C.D. (1975). The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin.Keys J.M. (1970). Seabird colonies in Dublin and north-Wicklow in 1969. Dublin and North Wicklow Bird Report 1969: 37.Keys J.M. (1971). Operation Seafarer 1970. Dublin and North Wicklow Bird Report 1970: 23-24.Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report. Poyser London.Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London.Macdonald R.A. (1987). The breeding population and distribution of the Cormorant in Ireland. Irish Birds 3: 405-416.Macdonald R.A.</p>	<p>Lambay is one of the most important seabird colonies in Ireland with 12 species breeding regularly. It supports internationally important populations of Phalacrocorax carbo Phalacrocorax aristotelis Uria aalge and Alca torda and nationally important populations of Fulmarus glacialis Larus argentatus Larus fuscus Larus marinus and Rissa tridactyla. Cliff habitat for nesting seabirds is very extensive and of</p>	<p>Lambay Island lies approximately 4 km off the north Dublin coastline and is separated by a channel of 10-13 m in depth. East of Lambay the water deepens rapidly into the Irish Sea basin. The island has an area of 250 ha above high tide mark. The island is the remains of a volcanic island. Most rocks are divisible into two</p>

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		<p>and Goodwillie R. (1984). Gull Management in the Dublin Area. Unpublished report for Dublin County Council. An Foras Forbartha Dublin. Madden B. and Merne O.J. (1995). A Survey of Breeding Birds on Lambay Island May 1995. Unpublished report National Parks and Wildlife Service Dublin. Madden B. Merne O.J. and Newton S. (1988). East coast Black Guillemot survey 1998. Irish East Coast Bird Report 1999: 82-86. Madden B. Merne O.J. and Newton S. (1999). A Survey of Breeding Birds on Lambay June 1999. Unpublished report National Parks and Wildlife / BirdWatch Ireland Dublin. Madden B. and Newton S. (2002). Lambay Ornithological Survey. Report No. 18. June 2002. Unpublished BirdWatch Ireland Report Dublin. Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002. Merne O.J. (1988). Recent changes in breeding seabird populations in Counties Dublin and Wicklow. Irish East Coast Bird Report 1987: 69-77. Merne O.J. and Madden B. (1999). Breeding seabirds of Lambay Co. Dublin. Irish Birds 6: 345-358. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (In prep.). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Newton S.F. (2002). Manx Shearwaters Puffinus puffinus proved breeding on Lambay County Dublin. Irish Birds 7: 140-141. Palmer J.E. (1892). Some of the birds of Lambay Island. Irish Naturalist 1: 114-117. Patterson R. (1907). The Birds. In: Contributions to the Natural History of Lambay County Dublin. Irish Naturalist 6: 23-30. Praeger R.L. (1907). Phanerogams and vascular plants. In: Contributions to the Natural History of Lambay County Dublin. Irish Naturalist 6: 90-98. Praeger R.L. (1934). The Botanist in Ireland. Hodges Figgis and Co. Dublin. Praeger R.L. (1937). The Way That I Went. Hodges Figgis and Co. Dublin. Rochford J.M. (1975) The Seabird Colonies. Pp. 30-31 In: Hutchinson C.D. (ed.) The Birds of Dublin and Wicklow. Irish Wildbird Conservancy Dublin. Seymour H.J. (1907). Geology. In: Contributions to the Natural History of Lambay County Dublin. Irish Naturalist 6: 3-13. Summers C.F. (1983). The Grey Seal Halichoerus grypus in Ireland. A report to the Minister for Fisheries Forestry and Wildlife. Unpublished. Thompson W. (1851). The Natural History of Ireland. Vol. 3. Reeve and Benham London. Ussher R.J. and Warren R. (1900). Birds of Ireland. Gurney and Jackson London. Walsh P.H. (1988). Black Rats Rattus rattus (L.) as prey to Short-eared Owls Asio flammeus (Pontopidan) on Lambay Island Co. Dublin. Irish Naturalists' Journal 22: 536-537. Watters J.J. (1853). The Natural History of the Birds of Ireland. Dublin. West B Cabot D. and Greer-Walker M. (1975). The food of the Cormorant (Phalacrocorax carbo) at some breeding colonies in Ireland. Proceedings of the Royal Irish Academy 75B: 285-304.</p>	<p>high quality. Other notable breeding birds are Haematopus ostralegus (largest concentration in the region) Tadorna tadorna and Falco peregrinus. The island supports a nationally important wintering flock of Anser anser and a range of other wintering waterfowl though in relatively low numbers. Lambay is an important breeding site for Halichoerus grypus. The island was the subject of an intensive natural history study in 1905/06. Breeding and wintering birds are now well-monitored.</p>	<p>groups - those formed by igneous activity and those of sedimentary origin. Soils are generally shallow and are derived from glacial tills of Irish Sea origin. The shallow soils are peaty on high exposed ground and above the cliffs. The island is well raised above sea-level with about two-thirds above the 50 m contour. On the western side of the island the land rises gently from a bedrock shoreline. Cobble storm beaches are associated with this shore and at low tide sandflats are exposed within the harbour and below a section of the rocky shore. The northern eastern and most of the southern shorelines consist of steep cliffs varying from about 15 m to 50 m in height. These are backed by</p>

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				<p>vegetated slopes along most of their length. Several small streams occur. The predominant landuse on the island nowadays is grazing for cattle. Most of the central and eastern part of the island was improved for grazing in the 1950s and is now semi-improved pasture interspersed with outcropping rock Bramble (<i>Rubus</i> sp.) and occasional Bracken (<i>Pteridium aquilinum</i>) and scrub. The low-lying western third is more fertile and is used for grazing and silage or hay production. The habitations which comprise a castle cottages and farm complex occur in the western sector. A herd of <i>Dama dama</i> roams the island.</p>
004072	Stags of Broad Haven SPA	Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for	The site is a nationally important seabird	The site comprises a group of four

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1989). Birds in Ireland. Poyser London. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Ruttledge R.F. (1966). Ireland's Birds. Witherby London. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. 2nd edition. Irish Wildbird Conservancy Dublin. Waring M. and Davis S. (1983). Rediscovery of Leach's Petrels breeding in Ireland. Irish Birds 2: 360-363.</p>	<p>colony. It is the only site in Ireland where breeding by Oceanodroma leucorhoa has been proved in recent times and here the species occurs at the southern margin of its European range. It has probably been breeding here since at least the 1940s. The site also supports nationally important populations of Hydrobates pelagicus and Fratercula arctica and regionally important numbers of Fulmarus glacialis and Rissa tridactyla. The quality of the habitats used by the birds is excellent and due to its inaccessibility the site is undisturbed.</p>	<p>steep rocky pinnacles located c.2 km north of Benwee Head. Less steep areas are covered with a maritime grassy sward. The surrounding seas to a distance of 500 m are included in the site. There are no human landuses.</p>
004074	Illanmaster SPA	<p>Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1989). Birds in Ireland. Poyser London. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Merne O.J. and Walsh A. (2003). Barnacle Geese Branta leucopsis in Ireland spring 2003. Irish Birds 7: 173-176. Mitchell C. Walsh A. Hall C. and Crowe O. (2008). Greenland Barnacle Geese Branta leucopsis in Britain and Ireland: Results of the International Census Spring 2008. WWF NPWS and BirdWatch Ireland Report.</p>	<p>The site supports an internationally important population of Hydrobates pelagicus which is one of the largest in the region. It also supports a nationally important population of Fratercula arctica and small numbers of a range of other seabirds such as Fulmarus glacialis Larus marinus and Cepphus grylle. There is a</p>	<p>The site is a steep rocky island situated just off the north Mayo coast. It is topped with a maritime grassy sward. The surrounding seas to a distance of 500 m are included in the site. The southern part of the site adjoins the mainland shoreline.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Ruttledge R.F. (1966). Ireland's Birds. Witherby London. Ruttledge R.F. (1994). Birds in Counties Galway and Mayo. (2nd edition). Irish Wildbird Conservancy Dublin.</p>	<p>possibility that Puffinus puffinus could breed. The site is visited on occasions during winter by small numbers of Branta leucopsis. The quality of the habitats is excellent with no disturbance due to inaccessibility.</p>	<p>No human landuses.</p>
004075	Lough Swilly SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.A. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994) Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2006/07. BirdWatch Ireland Dublin. McElwaine J.G. Wells J.H. and Bowler J.M. (1995). Winter movements of Whooper Swans visiting Ireland: preliminary results. Irish Birds 5: 265-278. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Robinson J.A. Colhoun K. Gudmundsson G.A. Boertmann D. Merne O.J. O'Briain M. Portig A.A. Mackie K. and Boyd H. (2004). Light-bellied Brent Goose Branta bernicla hrota (East Canadian High Arctic Population) in Canada Ireland Iceland France Greenland Scotland Wales England</p>	<p>Lough Swilly is a fine example of a large natural sea inlet which is estuarine in character. The site supports an excellent diversity of wintering waterfowl for which it is the most important site in the north-west. It is of international importance because total numbers easily exceed 20000 birds but it also has internationally important populations of Cygnus cygnus Anser anser and Anser albifrons flavirostris. The Anser anser population represents over 27% of the All-Ireland total whilst the flock of Anser albifrons flavirostris is the largest in the country outside of the Wexford Slob. In addition there are at least 18 species</p>	<p>Lough Swilly is a long sea inlet cut through a variety of metamorphic rocks situated on the west side of the Inishowen Peninsula in north Co. Donegal. The SPA comprises the inner part of Lough Swilly from just east of Letterkenny northwards to Killygarvan (c. 2 km north of Rathmullan) on the west side and to c. 2 km south of Buncrana on the east side; it includes the adjacent Inch Lough. Also forming part of the site is a series of improved pasture and arable fields on the south side of Lough Swilly</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>the Channel Islands and Spain 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge. Robinson J.A Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swan <i>Cygnus cygnus</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Sheppard R. (2002). The wintering waterbirds of Lough Swilly County Donegal. Irish Birds 7: 65-78.</p>	<p>which occur in numbers of national importance. Of particular note are the populations of <i>Tadorna tadorna</i> (5.3% of the All - Ireland total) <i>Calidris alpina</i> (6.1% of total) and <i>Tringa totanus</i> (4.8% of total). The site also supports regionally important numbers of <i>Pluvialis apricaria</i> and <i>Limosa lapponica</i>. The wintering birds of Lough Swilly have been well-monitored since the early 1980s.</p>	<p>between Farsetmore and Inch Levels - these are of importance to geese and swans. It includes sections of the estuaries of the River Swilly the River Leannan and the Isle Burn and the predominant habitat is a series of extensive sand and mud flats which are exposed at low tide.</p>
004080	Boyne Estuary SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and Environment Proceedings of the Royal Irish Academy 98B: 87-104. Hannon C. Berron S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Kirk McClure Morton (1997). Drogheda Port Development Capital Dredging Scheme Environmental Impact Statement. Main Report. Commissioned by Drogheda Company Drogheda. Lenehan L.J. (1991). The birds of the Meath and south Louth coast. Irish East Coast Bird Report 1990: 50-59. McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy</p>	<p>The Boyne Estuary is one of the most important sites for wintering waterfowl on the east coast. It has a total of 10 species with populations of national importance - of particular note is that it supports 7.0% of the national total of <i>Calidris canutus</i> and 4.0% of the total for <i>Pluvialis apricaria</i>. Other species which have populations of national importance include <i>Tadorna tadorna</i> <i>Haematopus ostralegus</i> <i>Vanellus vanellus</i> <i>Limosa limosa</i> <i>Tringa totanus</i> and <i>Arenaria interpres</i>. The site provides both</p>	<p>This moderately-sized coastal site which is situated below the town of Drogheda comprises most of the estuary of the Boyne River a substantial river which drains a large catchment. Apart from one section which is over 1 km wide the width is mostly less than 500 m. The main river channel which is navigable and dredged is defined by training walls the latter being</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Dublin.	feeding and roosting areas for the birds. <i>Sterna albifrons</i> bred in the past but successful breeding has not occurred since 1996.	breached in places. Intertidal flats occur on the sides of the channelled river. The sediments vary from fine muds in the innermost areas to sandy muds or sands towards the mouth. The linear stretches of intertidal flats to the north and south of the river mouth are mainly sands. Intertidal areas are fringed by salt marshes in the inner sheltered areas. <i>Spartina</i> is frequent on the flats and salt marshes.
004083	Inishbofin Inishdoeey and Inishbeg SPA	Alcorn S. Donaghy A. and Moloney D. (2009). Corncrake Fieldwork in North and West Donegal 2009. Unpublished Report by Birdwatch Ireland for National Parks and Wildlife Service. Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. <i>Irish Birds</i> 6: 159-176. Copeland A. (2002). Delivering Corncrake <i>Crex crex</i> conservation in Ireland: Past present and future. <i>Irish Birds</i> 7: 33-42. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. <i>Irish Birds</i> 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones	Inishbofin is of particular conservation importance as it supports a nationally important population of <i>Crex crex</i> which has increased in recent years and now represents over 10% of the national total. The increase in this population since the early 1990s is considered to be due to active management for the species. It is also a traditional breeding site	The site consists of three small- to medium-sized islands located between 1 km and 4 km from the Doeey peninsula on the north Donegal coast. The islands are composed mainly of quartzite and granite though part of Inishbofin is underlain by metamorphic

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Merne O.J. and Walsh A. (2003). Barnacle Geese in Ireland spring 2003. Irish Birds 7: 173-176. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Poole A. (2002). Corncrake Fieldwork in North Donegal 1998. Unpublished report. BirdWatch Ireland Dublin. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>for terns and currently has a nationally important colony of <i>Sterna paradisaea</i> (one of the largest in the region) and formerly supported colonies of <i>Sterna hirundo</i> and <i>Sterna albifrons</i>. The site is used regularly in winter by a population of <i>Branta leucopsis</i> that is of national importance. The geese also commute to other sites in the region. Habitat quality throughout the site is generally good.</p>	<p>sediments. A variety of habitats occur mainly unimproved dry grassland but also shingle cliffs marsh and streams. In former times arable farming was carried out in strip fields on Inishbofin but these have now reverted to grassland. Inishbofin is inhabited in the summer months. The sea between and around the islands is included within the site.</p>
004091	Stabannan-Braganstown SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Lenehan L. (1992). Wintering waterfowl at Stabannan-Braganstown Co. Louth. Irish East Coast Bird Report 1991: 77-81. Merne O.J. (1986). Greylag Geese in Ireland. Irish Birds 3: 207-214. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Merne O.J. and Murphy C.W. (1986). Whooper Swans. Irish Birds 3: 199-206. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>The site supports an internationally important wintering population of <i>Anser anser</i> with approximately 35% of the national total. It also has a regular population of <i>Anser albifrons flavirostris</i> though numbers are relatively low. It formerly supported an internationally important population of <i>Cygnus cygnus</i> though numbers have declined in recent years and the flock is now only of regional</p>	<p>This site situated approximately 4 km from Dundalk Bay is a small very flat alluvial plain adjacent to the River Glyde. It is bounded to the north and south by low rolling hills. Much of the site was formerly supported an marshland or wet grassland but is now drained and agriculturally improved. It is farmed intensively</p>

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			<p>importance. Numbers of <i>Cygnus columbianus bewickii</i> have dwindled to only a few each winter reflecting a decline throughout Ireland. The site is utilised for feeding and at night most of the geese and swans roost in Dundalk Bay. Other species typical of agricultural land also occur notably <i>Pluvialis apricaria</i> and <i>Vanellus vanellus</i>.</p>	<p>for grass cereals and root crops.</p>
004097	River Suck Callows SPA	<p>Casey C. (1998). Distribution and conservation of Corncrake in Ireland 1993-1998. <i>Irish Birds</i> 6: 159-176. Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Heery S. (1993). The Shannon Floodlands - a Natural History of the River Shannon Callows. Tir Eolas Kinvara. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Ruttledge R.F. and Ogilvie M.A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. <i>Irish Birds</i> 1: 293-363. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p>The River Suck Callows is an important site for wintering waterfowl with an internationally important population of <i>Anser albifrons flavirostris</i> centred within the site. This is one of the largest flocks in the country outside of the Wexford Slobs. Despite poor survey data for recent years it is known that at least three species have populations of national importance: <i>Cygnus cygnus</i>, <i>Anas penelope</i> and <i>Vanellus vanellus</i>. <i>Cygnus columbarius bewickii</i> formerly occurred in significant numbers but has abandoned the site</p>	<p>The River Suck is the largest tributary of the River Shannon. The site follows the river from Castlecoote near Fuerty to its confluence with the River Shannon a distance of approximately 70 km of river course. The main habitat is grassland improved to varying extents that is seasonally flooded. The less improved areas are species-rich. The grassland is used mainly for pasture but some is used for silage or</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>in line with a marked contraction of range at a national level. <i>Crex crex</i> formerly bred but not since the early 1990s. This site provides one of the few remaining examples in the country of a large river system of which parts still flood in a fairly natural way.</p>	<p>occasionally hay-making. The river channel is fringed in places by swamp and marsh vegetation. The site adjoins several raised bogs and cutover bogs and there are turloughs in the vicinity.</p>
004099	Pettigo Plateau Nature Reserve SPA	<p>Cox R.B. Eddleston C.R. and Newton S.F. (2002). Upland Bird Survey Report 2002: Donegal. BirdWatch Ireland Conservation Report No 02/04. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Norriss D.W. Marsh J. McMahon D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 1998-2000. Irish Birds 7: 1-10. Ruttledge R.F. and Ogilvie M. A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363.</p>	<p>The site is an excellent example of blanket bog and supports a range of bird species typical of the habitat. The site was formerly a regular feeding/roost haunt for a flock of <i>Anser albifrons flavirostris</i>. Whilst the recent status of geese in the site and surrounding area is not well known the birds are no longer considered to be regular visitors to the site. The site supports breeding <i>Pluvialis apricaria</i> and is used by foraging <i>Circus cyaneus</i> and <i>Falco columbarius</i> which nest in the nearby forests. It has a good population of <i>Lagopus lagopus</i> a Red Data Book species.</p>	<p>Situated to the west of Lough Derg this site comprises an extensive complex of blanket bog wet heath lakes and pools in an area of low hills and broad basins. The bog is mostly undisturbed and has a range of microtopographical features (e.g. hummocks inter-connecting pools and flushes) and vegetation communities. Lakes which are typical oligotrophic-dystrophic systems include the Dunragh Loughs Lough Barderg and part of Lough Golagh. The site is bounded by</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				extensive conifer plantations to the east and south with further bog to the north and west. The area is underlain by metamorphic gneiss and schist.
004101	Ballykenny-Fisherstown Bog SPA	<p>Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report for the Minister of State at the Department of Finance. Stationery Office Dublin. Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Irish Wetland Birds Survey (I-WeBS) Database 1994/95-2000/01. BirdWatch Ireland Dublin. Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report to the National Parks &amp; Wildlife Service Dublin. Merne O.J. (1989) Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge.</p>	<p>This site has important examples of several habitats listed on Annex I of the EU Directive notably active raised bog degraded raised bog naturally eutrophic lakes and old oak woodlands. The lake and callow grasslands provide good habitat for a range of wintering waterfowl species including regionally important flocks of <i>Cygnus cygnus</i> <i>Anas crecca</i> and <i>Anas penelope</i>. Species such as <i>Phalacrocorax carbo</i> and <i>Aythya fuligula</i> are also represented but in low numbers. The bogs were formerly used by wintering <i>Anser albifrons flavirostris</i> but these appear to have been now abandoned in favour of grassland sites elsewhere. <i>Falco columbarius</i> has been recorded and may breed</p>	<p>Site is situated in the north central midlands overlying Carboniferous limestone. Lough Forbes is a naturally eutrophic lake on the Shannon system and is fed also from the north by the River Rinn. The lake has well developed swamp vegetation and displays natural transition to seasonally flooded grassland marsh and raised bog. The raised bogs known as the Ballykenny-Fisherstown complex are separated by the Camlin River which has further areas of callow grassland. The Castle Forbes estate on the eastern shore of the lake is</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			in the site. Lagopus lagopus occurs on the bogs.	extensively planted with mature semi-natural woodland including some stands of old oak.
004103	All Saints Bog SPA	<p>Cross J.R. (1987). Unusual stands of Birch on bogs. Irish Naturalists' Journal 22: 305-310. Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report for the Minister of State at the Department of Finance. Stationery Office Dublin. Fox A.D. Norriss D.W. Stroud D.A. &amp; Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks &amp; Wildlife Service Dublin. Heery S. (1996). (ed.) Birds in Central Ireland: Mid-Shannon Bird Report 1992-1995. BirdWatch Ireland Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report to the National Parks &amp; Wildlife Service Dublin. O'Connor J.P. and Speight M.C.D. (1987). Macrosiphum albifrons Dictenidia bimaculata Callaspidia defonscolombeii and Xyalaspis petiolata : insects new to Ireland. Irish Naturalists' Journal 22: 199-201 Speight M.C.D. (1990). Hippodamia 13-punctata (Coleoptera : Coccinellidae) and other insects from All Saints Bog Co Offaly Ireland. Bulletin of the Irish Biogeographical Society 13: 200-212.</p>	<p>Site is an important raised bog site with good examples of active raised bog degraded raised bog Rhynchopterian vegetation as well as orchid-rich calcareous grassland. All Saints bog was formerly an important refuge for part of the internationally important population of Anser albifrons flavirostris based on the Little Brosna. The geese would utilise the bog when disturbed from the callows. In recent years however there has been less use of All Saint's following a general trend of less usage of raised bogs and also probably due to disturbance from peat milling activities on the bog adjacent to the site. Falco columbarius has been seen on the bog during the breeding season and probably nests. The site supports several rare invertebrate species and the esker</p>	<p>Site is a raised bog complex with a well-developed area of active bog which is surrounded by degraded raised bog and some cutaway bog. The bog supports an extensive stand of Betula pubescens woodland. The southern side of the site is bounded by an esker ridge which supports a small area of dry calcareous grassland. The geology of the area is dominated by low permeability shales which are overlain by ridges of high permeability gravels. One of these ridges runs east-west under the bog causing it to form two basins. The ridge is coincident with the birch woodland.</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			ridge supports three Red Data plant species.	
004105	Bellanagare Bog SPA	Cross J.R. (1990). The Raised Bogs of Ireland: their Ecology Status and Conservation. Report for the Minister of State at the Department of Finance. Stationery Office Dublin. Fox A.D. Norriss D.W. Stroud D.A. & Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks & Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Kelly L. Doak M. and Dromey M. (1995). Raised Bog Restoration Project: An Investigation into the Conservation and Restoration of Selected Raised Bog Sites in Ireland. Unpublished report to the National Parks & Wildlife Service Dublin.	Bellanagare bog shows good examples of the Annex I habitats active raised bog degraded raised bog and Rhynchosporian vegetation. In the past the bog was used by wintering Anser albifrons flavirostris from the population that is centred on Lough Gara. However the geese now feed mainly on intensively managed grassland and seldom use the bogs in the area. The bog may have been used by nesting Pluvialis apricaria in the past and is occasionally used by wintering birds. There is a good population of Lagopus lagopus at the site. Other typical bog fauna includes Rana temporaria and Lepus timidus hibernicus.	Bellanagare Bog is a large raised bog complex situated 6 km north-north-east of Castlereagh. Due to its western location it shows characters of blanket bog habitat and is classified as an intermediate raised bog. The site which is underlain by muddy carboniferous limestone lies on an upland area at the top of a surface catchment divide. The peat is concentrated on ridges with flushes in between. A number of streams including the Frances River rise on the site.
004108	Eirk Bog SPA	Fox A.D. Norriss D.W. Stroud D.A. & Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks & Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.) Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8).	Eirk Bog is an important example of an intermediate bog. The bog is used as a feeding site by a flock of wintering Anser albifrons flavirostris centered in	Eirk Bog is located within the Owenreagh River valley approximately 1 km north of Moll's Gap. The underlying

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>the Killarney Valley. The size of this flock has declined in recent years (&lt; 20 birds) but it continues to utilise the site in small numbers. Although the population using Eirk is small this is the most southerly location in Ireland utilised by Anser albifrons flavirostris and one of the few places where it continues to use peatland habitats.</p>	<p>geology is Old Red Sandstone. The morphology and vegetation of the bog is intermediate between raised and Atlantic blanket bog. Eirk is part of a larger complex of bogs which are separated by streams containing fen vegetation. There are patches of wet heath and some small areas of woodland.</p>
004110	Lough Nillan Bog SPA	<p>Cox R.B. Eddleston C.R. and Newton S.F. (2002). Upland Bird Survey Report 2002: Donegal. BirdWatch Ireland Conservation Report No 02/04. Douglas C. Dunnells D. Scally L. and Wyse Jackson M. (1990). A Survey to Locate Lowland-Highland Blanket Bogs of Scientific Interest in Counties Donegal Cavan Leitrim and Roscommon. Unpublished report to the Wildlife Service Office of Public Works Dublin. Fox A.D. Norriss D.W. Stroud D.A. and Wilson H.J. (1994). Greenland White-fronted Geese in Ireland and Britain 1982/83 - 1993/94. Greenland White-fronted Goose Study research report no. 8. Greenland White-fronted Goose Study Wales and National Parks and Wildlife Service Dublin. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Mooney E. Goodwillie R. and Douglas C. (1991). Survey of Mountain Blanket Bogs of Scientific Interest. Unpublished report to the Wildlife Service Office of Public Works Dublin. Ruttledge R.F. and Ogilvie M. A. (1979). The past and current status of the Greenland White-fronted Goose in Ireland and Britain. Irish Birds 1: 293-363.</p>	<p>Lough Nillan Bog SPA supports an excellent range of bird species typical of peatland habitats. It has one of the largest known concentrations of breeding <i>Pluvialis apricaria</i> in the country and also a substantial population of <i>Falco columbarius</i>. <i>Lagopus lagopus</i> a Red Data Book species is resident. The site provides one of only two known bogland feeding areas used by the Sheskinmore Lough flock of <i>Anser albifrons flavirostris</i>. However this population has declined</p>	<p>Lough Nillan Bog SPA comprises an extensive complex of blanket bog wet heath lakes rivers and streams. The topography varies from level plains to steep hills. The bog is mostly undisturbed and has a range of micro-topographical features (e.g. hummocks inter-connecting pools and flushes) and vegetation communities. The lakes which are</p>

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			in recent years and is no longer of national importance.	typical oligotrophic-dystrophic systems include the Magrath Loughs Lough Anna Lough Nillan and Tamur Lough. The principal rivers are the Owenroe and part of the Owentocker. Small areas of cutaway bog humid grassland scrub and broad-leaved woodland also occur. Coniferous afforestation is a feature of the area and fragments the site to some extent. The area is underlain by metamorphic siltstones and intrusive igneous rock.
004111	Duvillaun Islands SPA	Cabot D. (1967). The birds of Duvillaun More Island Co. Mayo. Irish Naturalists' Journal 15: 357-359. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Gray N. Thomas G. Trewby M. and Newton S. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland. Irish Birds 7: 147-156. Hutchinson C.D. (1989). Birds in Ireland. Poyser London. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. Hunt J. and Norriss D. (In prep.). The Status of Breeding Peregrines in the Republic of Ireland 2002. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9	The site is an important seabird colony with nationally important populations of <i>Hydrobates pelagicus</i> <i>Fulmarus glacialis</i> and <i>Larus marinus</i> . In winter the Duvillauns support <i>Branta leucopsis</i> - up to 500 birds can occur; these are part of a much larger population	The site comprises a group of uninhabited marine islands rocks and reefs located between 1 and 5 km off the southern tip of the Mullet Peninsula in Co. Mayo. The surrounding seas to a distance of 200 m

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Cambridge. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. Irish Birds 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Ruttledge R.F. (1966). Ireland's Birds. Witherby London. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The status and ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. Final Report of Birdwatch Ireland Chough Survey Team - Unpublished. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>centred on the Mullet Peninsula and Inishkea Islands. The site is a traditional nesting location for Falco peregrinus and 1-2 pairs of Pyrrhocorax pyrrhocorax breed. The Duvillauns form part of a larger group of islands which hold one of the largest breeding populations of Halichoerus grypus in Ireland a species listed on Annex II of the E.U. Habitats Directive.</p>	<p>from the shoreline where seabirds forage bathe and socialise are included in the site. Duvillaun More is the largest of the islands rising to 63 m with cliffs on the north-west west and south-west sides. About two-thirds of this island is covered by a maritime grassland sward. There is a small area of dry heath at the west end of the island near the summit. Duvillaun Beg which rises to 14 m also has a grassy sward and an extensive intertidal shore. The other islands while having some land above the high tide mark are largely rocky islets and knolls. From west to east the lesser islands are Turduvillaun Shiraghy Islands Drumacappul Islands Orragoon Island Keely Island Gaghta Island and</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				Leamareha Island.
004124	Sovereign Islands SPA	<p>Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I.(eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Smiddy P. O'Mahony B. and Wilson J. (1993). The Birds of the Sovereign Islands. Cork Bird Report 1992: 84-87. Smiddy P. (1998). Cormorant Phalacrocorax carbo breeding numbers in Waterford east Cork and mid Cork. Irish Birds 6: 213-216.</p>	<p>The site has a nationally important breeding colony of Phalacrocorax carbo which is the largest in Co. Cork. A nationally important colony of Larus marinus and small numbers of Larus argentatus and Cepphus grylle also occur. Regular monitoring of the seabird populations has been carried out since the 1980s.</p>	<p>The Sovereign Islands are two very small islands located approximately 1 km off the Co. Cork coastline. The islands are rocky stacks separated by a narrow sound of about 20 m width. The eastern one is flat-topped the western one is more peaked. The geology is Lower Carboniferous limestones and shales. Both islands are largely devoid of soil apart from small amounts of organic matter trapped in cracks. Vegetation is sparse with species such as Beta vulgaris Spargularia spp. and Atriplex spp. recorded. The surrounding seas to a distance of 200 m from the islands where seabirds forage bathe and socialise are included in the site.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
004133	Aughris Head SPA	Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Ussher R.J. and Warren R. (1900). The Birds of Ireland. Gurney and Jackson London.	Aughris Head is an important seabird colony with a nationally important population of <i>Rissa tridactyla</i> and a population of <i>Uria aalge</i> that is close to national importance. It also has regionally important populations of <i>Fulmarus glacialis</i> and <i>Alca torda</i> . The quality of the sea cliff habitat is good. The ornithological importance of the site has been known since 1891 and in recent years the seabirds have been reasonably well monitored.	Aughris Head is a rocky headland located on the north-facing Co. Sligo coastline. Its near-vertical cliffs reach a maximum height of 30 m above sea level and here a series of Upper Carboniferous limestone rock is well-exposed. The cliff-top vegetation is grassy and is grazed by cattle. A rocky reef occurs below the cliffs. The marine area to a distance of 500 m from the cliff base where seabirds bathe socialise and feed is included within the site.
004145	Durnesh Lough SPA	Colhoun K. (2001). I-WeBS Report 1998-99. Birdwatch Ireland Dublin. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Fox T. Francis I. and Walsh A. (2008). Report of the 2007/2008 International Census of Greenland White-Fronted Geese. Greenland White-fronted Goose Study and NPWS. Healy B. and Oliver G.A. (1998). Irish coastal lagoons: summary of a survey. Bulletin of the Irish Biogeographical Society 21: 116-151. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Hutchinson C.D. (1979). Ireland's	The site is used as a roost site by a regionally important population of <i>Anser albifrons flavirostris</i> . The flock has a number of grassland feeding sites in the vicinity of Donegal Bay and also resorts to inland bog. This is a traditional site for a nationally important population of	Durnesh Lough is situated to the east of Rossnowlough on the southern side of Donegal Bay c. 10 km north of Ballyshannon in Co. Donegal. It is a large sedimentary lagoon which is separated from the sea by a barrier composed

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Wetlands and Their Birds. Irish Wildbird Conservancy Dublin. Merne O.J. (1989). Important bird areas in Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Robinson J.A Colhoun K. McElwaine J.G. and Rees E.C. (2004). Whooper Swan <i>Cygnus cygnus</i> (Iceland population) in Britain and Ireland 1960/61 - 1999/2000. Waterbird Review Series The Wildfowl &amp; Wetlands Trust/Joint Nature Conservation Committee Slimbridge. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.</p>	<p><i>Cygnus cygnus</i> which has exceeded the threshold for international importance in the past. The site also has a substantial population of <i>Cygnus olor</i>. A range of other waterfowl species occurs notably diving ducks though all are in relatively low numbers.</p>	<p>partly of drumlins and partly of high sand dunes with the remains of a cobble barrier occurring in places. The lagoon formerly had a natural outlet to the sea but the outlet is now an artificial channel and pipe running under the sand dunes which appears to allow a certain amount of seawater to enter. The underlying geology of the area is limestone but this is covered by a thick layer of clay drift deposits in the form of drumlins.</p>
004150	West Donegal Coast SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Cough Survey Ireland. <i>Irish Birds</i> 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Cough in Britain and Ireland. <i>British Birds</i> 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Cough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Cough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. <i>Irish Birds</i> 7: 147-156. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife</p>	<p>The site supports a nationally important population of breeding Cough a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 40 breeding pairs were recorded from the site in the 1992 survey and 56 in the 2002/03 survey. Concentrations of breeding pairs occur on the Glencolumbkille</p>	<p>The West Donegal Coast SPA comprises separate sections of the Co. Donegal coastline and extends from Muckros Head in the south northwards to Slieve League Malin Beg Rocky Point Glen Head Slieve Tooey Maghera Loughros Point</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish Birds 6: 333-344. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs Pyrrhocorax pyrrhocorax in three Irish Chough Important Bird Areas.</p>	<p>Peninsula from Killybegs in the south to Loughros Beg Bay in the north and on Aran Island. On Aran the exposed maritime situation coupled with sheep grazing has resulted in large areas of short sward suitable for foraging Chough. Flocking activity is centred on some of the extensive sand dune systems present; flocks of 76 22 and 40 birds were recorded at Carrick Dooley and Sheskinmore respectively in October 2004. The site supports a Peregrine population (2-6 pairs in 2002); this species is listed on Annex I of the E.U. Birds Directive. The site also holds important populations of Fulmar (1879 pairs) Cormorant (71 pairs in 1999 and 2006) Shag (86 pairs) Herring Gull (229 pairs) Kittiwake (1037 pairs) and Razorbill (322 pairs). Puffin have been recorded breeding on Tormore in the past with an estimated 3000 birds in 1970 though such high numbers are no longer considered to occur.</p>	<p>Dunmore Head          Aran Island          Magheradrumman          Carrickfin Carnboy          Bunbeg          Magheragallan          Lunniagh as far as Carrick to the south of Bloody Foreland. The site includes the high coast areas and sea cliffs of the mainland and Aran Island the land adjacent to the cliff edge areas of sand dunes/machair at Maghera          Mullaghderg          Braade/Carrickfin/Carnboy          Magheragallan and Lunniagh/Carrick and also several areas further inland of the coast at Croaghmuckros and Slieve League north of Glencolumbkille and south of Dunmore Head. A low-lying area of land on the coast at Bunbeg used by roosting Chough is also included. The high water mark forms the seaward boundary except at</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>Small groups of Barnacle Goose also an E.U. Birds Directive Annex I species occasionally graze on the sward on top of the stack. The West Donegal Coast SPA is also of importance for breeding Twite and Ring Ouzel both Red-listed species.</p>	<p>Tormore Island where the adjacent sea area to a distance of 500 m from the cliff base is included. Most of the site is underlain by granite and quartzite though various other particularly metamorphic rock types also occur; rocks of Carboniferous age are found at Muckros Head.</p>
004151	Donegal Bay SPA	<p>Colhoun K. (2001). I-WeBS Report 1998-99. BirdWatch Ireland Dublin. Curtis T.G.F. and Sheehy Skeffington M.J. (1998). The salt marshes of Ireland: an inventory and account of their geographical variation. Biology and the Environment Proceedings of the Royal Irish Academy 99B: 87-104. Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Falvey J.P. Costello M.J. and Dempsey S. (1997). Survey of intertidal biotopes in estuaries in Ireland. Unpublished report to the National Parks and Wildlife Service. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). Water Quality in Ireland 1998-2000. Environmental Protection Agency Wexford. Merne O.J. (1989). Important bird areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds) Important Bird Areas in Europe. ICBP Technical Publication No. 9. Cambridge. Moore D and Wilson F. (1999). National Shingle Beach Survey of Ireland 1999. Unpublished Report National Parks and Wildlife Service Dublin. Picton B.E. and Costello M.J. (1998). The BioMar biotope viewer: a guide to marine habitats fauna and flora in Britain and Ireland. Environmental Sciences</p>	<p>This site supports an excellent diversity of waterfowl species associated with shallow bays. It has an internationally important wintering population of <i>Gavia immer</i> and is one of the top sites in the country for this species. Also has one of the few regular populations of <i>Gavia arctica</i> in the country and a regionally important population of <i>Gavia stellata</i>. The site has nationally important populations of <i>Melanitta nigra</i> (up to 4.6% of all-Ireland total) and <i>Branta bernicla hrota</i>. A range of</p>	<p>The Donegal Bay SPA is a very large marine dominated site. It extends from Doorin Point to the west of Donegal town to Tullaghan Point in Co. Leitrim a distance of approximately 15 km along its north-east/south-west axis. It varies in width from about 3 km to over 8 km. The site includes the estuary of the River Eske which flows through Donegal town and the estuary of the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		Unit Trinity College Dublin. Sheppard R. (1993). Ireland's Wetland Wealth. IWC Dublin.	other species associated with estuarine and shoreline habitats occur. The site provides both feeding and roost sites for most of the species. Habitat quality is mostly good. The site has a population of <i>Phoca vitulina</i> .	River Erne which flows through Ballyshannon. Much of the shoreline is rocky or stony with well-developed littoral reefs in places. There are also extensive stretches of sandy beach especially from the Murvagh peninsula southwards to Rossowlagh and at the outer part of the Erne estuary. Shingle or cobble beaches are also represented. There are extensive areas of intertidal flats associated with the Eske Estuary reflecting the very sheltered conditions in this part of the bay. These have been shown to be biotope rich. Elsewhere a narrow fringe of intertidal flats are exposed at low tides. Salt marshes are found in the sheltered conditions of the innermost part of

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				the bay. A number of small grassy islands occur in the innermost part of the bay. The shallow bay waters overlies mostly sandy substrates though reefs occur in places.
004161	Stack's to Mullaghareirk Mountains West Limerick Hills and Mount Eagle SPA	Barton C. Pollock C. Norriss D.W. Nagle T. Oliver G.A. and Newton S. (2006). The second national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 2005. Irish Birds 8: 1-20. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Heery S. (2009). Birds in Central Ireland. Fourth Mid-Season Bird Report 2004-2007. BirdWatch Ireland Kilcoole. Norriss D.W. Marsh J. McMahon. D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 1998-2000. Irish Birds 7: 1-12. O'Flynn W.J. (1983). Population changes of the Hen Harrier in Ireland. Irish Birds 2: 337-343. Oliver G. (2005). Survey of Breeding Hen Harrier <i>Circus cyaneus</i> in the Slieve Aughty Mountains 2005. Unpublished report for National Parks and Wildlife Service Dublin. Wilson M. Gittings T. O'Halloran J. Kelly T. and Pithon J. (2005). The Distribution of Hen Harriers in Ireland in Relation to Land-use Cover and Forest Cover in Particular. COFORD Dublin.	Supports c. 21% of the all-Ireland population of <i>Circus cyaneus</i> which is the largest concentration in the country for the species. Habitat excellent for both nesting and foraging purposes. <i>Asio flammeus</i> a rare breeding bird in Ireland has nested in the past and has been recorded intermittently in recent years. <i>Falco columbarius</i> has a presence though the size of the population is unknown. <i>Lagopus lagopus</i> a Red Data Book species occurs.	This a very large upland site centred on the borders between the counties of Cork Kerry and Limerick. The peaks are not notably high or indeed pronounced with a maximum of 451 m at Knockhefa. Many rivers rise within the site notably the Blackwater Feale Clydagh Oolagh and Smerlagh. The site consists of a variety of upland habitats though almost half (45%) is afforested. The coniferous forest includes first and second rotation plantations with both pre-thicket stands present as well as clearfell

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>areas. A substantial part (28%) of the site is unplanted blanket bog and heath with both wet and dry heath present. The remainder of the site is largely rough grassland that is used for hill farming. Some areas of scrub and deciduous woodland occur especially within the river valleys.</p>
004162	Mullaghanish to Musheramore Mountains SPA	<p>Barton C. Pollock C. Norriss D.W. Nagle T. Oliver G.A. and Newton S. (2006). The second national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 2005. Irish Birds 8: 1-20. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Lynas P. Newton S.F. and Robinson J.A. (2009). The status of birds in Ireland: an analysis of conservation concern 2008-2013. Irish Birds 8(2): 149-166. Norriss D.W. Marsh J. McMahon D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 1998-2000. Irish Birds 7: 1-12. O'Flynn W.J. (1983). Population changes of the Hen Harrier in Ireland. Irish Birds 2: 337-343. Nagle T. and Lyden J. (2004). South Munster Hen Harrier Survey 2004. Unpublished report. Irish Raptor Study Group. Nagle T. and Lyden J. (2005). South Munster Hen Harrier Survey 2005. Unpublished report. Irish Raptor Study Group. Wilson M. Gittings T. O'Halloran J. Kelly T. and Pithon J. (2005). The Distribution of Hen Harriers in Ireland in Relation to Land-use Cover and Forest Cover in Particular. COFORD Dublin.</p>	<p>This SPA is a stronghold for Hen Harriers. The early stage of new and second-rotation conifer plantation are the most frequently used nesting sites though some pairs may still nest in tall heather of unplanted bogs and heath. This site also supports a breeding population of Merlin.</p>	<p>The site consists of a variety of upland habitats though approximately one-third is afforested. The coniferous forests include first and second rotation plantations with both pre-thicket and post-thicket stands present. The principal tree species present are Sitka Spruce (<i>Picea sitchensis</i>) and Lodgepole Pine (<i>Pinus contorta</i>). Almost one-third of the site is unplanted blanket</p>

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				<p>bog and heath with both wet and dry heaths present. The vegetation is characterised by such species as Ling Heather (<i>Calluna vulgaris</i>) Cross-leaved Heath (<i>Erica tetralix</i>) Billberry (<i>Vaccinium myrtillus</i>) Common Cottongrass (<i>Eriophorum angustifolium</i>) Deergrass (<i>Scirpus cespitosus</i>) and Purple Moor Grass (<i>Molinia caerulea</i>). The remainder of the site is largely rough grassland that is used for hill farming. This varies in composition with some wet areas with rushes (<i>Juncus</i> spp.) and some areas subject to scrub encroachment.</p>
004168	Slieve Aughty Mountains SPA	<p>Barton C. Pollock C. Norriss D.W. Nagle T. Oliver G.A. and Newton S. (2006). The second national survey of breeding Hen Harriers <i>Circus cyaneus</i> in Ireland 2005. Irish Birds 8: 1-20. Duff N. (2004). Survey of Hen Harriers in the Slieve Aughties Counties Galway and Clare in 2003. Unpublished report for National Parks and Wildlife Service Dublin. Hardey J. Crick H. Wernham C. Riley H. Etheridge B. and Thompson D. (2009). Raptors A Field Guide for Surveys and Monitoring. Scottish National Heritage. Heery S. (2009). Birds in Central Ireland. Fourth Mid-Season Bird Report 2004-2007. BirdWatch</p>	<p>The site supports over 12% of the all Ireland population of <i>Circus cyaneus</i> and is among the top five sites in the country for this species. It provides excellent</p>	<p>The Slieve Aughty Mountains SPA is a very large site that extends southwards from just south of Loughrea County Galway to Scarriff in</p>

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		<p>Ireland Kilcoole. Lynas P. Newton S.F. and Robinson J.A. (2009). The status of birds in Ireland: an analysis of conservation concern 2008-2013. Irish Birds 8(2): 149-166.</p> <p>Norris D.W. Marsh J. McMahon D. and Oliver G.A. (2002). A national survey of breeding Hen Harriers Circus cyaneus in Ireland 1998-2000. Irish Birds 7: 1-12.</p> <p>O'Flynn W.J. (1983). Population changes of the Hen Harrier in Ireland. Irish Birds 2: 337-343.</p> <p>Oliver G. (2005). Survey of Breeding Hen Harrier Circus cyaneus in the Slieve Aughty Mountains 2005. Unpublished report for National Parks and Wildlife Service Dublin.</p> <p>Wilson M. Gittings T. O'Halloran J. Kelly T. and Pithon J. (2005). The Distribution of Hen Harriers in Ireland in Relation to Land-use Cover and Forest Cover in Particular. COFORD Dublin.</p>	<p>habitat for both nesting and foraging. The site also supports a breeding population Falco columbarius. The population size is not well known but is likely to exceed five pairs. Lagopus lagopus is found on many of the unplanted areas of bog and heath - this is a species that has declined in Ireland and is now Red-listed</p>	<p>County Clare. The peaks are not notably high or indeed pronounced; this site rises to a maximum of 400 m at Maghera west of Lough Graney. The site includes many small- and medium-sized lakes notable Lough Graney and Lough Atorick; several important rivers rise in the site including the Owendalulleagh and Graney. Lough Derg occurs immediately to the south-east. The Slieve Aughty mountains are predominantly comprised of Old Red Sandstone but outliers of Lower Palaeozoic rocks provide occasional outcrops capping the hills. The site consists of a variety of upland habitats though approximately half is afforested. The coniferous forests include first and</p>

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				<p>second rotation plantations with both pre-thicket and post-thicket stands present. Substantial areas of clear-fell are also present at any one time. Almost one-third of the site is unplanted blanket bog and heath with both wet and dry heath present. Well-developed blanket bog occurs at several locations notable Sonnagh Loughatorick South and Glendree. The remainder of the site is mostly rough grassland that is used for hill farming.</p>
004170	Cruagh Island SPA	<p>Crowe O. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. Irish Birds 7: 53-56. Merne O. and Walsh A. (2003). Barnacle Geese Branta leucopsis in Ireland Spring 2003. Irish Birds 7: 173-176. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). Seabird 2000: Seabird Populations of Britain and Ireland. Poyser London. Thompson W. (1851). The Natural History of Ireland. London: Reeve and Benham 1951.</p>	<p>Cruagh Island supports an internationally important population of Puffinus puffinus which is one of the most important colonies in the country. This was discovered in 2001 and was undoubtedly overlooked in the past. The site provides excellent habitat for the Shearwaters. It also has a</p>	<p>Cruagh Island is located approximately 2 km west of Omey Island off the Connemara coast. It is a medium-sized low-lying island (maximum height of 62 m) and is uninhabited. The island is dominated by a maritime</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>nationally important colony of <i>Larus marinus</i> and a small number of breeding <i>Fulmarus glacialis</i>. Cruagh Island is a regular feeding site for <i>Branta leucopsis</i> during the winter. The geese that frequent this island are most probably part of the internationally important Inishshark flock.</p>	<p>grassy sward with some exposed rock. The sea area to a distance of 500 m is included in the site.</p>
004172	Dalkey Islands SPA	<p>Archer E. (1997). Dalkey Island Tern Project 1997. Birdwatch Ireland Conservation Report No. 97/2. Cobot D. (1996). Performance of the Roseate Tern population breeding in north-west Europe - Ireland Britain and France 1960-94. <i>Biology and the Environment</i> 96B: 55-68. Casey S. Moore N. Ryan L. Merne O.J. Coveney J.A. and del Nevo (1995). The Roseate tern conservation project on Rockabill Co. Dublin: a six year review 1989/1994. <i>Irish Birds</i> 5: 251-264. Crowe O. Jones V. and Newton S.F. (1999). Rockabill Tern Report 1999. Birdwatch Ireland Conservation Report No. 99/66. Dublin. Crowe O. Maljkovic A. and Newton S.F. (2000). Rockabill Tern Report 2000. Birdwatch Ireland Conservation Report No. 00/2. Dublin. Hannon C. (1997). The 1995 All-Ireland Tern Survey. Birdwatch Ireland Conservation Report No. 97/1. Dublin. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Tern <i>Sterna sandvicensis</i> Roseate <i>S. dougallii</i> Common <i>S. hirundo</i> Arctic <i>S. paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. <i>Irish Birds</i> 6: 1- 22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds.). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: Birdlife International (Birdlife Conservation Series No. 8). Hutchinson C.D. (1975). <i>The Birds of Dublin and Wicklow</i>. Irish Wildbird Conservancy Dublin. Llyod C. (1982). <i>Inventory of Seabird Breeding Colonies in Republic of Ireland</i>. Unpublished report Forest and Wildlife Service Dublin. Llyod C. Tasker M.L. and Partridge K. (1991). <i>The Status of Seabirds in Britain and Ireland</i>. Poyser London. McAvoy S. (2010). Dalkey Island Tern Project. Unpublished Report. Birdwatch Ireland Kilcoole. Merne O.J. (1988). Recent changes in breeding seabird population in Counties Dublin and Wicklow. <i>Irish East Coast Bird Report</i> 1987: 69-77. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). <i>Seabird Populations of Britain and Ireland</i>. Poyser London. Murray T. (1995). <i>The Dalkey Island Tern Project</i></p>	<p>Site is of importance for both breeding and staging <i>Sterna</i> terns. There is a well-established colony of <i>Sterna hirundo</i> and smaller numbers of <i>Sterna paradisaea</i>. <i>Sterna dougallii</i> bred in 2003 and 2004 one of only three known sites in the country - this came about after several years of conservation management aimed at attracting the species. The site along with other parts of south Dublin Bay is used by the three <i>Sterna</i> tern species as a major post-breeding/pre-migration autumn roost area. The origin of the birds is likely to be the Co. Dublin breeding sites</p>	<p>Site comprises Dalkey Island Lamb Island Maiden Rock the intervening rocks and reefs between Dalkey Island Lamb Island and Clare Rock and the sea area around Maiden Rock to a distance of 100 m. Dalkey Island which is the largest in the group lies ca.400m off Sorrento Point and is separated by a deep channel. The island is low-lying the highest point at c.15m is marked by a Martello Tower. Soil cover consists mainly of thin peaty layers though in a few places there</p>



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		<p>1995. Unpublished Report Irish Wildbird Conservancy Dublin. Newton S.F. (2008). Dalkey Tern Report 2008. Unpublished Report. Birdwatch Ireland Kilcoole. Newton S.F. (2007). Dalkey Tern Report 2007. Unpublished Report. Birdwatch Ireland Kilcoole. Newton S.F. and Crowe O. (2000). Roseate Terns - the natural connection. Maritime (Ireland/Wales) INTERREG Report no. 2. 66pp. Marine Institute Dublin. Newton S.F. and Crowe O. (1999). Kish Bank: a Preliminary Assessment of its Ornithological Importance. Birdwatch Ireland Conservation report No. 99/8. Dublin. Pettitt R.G. (1973). Movement of Terns observed in August 1972. Dublin and Wicklow Bird Report 1972. 27-34. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>though numbers also suggest birds from other sites perhaps outside the state. The site also has breeding <i>Larus marinus</i> <i>Tadorna tadorna</i> and <i>Haematopus ostralegus</i>. The site is known to be frequented in winter by significant numbers of <i>Arenaria interpres</i> and <i>Calidris maritima</i> but recent count data is unavailable.</p>	<p>are boulder clay deposits. Vegetation cover is low consisting mainly of grasses. Lamb Island lies to the north of Dalkey Island attached at low-tide by a rocky reef. It has thin soil cover and a sparse vegetation cover. Further north lies Maidens Rock a bare angular granite rock up to 5m high. There is no vegetation cover. Dalkey Island is grazed by a herd of feral goats.</p>
004189	Kerry Head SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. <i>Irish Birds</i> 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. <i>British Birds</i> 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough <i>Pyrrhocorax pyrrhocorax</i> in the Republic of Ireland 2002/03. <i>Irish Birds</i> 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. <i>Irish birds</i> 6: 333-344. Norriss D.W. (1995). The 1991 survey and</p>	<p>The site supports a nationally important population of breeding <i>Pyrrhocorax pyrrhocorax</i>. The site is of particular note for the density of breeding pairs found. It also supports a nationally important population of <i>Fulmarus glacialis</i>.</p>	<p>Kerry Head SPA is situated on the south side of the mouth of the River Shannon in north Co. Kerry. It encompasses the sea cliffs from just west of Ballyheigue around the end of Kerry Head to the west and north-eastward as far as Kilmore. The site includes the sea cliffs and the land adjacent to the cliff</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
		<p>weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Thomas G. Gray N. and Newton S. (2003). The Distribution and Feeding Ecology of the Chough in southwest Ireland. BirdWatch Ireland Conservation Report No. 03/4. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs Pyrrhocorax pyrrhocorax in three Irish Chough Important Bird Areas.</p>		<p>edge (inland for 300 m). The high water mark forms the seaward boundary. Most of the site is underlain by Devonian siltstone sandstones and mudstones; a small section of the site has rocks of Carboniferous age.</p>
004193	Mid-Waterford Coast SPA	<p>Berrow S.D. Mackie K.I. O'Sullivan O. Shephard K.B. Mellon C. and Coveney J.A. (1992). The Second International Chough Survey Ireland. Irish Birds 5: 1-10. Bullock I.D. Drewett D.R. and Mickleburgh S.P. (1983). The Chough in Britain and Ireland. British Birds 76: 377-401. Environment and Heritage Service (2000). Biodiversity in Northern Ireland. Northern Ireland Species Action Plan: Chough. Environment and Heritage Service Belfast. Gray N. Thomas G. Trewby M. and Newton S.F. (2003). The status and distribution of Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002/03. Irish Birds 7: 147-156. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Madden B. (in prep.). Breeding Survey of Peregrine Falcons in the Republic of Ireland 2002. Unpublished report to NPWS Dublin. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish birds 6: 333-344. Norriss D.W. (1995). The 1991 survey and weather impacts on the Peregrine Falco peregrinus breeding population in the Republic of Ireland. Bird Study 42: 20-30. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (2006). The Status and Ecology of the Chough Pyrrhocorax pyrrhocorax in the Republic of Ireland 2002-2005. BirdWatch Ireland Report Kilcoole. Trewby M. Gray N. Cummins S. Thomas G. and Newton S. (in prep.). The breeding season and foraging behaviour of Choughs Pyrrhocorax pyrrhocorax in three Irish Chough Important Bird Areas.</p>	<p>This site supports a nationally important population of breeding Pyrrhocorax pyrrhocorax a Red Data book species. 24 breeding pairs were recorded in the 1992 survey and 20 in the 2002/03 survey. The site supports an important Falco peregrinus population (7 pairs in 2002). The site also holds nationally important populations of Phalacrocorax carbo (79 pairs) and Larus argentatus (147 pairs) as well as smaller numbers of other breeding seabirds.</p>	<p>The Mid-Waterford Coast SPA encompasses the areas of high coast and sea cliffs in Co. Waterford between Newtown Cove to the east and Ballyvoyle to the west. The site includes the sea cliffs and the land adjacent to the cliff edge. The high water mark forms the sea boundary. The site is underlain by Devonian sandstones siltstones mudstones and conglomerates as well as a variety of volcanic rocks of Ordovician age. Sea cliffs are the</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>predominant habitat of the site; these occur along its length and are generally well-vegetated by a suite of typical sea cliffs species. Above the cliffs are areas of heath improved grassland unimproved wet and dry grassland and woodland. Landuse is predominately grazing by stock but some arable farming is also carried out.</p>
004212	Cross Lough (Killadoon) SPA	<p>Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Sterna sandvicensis Roseate S. dougallii Common S. hirundo Arctic S. paradisaea and Little Terns S. albifrons in Ireland in 1995. Irish Birds 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Lloyd C. Tasker M.L. and Partridge K. (1991). The Status of Seabirds in Britain and Ireland. Poyser London. Merne O.J. (1989). Important Bird Areas in the Republic of Ireland. In: Grimmett R.F.A. and Jones T.A. (eds). Important Bird Areas in Europe. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S. Ratcliffe N. and Dunn T. (2004). Seabird 2000: The Status of Breeding Seabirds in Britain and Ireland. Poyser London. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>The Cross Lough is the former site of a long-established Sterna sandvicensis colony (107 pairs in 1984 and 70 pairs in 1995) which was located on a small islet within the lake. Recent counts (1998-99) suggest that the terns no longer breed at this site possibly due to predation by feral Mink (Mustela vison); however terns are well-known to abandon unsuitable sites but to often return once conditions become more</p>	<p>Cross Lough is located near Killadoon village approximately 12 km south-west of Louisburgh in Co. Mayo. Cross Lough is a fine example of a freshwater coastal lake which at times may become slightly saline (4 ppt salinity was measured in 1990). The lake lies on muddy sand above the foreshore behind a shingle</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			favourable. <i>Larus ridibundus</i> also breeds (70 pairs in 1995) and there are a small numbers of breeding <i>Larus canus</i> (c.10 pairs).	and boulder bar. In certain years a tidal channel connects Cross Lough to the sea but this has been closed in recent times.
004219	Courtmacsherry Bay SPA	<p>Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.A. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbirds numbers wintering in Ireland 1994/95 to 2003/04. <i>Bird Study</i> 55: 66-77. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). <i>Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe</i>. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). McGarrigle M.L. Bowman J.J. Clabby K.J. Lucey J. Cunningham P. MacCarthaigh M. Keegan M. Cantrell B. Lehane M. Clenaghan C. and Toner P.F. (2002). <i>Water Quality in Ireland 1998-2000</i>. Environmental Protection Agency Wexford. Merne O.J. (1989). <i>Important bird areas in the Republic of Ireland</i>. In: Grimmett R.F.A. and Jones T.A. (eds). <i>Important Bird Areas in Europe</i>. ICBP Technical Publication No. 9 Cambridge. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). <i>Seabird Populations of Britain and Ireland</i>. Poyser London. Sheppard R. (1993). <i>Ireland's Wetland Wealth</i> IWC Dublin.</p>	<p>Courtmacsherry Bay is an important site for wintering waterfowl. It supports internationally important numbers of <i>Limosa limosa</i> and nationally important numbers of eleven other species: <i>Gavia immer</i>, <i>Pluvialis apricaria</i>, <i>Tadorna tadorna</i>, <i>Anas penelope</i>, <i>Mergus serrator</i>, <i>Vanellus vanellus</i>, <i>Calidris alpina</i>, <i>Limosa lapponica</i>, <i>Numenius arquata</i>, <i>Larus ridibundus</i> and <i>Larus canus</i>. It is among the top ten Irish sites for <i>Larus canus</i>. The population of <i>Limosa limosa</i> is substantial (3.7% of the all-Ireland total) and of special note because despite its relatively small size the site is among the top ten Irish sites for this species. <i>Haematopus ostralegus</i> and <i>Tringa nebularia</i> also occur in significant</p>	<p>Courtmacsherry Bay is situated approximately 12 km south of Bandon and immediately west of the village of Timoleague in west Co. Cork. The site which is largely estuarine in nature consists of the drowned valley of the Argideen River that is now filled with sediment. This results in extensive mudflats and areas of saltmarsh. Most of the mudflats are unvegetated but Cord-grass <i>Spartina anglica</i> occurs in places. The estuary of the Kilbrittain River in the north-east of the site holds the best area of salt marsh. The seaward boundary of the site stretches from Coolmain</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			numbers.	Point to Barry Point and includes Coolmain Bay and Broadstrand Bay.
004230	West Donegal Islands SPA	<p>Alcorn S. Donaghy A. and Moloney D. (2009). Corncrake Fieldwork in North and West Donegal 2009. Unpublished Report by Birdwatch Ireland for National Parks and Wildlife Service. Barron C. (2001). Island Feasibility Study: An Assessment of the Extent of Potential Habitat and its Management for Corncrakes (<i>Crex crex</i>) on Islands off the West Coast of Ireland. BirdWatch Ireland Corncrake Conservation Project. Unpublished report. Casey C. (1998). Distribution and conservation of the Corncrake in Ireland 1993-1998. <i>Irish Birds</i> 6: 159-176. Copeland A. (2002). Delivering Corncrake <i>Crex crex</i> conservation in Ireland: past present and future. <i>Irish Birds</i> 7: 33-42. Hannon C. (1997). The 1995 All-Ireland Tern Survey. BirdWatch Ireland Conservation Report No. 97/1. Hannon C. Berrow S.D. and Newton S.F. (1997). The status and distribution of breeding Sandwich Tern <i>Sterna sandvicensis</i> Roseate S. <i>dougallii</i> Common S. <i>hirundo</i> Arctic S. <i>paradisaea</i> and Little Terns <i>S. albifrons</i> in Ireland in 1995. <i>Irish Birds</i> 6: 1-22. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Lloyd C. (1982). Inventory of Seabird Breeding Colonies in Republic of Ireland. Unpublished report Forest and Wildlife Service Dublin. Merne O.J. and Walsh A. (1994). Barnacle Geese in Ireland spring 1993 and 1994. <i>Irish Birds</i> 5: 151-156. Merne O.J. and Walsh A. (2002). Barnacle Geese in Ireland spring 1999. <i>Irish Birds</i> 7: 53-56. Merne O.J. and Walsh A. (2003). Barnacle Geese <i>Branta leucopsis</i> in Ireland spring 2003. <i>Irish Birds</i> 7: 173-176. Mitchell P.I. Newton S.F. Ratcliffe N. and Dunn T.E. (2004). Seabird Populations of Britain and Ireland. Poyser London. Whilde A. (1985). The All Ireland Tern Survey 1984. Unpublished report for the Irish Wildbird Conservancy Dublin.</p>	<p>The West Donegal Islands SPA supports a nationally important wintering population of <i>Branta leucopsis</i>. The birds use the islands for both feeding and roosting though at times may commute to other islands off the Donegal coast such as Inishkeeragh and Inishdooy. The also site supports a nationally important breeding population of <i>Crex crex</i> and is one of a suite of sites along the western seaboard that is regularly utilised by this species. <i>Crex crex</i> is listed on the 2010 International Union for Conservation of Nature (IUCN) Red List of Threatened Species. This is due to population and range declines of more than 50% in the last 25 years across significant parts of its range. Nationally important breeding populations of <i>Phalacrocorax aristotelis</i> <i>Larus canus</i> and <i>Larus</i></p>	<p>West Donegal Islands SPA consists of a series of small to moderate-sized islands lying between 700 m and 3.5 km off the north-west coast of Co. Donegal. It includes the islands of Gola Inishmeane Inishsirrer (the three largest) Umfin Go Allagh Torglass Tornacolpagh and Tororrageun as well as a number of smaller rocky islets. The islands are low-lying the highest point being Knockaculleen on Gola (68 m). The site which includes the intervening and surrounding seas to 200 m from the shorelines is highly exposed to Atlantic swells. The predominant habitat of the islands is grassland with both wet and</p>

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			argentatus also occur at the site.	dry types represented; small areas of dune grassland also occur. Small lakes occur on Inishsirrerr and Gola. The rocky shorelines have areas of boulders shingle and coarse sand and grade into submarine reefs which are common in the shallow surrounding seas.
004232	River Boyne and River Blackwater SPA	<p>Crowe O. (2005). Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland Newcastle Co. Wicklow. Crowe O. Austin G.E. Colhoun K. Cranswick P.A. Kershaw M. and Musgrove A.J. (2008). Estimates and trends of waterbird numbers wintering in Ireland 1994/95 to 2003/04. Bird Study 55: 66-77. Crowe O. Webb G. Collins E. and Smiddy P. (2008). Waterway Bird Survey 2008. Unpublished report to the NPWS. Cummins S. Fisher J. McKeever R.J. McNaghten L. and Crowe O. (2010). Assessment of the distribution and abundance of Kingfishers Alcedo atthis and other riparian birds on six SAC. Unpublished report to the NPWS. Gibbons D.W. Reid. J.B. and Chapman. R.A. (1993). The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991. T.&amp; A.D. Poyser London. Hunt J. Derwin J. Coveney J. and Newton S. (2000). Republic of Ireland. Pp. 365-416 in Heath M.F. and Evans M.I. (eds). Important Bird Areas in Europe: Priority Sites for Conservation 1: Northern Europe. Cambridge UK: BirdLife International (BirdLife Conservation Series No. 8). Newton S. Donagh A. Allen D. and Gibbons D. (1999). Birds of Conservation Concern in Ireland. Irish birds 6: 333-344.</p>	The River Boyne and River Blackwater SPA supports nationally important numbers of Alcedo atthis. Other species which occur within the site include Cygnus olor Anas crecca Anas platyrhynchos Phalacrocorax carbo Ardea cinerea Gallinula chloropus Gallinago gallinago and Riparia riparia.	The River Boyne and River Blackwater SPA is a long linear site that comprises stretches of the River Boyne and several of its tributaries: most of the site is in Co Meath but it extends also into Counties Cavan Louth and Westmeath. It includes the following river sections: The River Boyne from the M1 motorway bridge west of Drogheda to the junction with the Royal Canal west of Longwood

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co Cavan; the Tremblestown River (and Athboy River) from the junction with the River Boyne at Kilnagross Bridge to the bridge in Athboy Co Meath; the Stoneyford River from its junction with the River Boyne to Stonestone Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge Co. Westmeath. The site includes the river channel and marginal vegetation.</p>
UK0030089	Binevenagh SAC	N/A	<p>Binevenagh SAC has been designated because of its geological and geomorphological features. These have, in part, resulted in its special cliff vegetation, herb-rich</p>	<p>Binevenagh is an important outcrop of basalt, having contributed to a fuller understanding of development of the Antrim Lava Group as a whole. It exhibits well-defined flow units</p>

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			<p>grasslands, rare plants, bryophytes and fungi.</p> <p>The cliffs have a unique assemblage of plants. Alpine species are frequent such as Mountain Avens, Moss Campion and Purple Saxifrage. Plants more typical of coastal locations are also common including Thrift and Sea Campion. Along the base of the cliff and on some of the slumped basalts, grassland rich in herbs and sedges has developed. Fine-leaved grasses and sedges dominate, with herbs such as Wild Thyme, Eyebright, Lady's Bedstraw and Harebell.</p>	<p>and pahoehoe surfaces. Mass movement during late or post-glacial times has resulted in large slipped masses of basalt.</p> <p>The Binevenagh cliffs show well-exposed Tertiary age basalts overlying Cretaceous Chalk. These sequences provide evidence of the age the Antrim basalts in this area and make an important contribution to the understanding of the development of the Antrim Lava series as a whole. Extensive slipped masses of basalt of late and post glacial age give the area its distinctive appearance</p>
UK00303 83	Skerries and Causeway SAC	N/A	Skerries and Causeway was designated an SAC on the following features: reef, sandbanks slightly covered by seawater at all times, submerged or partially submerged sea caves and harbour porpoise.	Skerries and Causeway SAC is a 30km wide embayment on the North Coast of Northern Ireland comprising an area of 10,862ha. The site is bordering the



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			<p>The reefs of Skerries and Causeway SAC is sand scoured by the nearby sedimentary habitats, and supports rare and priority species. The sandbank habitats have eelgrass communities and in some regions are comprised of large banks, up to 30m high. Harbour porpoises are residents of the Skerries and Causeway SAC throughout the year. The Skerries islands within the SAC boundary are a breeding habitat for seabirds and also provide shelter to a bed of eel grass <i>Zostera marina</i>. The associated subtidal habitats are known to support species which normally only occur in more southern areas, because of the increased temperatures produced by the Gulf Stream.</p>	<p>coastline, which the towns of Portrush, Portstewart, Bushmills and the Giants Causeway World Heritage site reside. Within the SAC lies the Skerries Islands, located off Portrush.</p> <p>The marine habitats of the SAC are influenced by the warm Gulf Stream and strong currents which run through the North Channel, to which the SAC is exposed. The site is highly exposed to wave action as a result of its location, and regions of the SAC also experience a significant freshwater influence with large influxes from the River Bann and the River Bush.</p>
UK0030084	Bann Estuary SAC	N/A	<p>Centred on the mouth of the River Bann, the site is dominated by the major beach and dune system at Portstewart, with smaller dunes at Grangemore and Castlerock, the latter also</p>	<p>The site is of earth science importance with contemporary coastal processes and associated dune forms, together with features important</p>

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			<p>has a beach. The site hosts significant saltmarsh, wet grassland and fen communities, with natural transitions present between many of these – a rare occurrence for Northern Ireland. Notable species of both higher and lower plants occur.</p>	<p>to understanding post-glacial sea-level history. The dune systems have notable archaeological records.</p>
UK00166 13	Magilligan SAC	N/A	<p>Magilligan lies in the extreme north-west corner of County Londonderry. The site hosts the area of intact dune principally from Magilligan Point to Benone, as well as dune elements along the Lough Foyle shore. The main habitats are the series of dune grasslands together with dune slacks. These habitats also support notable populations of the Marsh Fritillary butterfly and petalwort</p>	<p>The site is of international importance for earth science with complex contemporary coastal processes, especially in the region of Magilligan Point, and associated dune forms, together with features important to understanding post-glacial sea-level history. It is the largest coastal depositional feature in Ireland, whilst its well-researched developmental history, combined with rigorous dating, makes it one of only a handful of sites in Europe</p>

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				sufficiently well researched for elucidation of a reliable sea level and sand dune chronology. The dunes also host an important series of fossil soil horizons.
UK90200 31	Lough Foyle SPA	N/A	<p>The site qualifies under Article 4.1 of EC Directive 79/409 on the Conservation of Wild Birds by regularly supporting, in winter, internationally important numbers of the following 3 species: whooper swan ; light-bellied brent goose and bar-tailed godwit.</p> <p>The site also qualifies under Article 4.2 of the Directive by supporting over 20,000 migratory waterfowl. This total includes both the internationally important species listed above and the following waterfowl species which are nationally important in an all-Ireland context. Red-throated diver, great crested grebe, mute swan, Bewick's swan, greylag geese, shelduck, teal, mallard, wigeon, eider, red-breasted</p>	<p>Lough Foyle is situated on the north coast of Northern Ireland immediately downstream and extending to the north-east of the city of Londonderry. The site is comprised of a large shallow sea lough which includes the estuaries of the rivers Foyle, Faughan and Roe. The site contains extensive intertidal areas of mudflats and sandflats, saltmarsh and associated brackish ditches.</p> <p>This major sea lough is remarkably shallow, with extensive mud and sand flats exposed at low tide. Though considerably diminished by historical</p>

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			<p>merganser, oystercatcher, golden plover, grey plover, lapwing, knot, dunlin, curlew, redshank and greenshank. Lough Foyle itself supports a small wintering population of Slavonian grebe.</p>	<p>reclamation schemes, notably around Myroe, Ballykelly and Longfield, it hosts the second largest area of inter-tidal habitat in Northern Ireland. The shoreline is generally engineered except around the Roe Estuary and northwards. Adjoining agricultural land is of importance as high tide roosts and in supporting wintering geese and swans.</p>
UK00303 61	River Faughan and Tributaries SAC	N/A	<p>In total, the area encompasses approximately 60km of watercourse and is notable for the physical diversity and naturalness of the banks and channels, especially in the upper reaches, and the richness and naturalness of its plant and animal communities, in particular the population of Atlantic Salmon, which is of international importance</p>	<p>The River Faughan and Tributaries includes the River Faughan and its tributaries the Burntollet River, Bonds Glen and the Glenrandal River (and its tributary the Inver River).</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>and the widespread and common occurrence of Otter in the catchment. The valley sides of River Faughan and its tributaries are partly covered by Upland Oak Woodland which although fragmented is in total in excess of 50ha.</p>	
UK00030 320	River Foyle and Tributaries	N/A	<p>The SAC includes the River Foyle and its tributaries including part of the River Finn which lies within Northern Ireland, the River Mourne and its tributary the River Strule (up to its confluence with the Owenkillew River) and the River Derg, along with two of its sub-tributaries, the Mourne Beg River and the Glendergan River. In total, the area encompasses 120km of watercourse and is notable for the physical diversity and naturalness of the banks and channels, especially in the upper reaches, and the richness and naturalness of its plant and animal communities. Of particular importance is the population of</p>	<p>In their upper catchments, the rivers are all fast-flowing spate rivers with dynamic flow regimes characterised by sequences of rapid, riffle and run. At the top end of the River Derg and its two tributaries, the aquatic flora reflect the highly acidic character of the water, with mosses and liverworts dominant. The River Foyle below Strabane is slow-flowing and is influenced by a tidal regime, rising and falling with the tidal cycle. Aquatic plants in the channel are extremely limited,</p>

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			Atlantic Salmon <i>Salmo salar</i> , which is one of the largest in Europe and Otter which is found throughout the system	particularly in the more saline areas; here, fucoids make up the main component.
UK00302 11	Moneygal Bog SAC	N/A	Moneygal Bog lies in a basin surrounded by low hills directly north of Castleterg and represents the most north-westerly lowland raised bog in Northern Ireland. The bog lies at a moderate elevation between 130m and 140m O.D. and displays some characteristics of transitional/ intermediate bog.	It is set within a landscape which has largely been improved for agricultural use. A bog burst that occurred in 1910 has resulted in a soak surrounded by a large pool system which extends to the centre of the bog. The pools are arranged concentrically around the site of the soak and represent one of the best raised bog pool systems in Northern Ireland. In addition, a number of notable plant species have been recorded including <i>Sphagnum imbricatum</i> and <i>S. fuscum</i> .
UK00166 22	Slieve Beagh SAC	N/A	The blanket bog, which covers most of the area, is the third largest intact bog in Northern Ireland.	Slieve Beagh is an upland area lying approximately four miles south of Clogher

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			<p>Peat depth is variable and consequently the peatland structure is highly diverse with hummock, lawn and pool complexes on the deepest peats grading into large expanses of blanketing peats on low gradients to heathland communities on the steepest and more exposed slopes. Typically, the peatland vegetation supports good Sphagnum-rich blanket bog vegetation with high dwarf-shrub cover. Several lakes, on site have characteristically un-enriched waters.</p>	<p>in County Tyrone, with the southern most projection extending into County Fermanagh. The upland area also extends across the border into Co. Monaghan. Within Northern Ireland, the upland topography undulates to a maximum height of 380 m at Doocarn, but generally lies between 200 and 350 m.</p>
UK90203 02	Slieve Beagh-Mullaghfad-Lisnaskea	N/A	<p>The site is delimited principally by physical boundaries closest to merged radii extending 2.5km from nest sites used by hen harriers between 1997 and 2004. The site encompasses all lands within these boundaries, excluding wholly-improved pasture, arable land, buildings and associated lands. It includes coniferous plantations, blanket bog, wet and dry heath, grass moor, scrub and limited</p>	<p>The Slieve Beagh – Mullaghfad - Lisnaskea SPA comprises a single land unit extending between Slatbeg in the north-east and Coolnasillagh in the south-west and incorporating the Slieve Beagh massif, Mullaghfad Forest and Lisnaskea Forest. Slightly more than half the eastern boundary is formed by the</p>

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			<p>semi-improved agricultural grassland.</p> <p>The principal interest is the breeding population of hen harrier. The site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting internationally important populations of hen harrier. It should be noted that the site adjoins a proposed SPA for hen harrier in the Republic of Ireland.</p>	border with the Republic of Ireland.
UK00166 21	Magheraveely Marl Loughs	N/A	Magheraveely Marl Loughs SAC consists of six lakes low-lying in the catchment of the River Finn. They are surrounded by wetlands whose interest is also promoted by high calcium concentration.	The lakes individually designated as ASSIs and selected from a cluster of lakes situated here because the combination of hard water and low nutrient status which results in lakes that approach the classic marl lake condition.
UK00302 12	Moninea Bog SAC	N/A	<p>Moninea Bog represents a comparatively large area of raised bog in Co. Fermanagh. It lies to the west of Upper Lough Erne directly south-west of Teemore and represents</p>	The bog lies at an elevation of about 50m O.D. and is completely surrounded by a series of low drumlin hills which



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			<p>one of the few remaining examples from the complex of small raised bogs which once occupied hollows between the drumlins of South Ulster.</p>	<p>in turn are surrounded by a series of rivers. The peat deposits are deep and permanently waterlogged and the main feature of interest is a large intact dome supporting a good surface microtopography. In addition, a number of notable plant species have been recorded including Sphagnum fuscum, S. imbricatum and S. pulchrum.</p>
UK00166 03	Cuilcagh Mountain SAC	N/A	<p>Cuilcagh Mountain SAC lies within the south-west of Fermanagh and north-west of Cavan and extends to an altitude of 665m. It is an important upland area with a wide variety of interests, including habitats, species and geology. The area is the second largest expanse of intact blanket bog in Northern Ireland, with a wide range of characteristic structural features and vegetation communities.</p> <p>The bog itself has several pool systems which, in</p>	<p>The SAC contains important geological and physiographical Earth Science features, including the only Gritstone edge and pavement in Northern Ireland. The complete Carboniferous Leitrim Group is represented, with its inherent stratigraphy including important fossiliferous</p>

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			<p>conjunction with Lough Atona, represent one of the best examples of dystrophic lakes and ponds in NI. On the summit ridge, there is an expanse of the scarce Racomitrium alpine heath. The diverse mosaic of habitats includes scattered wet and dry heath, the steep north-facing siliceous scarp slope with its scree and boulderfield, and occasional Sesleria caerulea dominated limestone grassland and pavement on the lower slopes.</p>	<p>sequences; this extended stratigraphy is of international significance. There are numerous examples of active weathering, pseudo-karst processes within the peat and of karst geomorphology.</p>
UK0030047	Lough Melvin	N/A	<p>Lough Melvin originates from the end of the last Ice Age with a catchment lying mainly in the Republic of Ireland. The catchment is relatively small for such an expansive waterbody (15.8 million m3). The lough is fed by five major rivers; and drains into the Drowes River, a 7km outlet into Donegal Bay.</p> <p>The water is in a relatively pristine state, as it has not been artificially enriched by pollutants. Most of the shoreline and shallow</p>	<p>The water volume of Lough Melvin is 15.8 million m3 and has a flushing rate of 360 days. The water is in a relatively pristine state, as it has not been artificially enriched by pollutants, being dilute in both major ion and nutrient chemistry. Calcium concentration is 19.3mg/l (1988), slightly below normal for lowland</p>

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			<p>margins of the lough are exposed to wave action and have a rocky character.</p> <p>The lough itself is characterised by open water plant communities typical of mesotrophic (unenriched) conditions, a narrow fringe of emergent swamp and fen and a number of wooded islands. In addition, some of the surrounding lands contain traditionally managed grasslands including Fen Meadow that are rich in plant species. The wide range of habitats is reflected in the diversity of plant and animal communities present. Lough Melvin is of particular importance for its fish population.</p>	<p>lakes in Northern Ireland reflecting the relative preponderance of inert rocks in the catchment. Total phosphorus concentration is 19 g/l (1989), not as enriched as most lowland lakes and low enough to categorise the water as mesotrophic. This probably reflects the small size of the catchment, as well as the population and land-use within it. The shoreline of Lough Melvin ASSI totals 48km, of which 12.5km (lough shore length - 10.5km, island shore length - 2km) is within the Northern Ireland at an altitude of approximately 25m, with a mean depth of 8.5m and a maximum depth of 45m towards the southern shore. The Lough Melvin catchment and water body lies</p>

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				mainly with in the jurisdiction of Republic of Ireland. Both the Republic of Ireland and Northern Ireland Governments have put forward Lough Melvin as a SAC.
UK0030068	Fardrum and Roosky Turloughs	N/A	<p>Roosky turlough, the southernmost sub-site, is dominated by inundation grassland, with little residual water when the site dries out. The source of water has been identified by dye tracing; the main resurgence being in the north-west of the site.</p> <p>Semi-natural scrub dominates the northern and western margins, while extensive blackthorn scrub occurs to the east – the latter prone to winter flooding. The site usually holds a small suckler herd through the summer. Fardrum and Green Lough are set in intensively managed partially reseeded grassland, used for pasture but still retaining some semi-natural scrub. Water sources have not</p>	Recent site investigations indicate that historical and recent quarrying has impacted on the wider hydrological system within which the turloughs sit. It appears that the turloughs continue to operate as a functional biological system.

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			been conclusively identified for these latter sub-sites.	
UK0030300	West Fermanagh Scarplands SAC	N/A	<p>West Fermanagh Scarplands runs from Sraniiff and Kilgarrow in the north to Aghahoorin and Carn in the south, while extending back through a series of escarpments and ridges from the low foothills and limestone cliffs in the east to the extensive peatland plateau between Big Dog and Ballintempo Forests in the west.</p> <p>The site has a unique combination of geology, physiography, habitats, flora and fauna features. It has an unparalleled range of habitats and associated vegetation communities occurring in Northern Ireland including base-rich broad-leaved woodland, wet and dry acid heath and calcareous heath, blanket bog, fen-meadow, calcareous and mesotrophic grassland, petrifying springs, flushes both acid and alkaline, natural dystrophic, mesotrophic and eutrophic open water</p>	<p>In addition to having an unparalleled range of habitats and associated vegetation communities, the site is also a major landscape feature of this region. The Western Fermanagh Scarpland geology is relatively simple but has a major influence on the plant communities that grow there. The rocks are Carboniferous in age, some 335 million years old, and date from a time when Ireland lay near the equator. Page 5 of 89 Three major cave systems occur within the site; with over 14-km of surveyed passage in total together with a range of surface karst features.</p>

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			<p>bodies with accompanying aquatic macrophyte communities, swamp and poor acid fen. Such diversity results in the presence of a large number of rare and notable higher plants, lichens, fungi and invertebrates.</p>	
UK00166 19	Monawilkin SAC	N/A	<p>Monawilkin is primarily a calcareous grassland site with Blue Moor-grass <i>Sesleria caerulea</i> dominated grassland the richest of its type in Northern Ireland. The underlying rock is for the most part Carboniferous Upper Limestone with the north-west of the site underlain by sandstone.</p> <p>The site also supports a range of species associated with a mosaic of other habitats including cliffs, screes, base rich flushes, heathland, scrub and woodland. There are transitions from open water to fen, swamp and Alder carr present around Carrick and Monawilkin Loughs within the site.</p>	<p>Small exposures of the Glencar Limestone Formation, of Lower Carboniferous age, have yielded an exceptionally rich silicified fauna dominated by bryozoa and brachiopods. This material has formed the basis of numerous descriptive publications covering more than 130 species, for 29 of which this is the type locality.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>In addition to the floral interest, the south-facing limestone scarp is the best inland site for Lepidoptera in Northern Ireland. There are recent records for a total of 23 butterfly species, and the site is the only known location in NI for the Small Blue <i>Cupido minumus</i>. The site has recently, post declaration, been shown to be of national importance for its assemblage of grassland fungi. The Freshwater Crayfish <i>Austropotamobius pallipes</i> occurs in Monawilkin Lough.</p>	
UK0030045	Largalunny	N/A	<p>Largalunny is a complex site with a variety of interests. Geological interest relates to the Upper Visean Glenade Sandstone Formations and Upper Visean Limestone Formations with rich silicified fossil fauna (the latter around Carrick Lough). Physiographical interest relates to the scarp and dip control of slope.</p>	<p>Botanical interest relates to the complex mosaic of habitats present, including heathland, oligotrophic and mesotrophic waterbodies and in particular, broad-leaved semi-natural woodland. Rare species include rare higher plants, and notable lichen and bryophyte</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>communities. In addition, there are notable assemblages of Odonata and Lepidoptera.</p>
UK9020051	Pettigoe Plateau SPA	N/A	<p>The site qualifies under Article 4.1 of EC Directive 79/409 on the Conservation of Wild Birds by regularly supporting nationally important numbers of breeding golden plover. It also forms part of an extended cross-border site which occasionally supports nationally important numbers of wintering Greenland white-fronted goose, an Annex 1 species. The Special Protection Area is used for both feeding and roosting.</p> <p>The Pettigoe Plateau also supports an important assemblage of breeding birds including four Annex 1 species, hen harrier, merlin, dunlin, and common tern. Other breeding species include lapwing, curlew and snipe.</p>	<p>The Pettigoe Plateau is situated in Fermanagh in the west of Northern Ireland to the north of Lower Lough Erne. It abuts the international border with the Irish Republic. It is one of the largest expanses of blanket bog in Northern Ireland. The Plateau, with its mosaic of lakes, peatlands and forests extends across the border into Co. Donegal. The area of blanket bog has a wide range of the structural features associated with this habitat including pool complexes, acid flushes, basin mires, ladder fens and bog plains. A number of notable lakes are also present.</p> <p>It has been formed on a relatively low</p>



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>elevation rolling landscape interspersed with hills with mineral soil and depressions containing several small lakes. The extensive blanket bog, which covers most of the site, exhibits the full range of characteristic vegetation and structural features associated with this type of habitat.</p>
UK00166 07	Pettigoe Plateau SAC	N/A	<p>Pettigoe Plateau lies between Beleek and Pettigoe to the north of the western tip of Lower Lough Erne in Co. Fermanagh. The Plateau, with its mosaic of lakes peatlands and forests extends across the border into Co. Donegal.</p> <p>Within Northern Ireland Pettigoe Plateau occurs in a gently rolling landscape bearing much evidence of glaciation, with ridges, knolls and circular drumlins interspersed with flat plains and hollows, mostly below 150 m. A thin layer of boulder clay underlies the blanketing peat over most</p>	<p>The area around Croagh Mountain contains outcrops displaying a wide variety of lithologies and structures typical of the Lough Derg Group. This is a series of mainly siliceous psammitic rocks containing minor intrusive basic igneous components. Late-phase feldspar-rich pegmatite veins are represented.</p> <p>The site contains a number of other notably scarce plant species and is also important for birds. It provides breeding</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>of the area. In contrast to the rolling terrain are the rocky peaks of Croagh and Mallybreen that rise above the surrounding land to more than 180 m.</p> <p>Topography is variable, although most slopes tend to be moderate or gentle and altitude does not vary a great deal.</p> <p>The area of blanket bog has a wide range of the structural features associated with this habitat: including a large number of well-developed pool complexes, frequent acid flushes, basin mires, ladder fens and bog plains. The bog vegetation is characterised by luxuriant Sphagnum mosses, dwarf-shrubs with associated species demonstrating a strong oceanic influence.</p> <p>Amongst the lakes included in the designation, several are clean soft-water types supporting a well-developed isoetid component in their aquatic vegetation.</p>	<p>habitat for a number of species and is especially important as the Irish stronghold for breeding Golden Plover <i>Pluvialis apricaria</i>. In addition, amongst the over-wintering birds, Pettigoe Plateau frequently supports Greenland White-fronted Geese <i>Anser albifrons flavirostris</i>.</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
UK00166 11	Fairy Water Bogs	N/A	<p>Fairy Water Bogs are located at an elevation below 80m in the former floodplains of the Fairy Water valley to the north of Drumquin. They are considered to be the most important concentration of lowland raised bogs in Northern Ireland.</p> <p>The SAC is made up of three separate active raised bogs with classic dome structure – Bomackatall and North Drumnafallow, Claragh and Kilmore Robinson. Bomackatall Bog surrounds an agriculturally improved drumlin top, which is excluded from the SAC.</p> <p>Hummocks and hollows, with widespread Bryophyte communities, are generally well developed on all four bogs and contain some notable species, including Sphagnum fuscum and Sphagnum imbricatum. At North Drumnafallow there is still some evidence of mire development over the site of an old pond.</p>	<p>Although there has been a long history of peat extraction in the area, a large extent of intact bog remains amongst the drumlins that are generally improved farmland. Claragh was the subject of a study in the late 1950s of the ecology of a raised bog (Morrison, 1959).</p> <p>The site has a detailed Holocene pollen record with radiocarbon dates providing a detailed vegetational history. Recent work shows this site also has a good tephra record.</p>
UK00166 14	Upper Lough Erne SAC	N/A	Natural eutrophic lakes with Magnopotamion or	The open waters of the main lough and

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			<p>Hydrocharition-type vegetation for which this is considered to be one of the best areas in the United Kingdom. Old sessile oak woods with Ilex and Blechnum in the British Isles for which this is considered to be one of the best areas in the United Kingdom. Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) for which this is considered to be one of the best areas in the United Kingdom. Lutra lutra for which this is considered to be one of the best areas in the United Kingdom.</p>	<p>smaller satellite loughs contain a variety of aquatic communities typical of natural eutrophic lakes. In addition, the shallow sheltered shores support extensive swamp, fen and marsh communities. Behind the open grazed foreshore is species-rich grassland, which occasionally extends back into the old adjacent field systems. Alluvial woodland is found where the shoreline is ungrazed or only very lightly grazed, while occasionally the dryer soils of the drumlins behind support a natural Oak woodland; this is particularly well developed within the Crom Estate to the south and the small island to the north of the Lough. Such diversity of good habitats and communities is</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				reflected in the very large number of rare and notable plants and insects flourishing here: the woods being particularly important for breeding passerines and home for some notable mammals.
UK90200 71	Upper Lough Erne SPA	N/A	Upper Lough Erne contributes to the maintenance of the geographic range of the Annex 1 Greenland white-fronted goose population of Northern Ireland through supporting regionally important numbers. It also supports an important assemblage of breeding birds including common tern and in the past supported breeding corncrake. Both are Annex 1 species. Over winter the area regularly supports: <i>Cygnus cygnus</i> (Iceland/UK/Ireland) 3.4% of the all-Ireland population 5 year peak mean, 1991/2-1995/6	The open waters of the main lough and smaller satellite loughs contain a variety of aquatic communities typical of natural eutrophic lakes. In addition, the shallow sheltered shores support extensive swamp, fen and marsh communities. Behind the open grazed foreshore is species-rich grassland, which occasionally extends back into the old adjacent field systems. Alluvial woodland is found where the shoreline is ungrazed or only very lightly grazed, while occasionally the dryer soils of the drumlins behind support a natural Oak woodland;

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				<p>this is particularly well developed within the Crom Estate to the south and the small island to the north of the Lough. Wintering Whooper Swan generally utilise improved or semi-improved grassland close to water bodies used for roosting. Foraging in flooded fields and of emergent vegetation in shallower lakes is common.</p> <p>The site regularly supports large numbers of over-wintering and breeding birds important in an all-Ireland context in addition to internationally important numbers of wintering Whooper Swan <i>Cygnus cygnus</i>, which has been recognised by its SPA designation.</p>
UK00301 16	Cladagh (Swanlinbar) River SAC	N/A	The river is of particular importance for its associated fauna, as it is one of the few rivers in Northern Ireland that still	Within County Fermanagh the 14.88km length of river has two distinct forms. The upper half

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>retains a significant and viable population of the Fresh Water Pearl Mussel <i>Margaritifera margaritifera</i>.</p> <p>Water courses of plain to montane levels with the <i>Ranuncion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation for which the area is considered to support a significant presence. <i>Margaritifera margaritifera</i> for which this is considered to be one of the best areas in the United Kingdom.</p>	<p>is typical of fast-flowing dynamic rivers with beds of Stream Water Crowfoot <i>Ranunculus penicillatus</i> var. <i>penicillatus</i>, whilst the lower half of the river is slow-flowing and very deeply dredged as it nears Upper Lough Erne.</p>
UK9020161	Carlingford Lough SPA	N/A	<p>The site qualifies under Article 4.2 of the Directive for supporting nationally important breeding populations of common tern. Both roseate and arctic terns have also been recorded breeding here in the past.</p> <p>The site forms part of an extended cross-border site which supports internationally important numbers of overwintering light-bellied brent geese. The extended site also supports nationally important numbers of the following wader</p>	<p>Carlingford Lough ASSI extends from Cranfield Point to the limit of main inter-tidal mudflats upstream towards Newry. The SPA extends from Soldiers Point to Killowen Point. The offshore islands at Blockhouse, Green Island and off Greencastle Point fall within both designations. Habitat is almost exclusively inter-tidal with the exception of the islands mentioned</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			species oystercatcher, ringed plover, grey plover, dunlin and redshank.	and coastal saltmarsh and wet grasslands in Mill Bay.
UK0016620	Derryleckagh SAC	N/A	Derryleckagh is a large lowland transitional valley mire occupying a valley floor with a central basin mire which has a small, base-rich Hazel/Oak woodland on the eastern valley slope. The mire is in a transitional stage between fen and bog, and is characterised by its broad range of surface conditions, ranging from slightly base-rich to markedly acidic. These soil conditions are dependent upon the influence of the ground water on the surface peat layer and have a marked effect upon the plant communities present. The diversity of wetland habitats support rich invertebrate communities, and supports notable wetland bird numbers.	
UK0166105	Eastern Mourne SAC	N/A	The Eastern Mourne SAC has a unique combination of upland habitats and associated	The Eastern Mourne consists of a compact range of mountains forming



Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>vegetation communities including the largest extent of European dry heaths in Northern Ireland. This is mostly of the Calluna/Erica cinerea type, but includes Ulex gallii/Erica cinerea dry heath on the lower slopes. The dominance of Erica cinerea is a notable feature of the area and characteristic of dry heath in the oceanic climate of more western parts of the UK. The area supports a number of other vegetation communities including wet heaths and blanket bog, montane heaths and grasslands on the highest summits and plant communities associated with the cliffs and scree.</p>	<p>the highest ground in Northern Ireland. They are situated in the south-east of the Province in County Down, just west of Newcastle. Within the Mountain range, 12 peaks extend to over 600m, with Slieve Donard rising to 852m. The area is important geologically representing the largest outcrop of Tertiary granites in the British Isles covering some 150 sq. km. The Eastern Mournes host three distinct granite types with associated mineralogies.</p>
UK0030268	Rostrevor Wood SAC	N/A	<p>The wood is comprised of a number of woodland community types ranging from markedly acid in the upper portion of the wood to weekly base-rich and flushed on parts of the lower slope, resulting in a varied and rich woodland flora composition. In general the wood exhibits a good</p>	<p>Rostrevor Wood is located on the lower but exposed west facing slope of Slievemeen overlooking Carlingford Lough and rises from approx. 10m above sea level to 130m at its highest point. The</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>structural diversity with a tall mature canopy, extensive understorey and field layer, and expansive herb and bryophyte layer.</p>	<p>underlying rock is Silurian Slate with the covering soil comprised of Brown Earth interspersed with fine scree and boulders.</p>
UK00302 77	Slieve Gullion SAC	N/A	<p>Annex 1 habitat European dry heath is extensive over the area and represents one of the largest expanses of this habitat in Northern Ireland outside the Mourne Mountains. The community is mostly of the <i>Calluna vulgaris</i>/<i>Erica cinerea</i> and <i>Calluna vulgaris</i>/<i>Vaccinium myrtillus</i> types, but includes <i>Ulex gallii</i>/<i>Erica cinerea</i> dry heath on the lower slopes. The area supports a number of other vegetation communities, including wet heath and blanket bog on the summit and upper slopes, wet and dry grassland communities, and transition mires and quaking bogs.</p>	<p>Slieve Gullion SAC supports a range of upland habitats and associated transitional communities, especially to the north of the site, where the upland heath grades downslope into lowland heaths, acid grasslands and basin fens.</p> <p>Slieve Gullion is a compact upland formed by volcanic activity in Tertiary times, some 60 million years ago. It is situated in south Armagh about 5 miles southwest of Newry, and at a height of 573m, it represents a prominent landscape feature. The area is important geologically, representing the finest example of a</p>

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
				Tertiary igneous centre in Ireland and it is also among the best topographic expressions of a ring-dyke system in the British Isles.
003001	Porcupine Bank Canyon SAC	Guinan, J. & Leahy, Y. (2010). Habitat Mapping of Geogenic Reef Offshore Ireland. Report prepared by the Marine Institute, Galway, Ireland and Geological Survey of Ireland for the Department of the Environment, Heritage and Local Government's National Parks and Wildlife Service.	Porcupine Bank Canyon lies at the continental margin of the Northeast Atlantic and slopes into the Rockall Trough (to the west) and Porcupine Seabight (to the east). An existing SAC (South-West Porcupine Bank) bounds a branch of a submarine canyon that is part of a series of canyon systems incising the edge of this bank. Circulation patterns around the banks along the Irish margin causes the accumulation of	Same as quality of site.

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			nutrient rich waters on the tops of banks leading to high surface productivity which provide enriched food sources to the ecosystems occurring at the bank e.g. canyons and carbonate mounds. The Porcupine Bank was mapped during the Irish National Seabed Survey in 2000 by the R.V. Bligh. The multibeam echo-sounder data reveals in exceptional detail the terrain features of the canyon at this site. At ~55 km long and ~15 km wide, it is the largest submarine canyon off the Porcupine Bank. It consists of a deep (up to 2600 m) main canyon with	

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>                     several side-canyons or channels branching into the continental shelf at water depths of between 1400 m and 800 m. The canyon widens seaward at the continental slope where the thalweg (the deepest continuous inline within a valley) occurs in 2600 m water depth. During the recent offshore survey it was noted that the substrate of the northern-most transect was dominated by hard ground interspersed with small areas of soft sediment. The southern transect was initially characterized by soft sediment with occasional boulders and pebbles. Terraces,                 </p>	

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>cliffs, overhangs and boulders were all noted. Dead coral also formed an element of the available habitats. The fauna was highly diverse, particularly amongst the dead coral framework, and included: Black coral, soft coral (&gt;2 species, including Anthomastus sp.), sea pen (Pennatula sp. on soft ground), gorgonians, encrusting sponges, desmospongia, glass sponges (particularly Aphrocallistes sp.), sea urchins (mainly Cidaris cidaris), anemones (including Phelliactis sp.), starfish, hydroids (stylasterids), fish, galatheids</p>	

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
			<p>(&gt;1 species and including Chirostylus sp. and Munidae), echiurans (particularly abundant on softer sediment), un-stalked crinoids, stalked crinoids, crabs (Bathynectes &amp; Chaecon sp.), corallimorphs, brittle stars &amp; sea cucumbers. Also present on the framework were anemones, various tubed worms, mobile crinoids, glass and desmosponges, asteroids, Anthomastus sp., Cidaris cidaris, fish, shrimp, and squid. Dead coral and coral rubble was noted widely in the area.</p>	

Site Code	Site Name	Documentation	Quality of Site	Other Site Characteristics
002278	Southern Canyons SAC	No documentation provided to date (28/09/2023)	No documentation provided to date (28/09/2023)	No documentation provided to date (28/09/2023)
004236	North-west Irish Sea SPA	No documentation provided to date (28/09/2023)	No documentation provided to date (28/09/2023)	No documentation provided to date (28/09/2023)



**Table 2-2 Known threats and pressures for all European Sites**

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000006	Killyconny Bog (Cloghbally) SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	B01, J01, H05.01, G01, F06.01, D01.01, G05.09, A08, G05.04, A04.01.01, G01.03.02, J02.01, C01, J02	Forest planting on open ground, Fire and fire suppression, Garbage and solid waste, Outdoor sports and leisure activities, recreational activities, Game or bird breeding station, Paths, tracks, cycling tracks, Fences, fencing, Fertilisation, Vandalism, Intensive cattle grazing, Off-road motorized driving, Landfill, land reclamation and drying out, general, Mining and quarrying, Human induced changes in hydraulic conditions
000007	Lough Oughter and Associated Loughs SAC	Bog woodland [91D0], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Otter ( <i>Lutra lutra</i> ) [1355]	E01.03, B01.01, B01.02, H01.03, I01, H01.05, J02.01.03, A10.01, M01.03, G01, H01.04	Dispersed habitation, Forest planting on open ground (native trees), Artificial planting on open ground (non-native trees), Other point source pollution to surface water, Invasive non-native species, Diffuse pollution to surface waters due to agricultural and forestry activities, Infilling of ditches, dykes, ponds, pools, marshes or pits, Removal of hedges and copses or scrub, Flooding and rising precipitations, Outdoor sports and leisure activities, recreational activities, Diffuse pollution to surface waters via storm overflows or urban run-off
000014	Ballyallia Lake SAC	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150]	K04.01, A02.01, A10.01, A08, X, H01	Competition (flora), Agricultural intensification, Removal of hedges and copses or scrub, Fertilisation, No threats or pressures, Pollution to surface waters (limnic & terrestrial, marine & brackish)
000016	Ballycullinan Lake SAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210]	A04, J02, A10.01, E01.03, A08, J02.01	Grazing, Human induced changes in hydraulic conditions, Removal of hedges and copses or scrub, Dispersed habitation, Fertilisation, Landfill, land reclamation and drying out, general
000019	Ballyogan Lough SAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210]	H01.08, A05.02, H01.05, A04.02, A10, A04.01, A04.03, H02.07, I02, J01.01, C01, H02.06, K02.01	Diffuse pollution to surface waters due to household sewage and waste waters, Stock feeding, Diffuse pollution to surface waters due to agricultural and forestry activities, Non intensive grazing, Restructuring agricultural land holding, Intensive grazing, Abandonment of pastoral systems lack of grazing, Diffuse groundwater pollution due to non-sewered population, Problematic native species, Burning down, Mining and quarrying, Diffuse groundwater pollution due to agricultural and forestry activities, Species composition change (succession)

000020	Black Head-Poulsallagh Complex SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Perennial vegetation of stony banks [1220], Limestone pavements [8240], Reefs [1170], Juniperus communis formations on heaths or calcareous grasslands [5130], Alpine and Boreal heaths [4060], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260], Petrifying springs with tufa formation (Cratoneurion) [7220], Petalwort (Petalophyllum ralfsii) [1395]	A04.03, G02.08, C01.03.02, E04.01, A08, K04.01, G05.01, A05.02, A04.02.01, K02.01, D01.01, C01.07, A10.01, G01, K02.02, B07	Abandonment of pastoral systems lack of grazing, Camping and caravans, Mechanical removal of peat, Agricultural structures, buildings in the landscape, Fertilisation, Competition (flora), Trampling, overuse, Stock feeding, Non intensive cattle grazing, Species composition change (succession), Paths, tracks, cycling tracks, Mining and extraction activities not referred to above, Removal of hedges and copses or scrub, Outdoor sports and leisure activities, recreational activities, Accumulation of organic material, Forestry activities not referred to above
000030	Danes Hole, Poulnalecka SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	B06, M02.03, A10.01, B01.01, D05	Grazing in forests or woodland, Decline or extinction of species, Removal of hedges and copses or scrub, Forest planting on open ground (native trees), Improved access to site
000032	Dromore Woods and Loughs SAC	Otter (Lutra lutra) [1355], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Limestone pavements [8240], Hydrophilous tall herb fringe communities of plains	F03.02.04, F03.01, D01.02, F02.03, G05, A10, G01.02, E03.03, J02, G03, G01.03, A10.01, B01.01, B, A04, A10.02, E01.03, E06.02, A08, D01, E03.01	Predator control, Hunting, Roads, motorways, Leisure fishing, Other human intrusions and disturbances, Restructuring agricultural land holding, Walking, horseriding and non-motorised vehicles, Disposal of inert materials, Human induced changes in hydraulic conditions, Interpretative centres, Motorised vehicles, Removal of hedges and copses or scrub, Forest planting on open ground (native trees), Sylviculture, forestry, Grazing, Removal of stone walls and embankments, Dispersed habitation, Reconstruction, renovation of buildings, Fertilisation, Roads,

		and of the montane to alpine levels [6430]		paths and railroads, Disposal of household or recreational facility waste
000036	Inagh River Estuary SAC	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410]	A02.01, J02.05.02, I01, J02.12.01, J02.01.02, M01.05, J02.11.02	Agricultural intensification, Modifying structures of inland water courses, Invasive non-native species, Sea defense or coast protection works, tidal barrages, Reclamation of land from sea, estuary or marsh, Water flow changes (limnic, tidal and oceanic), Other siltation rate changes
000037	Pouladatig Cave SAC	Caves not open to the public [8310], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	A04	Grazing
000051	Lough Gash Turlough SAC	Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation [3270], Turloughs [3180]	D01.02, A08, H01.08, A10.01, F03.01, A04, E01	Roads, motorways, Fertilisation, Diffuse pollution to surface waters due to household sewage and waste waters, Removal of hedges and copses or scrub, Hunting, Grazing, Urbanised areas, human habitation
000054	Moneen Mountain SAC	Turloughs [3180], <i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130], Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210], Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) [7220], Alpine and Boreal heaths [4060], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303], Limestone pavements [8240], Marsh Fritillary ( <i>Euphydryas aurinia</i> ) [1065]	K02.02, A04.02.01, A05.02, A04.03, A08, D01.01, K02.01, E04.01, A10.01, K04.01	Accumulation of organic material, Non intensive cattle grazing, Stock feeding, Abandonment of pastoral systems lack of grazing, Fertilisation, Paths, tracks, cycling tracks, Species composition change (succession), Agricultural structures, buildings in the landscape, Removal of hedges and copses or scrub, Competition (flora)
000057	Moyree River System SAC	Limestone pavements [8240], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and	I02, E01, A05.02, A10, B01, A10.02, J02, E06.02, E03.01, J01, F03.01, E04.01,	Problematic native species, Urbanised areas, human habitation, Stock feeding, Restructuring agricultural land holding, Forest planting on open ground, Removal of stone walls and embankments, Human induced changes in hydraulic conditions,

		Callitricho-Batrachion vegetation [3260], Otter ( <i>Lutra lutra</i> ) [1355], Alkaline fens [7230], Caves not open to the public [8310], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	A04.02.01, A08, G01.02, H, A04, A10.01, J02.01	Reconstruction, renovation of buildings, Disposal of household or recreational facility waste, Fire and fire suppression, Hunting, Agricultural structures, buildings in the landscape, Non intensive cattle grazing, Fertilisation, Walking, horseriding and non-motorised vehicles, Pollution, Grazing, Removal of hedges and copses or scrub, Landfill, land reclamation and drying out, general
000064	Poulmagordon Cave (Quin) SAC	Caves not open to the public [8310], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	E01, A10.01, G01.04.03, G05.04, A04	Urbanised areas, human habitation, Removal of hedges and copses or scrub, Recreational cave visits, Vandalism, Grazing
000077	Ballymacoda (Clonpriest and Pillmore) SAC	Salicornia and other annuals colonising mud and sand [1310], Mudflats and sandflats not covered by seawater at low tide [1140], Estuaries [1130], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritima</i> ) [1330], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410]	A04, E01.03, F02.03, F02.03.01, I01, A08, F03.01, G01.02, K02.03, G02.07, F03.02	Grazing, Dispersed habitation, Leisure fishing, Bait digging or collection, Invasive non-native species, Fertilisation, Hunting, Walking, horseriding and non-motorised vehicles, Eutrophication (natural), Sports pitch, Taking and removal of animals (terrestrial)
000090	Glengarriff Harbour and Woodland SAC	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Otter ( <i>Lutra lutra</i> ) [1355], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303], Harbour seal ( <i>Phoca vitulina</i> ) [1365], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Kerry Slug ( <i>Geomalacus maculosus</i> ) [1024]	D03.01.02, F01.02, A04.02, E01.03, G01.01, F02, B02.03, J01.01, B06, H01, G01.02, B02.02, G05.06, I01	Piers or tourist harbours or recreational piers, Suspension culture, Non intensive grazing, Dispersed habitation, Nautical sports, Fishing and harvesting aquatic resources, Removal of forest undergrowth, Burning down, Grazing in forests or woodland, Pollution to surface waters (limnic & terrestrial, marine & brackish), Walking, horseriding and non-motorised vehicles, Forestry clearance, Tree surgery, felling for public safety, removal of roadside trees, Invasive non-native species
000091	Clonakilty Bay SAC	Dunlin ( <i>Calidris alpina</i> ) [A149], Wetland and Waterbirds [A999], Curlew ( <i>Numenius arquata</i> ) [A160], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Black-tailed	G01.02, A04.02, K02.02, F02.03.01	Walking, horseriding and non-motorised vehicles, Non intensive grazing, Accumulation of organic material, Bait digging or collection

		Godwit ( <i>Limosa limosa</i> ) [A156]		
000093	Caha Mountains SAC	European dry heaths [4030], Kerry Slug ( <i>Geomalacus maculosus</i> ) [1024], Killarney fern ( <i>Trichomanes speciosum</i> ) [1421], Siliceous rocky slopes with chasmophytic vegetation [8220], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Natural dystrophic lakes and ponds [3160], Calcareous rocky slopes with chasmophytic vegetation [8210], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Alpine and Boreal heaths [4060], Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> ) [8110], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110], Blanket bogs * if active bog [7130]	C01.03.01, D01.01, A04.02.02, E01.03, X, J01.01, I01	Hand cutting of peat, Paths, tracks, cycling tracks, Non intensive sheep grazing, Dispersed habitation, No threats or pressures, Burning down, Invasive non-native species
000097	Lough Hyne Nature Reserve and Environs SAC	Reefs [1170], Large shallow inlets and bays [1160], Submerged or partially submerged sea caves [8330]	X, F02.03, F02.01.01, I01	No threats or pressures, Leisure fishing, Potting, Invasive non-native species
000101	Roaringwater Bay and Islands SAC	European dry heaths [4030], Reefs [1170], Submerged or partially submerged sea caves [8330], Large shallow inlets and bays [1160], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Otter ( <i>Lutra lutra</i> ) [1355], Harbour porpoise	F01, J01, C01.01.02, A10, A04.03, A04.02, A05.02, F02, G	Marine and Freshwater Aquaculture, Fire and fire suppression, Removal of beach materials, Restructuring agricultural land holding, Abandonment of pastoral systems lack of grazing, Non intensive grazing, Stock feeding, Fishing and harvesting aquatic resources, Human intrusions and disturbances

		(Phocoena phocoena) [1351], Grey seal (Halichoerus grypus) [1364]		
000102	Sheep's Head SAC	European dry heaths [4030], Northern Atlantic wet heaths with Erica tetralix [4010], Kerry Slug (Geomalacus maculosus) [1024]	X, A05.02, D01.01, A10, A04.02, J01, A04.03	No threats or pressures, Stock feeding, Paths, tracks, cycling tracks, Restructuring agricultural land holding, Non intensive grazing, Fire and fire suppression, Abandonment of pastoral systems lack of grazing
000106	St. Gobnet's Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	G05.06, B02.03, A04, B04, D01.01	Tree surgery, felling for public safety, removal of roadside trees, Removal of forest undergrowth, Grazing, Use of biocides, hormones and chemicals (forestry), Paths, tracks, cycling tracks
000108	The Gearagh SAC	Rivers with muddy banks with Chenopodium rubri p.p. and Bidenton p.p. vegetation [3270], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Otter (Lutra lutra) [1355], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]	J02, H01.05, X	Human induced changes in hydraulic conditions, Diffuse pollution to surface waters due to agricultural and forestry activities, No threats or pressures
000109	Three Castle Head to Mizen Head SAC	Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], European dry heaths [4030]	X, A04.02, D01.01, J01	No threats or pressures, Non intensive grazing, Paths, tracks, cycling tracks, Fire and fire suppression
000111	Aran Island (Donegal) Cliffs SAC	Siliceous rocky slopes with chasmophytic vegetation [8220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Calcareous rocky slopes with chasmophytic vegetation [8210], European dry heaths [4030], Alpine and Boreal	G01, C01.01, F02.03, D01.01, C01.03.01, E01, A04, D02.01	Outdoor sports and leisure activities, recreational activities, Sand and gravel extraction , Leisure fishing, Paths, tracks, cycling tracks, Hand cutting of peat, Urbanised areas, human habitation, Grazing, Electricity and phone lines

		heaths [4060], Submerged or partially submerged sea caves [8330]		
000115	Ballintra SAC	Limestone pavements [8240], European dry heaths [4030]	A04.02.01, B07, K02.01	Non intensive cattle grazing, Forestry activities not referred to above, Species composition change (succession)
000116	Ballyarr Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	B06, G01, B07	Grazing in forests or woodland, Outdoor sports and leisure activities, recreational activities, Forestry activities not referred to above
000129	Croaghonagh Bog SAC	Blanket bogs * if active bog [7130]	C01.01, A04.01.02, J02.08, J02.04.01, J01, C01.03	Sand and gravel extraction , Intensive sheep grazing, Raising the groundwater table or artificial recharge of groundwater, Flooding, Fire and fire suppression, Peat extraction
000133	Donegal Bay (Murvagh) SAC	Humid dune slacks [2190], Harbour seal ( <i>Phoca vitulina</i> ) [1365], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Dunes with <i>Salix repens ssp. argentea</i> ( <i>Salicion arenariae</i> ) [2170], Mudflats and sandflats not covered by seawater at low tide [1140]	F01.01, C01.01.02, G02.08, G01, K01.01, J02.12.01, G05.01, J02.01.03, A04.01.01	Intensive fish farming, intensification , Removal of beach materials, Camping and caravans, Outdoor sports and leisure activities, recreational activities, Erosion, Sea defense or coast protection works, tidal barrages, Trampling, overuse, Infilling of ditches, dykes, ponds, pools, marshes or pits, Intensive cattle grazing
000138	Durnesh Lough SAC	Coastal lagoons [1150], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410]	F03.01, E03.01, G01, E01.03, A04.02.01, A08	Hunting, Disposal of household or recreational facility waste, Outdoor sports and leisure activities, recreational activities, Dispersed habitation, Non intensive cattle grazing, Fertilisation
000140	Fawnboy Bog/Lough Nacung SAC	Blanket bogs * if active bog [7130], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Depressions on peat substrates of the <i>Rhynchosporion</i> [7150]	A04, J02.05.02, E02, D01.02, C01.03, E01.03, B, C01.01	Grazing, Modifying structures of inland water courses, Industrial or commercial areas, Roads, motorways, Peat extraction, Dispersed habitation, Sylviculture, forestry, Sand and gravel extraction
000142	Gannivegil Bog SAC	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010],	A04, C01.01.01, J01, C01.03.01, D01.02, C01.03.02, C01.03, J02, E01.03	Grazing, Sand and gravel quarries, Fire and fire suppression, Hand cutting of peat, Roads, motorways, Mechanical removal of peat, Peat extraction, Human induced changes in hydraulic conditions, Dispersed habitation

		Blanket bogs * if active bog [7130]		
000147	Horn Head and Rinclevan SAC	Grey seal ( <i>Halichoerus grypus</i> ) [1364], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> ) [2170], Machairs * in Ireland [21A0], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Geyer`s whorl snail ( <i>Vertigo geyeri</i> ) [1013], Embryonic shifting dunes [2110], Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Humid dune slacks [2190], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130], Slender naiad ( <i>Najas flexilis</i> ) [1833]	D01.01, A03, F02.01.02, G01.02, B, A04, G02.01, E03.04, E01.03, C01.01.01, J01, A08, C01.03.01	Paths, tracks, cycling tracks, Mowing or cutting of grassland, Netting, Walking, horseriding and non-motorised vehicles, Sylviculture, forestry, Grazing, Golf course, Other discharges, Dispersed habitation, Sand and gravel quarries, Fire and fire suppression, Fertilisation, Hand cutting of peat
000154	Inishtrahull SAC	Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230]	A04.02.05, G01, E03.01	Non intensive mixed animal grazing, Outdoor sports and leisure activities, recreational activities, Disposal of household or recreational facility waste
000163	Lough Eske and Ardnamona Wood SAC	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletea uniflorae</i> ) [3110], Killarney fern ( <i>Trichomanes speciosum</i> ) [1421], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) [7220]	A04, I01, E01.03, F03.02.09, H01.05, B06, J02, B02.01.01	Grazing, Invasive non-native species, Dispersed habitation, Other forms of taking animals, Diffuse pollution to surface waters due to agricultural and forestry activities, Grazing in forests or woodland, Human induced changes in hydraulic conditions, Forest replanting (native trees)



000164	Lough Nagreany Dunes SAC	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Decalcified fixed dunes with <i>Empetrum nigrum</i> [2140], Machairs * in Ireland [21A0], Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> ) [2150], Slender naiad ( <i>Najas flexilis</i> ) [1833], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Embryonic shifting dunes [2110], Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> ) [2170], Humid dune slacks [2190]	K01.01, A04, A02.01, X, A05.02	Erosion, Grazing, Agricultural intensification, No threats or pressures, Stock feeding
000165	Lough Nillan Bog (Carrickatlieve) SAC	Blanket bogs * if active bog [7130], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110]	X, E03.03, A04.01.02, M02.03, G05.09, E03.01, K02.01, I01, G01.03.02, C01.03.01, C01.03.02	No threats or pressures, Disposal of inert materials, Intensive sheep grazing, Decline or extinction of species, Fences, fencing, Disposal of household or recreational facility waste, Species composition change (succession), Invasive non-native species, Off-road motorized driving, Hand cutting of peat, Mechanical removal of peat
000168	Magheradrumman Bog SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Blanket bogs * if active bog [7130]	X, J02.05, C01.03.02, D01, G01.03.02	No threats or pressures, Modification of hydrographic functioning, general, Mechanical removal of peat, Roads, paths and railroads, Off-road motorized driving
000172	Meenaguse/Ardbane Bog SAC	Blanket bogs * if active bog [7130]	A05.02, E01.03, X, C01.03.02, C01.03.01, J01, A04.01.02	Stock feeding, Dispersed habitation, No threats or pressures, Mechanical removal of peat, Hand cutting of peat, Fire and fire suppression, Intensive sheep grazing
000173	Meentygrannagh Bog SAC	Blanket bogs * if active bog [7130], Alkaline fens [7230], Transition mires and quaking bogs [7140], Slender green feather-moss ( <i>Hamatocaulis vernicosus</i> ) [6216]	B01, J02.08, D02.01.01, C01.03.01, A05.02, J02, D01.01	Forest planting on open ground, Raising the groundwater table or artificial recharge of groundwater, Suspended electricity and phone lines, Hand cutting of peat, Stock feeding, Human induced changes in hydraulic conditions, Paths, tracks, cycling tracks

000174	Curraghchase Woods SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Taxus baccata woods of the British Isles [91J0], Desmoulin's whorl snail (Vertigo moulinsiana) [1016]	J02.02.01, B02.01.01, G01, G05.04, B02	Dredging or removal of limnic sediments, Forest replanting (native trees), Outdoor sports and leisure activities, recreational activities, Vandalism, Forest and Plantation management & use
000181	Rathlin O'Birne Island SAC	Reefs [1170]	A04.03, F02.01.01, X	Abandonment of pastoral systems lack of grazing, Potting, No threats or pressures
000185	Sessiagh Lough SAC	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Slender naiad (Najas flexilis) [1833]	E01.01, I01, H02.07, G01.01.01, H01.08, X	Continuous urbanisation, Invasive non-native species, Diffuse groundwater pollution due to non-sewered population, Motorized nautical sports, Diffuse pollution to surface waters due to household sewage and waste waters, No threats or pressures
000189	Slieve League SAC	Northern Atlantic wet heaths with Erica tetralix [4010], Reefs [1170], Alpine and Boreal heaths [4060], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Siliceous rocky slopes with chasmophytic vegetation [8220], Calcareous rocky slopes with chasmophytic vegetation [8210], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], European dry heaths [4030], Blanket bogs * if active bog [7130]	G01.04.01, X, E03.03, F02.01.01, G05.01, D01.03, I01, E03.01, C01.03.02, A05.02, A04.01.02, C01.03.01, G01.02, G05.09	Mountaineering & rock climbing, No threats or pressures, Disposal of inert materials, Potting, Trampling, overuse, Car parks and parking areas, Invasive non-native species, Disposal of household or recreational facility waste, Mechanical removal of peat, Stock feeding, Intensive sheep grazing, Hand cutting of peat, Walking, horseriding and non-motorised vehicles, Fences, fencing
000190	Slieve Tooley/Tormore	Decalcified fixed dunes with	E03.01, G05.09, X,	Disposal of household or recreational facility waste, Fences,

	Island/Loughros Beg Bay SAC	Empetrum nigrum [2140], Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Narrow-mouthed whorl snail (Vertigo angustior) [1014], Blanket bogs * if active bog [7130], Embryonic shifting dunes [2110], Alpine and Boreal heaths [4060], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Grey seal (Halichoerus grypus) [1364], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Otter (Lutra lutra) [1355]	A02.02, J01.01, C01.01.01, A04.03, G01.03.02, A04.01.02, C01.03.01, A05.02, C01.03.02	fencing, No threats or pressures, Crop change, Burning down, Sand and gravel quarries, Abandonment of pastoral systems lack of grazing, Off-road motorized driving, Intensive sheep grazing, Hand cutting of peat, Stock feeding, Mechanical removal of peat
000191	St. John's Point SAC	Large shallow inlets and bays [1160], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Reefs [1170], Marsh Fritillary (Euphydryas aurinia) [1065], Submerged or partially submerged sea caves [8330], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Limestone pavements [8240], Alkaline fens [7230]	A04.02.01, G05.01, F04.02.02, G01.02, G01.03.02, G01.07	Non intensive cattle grazing, Trampling, overuse, Hand collection, Walking, horseriding and non-motorised vehicles, Off-road motorized driving, Scuba diving, snorkelling
000194	Tranarossan and Melmore Lough SAC	European dry heaths [4030], Embryonic shifting dunes [2110], Humid dune slacks [2190], Dunes with Salix repens	A05.02, X, A10, A04	Stock feeding, No threats or pressures, Restructuring agricultural land holding, Grazing

		ssp. argentea (Salicion arenariae) [2170], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Alpine and Boreal heaths [4060], Annual vegetation of drift lines [1210], Petalwort (Petalophyllum ralfsii) [1395], Machairs * in Ireland [21A0], Perennial vegetation of stony banks [1220], Decalcified fixed dunes with Empetrum nigrum [2140], Mudflats and sandflats not covered by seawater at low tide [1140], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130]		
000197	West of Ardara/Maas Road SAC	Mediterranean salt meadows (Juncetalia maritimi) [1410], Mudflats and sandflats not covered by seawater at low tide [1140], Juniperus communis formations on heaths or calcareous grasslands [5130], Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Large shallow inlets and bays [1160], Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330], Depressions on peat	G01.03.02, A03.03, A08, G05.01, A04.01.05, E05, F06, J01.01, D01.02, A04.03, C01.03.01, B02.02, K01.01, F02.03, A02.01, D01.01, C01.03.02, E03.03, G05.09, H01.05, C01.01.02, F03.02.04, J02.15	Off-road motorized driving, Abandonment or lack of mowing, Fertilisation, Trampling, overuse, Intensive mixed animal grazing, Storage of materials, Hunting, fishing or collecting activities not referred to above, Burning down, Roads, motorways, Abandonment of pastoral systems lack of grazing, Hand cutting of peat, Forestry clearance, Erosion, Leisure fishing, Agricultural intensification, Paths, tracks, cycling tracks, Mechanical removal of peat, Disposal of inert materials, Fences, fencing, Diffuse pollution to surface waters due to agricultural and forestry activities, Removal of beach materials, Predator control, Other human induced changes in hydraulic conditions

		<p>substrates of the Rhynchosporion [7150], Northern Atlantic wet heaths with Erica tetralix [4010], Dunes with Salix repens ssp. argentea (Salicion arenariae) [2170], Otter (Lutra lutra) [1355], Estuaries [1130], Harbour seal (Phoca vitulina) [1365], Humid dune slacks [2190], Alkaline fens [7230], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Petalwort (Petalophyllum ralfsii) [1395], Geyer's whorl snail (Vertigo geyeri) [1013], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Slender naiad (Najas flexilis) [1833], Blanket bogs * if active bog [7130], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], European dry heaths [4030], Decalcified fixed dunes with Empetrum nigrum [2140], Atlantic salmon (Salmo salar) [1106], Machairs * in Ireland [21A0], Marsh Fritillary (Euphydryas aurinia) [1065], Annual vegetation of drift lines [1210], Embryonic shifting</p>		
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		dunes [2110], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Alpine and Boreal heaths [4060]		
000199	Baldoyle Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], <i>Salicornia</i> and other annuals colonising mud and sand [1310]	K03.06, I01, K02.03, D01.02, J02.01.02, F02.03.01, G01.02, X, F03.01, E03, G02.01, G01.01.02, E01	Antagonism with domestic animals, Invasive non-native species, Eutrophication (natural), Roads, motorways, Reclamation of land from sea, estuary or marsh, Bait digging or collection, Walking, horseriding and non-motorised vehicles, No threats or pressures, Hunting, Discharges, Golf course, Non-motorized nautical sports, Urbanised areas, human habitation
000202	Howth Head SAC	Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], European dry heaths [4030]	C01.01.01, C01, G05.04, I01, D01.01, G01.02, J01.01, E01, A04.03, X	Sand and gravel quarries, Mining and quarrying, Vandalism, Invasive non-native species, Paths, tracks, cycling tracks, Walking, horseriding and non-motorised vehicles, Burning down, Urbanised areas, human habitation, Abandonment of pastoral systems lack of grazing, No threats or pressures
000204	Lambay Island SAC	Harbour seal ( <i>Phoca vitulina</i> ) [1365], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Reefs [1170], Grey seal ( <i>Halichoerus grypus</i> ) [1364]	F02.03, A04, G01.01, E01, A03, F03.01, E02, X	Leisure fishing, Grazing, Nautical sports, Urbanised areas, human habitation, Mowing or cutting of grassland, Hunting, Industrial or commercial areas, No threats or pressures
000205	Malahide Estuary SAC	<i>Salicornia</i> and other annuals colonising mud and sand [1310], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Mudflats and sandflats not covered by seawater at low tide [1140], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330]	G01.02, F03.01, X, E01, G01.01, G01.03, D01.02, D01.05, A08, I01, G02.01, J02.01.02	Walking, horseriding and non-motorised vehicles, Hunting, No threats or pressures, Urbanised areas, human habitation, Nautical sports, Motorised vehicles, Roads, motorways, Bridge, viaduct, Fertilisation, Invasive non-native species, Golf course, Reclamation of land from sea, estuary or marsh

000206	North Dublin Bay SAC	Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Annual vegetation of drift lines [1210], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Humid dune slacks [2190], Mudflats and sandflats not covered by seawater at low tide [1140], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Embryonic shifting dunes [2110]	E03, E01, G05.05, F02.03, H01.03, F02.03.01, E02, I01, A04, K03.06, H01.09, G01.02, G01.01, G02.01, J01.01	Discharges, Urbanised areas, human habitation, Intensive maintenance of public parks or cleaning of beaches, Leisure fishing, Other point source pollution to surface water, Bait digging or collection, Industrial or commercial areas, Invasive non-native species, Grazing, Antagonism with domestic animals, Diffuse pollution to surface waters due to other sources not listed, Walking, horseriding and non-motorised vehicles, Nautical sports, Golf course, Burning down
000208	Rogerstown Estuary SAC	Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410]	D01.02, F02.03.01, G02.01, A04, K01.01, J02.12.01, A07, I01, E03, J02.01.02, G01.02, X, G01.01, E01.03, A08	Roads, motorways, Bait digging or collection, Golf course, Grazing, Erosion, Sea defense or coast protection works, tidal barrages, Use of biocides, hormones and chemicals, Invasive non-native species, Discharges, Reclamation of land from sea, estuary or marsh, Walking, horseriding and non-motorised vehicles, No threats or pressures, Nautical sports, Dispersed habitation, Fertilisation
000210	South Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140], Embryonic shifting dunes [2110], Annual vegetation of drift lines [1210], <i>Salicornia</i> and other annuals colonising mud and sand [1310]	H03, E02, D01.02, G01.01.02, J02.01.02, F02.03.01, M01, K02.02, E03, G01.01, G01.02, D01.01, E01, K02	Marine water pollution, Industrial or commercial areas, Roads, motorways, Non-motorized nautical sports, Reclamation of land from sea, estuary or marsh, Bait digging or collection, Changes in abiotic conditions, Accumulation of organic material, Discharges, Nautical sports, Walking, horseriding and non-motorised vehicles, Paths, tracks, cycling tracks, Urbanised areas, human habitation, Biocenotic evolution, succession

000212	Inishmaan Island SAC	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) [6510], European dry heaths [4030], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Reefs [1170], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Embryonic shifting dunes [2110], Machairs * in Ireland [21A0], Limestone pavements [8240], Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210], Perennial vegetation of stony banks [1220]	A08, E04.01, J02.12.01, J02.01.02, G01, I02, A04.02.01, E05, A10.01, A04.03, F04, D01.01, J01.01, C01.01	Fertilisation, Agricultural structures, buildings in the landscape, Sea defense or coast protection works, tidal barrages, Reclamation of land from sea, estuary or marsh, Outdoor sports and leisure activities, recreational activities, Problematic native species, Non intensive cattle grazing, Storage of materials, Removal of hedges and copses or scrub, Abandonment of pastoral systems lack of grazing, Taking or Removal of terrestrial plants, general, Paths, tracks, cycling tracks, Burning down, Sand and gravel extraction
000213	Inishmore Island SAC	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) [6510], Reefs [1170], Limestone pavements [8240], Submerged or partially submerged sea caves [8330], European dry heaths [4030], Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> ) [2170], Coastal lagoons [1150], Perennial vegetation of stony banks [1220], Narrow-mouthed whorl snail ( <i>Vertigo angustior</i> ) [1014], Machairs * in Ireland [21A0], Embryonic shifting dunes [2110], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Alpine and Boreal heaths [4060], Humid dune slacks [2190], Vegetated sea cliffs of the Atlantic and Baltic	D03, E04.01, K04.05, I02, H02.07, A08, F02.02.02, D01.01, A10.01, C01.07, A04.03, A02.01, A04.02.01, J01.01, J02.01.02	Shipping lanes, ports, marine constructions, Agricultural structures, buildings in the landscape, Damage by herbivores (including game species), Problematic native species, Diffuse groundwater pollution due to non-sewered population, Fertilisation, Pelagic trawling, Paths, tracks, cycling tracks, Removal of hedges and copses or scrub, Mining and extraction activities not referred to above, Abandonment of pastoral systems lack of grazing, Agricultural intensification, Non intensive cattle grazing, Burning down, Reclamation of land from sea, estuary or marsh



		coasts [1230], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210]		
000216	River Shannon Callows SAC	Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) [6510], Limestone pavements [8240], Alkaline fens [7230], Otter ( <i>Lutra lutra</i> ) [1355]	A04.02.05, J02.04.01, B02.02, J02.05, C01.03.02, J02.11, A03, A03.03, A04.01, A10.01, B06, A08, J02.05.02, G01, K03.04, A04.03, F03.01, J02.01, D01.01, A07, G05.01	Non intensive mixed animal grazing, Flooding, Forestry clearance, Modification of hydrographic functioning, general, Mechanical removal of peat, Siltation rate changes, dumping, depositing of dredged deposits, Mowing or cutting of grassland, Abandonment or lack of mowing, Intensive grazing, Removal of hedges and copses or scrub, Grazing in forests or woodland, Fertilisation, Modifying structures of inland water courses, Outdoor sports and leisure activities, recreational activities, Predation, Abandonment of pastoral systems lack of grazing, Hunting, Landfill, land reclamation and drying out, general, Paths, tracks, cycling tracks, Use of biocides, hormones and chemicals, Trampling, overuse
000218	Coolcam Turlough SAC	Turloughs [3180]	C01.01.01, A08, A04.01.05, X, A02.01, A10	Sand and gravel quarries, Fertilisation, Intensive mixed animal grazing, No threats or pressures, Agricultural intensification, Restructuring agricultural land holding
000231	Barroughter Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the <i>Rhynchosporion</i> [7150], Active raised bogs [7110]	J02.15, X, E03.03, B01, C01.03.02, E03.01, D05, J01.01, J02.10	Other human induced changes in hydraulic conditions, No threats or pressures, Disposal of inert materials, Forest planting on open ground, Mechanical removal of peat, Disposal of household or recreational facility waste, Improved access to site, Burning down, Management of aquatic and bank vegetation for drainage purposes
000238	Caherglassaun Turlough SAC	Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation [3270], Turloughs [3180], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	A08, A10.01, A05.02, H02.06, E03.01, H01.08, A04.01.01, A04, J02.04.01	Fertilisation, Removal of hedges and copses or scrub, Stock feeding, Diffuse groundwater pollution due to agricultural and forestry activities, Disposal of household or recreational facility waste, Diffuse pollution to surface waters due to household sewage and waste waters, Intensive cattle grazing, Grazing, Flooding
000242	Castletaylor Complex SAC	<i>Juniperus communis</i> formations on heaths or calcareous	X, H02.06, J02.01, B01, A04.01.01,	No threats or pressures, Diffuse groundwater pollution due to agricultural and forestry activities, Landfill, land reclamation and

		grasslands [5130], Turloughs [3180], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Alpine and Boreal heaths [4060], Limestone pavements [8240]	A10.01, H01.08	drying out, general, Forest planting on open ground, Intensive cattle grazing, Removal of hedges and copses or scrub, Diffuse pollution to surface waters due to household sewage and waste waters
000248	Cloonmoylan Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Bog woodland [91D0]	A04.02.04, J01, D05, B01, A03, B02.01.02, A04.01.01, A04, C01.03.02, A01, B02.02, A08	Non intensive goat grazing, Fire and fire suppression, Improved access to site, Forest planting on open ground, Mowing or cutting of grassland, Forest replanting (non native trees), Intensive cattle grazing, Grazing, Mechanical removal of peat, Cultivation, Forestry clearance, Fertilisation
000252	Coole-Garryland Complex SAC	Rivers with muddy banks with Chenopodium rubri p.p. and Bidention p.p. vegetation [3270], Turloughs [3180], Taxus baccata woods of the British Isles [91J0], Juniperus communis formations on heaths or calcareous grasslands [5130], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Limestone pavements [8240]	D01.02, J01.01, J02.01.03, E03.01, H01.08, I01, H02.06, A10.01, A08, J02.01, C03.03, E06.02, E03.03, A04.01.01, A04.01.02, C01.01, J02.05, J02.04.01, B02.02	Roads, motorways, Burning down, Infilling of ditches, dykes, ponds, pools, marshes or pits, Disposal of household or recreational facility waste, Diffuse pollution to surface waters due to household sewage and waste waters, Invasive non-native species, Diffuse groundwater pollution due to agricultural and forestry activities, Removal of hedges and copses or scrub, Fertilisation, Landfill, land reclamation and drying out, general, Wind energy production, Reconstruction, renovation of buildings, Disposal of inert materials, Intensive cattle grazing, Intensive sheep grazing, Sand and gravel extraction , Modification of hydrographic functioning, general, Flooding, Forestry clearance
000255	Croaghill Turlough SAC	Turloughs [3180]	A08, A03.02, A05.02, C01.01.01, A04.02.05, X	Fertilisation, Non intensive mowing, Stock feeding, Sand and gravel quarries, Non intensive mixed animal grazing, No threats or pressures
000261	Derrycrag Wood Nature Reserve SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles	B06, J01, I01, D01.01, A04.02, B	Grazing in forests or woodland, Fire and fire suppression, Invasive non-native species, Paths, tracks, cycling tracks, Non intensive

		[91A0]		grazing, Sylviculture, forestry
000268	Galway Bay Complex SAC	Turloughs [3180], Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Large shallow inlets and bays [1160], Salicornia and other annuals colonising mud and sand [1310], Juniperus communis formations on heaths or calcareous grasslands [5130], Mudflats and sandflats not covered by seawater at low tide [1140], Mediterranean salt meadows (Juncetalia maritimi) [1410], Otter (Lutra lutra) [1355], Reefs [1170], Coastal lagoons [1150], Limestone pavements [8240], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Perennial vegetation of stony banks [1220], Harbour seal (Phoca vitulina) [1365]	F06, J02.01.02, G01.01.02, A04.02.02, E03.03, I01, J02.02.02, D03.01.01, C01.01.02, D01.01, H01.08, F02.03.01, G02.01, A04.02.01, D02.02, F01, J02.05.01, J02.12.01, D03, D03.01.04, A02.01, C01.01, H01.05	Hunting, fishing or collecting activities not referred to above, Reclamation of land from sea, estuary or marsh, Non-motorized nautical sports, Non intensive sheep grazing, Disposal of inert materials, Invasive non-native species, Estuarine and coastal dredging, Slipways, Removal of beach materials, Paths, tracks, cycling tracks, Diffuse pollution to surface waters due to household sewage and waste waters, Bait digging or collection, Golf course, Non intensive cattle grazing, Pipe lines, Marine and Freshwater Aquaculture, Modification of water flow (tidal & marine currents), Sea defense or coast protection works, tidal barrages, Shipping lanes, ports, marine constructions, Industrial ports, Agricultural intensification, Sand and gravel extraction , Diffuse pollution to surface waters due to agricultural and forestry activities
000278	Inishbofin and Inishshark SAC	Grey seal (Halichoerus grypus) [1364], Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Coastal lagoons [1150]	J02.12.01, D04.01, L07, G01.02, F02.01.01, F03.02.04, E01.03, C01.01, H05.01, K04.05, J02.02.01, A04, F02.01, I01, J01.01, J03.03, A04.01.02, L08	Sea defense or coast protection works, tidal barrages, Airport, Storm, cyclone, Walking, horseriding and non-motorised vehicles, Potting, Predator control, Dispersed habitation, Sand and gravel extraction , Garbage and solid waste, Damage by herbivores (including game species), Dredging or removal of limnic sediments, Grazing, Professional passive fishing , Invasive non-native species, Burning down, Reduction, lack or prevention of erosion, Intensive sheep grazing, Inundation (natural processes)

000285	Kilsallagh Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	J02.15, J02.08, B02.02, J01.01, A04.02.01, C01.03.02, J02.07	Other human induced changes in hydraulic conditions, Raising the groundwater table or artificial recharge of groundwater, Forestry clearance, Burning down, Non intensive cattle grazing, Mechanical removal of peat, Water abstractions from groundwater
000286	Kiltartan Cave (Coole) SAC	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	D01.02, E06.02, J02.04.01, G01.04.03	Roads, motorways, Reconstruction, renovation of buildings, Flooding, Recreational cave visits
000295	Levelly Lough SAC	Turloughs [3180]	A10, C01.01.01, A08, E01.03, X, F03.01	Restructuring agricultural land holding, Sand and gravel quarries, Fertilisation, Dispersed habitation, No threats or pressures, Hunting
000296	Lisnageeragh Bog and Ballinastack Turlough SAC	Degraded raised bogs still capable of natural regeneration [7120], Turloughs [3180], Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150]	A08, J02.15, A04.01.01, I01, D02.01, I02, A02.01, J01.01, B02.02, C01.03.02	Fertilisation, Other human induced changes in hydraulic conditions, Intensive cattle grazing, Invasive non-native species, Electricity and phone lines, Problematic native species, Agricultural intensification, Burning down, Forestry clearance, Mechanical removal of peat
000297	Lough Corrib SAC	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260], Otter (Lutra lutra) [1355], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Limestone pavements [8240], Alkaline fens [7230], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Slender naiad (Najas flexilis) [1833], Brook lamprey (Lampetra planeri) [1096], Calcareous fens with Cladium mariscus and species of the	G05, B01, C01.01, I01, D03.01.02, A04, E03.01, E01.01, A08, H01.08, J02.15, A02.01, A04.03, D01, J02.01.03, A10.01, E01.03, C01.03.02	Other human intrusions and disturbances, Forest planting on open ground, Sand and gravel extraction, Invasive non-native species, Piers or tourist harbours or recreational piers, Grazing, Disposal of household or recreational facility waste, Continuous urbanisation, Fertilisation, Diffuse pollution to surface waters due to household sewage and waste waters, Other human induced changes in hydraulic conditions, Agricultural intensification, Abandonment of pastoral systems lack of grazing, Roads, paths and railroads, Infilling of ditches, dykes, ponds, pools, marshes or pits, Removal of hedges and copses or scrub, Dispersed habitation, Mechanical removal of peat

		<p>Caricion davalliana [7210], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Bog woodland [91D0], Petrifying springs with tufa formation (Cratoneurion) [7220], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], White-clawed crayfish (Austropotamobius pallipes) [1092], Atlantic salmon (Salmo salar) [1106], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Sea lamprey (Petromyzon marinus) [1095], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Slender green feather-moss (Hamatocaulis vernicosus) [6216], Active raised bogs [7110]</p>		
000299	Lough Cutra SAC	<p>Lesser horseshoe bat (Rhinolophus hipposideros) [1303]</p>	<p>H06.01, B03, E06.02, B02.01.01, A10.01, H06.02, A10, E01.03, B02.02, B01.01</p>	<p>Noise nuisance, noise pollution, Forest exploitation without replanting or natural regrowth, Reconstruction, renovation of buildings, Forest replanting (native trees), Removal of hedges and copses or scrub, Light pollution, Restructuring agricultural land holding, Dispersed habitation, Forestry clearance, Forest planting on open ground (native trees)</p>

000301	Lough Lurgeen Bog/Glenamaddy Turlough SAC	Active raised bogs [7110], Turloughs [3180], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation [3270]	H01.08, A03.03, J02.15, D02.01, J01.01, A04.02.02, A08, J02.07, X, H02.07, C01.03.02, F03.01	Diffuse pollution to surface waters due to household sewage and waste waters, Abandonment or lack of mowing, Other human induced changes in hydraulic conditions, Electricity and phone lines, Burning down, Non intensive sheep grazing, Fertilisation, Water abstractions from groundwater, No threats or pressures, Diffuse groundwater pollution due to non-sewered population, Mechanical removal of peat, Hunting
000304	Lough Rea SAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140]	M01.03, B01.01, H01.02, X, E05, I01, D01.01, E01.01, A10.01, E03.03, H01.08, A02.01	Flooding and rising precipitations, Forest planting on open ground (native trees), Pollution to surface waters by storm overflows, No threats or pressures, Storage of materials, Invasive non-native species, Paths, tracks, cycling tracks, Continuous urbanisation, Removal of hedges and copses or scrub, Disposal of inert materials, Diffuse pollution to surface waters due to household sewage and waste waters, Agricultural intensification
000308	Loughatorick South Bog SAC	Blanket bogs * if active bog [7130]	A04, J01, F03.01, B01, C01.03.02, H05.01, A05.02, G01.02, C01.01.01, G01.03.02, X, B02	Grazing, Fire and fire suppression, Hunting, Forest planting on open ground, Mechanical removal of peat, Garbage and solid waste, Stock feeding, Walking, horseriding and non-motorised vehicles, Sand and gravel quarries, Off-road motorized driving, No threats or pressures, Forest and Plantation management & use
000318	Peterswell Turlough SAC	Turloughs [3180], Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation [3270]	E03.01, J02.10, H01.08, J02.01, A04, A02.01, A08, X, J02.05, E03.03, H02.06, A05.02, J02.01.03, B01	Disposal of household or recreational facility waste, Management of aquatic and bank vegetation for drainage purposes, Diffuse pollution to surface waters due to household sewage and waste waters, Landfill, land reclamation and drying out, general, Grazing, Agricultural intensification, Fertilisation, No threats or pressures, Modification of hydrographic functioning, general, Disposal of inert materials, Diffuse groundwater pollution due to agricultural and forestry activities, Stock feeding, Infilling of ditches, dykes, ponds, pools, marshes or pits, Forest planting on open ground
000319	Pollnacknockaun Wood Nature Reserve SAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	B, B03, A04.02.04, B06, A04.01.01, X, J01	Sylviculture, forestry, Forest exploitation without replanting or natural regrowth, Non intensive goat grazing, Grazing in forests or woodland, Intensive cattle grazing, No threats or pressures, Fire and fire suppression
000322	Rahasane Turlough SAC	Turloughs [3180]	E03.01, J02.01, E03.03, H01.08, X,	Disposal of household or recreational facility waste, Landfill, land reclamation and drying out, general, Disposal of inert materials,

			A08, A04.01.05, A10.01, H02.06, A02.01, J02.10, J02.05, F03.01	Diffuse pollution to surface waters due to household sewage and waste waters, No threats or pressures, Fertilisation, Intensive mixed animal grazing, Removal of hedges and copses or scrub, Diffuse groundwater pollution due to agricultural and forestry activities, Agricultural intensification, Management of aquatic and bank vegetation for drainage purposes, Modification of hydrographic functioning, general, Hunting
000324	Rosroe Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Blanket bogs * if active bog [7130]	D01.01, C01.03.01, X, C01.03.02, A04.01.05	Paths, tracks, cycling tracks, Hand cutting of peat, No threats or pressures, Mechanical removal of peat, Intensive mixed animal grazing
000326	Shankill West Bog SAC	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	J02.07, A08, J01.01, C01.03.02, X, A04.01.01, A10	Water abstractions from groundwater, Fertilisation, Burning down, Mechanical removal of peat, No threats or pressures, Intensive cattle grazing, Restructuring agricultural land holding
000328	Slyne Head Islands SAC	Reefs [1170], Grey seal (Halichoerus grypus) [1364], Common Bottlenose Dolphin (Tursiops truncatus) [1349]	X, L07, K04.05, F02.01.02, F02.01.01, F02, H06.01	No threats or pressures, Storm, cyclone, Damage by herbivores (including game species), Netting, Potting, Fishing and harvesting aquatic resources, Noise nuisance, noise pollution
000330	Tully Mountain SAC	European dry heaths [4030], Alpine and Boreal heaths [4060]	A04.01.02, A04.02.02, C01.01, I01, A05.02	Intensive sheep grazing, Non intensive sheep grazing, Sand and gravel extraction , Invasive non-native species, Stock feeding
000332	Akeragh, Banna and Barrow Harbour SAC	Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Annual vegetation of drift lines [1210], European dry heaths [4030], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Humid dune slacks [2190], Embryonic shifting dunes [2110], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Salicornia and other annuals colonising mud and sand [1310],	G01.02, G02.01, C01.01.02, A04, G02.08	Walking, horseriding and non-motorised vehicles, Golf course, Removal of beach materials, Grazing, Camping and caravans

		Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410]		
000335	Ballinskelligs Bay and Inny Estuary SAC	Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410]	G01.02, E01, G02.01, C01.01.02, A04, X, F02.03, C01.01, A08, E01.03	Walking, horseriding and non-motorised vehicles, Urbanised areas, human habitation, Golf course, Removal of beach materials, Grazing, No threats or pressures, Leisure fishing, Sand and gravel extraction, Fertilisation, Dispersed habitation
000343	Castlemaine Harbour SAC	River lamprey ( <i>Lampetra fluviatilis</i> ) [1099], Perennial vegetation of stony banks [1220], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], Otter ( <i>Lutra lutra</i> ) [1355], Mudflats and sandflats not covered by seawater at low tide [1140], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Estuaries [1130], Embryonic shifting dunes [2110], Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Sea lamprey ( <i>Petromyzon marinus</i> ) [1095], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Humid dune slacks [2190], Annual vegetation of drift lines	E01.03, A04, I01, J02.01.03, F01, C01.01.02, E01, F02.03, G02.08, G01.02	Dispersed habitation, Grazing, Invasive non-native species, Infilling of ditches, dykes, ponds, pools, marshes or pits, Marine and Freshwater Aquaculture, Removal of beach materials, Urbanised areas, human habitation, Leisure fishing, Camping and caravans, Walking, horseriding and non-motorised vehicles



		[1210], Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> ) [2170]		
000353	Old Domestic Building, Dromore Wood SAC	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	B02, X	Forest and Plantation management & use, No threats or pressures
000364	Kilgarvan Ice House SAC	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	A10.01, B	Removal of hedges and copses or scrub, Sylviculture, forestry
000365	Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC	Freshwater Pearl Mussel ( <i>Margaritifera margaritifera</i> ) [1029], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260], European dry heaths [4030], Blanket bogs * if active bog [7130], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130], Killarney Shad ( <i>Alosa fallax killarnensis</i> ) [5046], <i>Taxus baccata</i> woods of the British Isles [91J0], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410], Otter ( <i>Lutra lutra</i> ) [1355], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Killarney fern ( <i>Trichomanes speciosum</i> ) [1421], <i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130], Slender Naiad ( <i>Najas flexilis</i> ) [1833], River lamprey ( <i>Lampetra</i>	F03.01, E01, G02.06, J01, A04.03, C01.03, B, F02.03, A08, G02.01, K01.01, G01.02, A04, E01.03, A03, I01	Hunting, Urbanised areas, human habitation, Attraction park, Fire and fire suppression, Abandonment of pastoral systems lack of grazing, Peat extraction, Sylviculture, forestry, Leisure fishing, Fertilisation, Golf course, Erosion, Walking, horseriding and non-motorised vehicles, Grazing, Dispersed habitation, Mowing or cutting of grassland, Invasive non-native species

		<p>fluviatilis) [1099], Alpine and Boreal heaths [4060], Slender naiad (<i>Najas flexilis</i>) [1833], Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110], Sea Lamprey (<i>Petromyzon marinus</i>) [1095], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Kerry Slug (<i>Geomalacus maculosus</i>) [1024], Lesser horseshoe bat (<i>Rhinolophus hipposideros</i>) [1303], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130], Depressions on peat substrates of the <i>Rhynchosporion</i> [7150], Brook Lamprey (<i>Lampetra planeri</i>) [1096], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Marsh Fritillary (<i>Euphydryas aurinia</i>) [1065]</p>		
000370	Lough Yganavan and Lough Nambrackdarrig SAC	<p>Kerry Slug (<i>Geomalacus maculosus</i>) [1024], Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110], Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) [2150]</p>	<p>I01, A02, E01.03, A04, C01.03.01, B</p>	<p>Invasive non-native species, Modification of cultivation practices, Dispersed habitation, Grazing, Hand cutting of peat, Sylviculture, forestry</p>
000375	Mount Brandon SAC	<p>Calcareous rocky slopes with chasmophytic vegetation [8210], Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110], Northern Atlantic wet heaths with <i>Erica</i></p>	<p>K01.01, A03, B, C01.03, A10, A04, D01.02, G01.02, J01, A10.01, E01.03, G02.08</p>	<p>Erosion, Mowing or cutting of grassland, Sylviculture, forestry, Peat extraction, Restructuring agricultural land holding, Grazing, Roads, motorways, Walking, horseriding and non-motorised vehicles, Fire and fire suppression, Removal of hedges and copses or scrub, Dispersed habitation, Camping and caravans</p>

		tetralix [4010], European dry heaths [4030], Siliceous rocky slopes with chasmophytic vegetation [8220], Blanket bogs * if active bog [7130], Alpine and Boreal heaths [4060], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], Killarney fern (Trichomanes speciosum) [1421], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]		
000382	Sheheree (Ardagh) Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	A04, A08, D01.02, A03, A10, E01	Grazing, Fertilisation, Roads, motorways, Mowing or cutting of grassland, Restructuring agricultural land holding, Urbanised areas, human habitation
000391	Ballynafagh Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	E01.04, G05, C01.03, J01, B01, D05	Other patterns of habitation, Other human intrusions and disturbances, Peat extraction, Fire and fire suppression, Forest planting on open ground, Improved access to site
000396	Pollardstown Fen SAC	Alkaline fens [7230], Geyer's whorl snail (Vertigo geyeri) [1013], Calcareous fens with Cladium mariscus and species of	F02.03, F03.01, A04, D02.01, C01.01, J01, B, E01.03, E03.01	Leisure fishing, Hunting, Grazing, Electricity and phone lines, Sand and gravel extraction, Fire and fire suppression, Sylviculture, forestry, Dispersed habitation, Disposal of household or recreational facility waste

		the Caricion davallianae [7210], Desmoulin`s whorl snail (Vertigo moulinsiana) [1016], Petrifying springs with tufa formation (Cratoneurion) [7220], Narrow-mouthed whorl snail (Vertigo angustior) [1014]		
000397	Red Bog, Kildare SAC	Transition mires and quaking bogs [7140]	A08, A04, E01.03, F02.03, F03.01, C01.01	Fertilisation, Grazing, Dispersed habitation, Leisure fishing, Hunting, Sand and gravel extraction
000404	Hugginstown Fen SAC	Alkaline fens [7230]	B02, A08, A04	Forest and Plantation management & use, Fertilisation, Grazing
000407	The Loughans SAC	Turloughs [3180]	A08, A04, A04.01.01	Fertilisation, Grazing, Intensive cattle grazing
000412	Slieve Bloom Mountains SAC	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Northern Atlantic wet heaths with Erica tetralix [4010], Blanket bogs * if active bog [7130]	G01.03.02, B02, C01, J01.01, G05.01, H05.01, J02.15, A04.03, B02.02, I01, K02.01, G01.02	Off-road motorized driving, Forest and Plantation management & use, Mining and quarrying, Burning down, Trampling, overuse, Garbage and solid waste, Other human induced changes in hydraulic conditions, Abandonment of pastoral systems lack of grazing, Forestry clearance, Invasive non-native species, Species composition change (succession), Walking, horseriding and non-motorised vehicles
000428	Lough Melvin SAC	Atlantic salmon (Salmo salar) [1106], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Otter (Lutra lutra) [1355]	A08, H01.05, I01, A10.01, A04, B02	Fertilisation, Diffuse pollution to surface waters due to agricultural and forestry activities, Invasive non-native species, Removal of hedges and copses or scrub, Grazing, Forest and Plantation management & use
000432	Barrigone SAC	Marsh Fritillary (Euphydryas aurinia) [1065], Limestone pavements [8240], Juniperus communis formations on heaths or calcareous grasslands [5130], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)	K02.01, A04.03, X	Species composition change (succession), Abandonment of pastoral systems lack of grazing, No threats or pressures

		* important orchid sites [6210]		
000439	Tory Hill SAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Alkaline fens [7230]	J02, A04.02.04, J02.01.03, X	Human induced changes in hydraulic conditions, Non intensive goat grazing, Infilling of ditches, dykes, ponds, pools, marshes or pits, No threats or pressures
000440	Lough Ree SAC	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Alkaline fens [7230], Active raised bogs [7110], Natural eutrophic lakes with Magnopotamion or Hydrocharitum - type vegetation [3150], Bog woodland [91D0], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Otter ( <i>Lutra lutra</i> ) [1355], Degraded raised bogs still capable of natural regeneration [7120], Limestone pavements [8240]	G01.01, I01, G01.02, D03.01.02, G02.09, J02.11.02, L08, A08, F03.01, K03.05, E01.03, A04, J02.04, H01.08, H06.03, H02.06, A03.03, F02.03, B02	Nautical sports, Invasive non-native species, Walking, horseriding and non-motorised vehicles, Piers or tourist harbours or recreational piers, Wildlife watching, Other siltation rate changes, Inundation (natural processes), Fertilisation, Hunting, Antagonism arising from introduction of species, Dispersed habitation, Grazing, Flooding modifications, Diffuse pollution to surface waters due to household sewage and waste waters, Thermal heating of water bodies, Diffuse groundwater pollution due to agricultural and forestry activities, Abandonment or lack of mowing, Leisure fishing, Forest and Plantation management & use
000448	Fortwilliam Turlough SAC	Turloughs [3180]	H02.06, J02.07.02, J02.07.01, G02.09, A04.01.01	Diffuse groundwater pollution due to agricultural and forestry activities, Groundwater abstractions for public water supply, Groundwater abstractions for agriculture, Wildlife watching, Intensive cattle grazing
000453	Carlingford Mountain SAC	Transition mires and quaking bogs [7140], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Siliceous scree of the montane to snow levels ( <i>Androsacetalia</i>	J03.01, G01.03.02, A04.03, J03.02, I02, X, G02, G01.08, I03.01, G05, K04.01, J01, B02.01, B02.02, A04.02, J02.01.03, D02.03, I01, G05.01	Reduction or loss of specific habitat features, Off-road motorized driving, Abandonment of pastoral systems lack of grazing, Anthropogenic reduction of habitat connectivity, Problematic native species, No threats or pressures, Sport and leisure structures, Other outdoor sports and leisure activities, Genetic pollution (animals), Other human intrusions and disturbances, Competition (flora), Fire and fire suppression, Forest replanting, Forestry clearance, Non intensive grazing, Infilling of ditches,

		alpinae and Galeopsietalia ladani) [8110], Alpine and Boreal heaths [4060], European dry heaths [4030], Alkaline fens [7230], Calcareous rocky slopes with chasmophytic vegetation [8210], Blanket bogs * if active bog [7130], Northern Atlantic wet heaths with Erica tetralix [4010]		dykes, ponds, pools, marshes or pits, Communication masts and antennas, Invasive non-native species, Trampling, overuse
000455	Dundalk Bay SAC	Perennial vegetation of stony banks [1220], Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330], Mediterranean salt meadows (Juncetalia maritimi) [1410], Salicornia and other annuals colonising mud and sand [1310]	G01, G01.01.01, J02.04.01, K01.01, J02.01.02, K04.01, G02, H01.06, F05, M02.04, E03.03, H02.06, J03.01, J02.04, J02.01.03, E03.01, H05, G05.02, I01, G02.09, H01, J03.02, J02.12.01, H04.02, H05.01, K02, F02.03.01	Outdoor sports and leisure activities, recreational activities, Motorized nautical sports, Flooding, Erosion, Reclamation of land from sea, estuary or marsh, Competition (flora), Sport and leisure structures, Diffuse pollution to surface waters due to transport and infrastructure without connection to canalization or sweepers, Illegal taking or removal of marine fauna, Migration of species (natural newcomers), Disposal of inert materials, Diffuse groundwater pollution due to agricultural and forestry activities, Reduction or loss of specific habitat features, Flooding modifications, Infilling of ditches, dykes, ponds, pools, marshes or pits, Disposal of household or recreational facility waste, Soil pollution and solid waste (excluding discharges), Shallow surface abrasion or mechanical damage to seabed surface, Invasive non-native species, Wildlife watching, Pollution to surface waters (limnic & terrestrial, marine & brackish), Anthropogenic reduction of habitat connectivity, Sea defense or coast protection works, tidal barrages, Nitrogen-input, Garbage and solid waste, Biocenotic evolution, succession, Bait digging or collection
000458	Killala Bay/Moy Estuary SAC	Estuaries [1130], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Embryonic shifting dunes [2110], Annual vegetation of drift lines [1210], Narrow-mouthed whorl snail (Vertigo angustior) [1014], Salicornia and other annuals colonising mud and sand [1310], Harbour seal (Phoca vitulina) [1365], Sea lamprey (Petromyzon marinus) [1095],	G01.02, G02.02, M01.03, F02.03, G02.08, H01.08, J02.04, E01	Walking, horseriding and non-motorised vehicles, Skiing complex, Flooding and rising precipitations, Leisure fishing, Camping and caravans, Diffuse pollution to surface waters due to household sewage and waste waters, Flooding modifications, Urbanised areas, human habitation

		Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], Humid dune slacks [2190]		
000461	Ardkill Turlough SAC	Turloughs [3180]	A04.01.01, A08, A04, X, A02.01, H02.06	Intensive cattle grazing, Fertilisation, Grazing, No threats or pressures, Agricultural intensification, Diffuse groundwater pollution due to agricultural and forestry activities
000463	Balla Turlough SAC	Turloughs [3180]	A08, F03.01, A04	Fertilisation, Hunting, Grazing
000466	Bellacorick Iron Flush SAC	Marsh saxifrage ( <i>Saxifraga hirculus</i> ) [1528]	K01.03, D01.01, C01.03.02	Drying out, Paths, tracks, cycling tracks, Mechanical removal of peat
000470	Mullet/Blacksod Bay Complex SAC	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Reefs [1170], Mudflats and sandflats not covered by seawater at low tide [1140], Large shallow inlets and bays [1160], <i>Petalwort</i> ( <i>Petalophyllum ralfsii</i> ) [1395], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> - type vegetation [3150], Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> ) [2150], Alkaline fens [7230], Otter ( <i>Lutra lutra</i> ) [1355], <i>Machairs</i> *	A05.02, F02, G01, C01.01.02, A08, C01.02, X, G05.09, J02.12.01, A04.01.02, A04.01.01, A02.01, E03.01	Stock feeding, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Removal of beach materials, Fertilisation, Loam and clay pits, No threats or pressures, Fences, fencing, Sea defense or coast protection works, tidal barrages, Intensive sheep grazing, Intensive cattle grazing, Agricultural intensification, Disposal of household or recreational facility waste

		in Ireland [21A0]		
000471	Brackloon Woods SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	I01, B02	Invasive non-native species, Forest and Plantation management & use
000472	Broadhaven Bay SAC	Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330], Large shallow inlets and bays [1160], Reefs [1170], Submerged or partially submerged sea caves [8330], Mudflats and sandflats not covered by seawater at low tide [1140]	E03, F02.02.05, X, C01.01.02, A05.02, J02.02.02, J02.12, A02.01, F01, A04.01, E03.01	Discharges, Benthic dredging, No threats or pressures, Removal of beach materials, Stock feeding, Estuarine and coastal dredging, Dykes, embankments, artificial beaches, general, Agricultural intensification, Marine and Freshwater Aquaculture, Intensive grazing, Disposal of household or recreational facility waste
000474	Ballymaglancy Cave, Cong SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	G01.04.02, G01, A04	Speleology, Outdoor sports and leisure activities, recreational activities, Grazing
000475	Carrowkeel Turlough SAC	Turloughs [3180]	J02.01.03, A04, H01.05, X, A08	Infilling of ditches, dykes, ponds, pools, marshes or pits, Grazing, Diffuse pollution to surface waters due to agricultural and forestry activities, No threats or pressures, Fertilisation
000476	Carrowmore Lake Complex SAC	Slender green feather-moss (Hamatocaulis vernicosus) [6216], Marsh saxifrage (Saxifraga hirculus) [1528], Depressions on peat substrates of the Rhynchosporion [7150], Blanket bogs * if active bog [7130]	E01.03, I01, C01.03.01, D01.01, C01.03.02, D01.02, F02.03, B01, A04	Dispersed habitation, Invasive non-native species, Hand cutting of peat, Paths, tracks, cycling tracks, Mechanical removal of peat, Roads, motorways, Leisure fishing, Forest planting on open ground, Grazing
000479	Cloughmoyne SAC	Limestone pavements [8240]	E03.01, X, C01.01, A08, A10	Disposal of household or recreational facility waste, No threats or pressures, Sand and gravel extraction, Fertilisation, Restructuring agricultural land holding
000480	Clyard Kettle-holes SAC	Turloughs [3180], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	J02.15, A08, A10.01, X, A04, J02.03.02	Other human induced changes in hydraulic conditions, Fertilisation, Removal of hedges and copses or scrub, No threats or pressures, Grazing, Canalisation



000484	Cross Lough (Killadoon) SAC	Perennial vegetation of stony banks [1220]	C01.01.02, K01, X	Removal of beach materials, Abiotic (slow) natural processes, No threats or pressures
000485	Corraun Plateau SAC	Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030], Siliceous rocky slopes with chasmophytic vegetation [8220], Juniperus communis formations on heaths or calcareous grasslands [5130], Alpine and Boreal heaths [4060], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]	A04, C01.01, I01, F03.02.02, E03.01, E01, B, G01, C01	Grazing, Sand and gravel extraction, Invasive non-native species, Taking from nest (e.g. falcons), Disposal of household or recreational facility waste, Urbanised areas, human habitation, Sylviculture, forestry, Outdoor sports and leisure activities, recreational activities, Mining and quarrying
000492	Doocastle Turlough SAC	Turloughs [3180]	F03.01, A08, A04	Hunting, Fertilisation, Grazing
000495	Duvillaun Islands SAC	Grey Seal (Halichoerus grypus) [1364], Common Bottlenose Dolphin (Tursiops truncatus) [1349]	X, E01, D02, F02, H06.01, D03.01.01, E06.02, A04.03	No threats or pressures, Urbanised areas, human habitation, Utility and service lines, Fishing and harvesting aquatic resources, Noise nuisance, noise pollution, Slipways, Reconstruction, renovation of buildings, Abandonment of pastoral systems lack of grazing
000497	Flughany Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	C01.03, A08, A04, D01.02, D05, A10	Peat extraction, Fertilisation, Grazing, Roads, motorways, Improved access to site, Restructuring agricultural land holding
000500	Glenamoy Bog Complex SAC	Transition mires and quaking bogs [7140], Atlantic salmon (Salmo salar) [1106], Marsh saxifrage (Saxifraga hirculus) [1528], Depressions on peat substrates of the Rhynchosporion [7150], Natural dystrophic lakes and ponds [3160], Blanket bogs * if active bog [7130], Petalwort	G01, D01.02, G05.09, C01.03.02, A02.01, B02.02, E03.01, B05, A04.01.02, C01.01.02, G05.01, B01, J02.12, E01.03, C01.03.01	Outdoor sports and leisure activities, recreational activities, Roads, motorways, Fences, fencing, Mechanical removal of peat, Agricultural intensification, Forestry clearance, Disposal of household or recreational facility waste, Use of fertilizers (forestry), Intensive sheep grazing, Removal of beach materials, Trampling, overuse, Forest planting on open ground, Dykes, embankments, artificial beaches, general, Dispersed habitation, Hand cutting of peat

		(Petalophyllum ralfsii) [1395], Juniperus communis formations on heaths or calcareous grasslands [5130], Machairs * in Ireland [21A0], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Slender green feather-moss (Hamatocaulis vernicosus) [6216], Northern Atlantic wet heaths with Erica tetralix [4010]		
000503	Greaghans Turlough SAC	Turloughs [3180]	H01.05, A05.02, A02.01, A04, X, A08	Diffuse pollution to surface waters due to agricultural and forestry activities, Stock feeding, Agricultural intensification, Grazing, No threats or pressures, Fertilisation
000504	Kilglassan/Cahevavostia Turlough Complex SAC	Turloughs [3180]	A03, A01, A05.02, A08, X, A04.01.01, H02.06, A02.01, H01.05	Mowing or cutting of grassland, Cultivation, Stock feeding, Fertilisation, No threats or pressures, Intensive cattle grazing, Diffuse groundwater pollution due to agricultural and forestry activities, Agricultural intensification, Diffuse pollution to surface waters due to agricultural and forestry activities
000507	Inishkea Islands SAC	Grey seal (Halichoerus grypus) [1364], Petalwort (Petalophyllum ralfsii) [1395], Machairs * in Ireland [21A0]	J03.01, D05, E06.02, G01, M02.03, M02.04, K03.04, K03.01, A04.01.02, A04.01.05, G02.08	Reduction or loss of specific habitat features, Improved access to site, Reconstruction, renovation of buildings, Outdoor sports and leisure activities, recreational activities, Decline or extinction of species, Migration of species (natural newcomers), Predation, Competition (fauna), Intensive sheep grazing, Intensive mixed animal grazing, Camping and caravans
000516	Lackan Saltmarsh and Kilcummin Head SAC	Salicornia and other annuals colonising mud and sand [1310], Mediterranean salt meadows (Juncetalia maritimi) [1410], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120]	G01.03, K01.01, C01.01.02, J02.04	Motorised vehicles, Erosion, Removal of beach materials, Flooding modifications

000522	Lough Gall Bog SAC	Blanket bogs * if active bog [7130], Depressions on peat substrates of the Rhynchosporion [7150]	A04, D01.01, E03.01, C01.03.01, C01.03.02	Grazing, Paths, tracks, cycling tracks, Disposal of household or recreational facility waste, Hand cutting of peat, Mechanical removal of peat
000525	Shrule Turlough SAC	Turloughs [3180]	A04, A10, A02.01, X, A08	Grazing, Restructuring agricultural land holding, Agricultural intensification, No threats or pressures, Fertilisation
000527	Moore Hall (Lough Carra) SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A10.01	Removal of hedges and copses or scrub
000532	Oldhead Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], European dry heaths [4030]	B02, I01	Forest and Plantation management & use, Invasive non-native species
000534	Owenduff/Nephin Complex SAC	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Otter (Lutra lutra) [1355], Natural dystrophic lakes and ponds [3160], Northern Atlantic wet heaths with Erica tetralix [4010], Marsh saxifrage (Saxifraga hirculus) [1528], Juniperus communis formations on heaths or calcareous grasslands [5130], Alpine and Boreal heaths [4060], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260], Transition mires and quaking bogs [7140], Atlantic salmon (Salmo salar) [1106], Blanket bogs * if active bog [7130], Slender green feather-moss (Hamatocaulis vernicosus) [6216]	D01.02, C01.03, A08, J01, A04, X, B, F03.01, F02.03, E01.03	Roads, motorways, Peat extraction, Fertilisation, Fire and fire suppression, Grazing, No threats or pressures, Sylviculture, forestry, Hunting, Leisure fishing, Dispersed habitation

000541	Skealaghan Turlough SAC	Turloughs [3180]	A04, A05.02, H02.06, X, A01, A08	Grazing, Stock feeding, Diffuse groundwater pollution due to agricultural and forestry activities, No threats or pressures, Cultivation, Fertilisation
000542	Slieve Fyagh Bog SAC	Blanket bogs * if active bog [7130]	C01.03.02, C01.03.01, A04, B01, K01.01, D01.02, E01.03	Mechanical removal of peat, Hand cutting of peat, Grazing, Forest planting on open ground, Erosion, Roads, motorways, Dispersed habitation
000566	All Saints Bog and Esker SAC	Active raised bogs [7110], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Bog woodland [91D0]	E05, J02.10, E03.03, E03.01, A08, C01.03, C01.01, A04, J01.01, J02.15, A05.02	Storage of materials, Management of aquatic and bank vegetation for drainage purposes, Disposal of inert materials, Disposal of household or recreational facility waste, Fertilisation, Peat extraction, Sand and gravel extraction, Grazing, Burning down, Other human induced changes in hydraulic conditions, Stock feeding
000571	Charleville Wood SAC	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Desmoulin`s whorl snail (Vertigo moulinsiana) [1016]	F03.02.04, F04, B02, F05.04, G01, G02.09, G01.02, F03.02.03	Predator control, Taking or Removal of terrestrial plants, general, Forest and Plantation management & use, Poaching, Outdoor sports and leisure activities, recreational activities, Wildlife watching, Walking, horseriding and non-motorised vehicles, Trapping, poisoning, poaching
000572	Clara Bog SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Bog woodland [91D0], Active raised bogs [7110]	J02.10, C01.01.01, A05.02, E03.01, C01.03, A08, X, J02.15, D01.01, A04.03, E04.01, J01.01, F04	Management of aquatic and bank vegetation for drainage purposes, Sand and gravel quarries, Stock feeding, Disposal of household or recreational facility waste, Peat extraction, Fertilisation, No threats or pressures, Other human induced changes in hydraulic conditions, Paths, tracks, cycling tracks, Abandonment of pastoral systems lack of grazing, Agricultural structures, buildings in the landscape, Burning down, Taking or Removal of terrestrial plants, general
000575	Ferbane Bog SAC	Degraded raised bogs still capable of natural regeneration	X, J01.01, A10, J02.15, A02.01,	No threats or pressures, Burning down, Restructuring agricultural land holding, Other human induced changes in hydraulic

		[7120], Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150]	C01.01, E03.01, A08, K02.01, B03, E03.03, C01.03	conditions, Agricultural intensification, Sand and gravel extraction , Disposal of household or recreational facility waste, Fertilisation, Species composition change (succession), Forest exploitation without replanting or natural regrowth, Disposal of inert materials, Peat extraction
000576	Fin Lough (Offaly) SAC	Geyer`s whorl snail (Vertigo geyeri) [1013], Alkaline fens [7230]	E03.03, X, K02, A04.03, J01.01, E03.01, K01.03, J02.10, F03.01, K01.02	Disposal of inert materials, No threats or pressures, Biocenotic evolution, succession, Abandonment of pastoral systems lack of grazing, Burning down, Disposal of household or recreational facility waste, Drying out, Management of aquatic and bank vegetation for drainage purposes, Hunting, Silting up
000580	Mongan Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	C01.03, J01.01, E03.01, F03.01, A05.02, E03.03, A08, X, J02.15	Peat extraction, Burning down, Disposal of household or recreational facility waste, Hunting, Stock feeding, Disposal of inert materials, Fertilisation, No threats or pressures, Other human induced changes in hydraulic conditions
000581	Moyclare Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110]	A07, J02.15, X, E03.03, F03.01, A04.01.04, J01.01, C01.03, E03.01	Use of biocides, hormones and chemicals, Other human induced changes in hydraulic conditions, No threats or pressures, Disposal of inert materials, Hunting, Intensive goat grazing, Burning down, Peat extraction, Disposal of household or recreational facility waste
000582	Raheenmore Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	A02.01, J02.01.03, X	Agricultural intensification, Infilling of ditches, dykes, ponds, pools, marshes or pits, No threats or pressures
000584	Cuilcagh - Anierin Uplands SAC	Natural dystrophic lakes and ponds [3160], Siliceous rocky slopes with chasmophytic vegetation [8220], Northern Atlantic wet heaths with Erica tetralix [4010], Slender green feather-moss (Hamatocaulis vernicosus) [6216], European dry heaths [4030], Species-rich Nardus grasslands, on siliceous	C01.03, G01.03.02, A01, J01, F03.02.02, G05.07, B, D01.01, B01.02, G05.01, G05.09, A04.01.02, K01.01, A04.01.03, D01.02, H05.01, B02.01, A04.02.03, G01.02, H01.05,	Peat extraction, Off-road motorized driving, Cultivation, Fire and fire suppression, Taking from nest (e.g. falcons), Missing or wrongly directed conservation measures, Sylviculture, forestry, Paths, tracks, cycling tracks, Artificial planting on open ground (non-native trees), Trampling, overuse, Fences, fencing, Intensive sheep grazing, Erosion, Intensive horse grazing, Roads, motorways, Garbage and solid waste, Forest replanting, Non intensive horse grazing, Walking, horseriding and non-motorised vehicles, Diffuse pollution to surface waters due to agricultural and forestry activities, Use of biocides, hormones and chemicals,

		substrates in mountain areas - and submountain areas in Continental Europe [6230], Transition mires and quaking bogs [7140], Petrifying springs with tufa formation (Cratoneurion) [7220], Alpine and Boreal heaths [4060], Blanket bogs * if active bog [7130], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	A07, I02	Problematic native species
000585	Sharavogue Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110]	I02, J02.15, J01.01, B02.02, A08	Problematic native species, Other human induced changes in hydraulic conditions, Burning down, Forestry clearance, Fertilisation
000588	Ballinturly Turlough SAC	Turloughs [3180]	F03.01, A08, X	Hunting, Fertilisation, No threats or pressures
000592	Bellanagare Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	J02.05, E03.01, C01.03.02, X, I01	Modification of hydrographic functioning, general, Disposal of household or recreational facility waste, Mechanical removal of peat, No threats or pressures, Invasive non-native species
000595	Callow Bog SAC	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	J02.04, C01.03.02, J01.01, B, J02.15, X	Flooding modifications, Mechanical removal of peat, Burning down, Sylviculture, forestry, Other human induced changes in hydraulic conditions, No threats or pressures
000597	Carrowbehy/Caher Bog SAC	Degraded raised bogs still capable of natural regeneration	E03.01, A04, J02.05,	Disposal of household or recreational facility waste, Grazing, Modification of hydrographic functioning, general, Invasive non-

		[7120], Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150]	I01, B02.02	native species, Forestry clearance
000600	Cloonchambers Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	C01.03.02, E03.01, A04, J02.05, I01	Mechanical removal of peat, Disposal of household or recreational facility waste, Grazing, Modification of hydrographic functioning, general, Invasive non-native species
000604	Derrinea Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110]	J02.05, E03.01, A04, I01	Modification of hydrographic functioning, general, Disposal of household or recreational facility waste, Grazing, Invasive non-native species
000606	Lough Fingall Complex SAC	Juniperus communis formations on heaths or calcareous grasslands [5130], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Limestone pavements [8240], Turloughs [3180], Alpine and Boreal heaths [4060]	A04.01, C01, H02.06, A08, E03.01, A02.01, A04.03, J02.01, A04.02.01, J02.01.03, A04.01.01, A05.02, E03.03, J02.07.02, J02.05, H01.08	Intensive grazing, Mining and quarrying, Diffuse groundwater pollution due to agricultural and forestry activities, Fertilisation, Disposal of household or recreational facility waste, Agricultural intensification, Abandonment of pastoral systems lack of grazing, Landfill, land reclamation and drying out, general, Non intensive cattle grazing, Infilling of ditches, dykes, ponds, pools, marshes or pits, Intensive cattle grazing, Stock feeding, Disposal of inert materials, Groundwater abstractions for public water supply, Modification of hydrographic functioning, general, Diffuse pollution to surface waters due to household sewage and waste waters
000607	Errit Lough SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]	G05, X	Other human intrusions and disturbances , No threats or pressures
000609	Lisduff Turlough SAC	Turloughs [3180]	A04, A08, G05	Grazing, Fertilisation, Other human intrusions and disturbances
000610	Lough Croan Turlough SAC	Turloughs [3180]	A04, F03.02.04,	Grazing, Predator control, Stock feeding

			A05.02	
000611	Lough Funshinagh SAC	Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation [3270], Turloughs [3180]	D01.01, A05.02, F03.02.04, A08	Paths, tracks, cycling tracks, Stock feeding, Predator control, Fertilisation
000612	Mullygollan Turlough SAC	Turloughs [3180]	A04, A08, F03.01	Grazing, Fertilisation, Hunting
000614	Cloonshanville Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110], Bog woodland [91D0], Depressions on peat substrates of the <i>Rhynchosporion</i> [7150]	C01.03.02, J02.04, B, X	Mechanical removal of peat, Flooding modifications, Sylviculture, forestry, No threats or pressures
000622	Ballysadare Bay SAC	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Estuaries [1130], Humid dune slacks [2190], Harbour seal ( <i>Phoca vitulina</i> ) [1365], Narrow-mouthed Whorl Snail ( <i>Vertigo angustior</i> ) [1014], Mudflats and sandflats not covered by seawater at low tide [1140], Embryonic shifting dunes [2110], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120]	K01.01, E01.02, J02.12.01, F01.03, J02.01.02, G05.01, A04.03, F02, I01, G01.02, G02.01	Erosion, Discontinuous urbanisation, Sea defense or coast protection works, tidal barrages, Bottom culture, Reclamation of land from sea, estuary or marsh, Trampling, overuse, Abandonment of pastoral systems lack of grazing, Fishing and harvesting aquatic resources, Invasive non-native species, Walking, horseriding and non-motorised vehicles, Golf course
000623	Ben Bulbin, Gleniff and Glenade Complex SAC	European dry heaths [4030], Otter ( <i>Lutra lutra</i> ) [1355], Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210], Geyer's whorl snail ( <i>Vertigo geyeri</i> ) [1013], Transition mires and quaking bogs [7140], Calcareous and calcshist screes of the montane to alpine levels ( <i>Thlaspietea rotundifolii</i> ) [8120],	L05, I01, G01.03.02, D01.01, X, C01.03.02, K01.01, A04.01.02, A04.03	Collapse of terrain, landslide, Invasive non-native species, Off-road motorized driving, Paths, tracks, cycling tracks, No threats or pressures, Mechanical removal of peat, Erosion, Intensive sheep grazing, Abandonment of pastoral systems lack of grazing



		Alpine and Boreal heaths [4060], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Calcareous rocky slopes with chasmophytic vegetation [8210], Petrifying springs with tufa formation (Cratoneurion) [7220], Water courses of plain to montane levels with the <i>Ranunculus fluitans</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> ) [8110], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Alkaline fens [7230], Blanket bogs * if active bog [7130], <i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230]		
000625	Bunduff Lough and Machair/Trawalua/Mullaghmore SAC	Reefs [1170], Mudflats and sandflats not covered by seawater at low tide [1140], Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Humid dune slacks [2190], Alkaline fens [7230], Marsh Fritillary ( <i>Euphydryas aurinia</i> ) [1065], Semi-natural dry grasslands and scrubland facies on calcareous substrates	A04.01.01, A05.02, A08, A04.02.02, A10.01, J02.12.01, K01.01, J02.01.03, A02.01, G01.02, F03.02.04	Intensive cattle grazing, Stock feeding, Fertilisation, Non intensive sheep grazing, Removal of hedges and copses or scrub, Sea defense or coast protection works, tidal barrages, Erosion, Infilling of ditches, dykes, ponds, pools, marshes or pits, Agricultural intensification, Walking, horseriding and non-motorised vehicles, Predator control

		(Festuco-Brometalia) * important orchid sites [6210], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Large shallow inlets and bays [1160], Juniperus communis formations on heaths or calcareous grasslands [5130], Machairs * in Ireland [21A0]		
000627	Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Petrifying springs with tufa formation (Cratoneurion) [7220], Sea lamprey (Petromyzon marinus) [1095], River lamprey (Lampetra fluviatilis) [1099], Harbour seal (Phoca vitulina) [1365], Juniperus communis formations on heaths or calcareous grasslands [5130], Narrow-mouthed whorl snail (Vertigo angustior) [1014], Mudflats and sandflats not covered by seawater at low tide [1140], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Estuaries [1130], Embryonic shifting dunes [2110]	G05.01, E01.03, G01.03.02, F01.01, G02.08, D03.01, D03, G01.02, J02.12.01, J01.01, I01, G02.09, J02.11.01, A02.01, E03.03, G02.01	Trampling, overuse, Dispersed habitation, Off-road motorized driving, Intensive fish farming, intensification, Camping and caravans, Port areas, Shipping lanes, ports, marine constructions, Walking, horseriding and non-motorised vehicles, Sea defense or coast protection works, tidal barrages, Burning down, Invasive non-native species, Wildlife watching, Dumping, depositing of dredged deposits, Agricultural intensification, Disposal of inert materials, Golf course
000633	Lough Hoe Bog SAC	Geyer's whorl snail (Vertigo geyeri) [1013], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], White-clawed crayfish	X, A04, J01.01, C01.03.02, B01, C03.03	No threats or pressures, Grazing, Burning down, Mechanical removal of peat, Forest planting on open ground, Wind energy production

		(Austropotamobius pallipes) [1092], Blanket bogs * if active bog [7130]		
000634	Lough Nabrickkeagh Bog SAC	Blanket bogs * if active bog [7130]	D01.01, A08, X, E01.03, B02, C01.03.01, F03.01, J01, A03.03, A02.01	Paths, tracks, cycling tracks, Fertilisation, No threats or pressures, Dispersed habitation, Forest and Plantation management & use, Hand cutting of peat, Hunting, Fire and fire suppression, Abandonment or lack of mowing, Agricultural intensification
000636	Templehouse and Cloonacleigha Loughs SAC	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]	C01.03.02, A04.02.01, I01, B02, K02.01, J02.02.01	Mechanical removal of peat, Non intensive cattle grazing, Invasive non-native species, Forest and Plantation management & use, Species composition change (succession), Dredging or removal of limnic sediments
000637	Turloughmore (Sligo) SAC	Turloughs [3180]	X, B02.01, A02.01, K02	No threats or pressures, Forest replanting, Agricultural intensification, Biocenotic evolution, succession
000638	Union Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	B02.01.01, I01, G05.09, G01.02, B02.02, B06	Forest replanting (native trees), Invasive non-native species, Fences, fencing, Walking, horseriding and non-motorised vehicles, Forestry clearance, Grazing in forests or woodland
000641	Ballyduff/Clonfinane Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Bog woodland [91D0]	A08, A04, J01, D05, C01.03, A01, C01.03.02, A10, A03	Fertilisation, Grazing, Fire and fire suppression, Improved access to site, Peat extraction, Cultivation, Mechanical removal of peat, Restructuring agricultural land holding, Mowing or cutting of grassland
000646	Galtee Mountains SAC	European dry heaths [4030], Northern Atlantic wet heaths with Erica tetralix [4010], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Alpine and Boreal heaths [4060], Blanket bogs * if active bog [7130], Siliceous rocky	G01.03.02, J01, G01.04.01, X, G01.02, A10.01, J02.11, A04.01.02	Off-road motorized driving, Fire and fire suppression, Mountaineering & rock climbing, No threats or pressures, Walking, horseriding and non-motorised vehicles, Removal of hedges and copses or scrub, Siltation rate changes, dumping, depositing of dredged deposits, Intensive sheep grazing

		slopes with chasmophytic vegetation [8220], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], Calcareous rocky slopes with chasmophytic vegetation [8210]		
000647	Kilcarren-Firville Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	B01, A03, A10, A08, J01, A04, D01.02, C01.03	Forest planting on open ground, Mowing or cutting of grassland, Restructuring agricultural land holding, Fertilisation, Fire and fire suppression, Grazing, Roads, motorways, Peat extraction
000665	Helvick Head SAC	European dry heaths [4030], Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230]	A04, J01	Grazing, Fire and fire suppression
000668	Nier Valley Woodlands SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	A04, I01, X, B	Grazing, Invasive non-native species, No threats or pressures, Sylviculture, forestry
000671	Tramore Dunes and Backstrand SAC	Perennial vegetation of stony banks [1220], Mudflats and sandflats not covered by seawater at low tide [1140], Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Mediterranean salt meadows (Juncetalia maritimi) [1410], Embryonic shifting dunes [2110], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310]	F02.03, G02.08, A04, E03, G01.02, C01.01.02, I01, F03.01, E01, F02.03.01	Leisure fishing, Camping and caravans, Grazing, Discharges, Walking, horseriding and non-motorised vehicles, Removal of beach materials, Invasive non-native species, Hunting, Urbanised areas, human habitation, Bait digging or collection

000679	Garriskil Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	J02.15, I02, I01, A04.02.01, J01.01, C01.03.02	Other human induced changes in hydraulic conditions, Problematic native species, Invasive non-native species, Non intensive cattle grazing, Burning down, Mechanical removal of peat
000685	Lough Ennell SAC	Alkaline fens [7230]	F02.03.02, D01.01, A04.02.05, J02.05.02, B02.02, J02.01, A04.01.01, H01.05, H06.02, A04.03, H06.01.01, H01.08, K03.01, F03.01	Pole fishing, Paths, tracks, cycling tracks, Non intensive mixed animal grazing, Modifying structures of inland water courses, Forestry clearance, Landfill, land reclamation and drying out, general, Intensive cattle grazing, Diffuse pollution to surface waters due to agricultural and forestry activities, Light pollution, Abandonment of pastoral systems lack of grazing, Point source or irregular noise pollution, Diffuse pollution to surface waters due to household sewage and waste waters, Competition (fauna), Hunting
000688	Lough Owel SAC	Alkaline fens [7230], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Transition mires and quaking bogs [7140], White-clawed crayfish (Austropotamobius pallipes) [1092]	D04, D03.01.02, J02.01, X, F03.01, J02.06.02, H01.05, G02.10, G01	Airports, flightpaths, Piers or tourist harbours or recreational piers, Landfill, land reclamation and drying out, general, No threats or pressures, Hunting, Surface water abstractions for public water supply, Diffuse pollution to surface waters due to agricultural and forestry activities, Other sport or leisure complexes, Outdoor sports and leisure activities, recreational activities
000692	Scragh Bog SAC	Alkaline fens [7230], Slender green feather-moss (Hamatocaulis vernicosus) [6216], Transition mires and quaking bogs [7140]	H01.08, A08, I01, D01.01, A11	Diffuse pollution to surface waters due to household sewage and waste waters, Fertilisation, Invasive non-native species, Paths, tracks, cycling tracks, Agriculture activities not referred to above
000696	Ballyteige Burrow SAC	Humid dune slacks [2190], Coastal lagoons [1150], Estuaries [1130], Embryonic shifting dunes [2110], Annual vegetation of drift lines [1210], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salt meadows (Glaucopuccinellietalia maritimae)	K02, F01, F02.03.01, E03, F02.03, I01, A04.02, K01.01, G01.03.02, G01.02	Biocenotic evolution, succession, Marine and Freshwater Aquaculture, Bait digging or collection, Discharges, Leisure fishing, Invasive non-native species, Non intensive grazing, Erosion, Off-road motorized driving, Walking, horseriding and non-motorised vehicles

		[1330], Mudflats and sandflats not covered by seawater at low tide [1140], Salicornia and other annuals colonising mud and sand [1310], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Perennial vegetation of stony banks [1220], Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Sarcocornetea fruticosi</i> ) [1420], Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> ) [2150]		
000697	Bannow Bay SAC	Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Perennial vegetation of stony banks [1220], Embryonic shifting dunes [2110], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Annual vegetation of drift lines [1210], Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Salicornia and other annuals colonising mud and sand [1310], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Sarcocornetea fruticosi</i> ) [1420]	J02.11.01, I01, C01.01.02, B01, F02.03.01, G01.03.02, K01.01, F01.01, J02.02, X, E03.01, D01.01, E03	Dumping, depositing of dredged deposits, Invasive non-native species, Removal of beach materials, Forest planting on open ground, Bait digging or collection, Off-road motorized driving, Erosion, Intensive fish farming, intensification, Removal of sediments (mud...), No threats or pressures, Disposal of household or recreational facility waste, Paths, tracks, cycling tracks, Discharges
000700	Cahore Polders and Dunes SAC	Humid dune slacks [2190],	G01.03.02,	Off-road motorized driving, Intensive mixed animal grazing,

		Annual vegetation of drift lines [1210], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Embryonic shifting dunes [2110]	A04.01.05, A03.03, A11, A04, A08, A06.03, G01.02, J02.10, A05.02	Abandonment or lack of mowing , Agriculture activities not referred to above, Grazing, Fertilisation, Biofuel-production, Walking, horseriding and non-motorised vehicles, Management of aquatic and bank vegetation for drainage purposes, Stock feeding
000704	Lady's Island Lake SAC	Perennial vegetation of stony banks [1220], Reefs [1170], Coastal lagoons [1150]	G01.03.02, A04.03, H01.05, E03.01, I01, J02, X, H01, E03, J02.06.01, A09	Off-road motorized driving, Abandonment of pastoral systems lack of grazing, Diffuse pollution to surface waters due to agricultural and forestry activities, Disposal of household or recreational facility waste, Invasive non-native species, Human induced changes in hydraulic conditions, No threats or pressures, Pollution to surface waters (limnic & terrestrial, marine & brackish), Discharges, Surface water abstractions for agriculture, Irrigation
000707	Saltee Islands SAC	Reefs [1170], Mudflats and sandflats not covered by seawater at low tide [1140], Grey Seal ( <i>Halichoerus grypus</i> ) [1364], Submerged or partially submerged sea caves [8330], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Grey seal ( <i>Halichoerus grypus</i> ) [1364], Large shallow inlets and bays [1160]	J02.12.01, H01, G01.01, F02.02.02, F02.03.01, A04.02, D02	Sea defense or coast protection works, tidal barrages, Pollution to surface waters (limnic & terrestrial, marine & brackish), Nautical sports, Pelagic trawling, Bait digging or collection, Non intensive grazing, Utility and service lines
000708	Screen Hills SAC	European dry heaths [4030], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110]	C01.01, I02, I01, K02, X	Sand and gravel extraction , Problematic native species, Invasive non-native species, Biocenotic evolution, succession, No threats or pressures
000709	Tacumshin Lake SAC	Perennial vegetation of stony banks [1220], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Embryonic shifting dunes [2110], Coastal lagoons [1150], Annual	K01.02, J02.06.01, K01.03, A04.03, A05.02, G02.09, C01.01.02, H01.05, J02.05.02, A09, J02, E03.01, G01.02, G01.03.02, K02.01,	Silting up, Surface water abstractions for agriculture, Drying out, Abandonment of pastoral systems lack of grazing, Stock feeding, Wildlife watching, Removal of beach materials, Diffuse pollution to surface waters due to agricultural and forestry activities, Modifying structures of inland water courses, Irrigation, Human induced changes in hydraulic conditions, Disposal of household or recreational facility waste, Walking, horseriding and non-

		vegetation of drift lines [1210]	E03, J02.12.01, X	motorised vehicles, Off-road motorized driving, Species composition change (succession), Discharges, Sea defense or coast protection works, tidal barrages, No threats or pressures
000710	Raven Point Nature Reserve SAC	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Embryonic shifting dunes [2110], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> ) [2170], Annual vegetation of drift lines [1210], Humid dune slacks [2190]	G01.02, A04.03, K02, X, G02.08, G01.03, B02, K01.03, J01, I02, J01.01, I01, H05.01	Walking, horseriding and non-motorised vehicles, Abandonment of pastoral systems lack of grazing, Biocenotic evolution, succession, No threats or pressures, Camping and caravans, Motorised vehicles, Forest and Plantation management & use, Drying out, Fire and fire suppression, Problematic native species, Burning down, Invasive non-native species, Garbage and solid waste
000713	Ballyman Glen SAC	Alkaline fens [7230], Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) [7220]	A04, H01.03, C01.01, A08, A01, A10.01, E01.01, D01.02, E03.01, H02.01, B01, E01.02	Grazing, Other point source pollution to surface water, Sand and gravel extraction, Fertilisation, Cultivation, Removal of hedges and copses or scrub, Continuous urbanisation, Roads, motorways, Disposal of household or recreational facility waste, Groundwater pollution by leakages from contaminated sites, Forest planting on open ground, Discontinuous urbanisation
000714	Bray Head SAC	European dry heaths [4030], Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230]	J01.01, A04.02.01, D01.01, A10.01, G05.04, K02.01, K01.01, G01.03, E01	Burning down, Non intensive cattle grazing, Paths, tracks, cycling tracks, Removal of hedges and copses or scrub, Vandalism, Species composition change (succession), Erosion, Motorised vehicles, Urbanised areas, human habitation
000716	Carriggower Bog SAC	Transition mires and quaking bogs [7140]	A04.02.03, K02.01, E01.03, J02.01, J02.08, B01, A04.03, A08	Non intensive horse grazing, Species composition change (succession), Dispersed habitation, Landfill, land reclamation and drying out, general, Raising the groundwater table or artificial recharge of groundwater, Forest planting on open ground, Abandonment of pastoral systems lack of grazing, Fertilisation
000717	Deputy's Pass Nature Reserve SAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	G01.02, G02.06, I01, B, A04, B06, B02.01.01, G05.04,	Walking, horseriding and non-motorised vehicles, Attraction park, Invasive non-native species, Sylviculture, forestry, Grazing, Grazing in forests or woodland, Forest replanting (native trees),



			E03.01	Vandalism, Disposal of household or recreational facility waste
000719	Glen of the Downs SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	A04, I01, G05.06, G02.01, G05.04, G02.06, G05.07, D01.02, J01.01, G01.02	Grazing, Invasive non-native species, Tree surgery, felling for public safety, removal of roadside trees, Golf course, Vandalism, Attraction park, Missing or wrongly directed conservation measures, Roads, motorways, Burning down, Walking, horseriding and non-motorised vehicles
000725	Knocksink Wood SAC	Petrifying springs with tufa formation (Cratoneurion) [7220], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	G05.06, G01.02, B02.03, D01.02, A04, B01, G02.08, E01.02, B01.02, E03.01, I01, G05.04, G03, D05, D01.01, G05.07	Tree surgery, felling for public safety, removal of roadside trees, Walking, horseriding and non-motorised vehicles, Removal of forest undergrowth, Roads, motorways, Grazing, Forest planting on open ground, Camping and caravans, Discontinuous urbanisation, Artificial planting on open ground (non-native trees), Disposal of household or recreational facility waste, Invasive non-native species, Vandalism, Interpretative centres, Improved access to site, Paths, tracks, cycling tracks, Missing or wrongly directed conservation measures
000729	Buckroney-Brittis Dunes and Fen SAC	Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Dunes with Salix repens ssp. argentea (Salicion arenariae) [2170], Humid dune slacks [2190], Perennial vegetation of stony banks [1220], Alkaline fens [7230], Annual vegetation of drift lines [1210], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150], Embryonic shifting dunes [2110], Mediterranean salt meadows (Juncetalia maritimi) [1410]	A08, G05.04, G01.02, J02, E01.02, A05.02, I01, A10.01, A04.01.01, G05.01, F03.01, A03.02, K02.01, H02.07, A04.02, G02.08, D04.01, J01, K01.01, E03.01, G02.01	Fertilisation, Vandalism, Walking, horseriding and non-motorised vehicles, Human induced changes in hydraulic conditions, Discontinuous urbanisation, Stock feeding, Invasive non-native species, Removal of hedges and copses or scrub, Intensive cattle grazing, Trampling, overuse, Hunting, Non intensive mowing, Species composition change (succession), Diffuse groundwater pollution due to non-sewered population, Non intensive grazing, Camping and caravans, Airport, Fire and fire suppression, Erosion, Disposal of household or recreational facility waste, Golf course
000733	Vale of Clara (Rathdrum Wood) SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	B02.01.01, E01.03, F05.04, I01, F03.02, F03.01.01, B04, F04.02, G01.02	Forest replanting (native trees), Dispersed habitation, Poaching, Invasive non-native species, Taking and removal of animals (terrestrial), Damage caused by game (excess population density), Use of biocides, hormones and chemicals (forestry), Collection (fungi, lichen, berries etc.), Walking, horseriding and non-

				motorised vehicles
000764	Hook Head SAC	Reefs [1170], Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], Large shallow inlets and bays [1160]	K01.01, G01.07, F02, X, J02.11.01	Erosion, Scubadiving, snorkelling, Fishing and harvesting aquatic resources, No threats or pressures, Dumping, depositing of dredged deposits
000770	Blackstairs Mountains SAC	Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030]	E03, K01.01, G01.03.02, B02, A04.01.02, A04.02, G01.02, K02.01, J01.01	Discharges, Erosion, Off-road motorized driving, Forest and Plantation management & use, Intensive sheep grazing, Non intensive grazing, Walking, horseriding and non-motorised vehicles, Species composition change (succession), Burning down
000781	Slaney River Valley SAC	Harbour seal ( <i>Phoca vitulina</i> ) [1365], Otter ( <i>Lutra lutra</i> ) [1355], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], River lamprey ( <i>Lampetra fluviatilis</i> ) [1099], Brook lamprey ( <i>Lampetra planeri</i> ) [1096], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Sea lamprey ( <i>Petromyzon marinus</i> ) [1095], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Estuaries [1130], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Mudflats and sandflats not covered by seawater at low tide [1140], Twaite shad ( <i>Alosa fallax</i> ) [1103]	H01.01, A08, F02.03.01, I01, A10.01, D01.01, J02.06.01, J02.11, J02.06, H01.08, A01, J02.12.02, J02, K01.01, F03.02.04, B02, E03, J02.05.02, F01.03, D03.01.03, A09, H01.05, D01.05, H01, E05, C01.01	Pollution to surface waters by industrial plants, Fertilisation, Bait digging or collection, Invasive non-native species, Removal of hedges and copses or scrub, Paths, tracks, cycling tracks, Surface water abstractions for agriculture, Siltation rate changes, dumping, depositing of dredged deposits, Water abstractions from surface waters, Diffuse pollution to surface waters due to household sewage and waste waters, Cultivation, Dykes and flooding defense in inland water systems, Human induced changes in hydraulic conditions, Erosion, Predator control, Forest and Plantation management & use, Discharges, Modifying structures of inland water courses, Bottom culture, Fishing harbours, Irrigation, Diffuse pollution to surface waters due to agricultural and forestry activities, Bridge, viaduct, Pollution to surface waters (limnic & terrestrial, marine & brackish), Storage of materials, Sand and gravel extraction

000831	Cullahill Mountain SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	A03.02, A04.03, A10.01	Non intensive mowing, Abandonment of pastoral systems lack of grazing, Removal of hedges and copses or scrub
000849	Spahill and Clomantagh Hill SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	A04.01, A10.01, X, A08	Intensive grazing, Removal of hedges and copses or scrub, No threats or pressures, Fertilisation
000859	Clonaslee Eskers and Derry Bog SAC	Alkaline fens [7230], Geyer's whorl snail (Vertigo geyeri) [1013]	J02.15, H05.01, J02.05, K02.01, A04.02.03, J01.01, E01.03, C01.03.02	Other human induced changes in hydraulic conditions, Garbage and solid waste, Modification of hydrographic functioning, general, Species composition change (succession), Non intensive horse grazing, Burning down, Dispersed habitation, Mechanical removal of peat
000869	Lisbigney Bog SAC	Desmoulin's whorl snail (Vertigo moulinsiana) [1016], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	E03.03, A04.03, J01.01, E03.01, X, J02.01, K02.01	Disposal of inert materials, Abandonment of pastoral systems lack of grazing, Burning down, Disposal of household or recreational facility waste, No threats or pressures, Landfill, land reclamation and drying out, general, Species composition change (succession)
000919	Ridge Road, SW of Rapemills SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	A10.01, A08, A04.03, K02.01, A02.01, A04.01, A05.02, J01.01, D01, A07	Removal of hedges and copses or scrub, Fertilisation, Abandonment of pastoral systems lack of grazing, Species composition change (succession), Agricultural intensification, Intensive grazing, Stock feeding, Burning down, Roads, paths and railroads, Use of biocides, hormones and chemicals
000925	The Long Derries, Edenderry SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	G01.03.02, E05, D01, K01.01, A04.03, X, K02.01	Off-road motorized driving, Storage of materials, Roads, paths and railroads, Erosion, Abandonment of pastoral systems lack of grazing, No threats or pressures, Species composition change (succession)
000930	Clare Glen SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Killarney fern (Trichomanes speciosum) [1421]	B02.02, G01, B02.04, I01, J02.11, X	Forestry clearance, Outdoor sports and leisure activities, recreational activities, Removal of dead and dying trees, Invasive non-native species, Siltation rate changes, dumping, depositing of dredged deposits, No threats or pressures
000934	Kilduff, Devilsbit Mountain SAC	European dry heaths [4030], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and	G01.02, G02.09, A10, H05.01, F03.02.02, G01.04.01	Walking, horseriding and non-motorised vehicles, Wildlife watching, Restructuring agricultural land holding, Garbage and solid waste, Taking from nest (e.g. falcons), Mountaineering & rock climbing

		submountain areas in Continental Europe [6230]		
000939	Silvermine Mountains SAC	Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Northern Atlantic wet heaths with Erica tetralix [4010]	M02.01, A04.02.01, A04.01	Habitat shifting and alteration, Non intensive cattle grazing, Intensive grazing
000979	Corratirrim SAC	Limestone pavements [8240]	B02.01.02, X, A07, A05.02, A10, G05.07, I02, H02.06, A10.01, G01, A10.02, I01, B01, A04.01.04	Forest replanting (non native trees), No threats or pressures, Use of biocides, hormones and chemicals, Stock feeding, Restructuring agricultural land holding, Missing or wrongly directed conservation measures, Problematic native species, Diffuse groundwater pollution due to agricultural and forestry activities, Removal of hedges and copses or scrub, Outdoor sports and leisure activities, recreational activities, Removal of stone walls and embankments, Invasive non-native species, Forest planting on open ground, Intensive goat grazing
000994	Ballyteige (Clare) SAC	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	M01, A04.03, A03.03, A04.02	Changes in abiotic conditions, Abandonment of pastoral systems lack of grazing, Abandonment or lack of mowing , Non intensive grazing
000996	Ballyvaughan Turlough SAC	Turloughs [3180]	E01.03, A08, X, A10.01, J02.06	Dispersed habitation, Fertilisation, No threats or pressures, Removal of hedges and copses or scrub, Water abstractions from surface waters
001013	Glenomra Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	D02.01, B06, E01.03, B02, G05.06, D05, A10.01	Electricity and phone lines, Grazing in forests or woodland, Dispersed habitation, Forest and Plantation management & use, Tree surgery, felling for public safety, removal of roadside trees, Improved access to site, Removal of hedges and copses or scrub
001021	Carrowmore Point to Spanish Point and Islands SAC	Reefs [1170], Petrifying springs with tufa formation (Cratoneurion) [7220], Perennial vegetation of stony banks [1220], Coastal lagoons [1150]	G01.01, A08, G01.02, F02.03, C01.01, A04, K01.02, J02.12.01, F06	Nautical sports, Fertilisation, Walking, horseriding and non-motorised vehicles, Leisure fishing, Sand and gravel extraction , Grazing, Silting up, Sea defense or coast protection works, tidal barrages, Hunting, fishing or collecting activities not referred to above
001040	Barley Cove to Ballyrisode Point	Perennial vegetation of stony banks [1220], Mediterranean	A04.03, A04.01.05,	Abandonment of pastoral systems lack of grazing, Intensive mixed animal grazing, No threats or pressures, Stock feeding,

	SAC	salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Mudflats and sandflats not covered by seawater at low tide [1140], European dry heaths [4030], Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120]	X, A05.02, A10, J01	Restructuring agricultural land holding, Fire and fire suppression
001043	Cleanderry Wood SAC	Killarney fern ( <i>Trichomanes speciosum</i> ) [1421], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	X, I01, A04.02.02, J01.01	No threats or pressures, Invasive non-native species, Non intensive sheep grazing, Burning down
001058	Great Island Channel SAC	Mudflats and sandflats not covered by seawater at low tide [1140], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330]	A04, K02.03, A08, F01, D01.02, I01, E01, J02.01.02	Grazing, Eutrophication (natural), Fertilisation, Marine and Freshwater Aquaculture, Roads, motorways, Invasive non-native species, Urbanised areas, human habitation, Reclamation of land from sea, estuary or marsh
001061	Kilkeran Lake and Castlefrefre Dunes SAC	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Coastal lagoons [1150], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Embryonic shifting dunes [2110]	G01.03.02, H01.05, A04.02.03, I02, D01.01, C01.01, E03.01	Off-road motorized driving, Diffuse pollution to surface waters due to agricultural and forestry activities, Non intensive horse grazing, Problematic native species, Paths, tracks, cycling tracks, Sand and gravel extraction, Disposal of household or recreational facility waste
001070	Myross Wood SAC	Killarney fern ( <i>Trichomanes speciosum</i> ) [1421]	I01, X	Invasive non-native species, No threats or pressures
001090	Ballyness Bay SAC	Geyer's whorl snail ( <i>Vertigo geyeri</i> ) [1013], Humid dune slacks [2190], Fixed coastal	F04, C01.01.02, A04, E03, G02.07, E01, G01.02, F01,	Taking or Removal of terrestrial plants, general, Removal of beach materials, Grazing, Discharges, Sports pitch, Urbanised areas, human habitation, Walking, horseriding and non-

		dunes with herbaceous vegetation - grey dunes [2130], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Mudflats and sandflats not covered by seawater at low tide [1140], Embryonic shifting dunes [2110], Estuaries [1130]	F02.03	motorised vehicles, Marine and Freshwater Aquaculture, Leisure fishing
001107	Coolvoy Bog SAC	Blanket bogs * if active bog [7130]	C01.03.02, C01.03.01, J01, K01.01, A10, E01.03, D01.02, K02.02, E03, A04, B	Mechanical removal of peat, Hand cutting of peat, Fire and fire suppression, Erosion, Restructuring agricultural land holding, Dispersed habitation, Roads, motorways, Accumulation of organic material, Discharges, Grazing, Sylviculture, forestry
001125	Dunragh Loughs/Pettigo Plateau SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Blanket bogs * if active bog [7130]	B07, A04.02, B02, I01, A05.02, G01.03.02	Forestry activities not referred to above, Non intensive grazing, Forest and Plantation management & use, Invasive non-native species, Stock feeding, Off-road motorized driving
001141	Gweedore Bay and Islands SAC	Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Decalcified fixed dunes with <i>Empetrum nigrum</i> [2140], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritima</i> ) [1330], <i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic decalcified fixed dunes ( <i>Callunoulicetalia</i> ) [2150], Embryonic shifting dunes [2110], Machairs * in Ireland [21A0], Marsh Fritillary ( <i>Euphydryas aurinia</i> ) [1065], Otter ( <i>Lutra lutra</i> ) [1355], Perennial vegetation of stony banks [1220], Slender	G02.08, E01.03, X, E03.04, K01.01, G02.07, D01.01, G01.02, F01, A05.02, A04, G02.01, A08, C01.03, C01.01, C01.01.02, F06, D04.01	Camping and caravans, Dispersed habitation, No threats or pressures, Other discharges, Erosion, Sports pitch, Paths, tracks, cycling tracks, Walking, horseriding and non-motorised vehicles, Marine and Freshwater Aquaculture, Stock feeding, Grazing, Golf course, Fertilisation, Peat extraction, Sand and gravel extraction, Removal of beach materials, Hunting, fishing or collecting activities not referred to above, Airport

		Naiad ( <i>Najas flexilis</i> ) [1833], Alpine and Boreal heaths [4060], Coastal lagoons [1150], Humid dune slacks [2190], Dunes with <i>Salix repens</i> ssp. <i>argentea</i> ( <i>Salicion arenariae</i> ) [2170], European dry heaths [4030], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130], Reefs [1170], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120]		
001151	Kindrum Lough SAC	Slender naiad ( <i>Najas flexilis</i> ) [1833], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]	D03.01.02, X, F02.03, G01.01.01	Piers or tourist harbours or recreational piers, No threats or pressures, Leisure fishing, Motorized nautical sports
001179	Muckish Mountain SAC	Siliceous rocky slopes with chasmophytic vegetation [8220], Alpine and Boreal heaths [4060]	K02.02, B, E03, D01.01, A04, E01.03, D01.02, C01.03.02, C01.03.01, K01.01, C01.01.01	Accumulation of organic material, Sylviculture, forestry, Discharges, Paths, tracks, cycling tracks, Grazing, Dispersed habitation, Roads, motorways, Mechanical removal of peat, Hand cutting of peat, Erosion, Sand and gravel quarries
001190	Sheephaven SAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], Humid dune slacks [2190], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Annual vegetation of drift lines	A05.02, G02.01, B02.02, G01.01.01, G01, X	Stock feeding, Golf course, Forestry clearance, Motorized nautical sports, Outdoor sports and leisure activities, recreational activities, No threats or pressures

		[1210], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Machairs * in Ireland [21A0], Marsh Fritillary ( <i>Euphydryas aurinia</i> ) [1065], Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Embryonic shifting dunes [2110], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120]		
001195	Termon Strand SAC	Coastal lagoons [1150]	E03.03, H01.05, K01.01, X, G01.02	Disposal of inert materials, Diffuse pollution to surface waters due to agricultural and forestry activities, Erosion, No threats or pressures, Walking, horseriding and non-motorised vehicles
001197	Keeper Hill SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Blanket bogs * if active bog [7130]	D02.03, G01.03.02, G01.03.01, X, K01.01, D01.01	Communication masts and antennas, Off-road motorized driving, Regular motorized driving, No threats or pressures, Erosion, Paths, tracks, cycling tracks
001209	Glenasmole Valley SAC	Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) [7220], Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410]	I01, A04.02.02, A04, A04.02.03, C01.03, H02.07, A03.03, D01.03, J02, D01, A08, A04.02.01, B01.02, F02.03, A03, B01.01, B02.01.02, H01.05, E01.02, H01.08, B02.02	Invasive non-native species, Non intensive sheep grazing, Grazing, Non intensive horse grazing, Peat extraction, Diffuse groundwater pollution due to non-sewered population, Abandonment or lack of mowing, Car parks and parking areas, Human induced changes in hydraulic conditions, Roads, paths and railroads, Fertilisation, Non intensive cattle grazing, Artificial planting on open ground (non-native trees), Leisure fishing, Mowing or cutting of grassland, Forest planting on open ground (native trees), Forest replanting (non native trees), Diffuse pollution to surface waters due to agricultural and forestry activities, Discontinuous urbanisation, Diffuse pollution to surface waters due to household sewage and waste waters, Forestry clearance
001228	Aughrusbeg Machair and Lake SAC	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i>	G05.09, L07, D03.01.02, A04.02, I01, D03.01.01, J01.01, F02.01.01,	Fences, fencing, Storm, cyclone, Piers or tourist harbours or recreational piers, Non intensive grazing, Invasive non-native species, Slipways, Burning down, Potting, Stock feeding,



		[3130], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]	A05.02, E01.03	Dispersed habitation
001230	Courtmacsherry Estuary SAC	Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Estuaries [1130], Perennial vegetation of stony banks [1220], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Annual vegetation of drift lines [1210], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Mudflats and sandflats not covered by seawater at low tide [1140], Embryonic shifting dunes [2110]	J02.02.02, A08, G01.01, A11, F02.03.01, C01.01.02, X, E03.01, G01.08, E03.04	Estuarine and coastal dredging, Fertilisation, Nautical sports, Agriculture activities not referred to above, Bait digging or collection, Removal of beach materials, No threats or pressures, Disposal of household or recreational facility waste, Other outdoor sports and leisure activities, Other discharges
001242	Carrownagappul Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the <i>Rhynchosporion</i> [7150]	F06.01, J01.01, J02.15, J02.08, J02.07	Game or bird breeding station, Burning down, Other human induced changes in hydraulic conditions, Raising the groundwater table or artificial recharge of groundwater, Water abstractions from groundwater
001251	Cregduff Lough SAC	Slender naiad ( <i>Najas flexilis</i> ) [1833], Transition mires and quaking bogs [7140]	A03.03, I01, A04.02.05, J02.06.02	Abandonment or lack of mowing, Invasive non-native species, Non intensive mixed animal grazing, Surface water abstractions for public water supply
001257	Dog's Bay SAC	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Embryonic shifting dunes [2110], Annual vegetation of drift lines [1210],	D01.01, G01.02, G01.01.02, G05.01, J02.12.01, G01.03.02, G05.09, A04.01.05, H03.03, G02.08, L07	Paths, tracks, cycling tracks, Walking, horseriding and non-motorised vehicles, Non-motorized nautical sports, Trampling, overuse, Sea defense or coast protection works, tidal barrages, Off-road motorized driving, Fences, fencing, Intensive mixed animal grazing, Marine macro-pollution (i.e. plastic bags, styrofoam), Camping and caravans, Storm, cyclone

		European dry heaths [4030]		
001271	Gortnandarragh Limestone Pavement SAC	Limestone pavements [8240]	I01, J02.01, C01.03, A04.03, A04.02.05, D01.01, A04.02.01, E04, A04.01.02, A10.01, A04.02.04, K04.05, D01.02	Invasive non-native species, Landfill, land reclamation and drying out, general, Peat extraction, Abandonment of pastoral systems lack of grazing, Non intensive mixed animal grazing, Paths, tracks, cycling tracks, Non intensive cattle grazing, Structures, buildings in the landscape, Intensive sheep grazing, Removal of hedges and copses or scrub, Non intensive goat grazing, Damage by herbivores (including game species), Roads, motorways
001275	Inisheer Island SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Limestone pavements [8240], Coastal lagoons [1150], Reefs [1170], European dry heaths [4030]	E04.01, A02.01, A04.02.01, A04.03, I02, C01.07, A10.01, D01.01	Agricultural structures, buildings in the landscape, Agricultural intensification, Non intensive cattle grazing, Abandonment of pastoral systems lack of grazing, Problematic native species, Mining and extraction activities not referred to above, Removal of hedges and copses or scrub, Paths, tracks, cycling tracks
001285	Kiltiernan Turlough SAC	Turloughs [3180]	D01.02, J02.05, H01.08, A08, A02.01, X, H02.06	Roads, motorways, Modification of hydrographic functioning, general, Diffuse pollution to surface waters due to household sewage and waste waters, Fertilisation, Agricultural intensification, No threats or pressures, Diffuse groundwater pollution due to agricultural and forestry activities
001309	Omey Island Machair SAC	Machairs * in Ireland [21A0], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Petalwort (Petalophyllum ralfsii) [1395]	G02.10, K01.01, J02.12.01, A04.02, G01.03.02, A08, L07, G01.02, A05.02, F03.02.04, F02.03, K04.05, G05.01	Other sport or leisure complexes, Erosion, Sea defense or coast protection works, tidal barrages, Non intensive grazing, Off-road motorized driving, Fertilisation, Storm, cyclone, Walking, horseriding and non-motorised vehicles, Stock feeding, Predator control, Leisure fishing, Damage by herbivores (including game species), Trampling, overuse
001311	Rusheenduff Lough SAC	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Slender naiad (Najas flexilis) [1833]	D03.01.01, F02.01.01, L08, L07, I01, K01.01, J02.12.01, A04.02, G02.10, A03.03	Slipways, Potting, Inundation (natural processes), Storm, cyclone, Invasive non-native species, Erosion, Sea defense or coast protection works, tidal barrages, Non intensive grazing, Other sport or leisure complexes, Abandonment or lack of mowing

001312	Ross Lake and Woods SAC	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A08, A10.01, E06, I01, A04.03, C01.04, D01.01, A04, E06.02, C01.01, G05.04, D03.01.02, J02.04.01, A02.01, H01, H02.06, B02.02, H01.08	Fertilisation, Removal of hedges and copses or scrub, Other urbanisation, industrial and similar activities, Invasive non-native species, Abandonment of pastoral systems lack of grazing, Mines, Paths, tracks, cycling tracks, Grazing, Reconstruction, renovation of buildings, Sand and gravel extraction, Vandalism, Piers or tourist harbours or recreational piers, Flooding, Agricultural intensification, Pollution to surface waters (limnic & terrestrial, marine & brackish), Diffuse groundwater pollution due to agricultural and forestry activities, Forestry clearance, Diffuse pollution to surface waters due to household sewage and waste waters
001313	Rosturra Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	A04, B06, B, J01, X	Grazing, Grazing in forests or woodland, Sylviculture, forestry, Fire and fire suppression, No threats or pressures
001321	Termon Lough SAC	Turloughs [3180]	J02.05, E03.03, H02.06, H01.08, A10.01, A04.01.01, A08, X	Modification of hydrographic functioning, general, Disposal of inert materials, Diffuse groundwater pollution due to agricultural and forestry activities, Diffuse pollution to surface waters due to household sewage and waste waters, Removal of hedges and copses or scrub, Intensive cattle grazing, Fertilisation, No threats or pressures
001342	Cloonee and Inchiquin Loughs, Uragh Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Siliceous rocky slopes with chasmophytic vegetation [8220], European dry heaths [4030], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Slender naiad (Najas flexilis) [1833], Kerry Slug (Geomalacus maculosus) [1024], Killarney fern (Trichomanes speciosum) [1421], Northern Atlantic wet heaths with Erica tetralix [4010], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	I01, B06, E03.01, F02.03, B02.01.01, K04.05, A04.02.02, B02.02, J01.01, A08	Invasive non-native species, Grazing in forests or woodland, Disposal of household or recreational facility waste, Leisure fishing, Forest replanting (native trees), Damage by herbivores (including game species), Non intensive sheep grazing, Forestry clearance, Burning down, Fertilisation
001371	Mucksna Wood SAC	Old sessile oak woods with Ilex	X, G05.06, I01,	No threats or pressures, Tree surgery, felling for public safety,

		and Blechnum in the British Isles [91A0]	B02.02	removal of roadside trees, Invasive non-native species, Forestry clearance
001387	Ballynafagh Lake SAC	Desmoulin's whorl snail ( <i>Vertigo moulinsiana</i> ) [1016], Marsh Fritillary ( <i>Euphydryas aurinia</i> ) [1065], Alkaline fens [7230]	A04, F02.03	Grazing, Leisure fishing
001398	Rye Water Valley/Carton SAC	Desmoulin's whorl snail ( <i>Vertigo moulinsiana</i> ) [1016], Narrow-mouthed whorl snail ( <i>Vertigo angustior</i> ) [1014], Petrifying springs with tufa formation (Cratoneurion) [7220]	A08, A04, E01.03, D01.02, A10.01, E01.01, B, J02.05.02	Fertilisation, Grazing, Dispersed habitation, Roads, motorways, Removal of hedges and copses or scrub, Continuous urbanisation, Sylviculture, forestry, Modifying structures of inland water courses
001403	Arroo Mountain SAC	Calcareous rocky slopes with chasmophytic vegetation [8210], Blanket bogs * if active bog [7130], Alpine and Boreal heaths [4060], European dry heaths [4030], Petrifying springs with tufa formation (Cratoneurion) [7220], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Calcareous and calcshist screes of the montane to alpine levels ( <i>Thlaspietea rotundifolii</i> ) [8120]	B02, I01, C01.03.02, J01.01, C01.03.01, K01.01, G01.03.02, L05, A04.02.02, C01.01.01, D01.01	Forest and Plantation management & use, Invasive non-native species, Mechanical removal of peat, Burning down, Hand cutting of peat, Erosion, Off-road motorized driving, Collapse of terrain, landslide, Non intensive sheep grazing, Sand and gravel quarries, Paths, tracks, cycling tracks
001430	Glen Bog SAC	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0]	X, F05.05, J02	No threats or pressures, Shooting, Human induced changes in hydraulic conditions
001432	Glenstal Wood SAC	Killarney fern ( <i>Trichomanes speciosum</i> ) [1421]	K02.01, B02.03, I01	Species composition change (succession), Removal of forest undergrowth, Invasive non-native species
001459	Clogher Head SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], European dry heaths [4030]	J03.01, D03.01.02, D03.01, A04.02, D01.01, E06.02, E03.01, J02.12.01, I01, D03.01.03, F02.01, A04.03,	Reduction or loss of specific habitat features, Piers or tourist harbours or recreational piers, Port areas, Non intensive grazing, Paths, tracks, cycling tracks, Reconstruction, renovation of buildings, Disposal of household or recreational facility waste, Sea defense or coast protection works, tidal barrages, Invasive non-native species, Fishing harbours, Professional passive fishing

			G02, E05, X	, Abandonment of pastoral systems lack of grazing, Sport and leisure structures, Storage of materials, No threats or pressures
001482	Clew Bay Complex SAC	Otter ( <i>Lutra lutra</i> ) [1355], Embryonic shifting dunes [2110], Harbour seal ( <i>Phoca vitulina</i> ) [1365], Mudflats and sandflats not covered by seawater at low tide [1140], Perennial vegetation of stony banks [1220], Geyer's whorl snail ( <i>Vertigo geyeri</i> ) [1013], Large shallow inlets and bays [1160], Coastal lagoons [1150], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Annual vegetation of drift lines [1210], Machairs * in Ireland [21A0]	D03.01, K01.01, G01.02, F03.01, A08, A04, D02, J02.04.01, D01.05, D03.01.02, G01.01.01, G01.01.02, F02.03, G05.05, L07, B, G02.09, E, C01.01, G01.01, F06, F01, H, A10, D	Port areas, Erosion, Walking, horseriding and non-motorised vehicles, Hunting, Fertilisation, Grazing, Utility and service lines, Flooding, Bridge, viaduct, Piers or tourist harbours or recreational piers, Motorized nautical sports, Non-motorized nautical sports, Leisure fishing, Intensive maintenance of public parks or cleaning of beaches, Storm, cyclone, Sylviculture, forestry, Wildlife watching, Urbanisation, residential and commercial development, Sand and gravel extraction, Nautical sports, Hunting, fishing or collecting activities not referred to above, Marine and Freshwater Aquaculture, Pollution, Restructuring agricultural land holding, Transportation and service corridors
001497	Doogort Machair/Lough Doo SAC	Machairs * in Ireland [21A0], Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395]	K01.01, G01.02, G02, A10, A04, G05.01, G02.08, L07, C01.03, G01.08, G01.03	Erosion, Walking, horseriding and non-motorised vehicles, Sport and leisure structures, Restructuring agricultural land holding, Grazing, Trampling, overuse, Camping and caravans, Storm, cyclone, Peat extraction, Other outdoor sports and leisure activities, Motorised vehicles
001501	Erris Head SAC	Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], Alpine and Boreal heaths [4060]	G05.09, C01.03.01, D05, E03.01, F05.05, G01.02, X, C01.02, A04.02.02, D01.01	Fences, fencing, Hand cutting of peat, Improved access to site, Disposal of household or recreational facility waste, Shooting, Walking, horseriding and non-motorised vehicles, No threats or pressures, Loam and clay pits, Non intensive sheep grazing, Paths, tracks, cycling tracks
001513	Keel Machair/Menaun Cliffs SAC	Perennial vegetation of stony banks [1220], Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Alpine and Boreal heaths [4060], Machairs * in Ireland	G01.02, G05.05, G05.01, A08, G02.08, I01, A03, D01.02, L07, G02.01, G01, J03.01, K01.01,	Walking, horseriding and non-motorised vehicles, Intensive maintenance of public parks or cleaning of beaches, Trampling, overuse, Fertilisation, Camping and caravans, Invasive non-native species, Mowing or cutting of grassland, Roads, motorways, Storm, cyclone, Golf course, Outdoor sports and leisure activities, recreational activities, Reduction or loss of specific habitat

		[21A0]	E03.01, M02.01, J02, A04.01.02, J02.04.01, G01.03.01, D01.01	features, Erosion, Disposal of household or recreational facility waste, Habitat shifting and alteration, Human induced changes in hydraulic conditions, Intensive sheep grazing, Flooding, Regular motorized driving, Paths, tracks, cycling tracks
001529	Lough Cahasy, Lough Baun and Roonah Lough SAC	Coastal lagoons [1150], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Machairs * in Ireland [21A0], Perennial vegetation of stony banks [1220], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Embryonic shifting dunes [2110]	K01, C01.01.02, X	Abiotic (slow) natural processes, Removal of beach materials, No threats or pressures
001536	Mocorha Lough SAC	Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210]	J01.01, A08, A04.02.01, E03.01, A04, J02.01.03, F03.01, K04.01, X	Burning down, Fertilisation, Non intensive cattle grazing, Disposal of household or recreational facility waste, Grazing, Infilling of ditches, dykes, ponds, pools, marshes or pits, Hunting, Competition (flora), No threats or pressures
001547	Castletownshend SAC	Killarney fern ( <i>Trichomanes speciosum</i> ) [1421]	I01, X	Invasive non-native species, No threats or pressures
001571	Urlaur Lakes SAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140]	D01.02, J02, A04, C01.03.02, C01.03.01, A08, F02.03, E01.03, E03.01	Roads, motorways, Human induced changes in hydraulic conditions, Grazing, Mechanical removal of peat, Hand cutting of peat, Fertilisation, Leisure fishing, Dispersed habitation, Disposal of household or recreational facility waste
001625	Castlesampson Esker SAC	Turloughs [3180], Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210]	A04, C01.03.01, C01.01, A10.01	Grazing, Hand cutting of peat, Sand and gravel extraction, Removal of hedges and copses or scrub
001626	Annaghmore Lough (Roscommon) SAC	Alkaline fens [7230], Geyer's whorl snail ( <i>Vertigo geyeri</i> ) [1013]	A02, A04.02.01, A04.03, J01	Modification of cultivation practices, Non intensive cattle grazing, Abandonment of pastoral systems lack of grazing, Fire and fire suppression
001637	Four Roads Turlough SAC	Turloughs [3180]	A04, A05.02	Grazing, Stock feeding

001656	Bricklieve Mountains & Keishcorran SAC	White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092], Turloughs [3180], Calcareous and calcshist screes of the montane to alpine levels ( <i>Thlaspietea rotundifolii</i> ) [8120], Marsh Fritillary ( <i>Euphydryas aurinia</i> ) [1065], Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) [6510], Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210]	A10, D01.01, A10.01, A02.01, A04.02.01, J01.01, A04.01.02, C01.03.02, F06	Restructuring agricultural land holding, Paths, tracks, cycling tracks, Removal of hedges and copses or scrub, Agricultural intensification, Non intensive cattle grazing, Burning down, Intensive sheep grazing, Mechanical removal of peat, Hunting, fishing or collecting activities not referred to above
001669	Knockalongy and Knockachree Cliffs SAC	Killarney fern ( <i>Trichomanes speciosum</i> ) [1421]	X, B02, D02.01.02, F03.01, A04.01.02, K01.01	No threats or pressures, Forest and Plantation management & use, Underground or submerged electricity and phone lines, Hunting, Intensive sheep grazing, Erosion
001673	Lough Arrow SAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140]	G02, D03.01.02, J02.01.03, I01, X, A10.01	Sport and leisure structures, Piers or tourist harbours or recreational piers, Infilling of ditches, dykes, ponds, pools, marshes or pits, Invasive non-native species, No threats or pressures, Removal of hedges and copses or scrub
001680	Streedagh Point Dunes SAC	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Perennial vegetation of stony banks [1220], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], Narrow-mouthed whorl snail ( <i>Vertigo angustior</i> ) [1014], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130]	G01.01, X, G05.01, G01.03.02, C01.01.01, G01.02, G02.08	Nautical sports, No threats or pressures, Trampling, overuse, Off-road motorized driving, Sand and gravel quarries, Walking, horseriding and non-motorised vehicles, Camping and caravans
001683	Liskeenan Fen SAC	Calcareous fens with <i>Cladium</i>	A08, A04, I01,	Fertilisation, Grazing, Invasive non-native species, Hand cutting of

		mariscus and species of the Caricion davallianae [7210]	C01.03.01	peat
001741	Kilmuckridge-Tinnaberna Sandhills SAC	Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Embryonic shifting dunes [2110], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130]	I01, K01, D01.01, E01.03, J03, A05.02	Invasive non-native species, Abiotic (slow) natural processes, Paths, tracks, cycling tracks, Dispersed habitation, Other ecosystem modifications, Stock feeding
001742	Kilpatrick Sandhills SAC	Annual vegetation of drift lines [1210], Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Embryonic shifting dunes [2110], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130]	J01.01, K02.01, J02.12.01, X, G01, E03.01, K01.01, G01.03.02, I02	Burning down, Species composition change (succession), Sea defense or coast protection works, tidal barrages, No threats or pressures, Outdoor sports and leisure activities, recreational activities, Disposal of household or recreational facility waste, Erosion, Off-road motorized driving, Problematic native species
001757	Holdenstown Bog SAC	Transition mires and quaking bogs [7140]	D02.01.01, A04, X, A01, J02, J02.01.03, B01	Suspended electricity and phone lines, Grazing, No threats or pressures, Cultivation, Human induced changes in hydraulic conditions, Infilling of ditches, dykes, ponds, pools, marshes or pits, Forest planting on open ground
001766	Magherabeg Dunes SAC	Embryonic shifting dunes [2110], Annual vegetation of drift lines [1210], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Petrifying springs with tufa formation (Cratoneurion) [7220], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120]	K01.01, H01.04, A04.02, K02.01, G05.07, G01.02, G05.04, H01.01, A04.03	Erosion, Diffuse pollution to surface waters via storm overflows or urban run-off, Non intensive grazing, Species composition change (succession), Missing or wrongly directed conservation measures, Walking, horseriding and non-motorised vehicles, Vandalism, Pollution to surface waters by industrial plants, Abandonment of pastoral systems lack of grazing
001774	Lough Carra/Mask Complex SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Alkaline fens [7230], Calcareous	H01, X, A03.03	Pollution to surface waters (limnic & terrestrial, marine & brackish), No threats or pressures, Abandonment or lack of mowing



		fens with <i>Cladium mariscus</i> and species of the Caricion <i>davalliana</i> [7210], European dry heaths [4030], Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Limestone pavements [8240], Slender green feather-moss ( <i>Hamatocaulis vernicosus</i> ) [6216], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Otter ( <i>Lutra lutra</i> ) [1355], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0]		
001776	Pilgrim's Road Esker SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	A04.01, A07, E03.03, A08, A02.01, K02.01, A10.01, A05.02, A04.03, D01	Intensive grazing, Use of biocides, hormones and chemicals, Disposal of inert materials, Fertilisation, Agricultural intensification, Species composition change (succession), Removal of hedges and copses or scrub, Stock feeding, Abandonment of pastoral systems lack of grazing, Roads, paths and railroads
001786	Kilroosky Lough Cluster SAC	Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion <i>davalliana</i> [7210], White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092], Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140], Alkaline fens [7230]	F02.03, X, H01, A02.01, I01, G02, J02.06, E01.03, E03.03	Leisure fishing, No threats or pressures, Pollution to surface waters (limnic & terrestrial, marine & brackish), Agricultural intensification, Invasive non-native species, Sport and leisure structures, Water abstractions from surface waters, Dispersed habitation, Disposal of inert materials

001810	White Lough, Ben Loughs and Lough Doo SAC	White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092], Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140]	J02.01, A11, A08, A04.03, E03.03, G01, F03.02.03	Landfill, land reclamation and drying out, general, Agriculture activities not referred to above, Fertilisation, Abandonment of pastoral systems lack of grazing, Disposal of inert materials, Outdoor sports and leisure activities, recreational activities, Trapping, poisoning, poaching
001818	Lough Forbes Complex SAC	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Depressions on peat substrates of the Rhynchosporion [7150], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0]	G02.09, I01, H02.06, J02.15, A04.03, F02.03, A03.03, F03.01, A03.02, J02.07.02	Wildlife watching, Invasive non-native species, Diffuse groundwater pollution due to agricultural and forestry activities, Other human induced changes in hydraulic conditions, Abandonment of pastoral systems lack of grazing, Leisure fishing, Abandonment or lack of mowing, Hunting, Non intensive mowing, Groundwater abstractions for public water supply
001831	Split Hills and Long Hill Esker SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210]	D01.01, A04.02.05, A04.02.01, K04.01, K02.01, A04.01.01	Paths, tracks, cycling tracks, Non intensive mixed animal grazing, Non intensive cattle grazing, Competition (flora), Species composition change (succession), Intensive cattle grazing
001847	Philipston Marsh SAC	Transition mires and quaking bogs [7140]	A04, X, A08, B	Grazing, No threats or pressures, Fertilisation, Sylviculture, forestry
001858	Galmoy Fen SAC	Alkaline fens [7230]	X, C01.04.02, B, A04	No threats or pressures, Underground mining, Sylviculture, forestry, Grazing
001873	Derryclogher (Knockboy) Bog SAC	Blanket bogs * if active bog [7130]	A04.02.02, J02.05.05, D01.01, J01.01, G01.02, X	Non intensive sheep grazing, Small hydropower projects, weirs, Paths, tracks, cycling tracks, Burning down, Walking, horseriding and non-motorised vehicles, No threats or pressures
001879	Glanmore Bog SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Species-rich <i>Nardus</i> grasslands,	A04.02.01, J01.01, X, C01.03.01, B01, J02.06.02, H01.05, F02.03, I01, J02.07, H01.08, A04.02.02	Non intensive cattle grazing, Burning down, No threats or pressures, Hand cutting of peat, Forest planting on open ground, Surface water abstractions for public water supply, Diffuse pollution to surface waters due to agricultural and forestry activities, Leisure fishing, Invasive non-native species, Water abstractions from groundwater, Diffuse pollution to surface waters due to household sewage and waste waters, Non

		on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110], Blanket bogs * if active bog [7130], Killarney fern ( <i>Trichomanes speciosum</i> ) [1421]		intensive sheep grazing
001880	Meenaguse Scragh SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]	D01, K02.02, X, A04.01.02, K01.01, C03.03	Roads, paths and railroads, Accumulation of organic material, No threats or pressures, Intensive sheep grazing, Erosion, Wind energy production
001881	Maulagowna Bog SAC	Blanket bogs * if active bog [7130]	X, A04.02.02, G01.02	No threats or pressures, Non intensive sheep grazing, Walking, horseriding and non-motorised vehicles
001890	Mullaghanish Bog SAC	Blanket bogs * if active bog [7130]	J02.05, D02.03, X, E04, D01.02	Modification of hydrographic functioning, general, Communication masts and antennas, No threats or pressures, Structures, buildings in the landscape, Roads, motorways
001898	Unshin River SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Otter ( <i>Lutra lutra</i> ) [1355], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410], Atlantic salmon ( <i>Salmo</i>	A02.01, J02.10, A04.02.02, B02, I01	Agricultural intensification, Management of aquatic and bank vegetation for drainage purposes, Non intensive sheep grazing, Forest and Plantation management & use, Invasive non-native species

		salar) [1106]		
001899	Cloonakillina Lough SAC	Transition mires and quaking bogs [7140]	F02.03, B, J01, A04, A03	Leisure fishing, Sylviculture, forestry, Fire and fire suppression, Grazing, Mowing or cutting of grassland
001912	Glendree Bog SAC	Blanket bogs * if active bog [7130]	A01, D01.01, B, C01.03, G01.03.02, B07, B01, K01.01, A04, J01	Cultivation, Paths, tracks, cycling tracks, Sylviculture, forestry, Peat extraction, Off-road motorized driving, Forestry activities not referred to above, Forest planting on open ground, Erosion, Grazing, Fire and fire suppression
001913	Sonnagh Bog SAC	Blanket bogs * if active bog [7130]	J01, A04.02, X, A05.02, B01, C01.03.02, B05	Fire and fire suppression, Non intensive grazing, No threats or pressures, Stock feeding, Forest planting on open ground, Mechanical removal of peat, Use of fertilizers (forestry)
001919	Glenade Lough SAC	Slender naiad ( <i>Najas flexilis</i> ) [1833], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092]	I01, B04, B02.02	Invasive non-native species, Use of biocides, hormones and chemicals (forestry), Forestry clearance
001922	Bellacorick Bog Complex SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Natural dystrophic lakes and ponds [3160], Alkaline fens [7230], Depressions on peat substrates of the Rhynchosporion [7150], Blanket bogs * if active bog [7130], Marsh saxifrage ( <i>Saxifraga hirculus</i> ) [1528], Geyer's whorl snail ( <i>Vertigo geyeri</i> ) [1013]	C01.03.01, B01, E02, A04, D01.02, D02.01, I01, E01.03, F03.01, C01.03.02, D05	Hand cutting of peat, Forest planting on open ground, Industrial or commercial areas, Grazing, Roads, motorways, Electricity and phone lines, Invasive non-native species, Dispersed habitation, Hunting, Mechanical removal of peat, Improved access to site
001926	East Burren Complex SAC	Alkaline fens [7230], Alpine and Boreal heaths [4060], Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Alluvial	G01, A04.01, A10, H02.06, E03.01, A08, D05, A05.02, H01.05, H01.08, K02.01, D01.02, A10.01, A04.02, A02, D01.01, A11, A04.03, I02, H02.07	Outdoor sports and leisure activities, recreational activities, Intensive grazing, Restructuring agricultural land holding, Diffuse groundwater pollution due to agricultural and forestry activities, Disposal of household or recreational facility waste, Fertilisation, Improved access to site, Stock feeding, Diffuse pollution to surface waters due to agricultural and forestry activities, Diffuse pollution to surface waters due to household sewage and waste waters, Species composition change (succession), Roads, motorways, Removal of hedges and copses or scrub, Non

		forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210], Otter ( <i>Lutra lutra</i> ) [1355], Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140], Caves not open to the public [8310], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303], Turloughs [3180], Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210], Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) [7220], Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) [6510], Limestone pavements [8240], <i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130], Marsh Fritillary ( <i>Euphydryas aurinia</i> ) [1065]		intensive grazing, Modification of cultivation practices, Paths, tracks, cycling tracks, Agriculture activities not referred to above, Abandonment of pastoral systems lack of grazing, Problematic native species, Diffuse groundwater pollution due to non-sewered population
001932	Mweelrea/Sheeffry/Erriff Complex SAC	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110], Geyer's whorl snail ( <i>Vertigo geyeri</i> ) [1013], Annual vegetation of drift lines [1210], <i>Juniperus communis</i> formations on heaths or	A02.01, X, C01.03.02, A08, H01, A04.01.02	Agricultural intensification, No threats or pressures, Mechanical removal of peat, Fertilisation, Pollution to surface waters (limnic & terrestrial, marine & brackish), Intensive sheep grazing

		<p>calcareous grasslands [5130],          Freshwater pearl mussel          (Margaritifera margaritifera)          [1029], Water courses of plain          to montane levels with the          Ranunculion fluitantis and          Callitriche-Batrachion          vegetation [3260], Slender naiad          (Najas flexilis) [1833], Transition          mires and quaking bogs [7140],          Otter (Lutra lutra) [1355], Alpine          and Boreal heaths [4060],          Atlantic salmon (Salmo salar)          [1106], Northern Atlantic wet          heaths with Erica tetralix [4010],          Blanket bogs * if active bog          [7130], Narrow-mouthed whorl          snail (Vertigo angustior) [1014],          Siliceous scree of the montane          to snow levels (Androsacetalia          alpinae and Galeopsietalia          ladani) [8110], Petrifying springs          with tufa formation          (Cratoneurion) [7220],          Petalwort (Petalophyllum ralfsii)          [1395], Dunes with Salix repens          ssp. argentea (Salicion          arenariae) [2170], European dry          heaths [4030], Calcareous rocky          slopes with chasmophytic          vegetation [8210],          Mediterranean salt meadows          (Juncetalia maritimi) [1410],          Natural dystrophic lakes and          ponds [3160], Depressions on          peat substrates of the          Rhynchosporion [7150],          Siliceous rocky slopes with          chasmophytic vegetation          [8220], Hydrophilous tall herb          fringe communities of plains          and of the montane to alpine</p>		
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		levels [6430], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Embryonic shifting dunes [2110], Coastal lagoons [1150], Machairs * in Ireland [21A0], Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> ) [2150], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Alkaline fens [7230]		
001952	Comeragh Mountains SAC	Slender green feather-moss ( <i>Hamatocaulis vernicosus</i> ) [6216], European dry heaths [4030], Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Siliceous rocky slopes with chasmophytic vegetation [8220], Blanket bogs * if active bog [7130], Calcareous rocky slopes with chasmophytic vegetation [8210], Alpine and Boreal heaths [4060], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110], Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> ) [8110]	A04, E06, B, I01, C01.03, D01.02, J01, K01.01, G01.02, E02	Grazing, Other urbanisation, industrial and similar activities, Sylviculture, forestry, Invasive non-native species, Peat extraction, Roads, motorways, Fire and fire suppression, Erosion, Walking, horseriding and non-motorised vehicles, Industrial or commercial areas
001955	Croaghau/Slievemore SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Siliceous scree of the montane to snow levels ( <i>Androsacetalia</i>	I01, G01, C01.03, A10, C01.01.01, D01.01, A04	Invasive non-native species, Outdoor sports and leisure activities, recreational activities, Peat extraction, Restructuring agricultural land holding, Sand and gravel quarries, Paths, tracks, cycling tracks, Grazing

		alpinae and Galeopsietalia ladani) [8110], Alpine and Boreal heaths [4060], European dry heaths [4030], Blanket bogs * if active bog [7130]		
001957	Boyne Coast and Estuary SAC	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Estuaries [1130], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310], Mudflats and sandflats not covered by seawater at low tide [1140], Embryonic shifting dunes [2110], Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330]	G05, E05, J02.12, L07, G05.04, D01.01, E03.03, H01, E01, G01.02, E03.01, K02, D01.05, G03, G01.03.02, J02, J02.02, I01, J02.01.03, J02.12.01, J03.03	Other human intrusions and disturbances , Storage of materials, Dykes, embankments, artificial beaches, general, Storm, cyclone, Vandalism, Paths, tracks, cycling tracks, Disposal of inert materials, Pollution to surface waters (limnic & terrestrial, marine & brackish), Urbanised areas, human habitation, Walking, horseriding and non-motorised vehicles, Disposal of household or recreational facility waste, Biocenotic evolution, succession, Bridge, viaduct, Interpretative centres, Off-road motorized driving, Human induced changes in hydraulic conditions, Removal of sediments (mud...), Invasive non-native species, Infilling of ditches, dykes, ponds, pools, marshes or pits, Sea defense or coast protection works, tidal barrages, Reduction, lack or prevention of erosion
001975	Ballyhoorisky Point to Fanad Head SAC	Perennial vegetation of stony banks [1220], Narrow-mouthed Whorl Snail (Vertigo angustior) [1014], Slender Naiad (Najas flexilis) [1833], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	A10, X, A05.02, C01.01.02, J02.02	Restructuring agricultural land holding, No threats or pressures, Stock feeding, Removal of beach materials, Removal of sediments (mud...)
001976	Lough Gill SAC	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Semi-natural dry	X, B, A10.01, E01.01, E01.03, I01, B06, E03.03, D01.01, J02.10,	No threats or pressures, Sylviculture, forestry, Removal of hedges and copses or scrub, Continuous urbanisation, Dispersed habitation, Invasive non-native species, Grazing in forests or woodland, Disposal of inert materials, Paths, tracks, cycling



		grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Sea lamprey (Petromyzon marinus) [1095], White-clawed crayfish (Austropotamobius pallipes) [1092], Brook lamprey (Lampetra planeri) [1096], Otter (Lutra lutra) [1355], Atlantic salmon (Salmo salar) [1106], River lamprey (Lampetra fluviatilis) [1099], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	G01.01.01, J02.05.02	tracks, Management of aquatic and bank vegetation for drainage purposes, Motorized nautical sports, Modifying structures of inland water courses
001992	Tamur Bog SAC	Northern Atlantic wet heaths with Erica tetralix [4010], Depressions on peat substrates of the Rhynchosporion [7150], Blanket bogs * if active bog [7130]	A05.02, I01, C01.03.02, J01.01, X	Stock feeding, Invasive non-native species, Mechanical removal of peat, Burning down, No threats or pressures
002005	Bellacragher Saltmarsh SAC	Mediterranean salt meadows (Juncetalia maritimi) [1410], Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330]	X, A04, F06, I01	No threats or pressures, Grazing, Hunting, fishing or collecting activities not referred to above, Invasive non-native species
002006	Ox Mountains Bogs SAC	Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Blanket bogs * if active bog [7130], Marsh saxifrage	C01.03.02, C03.03, D01.02, B01, L09, D05, A04, X, C01.03.01	Mechanical removal of peat, Wind energy production, Roads, motorways, Forest planting on open ground, Fire (natural), Improved access to site, Grazing, No threats or pressures, Hand cutting of peat

		(Saxifraga hirculus) [1528], Depressions on peat substrates of the Rhynchosporion [7150], Natural dystrophic lakes and ponds [3160], Geyer's whorl snail (Vertigo geyeri) [1013], Transition mires and quaking bogs [7140]		
002008	Maumturk Mountains SAC	Depressions on peat substrates of the Rhynchosporion [7150], Blanket bogs * if active bog [7130], Atlantic salmon (Salmo salar) [1106], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Slender naiad (Najas flexilis) [1833], Alpine and Boreal heaths [4060], Northern Atlantic wet heaths with Erica tetralix [4010], Siliceous rocky slopes with chasmophytic vegetation [8220]	A04.02.01, B02.01.02, G05.09, C01.03.01, D01.05, B01.02, B04, E01.03, A04.01.02, G05.01, D01.01, I01, H01.05, C01.03.02, G01.04, B01.01, G02.10	Non intensive cattle grazing, Forest replanting (non native trees), Fences, fencing, Hand cutting of peat, Bridge, viaduct, Artificial planting on open ground (non-native trees), Use of biocides, hormones and chemicals (forestry), Dispersed habitation, Intensive sheep grazing, Trampling, overuse, Paths, tracks, cycling tracks, Invasive non-native species, Diffuse pollution to surface waters due to agricultural and forestry activities, Mechanical removal of peat, Mountaineering, rock climbing, speleology, Forest planting on open ground (native trees), Other sport or leisure complexes
002010	Old Domestic Building (Keevagh) SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	M02.03, A04, K03.06, A10.01, E06.02, E06.01, X, E01.03	Decline or extinction of species, Grazing, Antagonism with domestic animals, Removal of hedges and copses or scrub, Reconstruction, renovation of buildings, Demolishment of buildings & human structures , No threats or pressures, Dispersed habitation
002012	North Inishowen Coast SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Machairs * in Ireland [21A0], Mudflats and sandflats not covered by seawater at low tide [1140], European dry heaths [4030], Narrow-mouthed whorl snail (Vertigo angustior) [1014], Otter (Lutra lutra) [1355], Perennial vegetation of stony banks [1220], Fixed coastal	G03, A04.02.01, C01.01.02, D03.01.03, A04.03, G01	Interpretative centres, Non intensive cattle grazing, Removal of beach materials, Fishing harbours, Abandonment of pastoral systems lack of grazing, Outdoor sports and leisure activities, recreational activities

		dunes with herbaceous vegetation - grey dunes [2130]		
002031	The Twelve Bens/Garraun Complex SAC	<p>Otter (<i>Lutra lutra</i>) [1355], Atlantic salmon (<i>Salmo salar</i>) [1106], Freshwater pearl mussel (<i>Margaritifera margaritifera</i>) [1029], Siliceous rocky slopes with chasmophytic vegetation [8220], Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110], Slender naiad (<i>Najas flexilis</i>) [1833], Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110], Alpine and Boreal heaths [4060], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130], Calcareous rocky slopes with chasmophytic vegetation [8210], Blanket bogs * if active bog [7130], Depressions on peat substrates of the <i>Rhynchosporion</i> [7150]</p>	E01.03, C01.03.01, A04.01.02, A04.02.01, J01.01, H01.05, G05.09, A04.02.04, C01.03.02, G05.01, D01.05, G01.02, G01.04, B02.01.02, I01, B04	Dispersed habitation, Hand cutting of peat, Intensive sheep grazing, Non intensive cattle grazing, Burning down, Diffuse pollution to surface waters due to agricultural and forestry activities, Fences, fencing, Non intensive goat grazing, Mechanical removal of peat, Trampling, overuse, Bridge, viaduct, Walking, horseriding and non-motorised vehicles, Mountaineering, rock climbing, speleology, Forest replanting (non native trees), Invasive non-native species, Use of biocides, hormones and chemicals (forestry)
002032	Boleybrack Mountain SAC	<p>European dry heaths [4030], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410], Natural dystrophic lakes and ponds [3160], Blanket bogs * if active bog [7130], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p>	B, K03.02, A04.03, A04.01.02, J01.01, A04.02.01, C01.01.01, B01, G01.02, A07, I02, J02.06.02, F03.02.02, A10, A04.02.02, C01.03.02, D01, B02, C03.03,	Sylviculture, forestry, Parasitism (fauna), Abandonment of pastoral systems lack of grazing, Intensive sheep grazing, Burning down, Non intensive cattle grazing, Sand and gravel quarries, Forest planting on open ground, Walking, horseriding and non-motorised vehicles, Use of biocides, hormones and chemicals, Problematic native species, Surface water abstractions for public water supply, Taking from nest (e.g. falcons), Restructuring agricultural land holding, Non intensive sheep grazing, Mechanical removal of peat, Roads, paths and railroads, Forest and Plantation management & use, Wind energy production,

			F03.02.04, D02.02	Predator control, Pipe lines
002034	Connemara Bog Complex SAC	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Natural dystrophic lakes and ponds [3160], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Reefs [1170], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], European dry heaths [4030], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Alkaline fens [7230], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410], Otter ( <i>Lutra lutra</i> ) [1355], Slender naiad ( <i>Najas flexilis</i> ) [1833], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Coastal lagoons [1150], Marsh Fritillary ( <i>Euphydryas aurinia</i> ) [1065], Blanket bogs * if active bog [7130], Transition mires and quaking bogs [7140], Depressions on peat substrates of the <i>Rhynchosporion</i> [7150], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]	A04.01.02, X, C01.03.02, C01.03.01, J01	Intensive sheep grazing, No threats or pressures, Mechanical removal of peat, Hand cutting of peat, Fire and fire suppression
002036	Ballyhoura Mountains SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], European dry heaths [4030], Blanket bogs * if active bog [7130]	J01, X, G01, G01.03.02, B01.02, D05, C03.03, C01.03	Fire and fire suppression, No threats or pressures, Outdoor sports and leisure activities, recreational activities, Off-road motorized driving, Artificial planting on open ground (non-native trees), Improved access to site, Wind energy production, Peat extraction

002037	Carrigeenamronety Hill SAC	Killarney fern ( <i>Trichomanes speciosum</i> ) [1421], European dry heaths [4030]	G01.02, J01, B01.02, X	Walking, horseriding and non-motorised vehicles, Fire and fire suppression, Artificial planting on open ground (non-native trees), No threats or pressures
002041	Old Domestic Building, Curraglass Wood SAC	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	A10.01	Removal of hedges and copses or scrub
002047	Cloghernagore Bog and Glenveagh National Park SAC	Otter ( <i>Lutra lutra</i> ) [1355], Depressions on peat substrates of the Rhynchosporion [7150], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260], European dry heaths [4030], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Alpine and Boreal heaths [4060], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110], Blanket bogs * if active bog [7130], Killarney fern ( <i>Trichomanes speciosum</i> ) [1421], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]	A07, F02.03, C01.03, I01, F03.01, A04, B, F03.02, G02.06	Use of biocides, hormones and chemicals, Leisure fishing, Peat extraction, Invasive non-native species, Hunting, Grazing, Sylviculture, forestry, Taking and removal of animals (terrestrial), Attraction park
002070	Tralee Bay and Magharees Peninsula, West to Cloghane SAC	Perennial vegetation of stony banks [1220], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> )	G05, A04, C01.01, E02, A08, F02.03, F03.01, K04, E03.01, G02.01, B, A10.01, F01, E01.03, G01.01	Other human intrusions and disturbances , Grazing, Sand and gravel extraction , Industrial or commercial areas, Fertilisation, Leisure fishing, Hunting, Interspecific floral relations, Disposal of household or recreational facility waste, Golf course, Sylviculture, forestry, Removal of hedges and copses or scrub, Marine and Freshwater Aquaculture, Dispersed habitation, Nautical sports

		<p>[6410], Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330], Mediterranean salt meadows (Juncetalia maritimi) [1410], Otter (Lutra lutra) [1355], Large shallow inlets and bays [1160], Reefs [1170], Petalwort (Petalophyllum ralfsii) [1395], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Dunes with Salix repens ssp. argentea (Salicion arenariae) [2170], Estuaries [1130], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Mudflats and sandflats not covered by seawater at low tide [1140], Humid dune slacks [2190], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310], Coastal lagoons [1150]</p>		
002074	Slyne Head Peninsula SAC	<p>Large shallow inlets and bays [1160], Alkaline fens [7230], Petalwort (Petalophyllum ralfsii) [1395], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Perennial vegetation of stony banks [1220], European dry heaths [4030], Embryonic shifting dunes [2110], Mediterranean salt meadows (Juncetalia maritimi) [1410],</p>	<p>J02.12.01, H06.01, G05.01, G02.08, G01.03.02, J02.02.01, G01, G01.01.02, D03.01.02, G01.02, F03.02, G02.01, D01.01, L07, E01.03, F02.01.01, C01.01, J01.01, A04.02, I01, F02</p>	<p>Sea defense or coast protection works, tidal barrages, Noise nuisance, noise pollution, Trampling, overuse, Camping and caravans, Off-road motorized driving, Dredging or removal of limnic sediments, Outdoor sports and leisure activities, recreational activities, Non-motorized nautical sports, Piers or tourist harbours or recreational piers, Walking, horseriding and non-motorised vehicles, Taking and removal of animals (terrestrial), Golf course, Paths, tracks, cycling tracks, Storm, cyclone, Dispersed habitation, Potting, Sand and gravel extraction , Burning down, Non intensive grazing, Invasive non-native species, Fishing and harvesting aquatic resources</p>

		Common Bottlenose Dolphin ( <i>Tursiops truncatus</i> ) [1349], Reefs [1170], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110], Annual vegetation of drift lines [1210], Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) [6510], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Machairs * in Ireland [21A0], Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140], Coastal lagoons [1150], Slender naiad ( <i>Najas flexilis</i> ) [1833], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410], <i>Juniperus communis</i> formations on heaths or calcareous grasslands [5130], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]		
002081	Ballinacorney SAC	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	K01.01, X	Erosion, No threats or pressures
002091	Newhall and Edenvale Complex SAC	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303], Caves not open to the public [8310]	A04, G05.04	Grazing, Vandalism

002098	Old Domestic Building, Askive Wood SAC	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	B02, G02.01, E01.03, G01.02	Forest and Plantation management & use, Golf course, Dispersed habitation, Walking, horseriding and non-motorised vehicles
002110	Corliskea/Trien/Cloonfelliv Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Bog woodland [91D0], Active raised bogs [7110]	A10, J02.15, J01.01, X, C01.03.02, A04.02.01, A04, J02.07	Restructuring agricultural land holding, Other human induced changes in hydraulic conditions, Burning down, No threats or pressures, Mechanical removal of peat, Non intensive cattle grazing, Grazing, Water abstractions from groundwater
002111	Kilkieran Bay and Islands SAC	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) [6510], Harbour seal ( <i>Phoca vitulina</i> ) [1365], Machairs * in Ireland [21A0], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], Reefs [1170], Large shallow inlets and bays [1160], Slender naiad ( <i>Najas flexilis</i> ) [1833], Otter ( <i>Lutra lutra</i> ) [1355], Mudflats and sandflats not covered by seawater at low tide [1140], Coastal lagoons [1150], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]	X, A04.01.02, F01.01, A04.01.01	No threats or pressures, Intensive sheep grazing, Intensive fish farming, intensification, Intensive cattle grazing
002112	Ballyseedy Wood SAC	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0]	A04, D01.02, E01.03, I01	Grazing, Roads, motorways, Dispersed habitation, Invasive non-native species
002117	Lough Coy SAC	Turloughs [3180]	H01.08, H02.06, X, J02.05, H04.01, E03.03, A10.01,	Diffuse pollution to surface waters due to household sewage and waste waters, Diffuse groundwater pollution due to agricultural and forestry activities, No threats or pressures, Modification of



			A08, J02.01.03	hydrographic functioning, general, Acid rain, Disposal of inert materials, Removal of hedges and copses or scrub, Fertilisation, Infilling of ditches, dykes, ponds, pools, marshes or pits
002118	Barnahallia Lough SAC	Slender Naiad ( <i>Najas flexilis</i> ) [1833], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]	A04.01.05, A03.03, J01.01	Intensive mixed animal grazing, Abandonment or lack of mowing , Burning down
002119	Lough Nageeron SAC	Slender naiad ( <i>Najas flexilis</i> ) [1833], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]	J01.01, A04.02.05, J02.06.02, I01	Burning down, Non intensive mixed animal grazing, Surface water abstractions for public water supply, Invasive non-native species
002120	Lough Bane and Lough Glass SAC	White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092], Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140]	J02.06.02, A10.01	Surface water abstractions for public water supply, Removal of hedges and copses or scrub
002121	Lough Lene SAC	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140], White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092]	A08, H01.08, A11, A04.03, X, D03.01.02	Fertilisation, Diffuse pollution to surface waters due to household sewage and waste waters, Agriculture activities not referred to above, Abandonment of pastoral systems lack of grazing, No threats or pressures, Piers or tourist harbours or recreational piers
002122	Wicklow Mountains SAC	Blanket bogs * if active bog [7130], Siliceous rocky slopes with chasmophytic vegetation [8220], Calcareous rocky slopes with chasmophytic vegetation [8210], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas - and submountain areas in	E03.01, I01, F03, D01.01, G05.01, G01.04, G05.06, E01, L05, A04, F04.02, K04.05, G02.09, G01.03.02, K01.01, G05.07, A05.02, G01, C01.03, G05.09, G01.02, B02.05, G04.01, J01.01, F03.02.02, B06,	Disposal of household or recreational facility waste, Invasive non-native species, Hunting and collection of wild animals (terrestrial), Paths, tracks, cycling tracks, Trampling, overuse, Mountaineering, rock climbing, speleology, Tree surgery, felling for public safety, removal of roadside trees, Urbanised areas, human habitation, Collapse of terrain, landslide, Grazing, Collection (fungi, lichen, berries etc.), Damage by herbivores (including game species), Wildlife watching, Off-road motorized driving, Erosion, Missing or wrongly directed conservation measures, Stock feeding, Outdoor sports and leisure activities, recreational activities, Peat extraction, Fences, fencing, Walking, horseriding and non-motorised vehicles, Non- intensive timber production (leaving dead wood or old trees untouched), Military

		Continental Europe [6230], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Alpine and Boreal heaths [4060], Otter ( <i>Lutra lutra</i> ) [1355], European dry heaths [4030], Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> ) [8110], Natural dystrophic lakes and ponds [3160], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110]	G05.04	manouvres, Burning down, Taking from nest (e.g. falcons), Grazing in forests or woodland, Vandalism
002123	Ardmore Head SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], European dry heaths [4030]	A04, F02.01.02, D01.02, G01.02, G05, J01, E01.03	Grazing, Netting, Roads, motorways, Walking, horseriding and non-motorised vehicles, Other human intrusions and disturbances, Fire and fire suppression, Dispersed habitation
002124	Bolingbrook Hill SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], European dry heaths [4030], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230]	B02, D01.01, X, A10.01, J01, G05.07	Forest and Plantation management & use, Paths, tracks, cycling tracks, No threats or pressures, Removal of hedges and copses or scrub, Fire and fire suppression, Missing or wrongly directed conservation measures
002125	Anglesey Road SAC	Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230]	A08, A02, B, X	Fertilisation, Modification of cultivation practices, Sylviculture, forestry, No threats or pressures
002126	Pollagoona Bog SAC	Blanket bogs * if active bog [7130]	L10, B02.02, J02, J01.01	Other natural catastrophes, Forestry clearance, Human induced changes in hydraulic conditions, Burning down
002129	Murvey Machair SAC	Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395], Machairs * in Ireland [21A0]	A04.02.02, L07, G05.01, J01.01, K04.05, H03.03, F03.01, G01.03.02,	Non intensive sheep grazing, Storm, cyclone, Trampling, overuse, Burning down, Damage by herbivores (including game species), Marine macro-pollution (i.e. plastic bags, styrofoam), Hunting, Off-road motorized driving, Erosion, Walking, horseriding and

			K01.01, G01.02	non-motorised vehicles
002130	Tully Lough SAC	Slender naiad ( <i>Najas flexilis</i> ) [1833], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130]	J02.06.02, I01, X, D01, F02.03, C01.03.02	Surface water abstractions for public water supply, Invasive non-native species, No threats or pressures, Roads, paths and railroads, Leisure fishing, Mechanical removal of peat
002135	Lough Nageage SAC	White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092]	X, B02, A10.01	No threats or pressures, Forest and Plantation management & use, Removal of hedges and copses or scrub
002137	Lower River Suir SAC	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], <i>Taxus baccata</i> woods of the British Isles [91J0], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritima</i> ) [1330], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], River lamprey ( <i>Lampetra fluviatilis</i> ) [1099], Brook lamprey ( <i>Lampetra planeri</i> ) [1096], Otter ( <i>Lutra lutra</i> ) [1355], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Sea lamprey ( <i>Petromyzon marinus</i> ) [1095], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410],	J02.01, B, A08, E03, E01, J02.01.02, H01, J02.12.02, D03.01, A01, X, I01	Landfill, land reclamation and drying out, general, Sylviculture, forestry, Fertilisation, Discharges, Urbanised areas, human habitation, Reclamation of land from sea, estuary or marsh, Pollution to surface waters (limnic & terrestrial, marine & brackish), Dykes and flooding defense in inland water systems, Port areas, Cultivation, No threats or pressures, Invasive non-native species

		White-clawed crayfish (Austropotamobius pallipes) [1092], Twaite shad (Alosa fallax) [1103]		
002141	Mountmellick SAC	Desmoulin's whorl snail (Vertigo moulinsiana) [1016]	J02.05, H05.01	Modification of hydrographic functioning, general, Garbage and solid waste
002144	Newport River SAC	Freshwater pearl mussel (Margaritifera margaritifera) [1029], Atlantic salmon (Salmo salar) [1106]	B, C01.03, A08, A10, I01, F02.03, G01.01.02, G05.09, E01.03, A04	Sylviculture, forestry, Peat extraction, Fertilisation, Restructuring agricultural land holding, Invasive non-native species, Leisure fishing, Non-motorized nautical sports, Fences, fencing, Dispersed habitation, Grazing
002147	Lisduff Fen SAC	Petrifying springs with tufa formation (Cratoneurion) [7220], Geyer's whorl snail (Vertigo geyeri) [1013], Alkaline fens [7230]	J02.10, A04.03, C01, A07, E03.01, A02.01, E03.03, A08, X, E05	Management of aquatic and bank vegetation for drainage purposes, Abandonment of pastoral systems lack of grazing, Mining and quarrying, Use of biocides, hormones and chemicals, Disposal of household or recreational facility waste, Agricultural intensification, Disposal of inert materials, Fertilisation, No threats or pressures, Storage of materials
002157	Newgrove House SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	E01.03, B02.01.02, A04, A10.01, G05.09	Dispersed habitation, Forest replanting (non native trees), Grazing, Removal of hedges and copses or scrub, Fences, fencing
002158	Kenmare River SAC	Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Juniperus communis formations on heaths or calcareous grasslands [5130], Calaminarian grasslands of the Violetalia calaminariae [6130], Submerged or partially submerged sea caves [8330], Otter (Lutra lutra) [1355], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Harbour seal (Phoca vitulina) [1365], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Reefs [1170], Mediterranean	F02, H01, D01.01, A08, A04.02.01, J01.01, F01, I01, G01.02, H03, G01.01, A04.03, A04.02, E01	Fishing and harvesting aquatic resources, Pollution to surface waters (limnic & terrestrial, marine & brackish), Paths, tracks, cycling tracks, Fertilisation, Non intensive cattle grazing, Burning down, Marine and Freshwater Aquaculture, Invasive non-native species, Walking, horseriding and non-motorised vehicles, Marine water pollution, Nautical sports, Abandonment of pastoral systems lack of grazing, Non intensive grazing, Urbanised areas, human habitation

		salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Large shallow inlets and bays [1160], European dry heaths [4030], Atlantic salt meadows ( <i>Glaucopuccinellietalia maritimae</i> ) [1330], Perennial vegetation of stony banks [1220], Narrow-mouthed whorl snail ( <i>Vertigo angustior</i> ) [1014]		
002159	Mulroy Bay SAC	Large shallow inlets and bays [1160], Reefs [1170], Otter ( <i>Lutra lutra</i> ) [1355], Mudflats and sandflats not covered by seawater at low tide [1140]	F01, X, F01.01, H01.08	Marine and Freshwater Aquaculture, No threats or pressures, Intensive fish farming, intensification, Diffuse pollution to surface waters due to household sewage and waste waters
002161	Long Bank SAC	Sandbanks which are slightly covered by sea water all the time [1110]	F02.02.01, F02.01.01, X	Benthic or demersal trawling, Potting, No threats or pressures
002162	River Barrow and River Nore SAC	Salicornia and other annuals colonising mud and sand [1310], Desmoulin's whorl snail ( <i>Vertigo moulinsiana</i> ) [1016], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Brook lamprey ( <i>Lampetra planeri</i> ) [1096], Estuaries [1130], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], European dry heaths [4030], Killarney fern ( <i>Trichomanes speciosum</i> ) [1421], Nore Pearl Mussel ( <i>Margaritifera durrovensis</i> ) [1990], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i>	C01.03, J02.05.02, I01, B05, J02.02.01, D03.01, J02.06, E02, F02, B07, J02.12.02, F02.01.02, B02, H01, J03.02.01, F02.03, F01.01, C01.01.01, A02.01, K01.01, B02.01.01, A04.01.01, A10.01, J02, M01	Peat extraction, Modifying structures of inland water courses, Invasive non-native species, Use of fertilizers (forestry), Dredging or removal of limnic sediments, Port areas, Water abstractions from surface waters, Industrial or commercial areas, Fishing and harvesting aquatic resources, Forestry activities not referred to above, Dykes and flooding defense in inland water systems, Netting, Forest and Plantation management & use, Pollution to surface waters (limnic & terrestrial, marine & brackish), Reduction in migration or migration barriers, Leisure fishing, Intensive fish farming, intensification, Sand and gravel quarries, Agricultural intensification, Erosion, Forest replanting (native trees), Intensive cattle grazing, Removal of hedges and copses or scrub, Human induced changes in hydraulic conditions, Changes in abiotic conditions

		vegetation [3260], Sea lamprey ( <i>Petromyzon marinus</i> ) [1095], River lamprey ( <i>Lampetra fluviatilis</i> ) [1099], Twaite shad ( <i>Alosa fallax</i> ) [1103], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Mudflats and sandflats not covered by seawater at low tide [1140], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Reefs [1170], Otter ( <i>Lutra lutra</i> ) [1355], White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092], Petrifying springs with tufa formation (Cratoneurion) [7220]		
002164	Lough Golagh and Breesy Hill SAC	Blanket bogs * if active bog [7130]	D01.01, F02.03, C01.03.02, X	Paths, tracks, cycling tracks, Leisure fishing, Mechanical removal of peat, No threats or pressures
002165	Lower River Shannon SAC	Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Perennial vegetation of stony banks [1220], Large shallow inlets and bays [1160], Brook lamprey ( <i>Lampetra planeri</i> ) [1096], Otter ( <i>Lutra lutra</i> ) [1355], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Coastal lagoons [1150],	J02.01.01, G01.01, I01, H04, J02.12.01, F02.03, J02.01.02, A08, E01, C01.01.02, B, F01, D01.01, C01.03.01, K02.03, E03, A04, F03.01, J02.10	Polderisation, Nautical sports, Invasive non-native species, Air pollution, air-borne pollutants, Sea defense or coast protection works, tidal barrages, Leisure fishing, Reclamation of land from sea, estuary or marsh, Fertilisation, Urbanised areas, human habitation, Removal of beach materials, Sylviculture, forestry, Marine and Freshwater Aquaculture, Paths, tracks, cycling tracks, Hand cutting of peat, Eutrophication (natural), Discharges, Grazing, Hunting, Management of aquatic and bank vegetation for drainage purposes

		Salicornia and other annuals colonising mud and sand [1310], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Atlantic salmon (Salmo salar) [1106], Bottlenose dolphin (Tursiops truncatus) [1349], Mudflats and sandflats not covered by seawater at low tide [1140], River lamprey (Lampetra fluviatilis) [1099], Sea lamprey (Petromyzon marinus) [1095], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Estuaries [1130], Sandbanks which are slightly covered by sea water all the time [1110], Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330], Reefs [1170]		
002170	Blackwater River (Cork/Waterford) SAC	Atlantic salmon (Salmo salar) [1106], Twaité shad (Alosa fallax) [1103], Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Brook lamprey (Lampetra planeri) [1096], Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330], White-clawed crayfish (Austropotamobius pallipes) [1092], Killarney fern (Trichomanes speciosum) [1421], River lamprey (Lampetra fluviatilis) [1099], Old sessile oak	F02.03, E03.01, A04, E01, A08, I01, A03, G01.01, B, D01.02, D01.04, J02.01, K01.01, G02, C01.01, E02	Leisure fishing, Disposal of household or recreational facility waste, Grazing, Urbanised areas, human habitation, Fertilisation, Invasive non-native species, Mowing or cutting of grassland, Nautical sports, Silviculture, forestry, Roads, motorways, Railway lines, TGV, Landfill, land reclamation and drying out, general, Erosion, Sport and leisure structures, Sand and gravel extraction, Industrial or commercial areas

		woods with Ilex and Blechnum in the British Isles [91A0], Perennial vegetation of stony banks [1220], Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410], Sea lamprey ( <i>Petromyzon marinus</i> ) [1095], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Otter ( <i>Lutra lutra</i> ) [1355], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029]		
002171	Bandon River SAC	Brook lamprey ( <i>Lampetra planeri</i> ) [1096], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0], Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029]	X, D02.01, J02.04, G01.08, E03, F02.03, C01.01.01, B02	No threats or pressures, Electricity and phone lines, Flooding modifications, Other outdoor sports and leisure activities, Discharges, Leisure fishing, Sand and gravel quarries, Forest and Plantation management & use
002172	Blasket Islands SAC	Grey seal ( <i>Halichoerus grypus</i> ) [1364], Reefs [1170], Harbour porpoise ( <i>Phocoena phocoena</i> ) [1351], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Grey Seal ( <i>Halichoerus grypus</i> ) [1364], Harbour	A04, G03	Grazing, Interpretative centres



		Porpoise ( <i>Phocoena phocoena</i> ) [1351], European dry heaths [4030], Submerged or partially submerged sea caves [8330]		
002173	Blackwater River (Kerry) SAC	Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029], Otter ( <i>Lutra lutra</i> ) [1355], European dry heaths [4030], Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303], Kerry Slug ( <i>Geomalacus maculosus</i> ) [1024], Atlantic salmon ( <i>Salmo salar</i> ) [1106]	E01.03, A02, D01.02, X, A04, B, C01.03.02, A08	Dispersed habitation, Modification of cultivation practices, Roads, motorways, No threats or pressures, Grazing, Sylviculture, forestry, Mechanical removal of peat, Fertilisation
002176	Leannan River SAC	Atlantic salmon ( <i>Salmo salar</i> ) [1106], Slender naiad ( <i>Najas flexilis</i> ) [1833], Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110], Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> [3130], Otter ( <i>Lutra lutra</i> ) [1355], Freshwater pearl mussel ( <i>Margaritifera margaritifera</i> ) [1029]	H02, A02.01, C01, J02.10, H01.05, X	Pollution to groundwater (point sources and diffuse sources), Agricultural intensification, Mining and quarrying, Management of aquatic and bank vegetation for drainage purposes, Diffuse pollution to surface waters due to agricultural and forestry activities, No threats or pressures
002177	Lough Dahybaun SAC	Slender naiad ( <i>Najas flexilis</i> ) [1833]	C01.03, X	Peat extraction, No threats or pressures
002179	Towerhill House SAC	Lesser horseshoe bat ( <i>Rhinolophus hipposideros</i> ) [1303]	B	Sylviculture, forestry
002180	Gortacarnaun Wood SAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	B06, B01, B02.05, I01, B02, B02.06, A04.02, B02.02	Grazing in forests or woodland, Forest planting on open ground, Non-intensive timber production (leaving dead wood or old trees untouched), Invasive non-native species, Forest and Plantation management & use, Thinning of tree layer, Non intensive grazing, Forestry clearance

002181	Drummin Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	B02.06, B02.02, B01, B06, I01, B02, B02.05, A04.02	Thinning of tree layer, Forestry clearance, Forest planting on open ground, Grazing in forests or woodland, Invasive non-native species, Forest and Plantation management & use, Non-intensive timber production (leaving dead wood or old trees untouched), Non intensive grazing
002185	Slieve Mish Mountains SAC	Alpine and Boreal heaths [4060], Killarney fern (Trichomanes speciosum) [1421], Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030], Blanket bogs * if active bog [7130], Calcareous rocky slopes with chasmophytic vegetation [8210], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], Siliceous rocky slopes with chasmophytic vegetation [8220]	C01.03, C01.01.01, J01, E01.03, A04, G04.01, A10, A08	Peat extraction, Sand and gravel quarries, Fire and fire suppression, Dispersed habitation, Grazing, Military manouvres, Restructuring agricultural land holding, Fertilisation
002187	Drongawn Lough SAC	Coastal lagoons [1150]	A04	Grazing
002189	Farranamanagh Lough SAC	Coastal lagoons [1150], Perennial vegetation of stony banks [1220]	C01.01.02, M01.06, X	Removal of beach materials, Wave exposure changes , No threats or pressures
002193	Ireland's Eye SAC	Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], Perennial vegetation of stony banks [1220]	G02.09, A04.03, X, G01.01, J01, G05.01, G01.02	Wildlife watching, Abandonment of pastoral systems lack of grazing, No threats or pressures, Nautical sports, Fire and fire suppression, Trampling, overuse, Walking, horseriding and non-motorised vehicles
002197	Derrinlough (Cloonkeenleananode) Bog SAC	Degraded raised bogs still capable of natural regeneration [7120]	B02.02, L01, I02, J02.15, J01.01, I01, J02.01, C01.03	Forestry clearance, Volcanic activity, Problematic native species, Other human induced changes in hydraulic conditions, Burning down, Invasive non-native species, Landfill, land reclamation and drying out, general, Peat extraction
002199	Ballygar (Aghrane) Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	I02, I01, B02.02, J01.01, J02.15	Problematic native species, Invasive non-native species, Forestry clearance, Burning down, Other human induced changes in hydraulic conditions

002200	Aughrim (Aghrane) Bog SAC	Degraded raised bogs still capable of natural regeneration [7120]	I02, B02.02, I01, J02.15, J01.02, J01.01	Problematic native species, Forestry clearance, Invasive non-native species, Other human induced changes in hydraulic conditions, Suppression of natural fires, Burning down
002201	Derragh Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Bog woodland [91D0]	I02, J01.01, J02.15, B02.02, I01	Problematic native species, Burning down, Other human induced changes in hydraulic conditions, Forestry clearance, Invasive non-native species
002202	Mount Jessop Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Bog woodland [91D0]	J02.15, I02, B02.02, I01, J01.01	Other human induced changes in hydraulic conditions, Problematic native species, Forestry clearance, Invasive non-native species, Burning down
002203	Girley (Drewstown) Bog SAC	Degraded raised bogs still capable of natural regeneration [7120]	I01, J02.15, J02.01, B02.02, I02, J01.01	Invasive non-native species, Other human induced changes in hydraulic conditions, Landfill, land reclamation and drying out, general, Forestry clearance, Problematic native species, Burning down
002205	Wooddown Bog SAC	Degraded raised bogs still capable of natural regeneration [7120]	J02.15, B02.02, I01, J01.01, I02, J02.01, C01.03.01	Other human induced changes in hydraulic conditions, Forestry clearance, Invasive non-native species, Burning down, Problematic native species, Landfill, land reclamation and drying out, general, Hand cutting of peat
002206	Scohaboy (Sopwell) Bog SAC	Degraded raised bogs still capable of natural regeneration [7120]	I01, J02.01, J02.15, C01.03, J01.02, C01.03.02, I02, J01, B02.02	Invasive non-native species, Landfill, land reclamation and drying out, general, Other human induced changes in hydraulic conditions, Peat extraction, Suppression of natural fires, Mechanical removal of peat, Problematic native species, Fire and fire suppression, Forestry clearance
002207	Arragh More (Derrybreen) Bog SAC	Degraded raised bogs still capable of natural regeneration [7120]	J02.15, I01, I02, J01.01, C01.03.02, B02.02, J02.01	Other human induced changes in hydraulic conditions, Invasive non-native species, Problematic native species, Burning down, Mechanical removal of peat, Forestry clearance, Landfill, land reclamation and drying out, general
002213	Glenloughaun Esker SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	A04.01.03, A04, B01.01, I02, A02.01, A08, A04.03, C01.01	Intensive horse grazing, Grazing, Forest planting on open ground (native trees), Problematic native species, Agricultural intensification, Fertilisation, Abandonment of pastoral systems lack of grazing, Sand and gravel extraction
002214	Killeglan Grassland SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	J02.01, A04, A04.01.02	Landfill, land reclamation and drying out, general, Grazing, Intensive sheep grazing

002236	Island Fen SAC	Alkaline fens [7230], Juniperus communis formations on heaths or calcareous grasslands [5130]	A04.01, D01, J01.01, X, C01, A04.03, K02.01, F03.01	Intensive grazing, Roads, paths and railroads, Burning down, No threats or pressures, Mining and quarrying, Abandonment of pastoral systems lack of grazing, Species composition change (succession), Hunting
002241	Lough Derg, North-East Shore SAC	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Limestone pavements [8240], Juniperus communis formations on heaths or calcareous grasslands [5130], Taxus baccata woods of the British Isles [91J0], Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	G01, K02.03, A08, G02.09, D03.01.02, I01, H01.08, A10.01, J02, J02.10, H01, A04.01, M01.03, J02.01.03, D01.01, B02.01.01, A04.02.05, C01, M01.01, M01.02, I02, K02.01	Outdoor sports and leisure activities, recreational activities, Eutrophication (natural), Fertilisation, Wildlife watching, Piers or tourist harbours or recreational piers, Invasive non-native species, Diffuse pollution to surface waters due to household sewage and waste waters, Removal of hedges and copses or scrub, Human induced changes in hydraulic conditions, Management of aquatic and bank vegetation for drainage purposes, Pollution to surface waters (limnic & terrestrial, marine & brackish), Intensive grazing, Flooding and rising precipitations, Infilling of ditches, dykes, ponds, pools, marshes or pits, Paths, tracks, cycling tracks, Forest replanting (native trees), Non intensive mixed animal grazing, Mining and quarrying, Temperature changes (e.g. rise of temperature & extremes), Droughts and less precipitations, Problematic native species, Species composition change (succession)
002243	Clare Island Cliffs SAC	Calcareous rocky slopes with chasmophytic vegetation [8210], Siliceous rocky slopes with chasmophytic vegetation [8220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	X, L05	No threats or pressures, Collapse of terrain, landslide
002244	Ardrahan Grassland SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Alpine and Boreal heaths [4060], Juniperus communis formations on heaths or calcareous grasslands [5130], Limestone pavements [8240]	A04.03, D01, A04.02.01, E04, E03.03, A10.01, A04.01.03, A05.02, A08	Abandonment of pastoral systems lack of grazing, Roads, paths and railroads, Non intensive cattle grazing, Structures, buildings in the landscape, Disposal of inert materials, Removal of hedges and copses or scrub, Intensive horse grazing, Stock feeding, Fertilisation
002245	Old Farm Buildings, Ballymacrogan SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	E01.03, A10.01, K03, A04, A10.02, E04.01	Dispersed habitation, Removal of hedges and copses or scrub, Interspecific faunal relations, Grazing, Removal of stone walls and embankments, Agricultural structures, buildings in the landscape

002246	Ballycullinan, Old Domestic Building SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A04.02.05, E06.01, A10.01, G05	Non intensive mixed animal grazing, Demolishment of buildings & human structures , Removal of hedges and copses or scrub, Other human intrusions and disturbances
002247	Toonagh Estate SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	E01.03, I02, A04, A10.01, E06.02	Dispersed habitation, Problematic native species, Grazing, Removal of hedges and copses or scrub, Reconstruction, renovation of buildings
002249	The Murrough Wetlands SAC	Annual vegetation of drift lines [1210], Perennial vegetation of stony banks [1220], Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330], Alkaline fens [7230], Mediterranean salt meadows (Juncetalia maritimi) [1410], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	B, D01.01, A08, D01.04, J02.12.01, C01.01, J02.05.01, A04, E03.02, K01.01, G01.02	Sylviculture, forestry, Paths, tracks, cycling tracks, Fertilisation, Railway lines, TGV, Sea defense or coast protection works, tidal barrages, Sand and gravel extraction , Modification of water flow (tidal & marine currents), Grazing, Disposal of industrial waste, Erosion, Walking, horseriding and non-motorised vehicles
002250	Carrowmore Dunes SAC	Embryonic shifting dunes [2110], Narrow-mouthed Whorl Snail (Vertigo angustior) [1014], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Reefs [1170], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Narrow-mouthed whorl snail (Vertigo angustior) [1014]	F06, A05.02, C01.01, G01.01, A04, A08, K01.01	Hunting, fishing or collecting activities not referred to above, Stock feeding, Sand and gravel extraction , Nautical sports, Grazing, Fertilisation, Erosion
002252	Thomastown Quarry SAC	Petrifying springs with tufa formation (Cratoneurion) [7220]	E01, A04.03, X, K04.01	Urbanised areas, human habitation, Abandonment of pastoral systems lack of grazing, No threats or pressures, Competition (flora)
002256	Ballyprior Grassland SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	A08, A04, A10, A03, B02.01, D01.01, A10.01	Fertilisation, Grazing, Restructuring agricultural land holding, Mowing or cutting of grassland, Forest replanting, Paths, tracks, cycling tracks, Removal of hedges and copses or scrub
002257	Moanour Mountain SAC	European dry heaths [4030],	A04, G01.02, B	Grazing, Walking, horseriding and non-motorised vehicles,

		Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]		Sylviculture, forestry
002258	Silvermines Mountains West SAC	European dry heaths [4030], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]	D01.01, A04.02.03, G01.03, C01.04, X, G01.02, J01, A04.02.04	Paths, tracks, cycling tracks, Non intensive horse grazing, Motorised vehicles, Mines, No threats or pressures, Walking, horseriding and non-motorised vehicles, Fire and fire suppression, Non intensive goat grazing
002259	Tory Island Coast SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Perennial vegetation of stony banks [1220], Submerged or partially submerged sea caves [8330], Coastal lagoons [1150], Reefs [1170]	D01.02, A01, J02, K01.01, A04, C01.03	Roads, motorways, Cultivation, Human induced changes in hydraulic conditions, Erosion, Grazing, Peat extraction
002261	Magharee Islands SAC	Reefs [1170]	X	No threats or pressures
002262	Valencia Harbour/Portmagee Channel SAC	Reefs [1170], Mudflats and sandflats not covered by seawater at low tide [1140], Large shallow inlets and bays [1160]	J02.12.01, G05, F01, G01.01	Sea defense or coast protection works, tidal barrages, Other human intrusions and disturbances, Marine and Freshwater Aquaculture, Nautical sports
002263	Kerry Head Shoal SAC	Reefs [1170]	F02.03, F06	Leisure fishing, Hunting, fishing or collecting activities not referred to above
002264	Kilkee Reefs SAC	Reefs [1170], Large shallow inlets and bays [1160], Submerged or partially submerged sea caves [8330]	G01.01, X, G05, F02.03, J02.12.01	Nautical sports, No threats or pressures, Other human intrusions and disturbances, Leisure fishing, Sea defense or coast protection works, tidal barrages
002265	Kingstown Bay SAC	Large shallow inlets and bays [1160]	D03.01.02, X, F02.01.01, J01.01	Piers or tourist harbours or recreational piers, No threats or pressures, Potting, Burning down
002268	Achill Head SAC	Mudflats and sandflats not covered by seawater at low tide [1140], Reefs [1170], Large shallow inlets and bays [1160]	G01, F06, G05, I01, F02.03, G05.01, F02.02.02, F02, G02.09, L07	Outdoor sports and leisure activities, recreational activities, Hunting, fishing or collecting activities not referred to above, Other human intrusions and disturbances, Invasive non-native species, Leisure fishing, Trampling, overuse, Pelagic trawling, Fishing and harvesting aquatic resources, Wildlife watching, Storm, cyclone

002269	Carnsore Point SAC	Mudflats and sandflats not covered by seawater at low tide [1140], Reefs [1170]	K01.01, E03, F02.02.01, F02.01.01, C01.01.02, F02.03, F02.01.02, F02.03.01, F02, X, D03.01.02	Erosion, Discharges, Benthic or demersal trawling, Potting, Removal of beach materials, Leisure fishing, Netting, Bait digging or collection, Fishing and harvesting aquatic resources, No threats or pressures, Piers or tourist harbours or recreational piers
002274	Wicklow Reef SAC	Reefs [1170]	J02.11.01, F02.02.01, F02.01.01, F02.01.02, G01.07, F02.02.05, F05.02, F02.03	Dumping, depositing of dredged deposits, Benthic or demersal trawling, Potting, Netting, Scuba diving, snorkelling, Benthic dredging, Date mussel-fishing, Leisure fishing
002279	Askeaton Fen Complex SAC	Alkaline fens [7230], Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i> [7210]	E01.03, X, A08, H02, J01, A10.01, J02.01.02	Dispersed habitation, No threats or pressures, Fertilisation, Pollution to groundwater (point sources and diffuse sources), Fire and fire suppression, Removal of hedges and copses or scrub, Reclamation of land from sea, estuary or marsh
002280	Dunbeacon Shingle SAC	Perennial vegetation of stony banks [1220]	X	No threats or pressures
002281	Reen Point Shingle SAC	Perennial vegetation of stony banks [1220]	M01.06, X	Wave exposure changes, No threats or pressures
002283	Rutland Island and Sound SAC	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Coastal lagoons [1150], Harbour seal ( <i>Phoca vitulina</i> ) [1365], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Reefs [1170], Large shallow inlets and bays [1160], Embryonic shifting dunes [2110], Humid dune slacks [2190], Annual vegetation of drift lines [1210]	A04, D03.02, J02.02, G01.01, X	Grazing, Shipping lanes, Removal of sediments (mud...), Nautical sports, No threats or pressures
002287	Lough Swilly SAC	Coastal lagoons [1150], Otter ( <i>Lutra lutra</i> ) [1355], Estuaries	E01.01, H01, F02.02.05, J02, F01,	Continuous urbanisation, Pollution to surface waters (limnic & terrestrial, marine & brackish), Benthic dredging, Human induced

		[1130], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330]	F02, X, G01, I01	changes in hydraulic conditions, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, No threats or pressures, Outdoor sports and leisure activities, recreational activities, Invasive non-native species
002293	Carrowbaun, Newhall and Ballylee Turloughs SAC	Turloughs [3180]	J02.10, D01, E03.03, J02.04.01, E06.02, H01.08, H02.06, A10.01, A08, A02.01, E03.01, J02.01.03, J02.05, E06.01	Management of aquatic and bank vegetation for drainage purposes, Roads, paths and railroads, Disposal of inert materials, Flooding, Reconstruction, renovation of buildings, Diffuse pollution to surface waters due to household sewage and waste waters, Diffuse groundwater pollution due to agricultural and forestry activities, Removal of hedges and copses or scrub, Fertilisation, Agricultural intensification, Disposal of household or recreational facility waste, Infilling of ditches, dykes, ponds, pools, marshes or pits, Modification of hydrographic functioning, general, Demolishment of buildings & human structures
002294	Cahermore Turlough SAC	Turloughs [3180]	A10.01, H01.08, E03.03, A08, A02.01, H02.06, J02.04.01, J02.01.03, J02.05	Removal of hedges and copses or scrub, Diffuse pollution to surface waters due to household sewage and waste waters, Disposal of inert materials, Fertilisation, Agricultural intensification, Diffuse groundwater pollution due to agricultural and forestry activities, Flooding, Infilling of ditches, dykes, ponds, pools, marshes or pits, Modification of hydrographic functioning, general
002295	Ballinduff Turlough SAC	Turloughs [3180]	J02.05, A08, A10.01, X, E03.03, A02.01, H01.08, H02.06	Modification of hydrographic functioning, general, Fertilisation, Removal of hedges and copses or scrub, No threats or pressures, Disposal of inert materials, Agricultural intensification, Diffuse pollution to surface waters due to household sewage and waste waters, Diffuse groundwater pollution due to agricultural and forestry activities
002296	Williamstown Turloughs SAC	Turloughs [3180]	H01.05, J02.07, H02.07, J02.15, C01.01.01, C01.03.02, E01, X, A10	Diffuse pollution to surface waters due to agricultural and forestry activities, Water abstractions from groundwater, Diffuse groundwater pollution due to non-sewered population, Other human induced changes in hydraulic conditions, Sand and gravel quarries, Mechanical removal of peat, Urbanised areas, human habitation, No threats or pressures, Restructuring agricultural



				land holding
002298	River Moy SAC	White-clawed crayfish ( <i>Austropotamobius pallipes</i> ) [1092], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Depressions on peat substrates of the Rhynchosporion [7150], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> ) [6510], Atlantic salmon ( <i>Salmo salar</i> ) [1106], Alkaline fens [7230], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Brook lamprey ( <i>Lampetra planeri</i> ) [1096], Sea lamprey ( <i>Petromyzon marinus</i> ) [1095], Otter ( <i>Lutra lutra</i> ) [1355]	F02.03, F03.02.04, F03.02, H01.05, J02.04, B01, I01, B05, D04.02, C01.03, A02.01	Leisure fishing, Predator control, Taking and removal of animals (terrestrial), Diffuse pollution to surface waters due to agricultural and forestry activities, Flooding modifications, Forest planting on open ground, Invasive non-native species, Use of fertilizers (forestry), Aerodrome, heliport, Peat extraction, Agricultural intensification
002299	River Boyne and River Blackwater SAC	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Alkaline fens [7230], Otter ( <i>Lutra lutra</i> ) [1355], River lamprey ( <i>Lampetra fluviatilis</i> ) [1099], Atlantic salmon ( <i>Salmo salar</i> ) [1106]	E03.04, A10.01, H01, E02, I01, J02, B01.02, A05.02, G01, G05, J02.15, E01.04, A03, J02.05.02, D01.02, C01.01, J02.11, A07, G05.06, A08, D01.05, E05, A01, E03.02, J02.10, G02.10	Other discharges, Removal of hedges and copses or scrub, Pollution to surface waters (limnic & terrestrial, marine & brackish), Industrial or commercial areas, Invasive non-native species, Human induced changes in hydraulic conditions, Artificial planting on open ground (non-native trees), Stock feeding, Outdoor sports and leisure activities, recreational activities, Other human intrusions and disturbances, Other human induced changes in hydraulic conditions, Other patterns of habitation, Mowing or cutting of grassland, Modifying structures of inland water courses, Roads, motorways, Sand and gravel extraction, Siltation rate changes, dumping, depositing of dredged deposits, Use of biocides, hormones and chemicals, Tree surgery, felling for public safety, removal of roadside trees, Fertilisation, Bridge, viaduct, Storage of materials, Cultivation, Disposal of industrial waste, Management of aquatic and bank vegetation for drainage purposes, Other sport or leisure complexes

002301	River Finn SAC	Blanket bogs * if active bog [7130], Northern Atlantic wet heaths with Erica tetralix [4010], Atlantic salmon (Salmo salar) [1106], Otter (Lutra lutra) [1355], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Transition mires and quaking bogs [7140]	B02.02, E04, C01.03.01, B02.01.01, C01.01, H01.05, A04.01, K01.01, F05.04, E03.01, J02.05	Forestry clearance, Structures, buildings in the landscape, Hand cutting of peat, Forest replanting (native trees), Sand and gravel extraction, Diffuse pollution to surface waters due to agricultural and forestry activities, Intensive grazing, Erosion, Poaching, Disposal of household or recreational facility waste, Modification of hydrographic functioning, general
002303	Dunmuckrum Turloughs SAC	Turloughs [3180]	A10.01, K02, A08, A02.01, X	Removal of hedges and copses or scrub, Biocenotic evolution, succession, Fertilisation, Agricultural intensification, No threats or pressures
002306	Carlingford Shore SAC	Annual vegetation of drift lines [1210], Perennial vegetation of stony banks [1220]	F01.02, F01, F05, F01.03, X, F04.02.01, F02.03, H01.01, F03.01, F02, G01.01, F06, F05.07, G05, G01.03.01, H01, G01.03	Suspension culture, Marine and Freshwater Aquaculture, Illegal taking or removal of marine fauna, Bottom culture, No threats or pressures, Hand raking, Leisure fishing, Pollution to surface waters by industrial plants, Hunting, Fishing and harvesting aquatic resources, Nautical sports, Hunting, fishing or collecting activities not referred to above, Other (i.e. drift nets), Other human intrusions and disturbances, Regular motorized driving, Pollution to surface waters (limnic & terrestrial, marine & brackish), Motorised vehicles
002312	Slieve Bernagh Bog SAC	Northern Atlantic wet heaths with Erica tetralix [4010], Blanket bogs * if active bog [7130], European dry heaths [4030]	C01.03.02, J02.01, A04.03, G01.02, G01.03.02, J01, A04, B02, D01.01, C01.01, G05.01	Mechanical removal of peat, Landfill, land reclamation and drying out, general, Abandonment of pastoral systems lack of grazing, Walking, horseriding and non-motorised vehicles, Off-road motorized driving, Fire and fire suppression, Grazing, Forest and Plantation management & use, Paths, tracks, cycling tracks, Sand and gravel extraction, Trampling, overuse
002313	Ballymore Fen SAC	Transition mires and quaking bogs [7140]	A03.02, A08, I02, H01.03, A04.02.05, A04.03	Non intensive mowing, Fertilisation, Problematic native species, Other point source pollution to surface water, Non intensive mixed animal grazing, Abandonment of pastoral systems lack of grazing
002314	Old Domestic Buildings, Rylane SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	B02.02, A04, B01.01, A10.01, E06.01	Forestry clearance, Grazing, Forest planting on open ground (native trees), Removal of hedges and copses or scrub, Demolishment of buildings & human structures
002315	Glanlough Woods SAC	Lesser horseshoe bat	A04	Grazing

		(Rhinolophus hipposideros) [1303]		
002316	Ratty River Cave SAC	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	E06.01, A10.01, A04	Demolishment of buildings & human structures , Removal of hedges and copses or scrub, Grazing
002317	Cregg House Stables, Crusheen SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	X, E06.02	No threats or pressures, Reconstruction, renovation of buildings
002318	Knockanira House SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A04	Grazing
002319	Kilkishen House SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A10.01, A04, E06.01	Removal of hedges and copses or scrub, Grazing, Demolishment of buildings & human structures
002320	Kildun Souterrain SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	D01.02, X, H06.02, G01.04.03, A04	Roads, motorways, No threats or pressures, Light pollution, Recreational cave visits , Grazing
002324	Glendine Wood SAC	Killarney fern (Trichomanes speciosum) [1421]	B, K05, D01.02, E01.03, A04	Sylviculture, forestry, Reduced fecundity or genetic depression, Roads, motorways, Dispersed habitation, Grazing
002331	Mouds Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110]	E02, A04, A01, C01.03.02, I01, B, J01	Industrial or commercial areas, Grazing, Cultivation, Mechanical removal of peat, Invasive non-native species, Sylviculture, forestry, Fire and fire suppression
002332	Coolrain Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150]	H05.01, J02.05, J01.01, B, C01.03.02, J02.01, J02.15, I01	Garbage and solid waste, Modification of hydrographic functioning, general, Burning down, Sylviculture, forestry, Mechanical removal of peat, Landfill, land reclamation and drying out, general, Other human induced changes in hydraulic conditions, Invasive non-native species
002333	Knockacoller Bog SAC	Active raised bogs [7110], Depressions on peat substrates	J01.01, J02.15,	Burning down, Other human induced changes in hydraulic conditions, Non intensive horse grazing, Biocenotic evolution,

		of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	A04.02.03, K02, C01	succession, Mining and quarrying
002336	Carn Park Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	I03, C01.03.02, J02.01, B02.02, I01, D01.01, J02.05	Introduced genetic material, GMO, Mechanical removal of peat, Landfill, land reclamation and drying out, general, Forestry clearance, Invasive non-native species, Paths, tracks, cycling tracks, Modification of hydrographic functioning, general
002337	Crosswood Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	I01, A05.02, D01.01, J02.05, J02.01, J01, E03.01, C01.03.02, I03, B02.02	Invasive non-native species, Stock feeding, Paths, tracks, cycling tracks, Modification of hydrographic functioning, general, Landfill, land reclamation and drying out, general, Fire and fire suppression, Disposal of household or recreational facility waste, Mechanical removal of peat, Introduced genetic material, GMO, Forestry clearance
002338	Drumalough Bog SAC	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	X, I01, J02.05, E03.01	No threats or pressures, Invasive non-native species, Modification of hydrographic functioning, general, Disposal of household or recreational facility waste
002339	Ballynamona Bog and Corkip Lough SAC	Degraded raised bogs still capable of natural regeneration [7120], Turloughs [3180], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Bog woodland [91D0]	A10.01, E03.01, A04, J02.05, J02.01, I01	Removal of hedges and copses or scrub, Disposal of household or recreational facility waste, Grazing, Modification of hydrographic functioning, general, Landfill, land reclamation and drying out, general, Invasive non-native species
002340	Moneybeg and Clareisland Bogs SAC	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	C01.03.02, I01, J02.15, F03.01, J01.01, G02.10, E03.01, B02.02	Mechanical removal of peat, Invasive non-native species, Other human induced changes in hydraulic conditions, Hunting, Burning down, Other sport or leisure complexes, Disposal of household or recreational facility waste, Forestry clearance
002341	Ardagullion Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still	J02.15, X	Other human induced changes in hydraulic conditions, No threats or pressures

		capable of natural regeneration [7120]		
002342	Mount Hevey Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150]	I03, J02.05, J02.01, J02.03, D01.01, C01.03.02, D01.04, E03.01, K04.02, B02.02, I01	Introduced genetic material, GMO, Modification of hydrographic functioning, general, Landfill, land reclamation and drying out, general, Canalisation & water deviation, Paths, tracks, cycling tracks, Mechanical removal of peat, Railway lines, TGV, Disposal of household or recreational facility waste, Parasitism (flora), Forestry clearance, Invasive non-native species
002343	Tullagher Lough and Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Transition mires and quaking bogs [7140]	A08, A03, C01.03.01, A04, D01.02, J01, C01.03	Fertilisation, Mowing or cutting of grassland, Hand cutting of peat, Grazing, Roads, motorways, Fire and fire suppression, Peat extraction
002346	Brown Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150]	K01.03, J02.15, X	Drying out, Other human induced changes in hydraulic conditions, No threats or pressures
002347	Camderry Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	J01.01, A10, C01.03.02, B02.02, J02.08, A04.02.02, J02.15, A02.01, J02.07	Burning down, Restructuring agricultural land holding, Mechanical removal of peat, Forestry clearance, Raising the groundwater table or artificial recharge of groundwater, Non intensive sheep grazing, Other human induced changes in hydraulic conditions, Agricultural intensification, Water abstractions from groundwater
002348	Clooneen Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Bog woodland [91D0], Active raised bogs [7110]	A09, A04.02.01, C01.03.02, A03	Irrigation, Non intensive cattle grazing, Mechanical removal of peat, Mowing or cutting of grassland
002349	Corbo Bog SAC	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still	C01.03.02, X, J02.15	Mechanical removal of peat, No threats or pressures, Other human induced changes in hydraulic conditions

		capable of natural regeneration [7120]		
002350	Curraghlehagh Bog SAC	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	C01.03.02, J02.07, J01.01, J02.15, J02.08, A04.02.02, B02.02	Mechanical removal of peat, Water abstractions from groundwater, Burning down, Other human induced changes in hydraulic conditions, Raising the groundwater table or artificial recharge of groundwater, Non intensive sheep grazing, Forestry clearance
002351	Moanveanlagh Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	A04, X, J01, E03.01, I01, A01, C01.03, J02.01, D01.01	Grazing, No threats or pressures, Fire and fire suppression, Disposal of household or recreational facility waste, Invasive non-native species, Cultivation, Peat extraction, Landfill, land reclamation and drying out, general, Paths, tracks, cycling tracks
002352	Monivea Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150]	E03.03, J02.10, J02.07, J02.15, C01.03.02, X, B01.02, J01.01, I01, E03.01	Disposal of inert materials, Management of aquatic and bank vegetation for drainage purposes, Water abstractions from groundwater, Other human induced changes in hydraulic conditions, Mechanical removal of peat, No threats or pressures, Artificial planting on open ground (non-native trees), Burning down, Invasive non-native species, Disposal of household or recreational facility waste
002353	Redwood Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150]	C01.03, A01, D01.01, X, D01.02, J01	Peat extraction, Cultivation, Paths, tracks, cycling tracks, No threats or pressures, Roads, motorways, Fire and fire suppression
002354	Tullaghanrock Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110]	A04.02.01, J02.04, X, B	Non intensive cattle grazing, Flooding modifications, No threats or pressures, Sylviculture, forestry
002356	Ardgraique Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Degraded raised bogs still	C01.03.02, J02.15, X, A02.01, E03.01, J02.06, J02.07, E03.03, J01.01,	Mechanical removal of peat, Other human induced changes in hydraulic conditions, No threats or pressures, Agricultural intensification, Disposal of household or recreational facility waste, Water abstractions from surface waters, Water

		capable of natural regeneration [7120]	B02.01.02	abstractions from groundwater, Disposal of inert materials, Burning down, Forest replanting (non native trees)
002953	Blackwater Bank SAC	Sandbanks which are slightly covered by sea water all the time [1110]	X, F02.01, F02.01.01	No threats or pressures, Professional passive fishing , Potting
002998	West Connacht Coast SAC	Bottlenose dolphin ( <i>Tursiops truncatus</i> ) [1349]	F02, H06.01, X, E03.01, E03, H03, D03.02	Fishing and harvesting aquatic resources, Noise nuisance, noise pollution, No threats or pressures, Disposal of household or recreational facility waste, Discharges, Marine water pollution, Shipping lanes
002999	Hempton's Turbot Bank SAC	Sandbanks which are slightly covered by sea water all the time [1110]	X, F02.02.02, K01.01	No threats or pressures, Pelagic trawling, Erosion
003000	Rockabill to Dalkey Island SAC	Harbour porpoise ( <i>Phocoena phocoena</i> ) [1351], Reefs [1170]	D02, D03.02, J02.11, J02.02, X, F02.02, H06.01, E03	Utility and service lines, Shipping lanes, Siltation rate changes, dumping, depositing of dredged deposits, Removal of sediments (mud...), No threats or pressures, Professional active fishing , Noise nuisance, noise pollution, Discharges
004002	Saltee Islands SPA	Gannet ( <i>Morus bassanus</i> ) [A016], Razorbill ( <i>Alca torda</i> ) [A200], Guillemot ( <i>Uria aalge</i> ) [A199], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Herring Gull ( <i>Larus argentatus</i> ) [A184], Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Puffin ( <i>Fratercula arctica</i> ) [A204]	A04, G01.02	Grazing, Walking, horseriding and non-motorised vehicles
004003	Puffin Island SPA	Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183], Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Manx Shearwater ( <i>Puffinus puffinus</i> ) [A013], Razorbill ( <i>Alca torda</i> ) [A200], Storm Petrel ( <i>Hydrobates pelagicus</i> ) [A014],	X, A04	No threats or pressures, Grazing

		Puffin ( <i>Fratercula arctica</i> ) [A204]		
004004	Inishkea Islands SPA	Little Tern ( <i>Sterna albifrons</i> ) [A195], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Turnstone ( <i>Arenaria interpres</i> ) [A169], Common Gull ( <i>Larus canus</i> ) [A182], Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Herring Gull ( <i>Larus argentatus</i> ) [A184], Purple Sandpiper ( <i>Calidris maritima</i> ) [A148], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Sanderling ( <i>Calidris alba</i> ) [A144], Dunlin ( <i>Calidris alpina</i> ) [A149], Barnacle goose ( <i>Branta leucopsis</i> ) [A045]	G01.02, X, A04	Walking, horseriding and non-motorised vehicles, No threats or pressures, Grazing
004005	Cliffs of Moher SPA	Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Guillemot ( <i>Uria aalge</i> ) [A199], Puffin ( <i>Fratercula arctica</i> ) [A204], Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Razorbill ( <i>Alca torda</i> ) [A200], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346]	G03, H06.01, G01.02	Interpretative centres, Noise nuisance, noise pollution, Walking, horseriding and non-motorised vehicles
004006	North Bull Island SPA	Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Knot ( <i>Calidris canutus</i> ) [A143], Sanderling ( <i>Calidris alba</i> ) [A144], Dunlin ( <i>Calidris alpina</i> ) [A149], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Wetland and Waterbirds [A999], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Turnstone ( <i>Arenaria interpres</i> ) [A169], Curlew ( <i>Numenius arquata</i> ) [A160], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> )	G01.01, E02, D01.05, G02.01, D03.02, G03, G01.02, F02.03.01, E01.04, E01.01, D01.02, E03	Nautical sports, Industrial or commercial areas, Bridge, viaduct, Golf course, Shipping lanes, Interpretative centres, Walking, horseriding and non-motorised vehicles, Bait digging or collection, Other patterns of habitation, Continuous urbanisation, Roads, motorways, Discharges



		[A046], Teal ( <i>Anas crecca</i> ) [A052], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Pintail ( <i>Anas acuta</i> ) [A054], Redshank ( <i>Tringa totanus</i> ) [A162], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Shoveler ( <i>Anas clypeata</i> ) [A056]		
004007	Skelligs SPA	Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Manx Shearwater ( <i>Puffinus puffinus</i> ) [A013], Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Storm Petrel ( <i>Hydrobates pelagicus</i> ) [A014], Gannet ( <i>Morus bassanus</i> ) [A016], Puffin ( <i>Fratercula arctica</i> ) [A204], Guillemot ( <i>Uria aalge</i> ) [A199]	G01.02, X	Walking, horseriding and non-motorised vehicles, No threats or pressures
004008	Blasket Islands SPA	Storm Petrel ( <i>Hydrobates pelagicus</i> ) [A014], Herring Gull ( <i>Larus argentatus</i> ) [A184], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Manx Shearwater ( <i>Puffinus puffinus</i> ) [A013], Puffin ( <i>Fratercula arctica</i> ) [A204], Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183], Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Razorbill ( <i>Alca torda</i> ) [A200], Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346]	E01.03, A04	Dispersed habitation, Grazing
004009	Lady's Island Lake SPA	Sandwich Tern ( <i>Sterna sandvicensis</i> ) [A191], Common tern ( <i>Sterna hirundo</i> ) [A193], Gadwall ( <i>Anas strepera</i> ) [A051],	A08, K03.04, F03.01, G01.02, G01.01, H, C01.01.02	Fertilisation, Predation, Hunting, Walking, horseriding and non-motorised vehicles, Nautical sports, Pollution, Removal of beach materials

		Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Wetland and Waterbirds [A999], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Roseate Tern ( <i>Sterna dougallii</i> ) [A192]		
004013	Drumcliff Bay SPA	Wetland and Waterbirds [A999], Sanderling ( <i>Calidris alba</i> ) [A144], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157]	E01.03, A04, F01, G01.02, A08	Dispersed habitation, Grazing, Marine and Freshwater Aquaculture, Walking, horseriding and non-motorised vehicles, Fertilisation
004014	Rockabill SPA	Roseate Tern ( <i>Sterna dougallii</i> ) [A192], Common tern ( <i>Sterna hirundo</i> ) [A193], Purple Sandpiper ( <i>Calidris maritima</i> ) [A148], Arctic tern ( <i>Sterna paradisaea</i> ) [A194]	G01.01, D06	Nautical sports, Other forms of transportation and communication
004015	Rogerstown Estuary SPA	Shoveler ( <i>Anas clypeata</i> ) [A056], Greylag Goose ( <i>Anser anser</i> ) [A043], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Wetland and Waterbirds [A999], Redshank ( <i>Tringa totanus</i> ) [A162], Knot ( <i>Calidris canutus</i> ) [A143], Dunlin ( <i>Calidris alpina</i> ) [A149], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156]	G01.01, E01.03, A04, A08, I01, J02.01, F02.03.01, E03.01, E03.02, G02.01, F03.01	Nautical sports, Dispersed habitation, Grazing, Fertilisation, Invasive non-native species, Landfill, land reclamation and drying out, general, Bait digging or collection, Disposal of household or recreational facility waste, Disposal of industrial waste, Golf course, Hunting
004016	Baldoyle Bay SPA	Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Wetland and Waterbirds [A999], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Bar-tailed Godwit ( <i>Limosa lapponica</i> )	F02.03.01, G01.02, F03.01, I01, E01, J02.01.02, D01.02, K02.03, G02.01, A08	Bait digging or collection, Walking, horseriding and non-motorised vehicles, Hunting, Invasive non-native species, Urbanised areas, human habitation, Reclamation of land from sea, estuary or marsh, Roads, motorways, Eutrophication (natural), Golf course, Fertilisation

		[A157], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046]		
004017	Mongan Bog SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	C01.03, D05, A04, C01.01	Peat extraction, Improved access to site, Grazing, Sand and gravel extraction
004019	The Raven SPA	Wetland and Waterbirds [A999], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Sanderling ( <i>Calidris alba</i> ) [A144], Red-throated Diver ( <i>Gavia stellata</i> ) [A001], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Common Scoter ( <i>Melanitta nigra</i> ) [A065]	G01.02, B, G01.01	Walking, horseriding and non-motorised vehicles, Sylviculture, forestry, Nautical sports
004020	Ballyteigue Burrow SPA	Shelduck ( <i>Tadorna tadorna</i> ) [A048], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Wetland and Waterbirds [A999], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141]	A04, E01, E01.03, F02.03, A01, G01.02, A08, F03.01	Grazing, Urbanised areas, human habitation, Dispersed habitation, Leisure fishing, Cultivation, Walking, horseriding and non-motorised vehicles, Fertilisation, Hunting
004021	Old Head of Kinsale SPA	Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Guillemot ( <i>Uria aalge</i> ) [A199]	G02.01, G01	Golf course, Outdoor sports and leisure activities, recreational activities
004022	Ballycotton Bay SPA	Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Teal ( <i>Anas crecca</i> ) [A052], Common Gull ( <i>Larus canus</i> ) [A182], Golden Plover ( <i>Pluvialis apricaria</i> )	E01, A08, J02.01.02, K01.01, A04, G01.02	Urbanised areas, human habitation, Fertilisation, Reclamation of land from sea, estuary or marsh, Erosion, Grazing, Walking, horseriding and non-motorised vehicles

		[A140], Lesser Black-backed Gull (Larus fuscus) [A183], Black-tailed Godwit (Limosa limosa) [A156], Lapwing (Vanellus vanellus) [A142], Grey Plover (Pluvialis squatarola) [A141], Bar-tailed Godwit (Limosa lapponica) [A157], Wetland and Waterbirds [A999], Turnstone (Arenaria interpres) [A169], Curlew (Numenius arquata) [A160]		
004023	Ballymacoda Bay SPA	Dunlin (Calidris alpina) [A149], Sanderling (Calidris alba) [A144], Wigeon (Anas penelope) [A050], Turnstone (Arenaria interpres) [A169], Ringed Plover (Charadrius hiaticula) [A137], Black-headed Gull (Chroicocephalus ridibundus) [A179], Lesser Black-backed Gull (Larus fuscus) [A183], Common Gull (Larus canus) [A182], Curlew (Numenius arquata) [A160], Redshank (Tringa totanus) [A162], Black-tailed Godwit (Limosa limosa) [A156], Teal (Anas crecca) [A052], Lapwing (Vanellus vanellus) [A142], Wetland and Waterbirds [A999], Golden Plover (Pluvialis apricaria) [A140], Grey Plover (Pluvialis squatarola) [A141], Bar-tailed Godwit (Limosa lapponica) [A157]	A04, G01.02, I01, A08, F03.01	Grazing, Walking, horseriding and non-motorised vehicles, Invasive non-native species, Fertilisation, Hunting
004024	South Dublin Bay and Tolka Estuary SPA	Arctic tern (Sterna paradisaea) [A194], Grey Plover (Pluvialis squatarola) [A141], Redshank (Tringa totanus) [A162], Roseate Tern (Sterna dougallii) [A192],	F02.03, G01.01, D01.02, J02.01.02, E02, G01.02, F02.03.01, E01, K02.03, E03	Leisure fishing, Nautical sports, Roads, motorways, Reclamation of land from sea, estuary or marsh, Industrial or commercial areas, Walking, horseriding and non-motorised vehicles, Bait digging or collection, Urbanised areas, human habitation, Eutrophication (natural), Discharges

		Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Knot ( <i>Calidris canutus</i> ) [A143], Sanderling ( <i>Calidris alba</i> ) [A144], Common tern ( <i>Sterna hirundo</i> ) [A193], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Dunlin ( <i>Calidris alpina</i> ) [A149], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Wetland and Waterbirds [A999]		
004025	Broadmeadow/Swords Estuary SPA	Pintail ( <i>Anas acuta</i> ) [A054], Knot ( <i>Calidris canutus</i> ) [A143], Wetland and Waterbirds [A999], Great Crested Grebe ( <i>Podiceps cristatus</i> ) [A005], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Goldeneye ( <i>Bucephala clangula</i> ) [A067], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Dunlin ( <i>Calidris alpina</i> ) [A149], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Red-breasted Merganser ( <i>Mergus serrator</i> ) [A069], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Redshank ( <i>Tringa totanus</i> ) [A162]	G01.02, D01.04, G01.01, E02, D01.01, A08, J02.01.02, I01, D01.05, E01	Walking, horseriding and non-motorised vehicles, Railway lines, TGV, Nautical sports, Industrial or commercial areas, Paths, tracks, cycling tracks, Fertilisation, Reclamation of land from sea, estuary or marsh, Invasive non-native species, Bridge, viaduct, Urbanised areas, human habitation
004026	Dundalk Bay SPA	Lapwing ( <i>Vanellus vanellus</i> ) [A142], Greylag Goose ( <i>Anser anser</i> ) [A043], Shelduck	E01.03, G01.01, A08, J02.12, A04, D03.02, E01, E02,	Dispersed habitation, Nautical sports, Fertilisation, Dykes, embankments, artificial beaches, general, Grazing, Shipping lanes, Urbanised areas, human habitation, Industrial or

		(Tadorna tadorna) [A048], Teal (Anas crecca) [A052], Common Scoter (Melanitta nigra) [A065], Curlew (Numenius arquata) [A160], Wetland and Waterbirds [A999], Common Gull (Larus canus) [A182], Ringed Plover (Charadrius hiaticula) [A137], Golden Plover (Pluvialis apricaria) [A140], Black-tailed Godwit (Limosa limosa) [A156], Redshank (Tringa totanus) [A162], Pintail (Anas acuta) [A054], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Black-headed Gull (Chroicocephalus ridibundus) [A179], Bar-tailed Godwit (Limosa lapponica) [A157], Grey Plover (Pluvialis squatarola) [A141], Knot (Calidris canutus) [A143], Great Crested Grebe (Podiceps cristatus) [A005], Red-breasted Merganser (Mergus serrator) [A069], Herring Gull (Larus argentatus) [A184], Mallard (Anas platyrhynchos) [A053], Dunlin (Calidris alpina) [A149], Oystercatcher (Haematopus ostralegus) [A130]	F02.03, D01.02, E03, G01.02, J02.11, I01	commercial areas, Leisure fishing, Roads, motorways, Discharges, Walking, horseriding and non-motorised vehicles, Siltation rate changes, dumping, depositing of dredged deposits, Invasive non-native species
004027	Tramore Back Strand SPA	Golden Plover (Pluvialis apricaria) [A140], Lapwing (Vanellus vanellus) [A142], Dunlin (Calidris alpina) [A149], Bar-tailed Godwit (Limosa lapponica) [A157], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Wetland and Waterbirds [A999], Curlew (Numenius arquata) [A160], Grey Plover (Pluvialis	A04, G01.02, I01, E01, E03, A08, H	Grazing, Walking, horseriding and non-motorised vehicles, Invasive non-native species, Urbanised areas, human habitation, Discharges, Fertilisation, Pollution

		squatarola) [A141], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156]		
004028	Blackwater Estuary SPA	Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Curlew ( <i>Numenius arquata</i> ) [A160], Dunlin ( <i>Calidris alpina</i> ) [A149], Redshank ( <i>Tringa totanus</i> ) [A162], Wigeon ( <i>Anas penelope</i> ) [A050], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Wetland and Waterbirds [A999]	A04, F02.03, F03.01, G01.01, A08, E01, D01.02	Grazing, Leisure fishing, Hunting, Nautical sports, Fertilisation, Urbanised areas, human habitation, Roads, motorways
004029	Castlemaine Harbour SPA	Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Pintail ( <i>Anas acuta</i> ) [A054], Sanderling ( <i>Calidris alba</i> ) [A144], Red-throated Diver ( <i>Gavia stellata</i> ) [A001], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Redshank ( <i>Tringa totanus</i> ) [A162], Scaup ( <i>Aythya marila</i> ) [A062], Common Scoter ( <i>Melanitta nigra</i> ) [A065], Greenshank ( <i>Tringa nebularia</i> ) [A164], Mallard ( <i>Anas platyrhynchos</i> ) [A053], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Wetland and Waterbirds [A999], Turnstone ( <i>Arenaria interpres</i> ) [A169], Wigeon ( <i>Anas penelope</i> ) [A050], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130]	G01, A08, E01.03, I01, F01, E01.01	Outdoor sports and leisure activities, recreational activities, Fertilisation, Dispersed habitation, Invasive non-native species, Marine and Freshwater Aquaculture, Continuous urbanisation
004030	Cork Harbour SPA	Grey Heron ( <i>Ardea cinerea</i> )	E01.03, F01,	Dispersed habitation, Marine and Freshwater Aquaculture, Skiing,

		<p>[A028], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Curlew (<i>Numenius arquata</i>) [A160], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Shoveler (<i>Anas clypeata</i>) [A056], Redshank (<i>Tringa totanus</i>) [A162], Common Gull (<i>Larus canus</i>) [A182], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Lapwing (<i>Vanellus vanellus</i>) [A142], Common tern (<i>Sterna hirundo</i>) [A193], Pintail (<i>Anas acuta</i>) [A054], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Dunlin (<i>Calidris alpina</i>) [A149], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Wigeon (<i>Anas penelope</i>) [A050], Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Teal (<i>Anas crecca</i>) [A052], Wetland and Waterbirds [A999], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Little Grebe (<i>Tachybaptus ruficollis</i>) [A004], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Shelduck (<i>Tadorna tadorna</i>) [A048], Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p>	<p>G01.06, D03.02, D01.02, F02.03, E02, G01.01, D03.01, A08, E01, G01.02</p>	<p>off-piste, Shipping lanes, Roads, motorways, Leisure fishing, Industrial or commercial areas, Nautical sports, Port areas, Fertilisation, Urbanised areas, human habitation, Walking, horseriding and non-motorised vehicles</p>
004031	Inner Galway Bay SPA	<p>Great Northern Diver (<i>Gavia immer</i>) [A003], Grey Heron (<i>Ardea cinerea</i>) [A028], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Teal (<i>Anas crecca</i>) [A052], Common Gull (<i>Larus canus</i>)</p>	<p>G01.01, J02.12, F02.03, A04, J02.01.02, E02, E03, F03.01, E01, F01, D01.02, A08, G01.02</p>	<p>Nautical sports, Dykes, embankments, artificial beaches, general, Leisure fishing, Grazing, Reclamation of land from sea, estuary or marsh, Industrial or commercial areas, Discharges, Hunting, Urbanised areas, human habitation, Marine and Freshwater Aquaculture, Roads, motorways, Fertilisation, Walking, horseriding and non-motorised vehicles</p>



		[A182], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Curlew ( <i>Numenius arquata</i> ) [A160], Sandwich Tern ( <i>Sterna sandvicensis</i> ) [A191], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Wetland and Waterbirds [A999], Common tern ( <i>Sterna hirundo</i> ) [A193], Turnstone ( <i>Arenaria interpres</i> ) [A169], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Black-throated Diver ( <i>Gavia arctica</i> ) [A002], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Redshank ( <i>Tringa totanus</i> ) [A162], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Wigeon ( <i>Anas penelope</i> ) [A050], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Dunlin ( <i>Calidris alpina</i> ) [A149]		
004032	Dungarvan Harbour SPA	Redshank ( <i>Tringa totanus</i> ) [A162], Turnstone ( <i>Arenaria interpres</i> ) [A169], Curlew ( <i>Numenius arquata</i> ) [A160], Red-breasted Merganser ( <i>Mergus serrator</i> ) [A069], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Knot ( <i>Calidris canutus</i> ) [A143], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Wetland and Waterbirds [A999], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Dunlin	F01, F02.03, E01, A08, G01.02	Marine and Freshwater Aquaculture, Leisure fishing, Urbanised areas, human habitation, Fertilisation, Walking, horseriding and non-motorised vehicles

		( <i>Calidris alpina</i> ) [A149], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Great Crested Grebe ( <i>Podiceps cristatus</i> ) [A005]		
004033	Bannow Bay SPA	Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Redshank ( <i>Tringa totanus</i> ) [A162], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Curlew ( <i>Numenius arquata</i> ) [A160], Pintail ( <i>Anas acuta</i> ) [A054], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Wetland and Waterbirds [A999], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Dunlin ( <i>Calidris alpina</i> ) [A149], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Knot ( <i>Calidris canutus</i> ) [A143]	D01.02, A04, E01.03, G01, A08, F01, F03.01	Roads, motorways, Grazing, Dispersed habitation, Outdoor sports and leisure activities, recreational activities, Fertilisation, Marine and Freshwater Aquaculture, Hunting
004034	Trawbreaga Bay SPA	Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Wetland and Waterbirds [A999], Chough ( <i>Pyrhocorax pyrrhocorax</i> ) [A346], Barnacle goose ( <i>Branta leucopsis</i> ) [A045]	A08, A04, F01, E03, E01.03	Fertilisation, Grazing, Marine and Freshwater Aquaculture, Discharges, Dispersed habitation
004035	Cummeen Strand SPA	Redshank ( <i>Tringa totanus</i> ) [A162], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Wetland and Waterbirds [A999], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046]	E02, F02.03, A08, D01.02, H, J02.01.02, F01, D03.02, E01	Industrial or commercial areas, Leisure fishing, Fertilisation, Roads, motorways, Pollution, Reclamation of land from sea, estuary or marsh, Marine and Freshwater Aquaculture, Shipping lanes, Urbanised areas, human habitation
004036	Killala Bay/Moy Estuary SPA	Sanderling ( <i>Calidris alba</i> ) [A144], Curlew ( <i>Numenius arquata</i> )	F02.03, G01.02,	Leisure fishing, Walking, horseriding and non-motorised vehicles,

		[A160], Redshank ( <i>Tringa totanus</i> ) [A162], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Wetland and Waterbirds [A999], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Dunlin ( <i>Calidris alpina</i> ) [A149], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157]	E01, A08	Urbanised areas, human habitation, Fertilisation
004037	Blacksod Bay/Broad Haven SPA	Curlew ( <i>Numenius arquata</i> ) [A160], Red-breasted Merganser ( <i>Mergus serrator</i> ) [A069], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Red-throated Diver ( <i>Gavia stellata</i> ) [A001], Sanderling ( <i>Calidris alba</i> ) [A144], Wetland and Waterbirds [A999], Dunlin ( <i>Calidris alpina</i> ) [A149], Sandwich Tern ( <i>Sterna sandvicensis</i> ) [A191], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Slavonian Grebe ( <i>Podiceps auritus</i> ) [A007], Common Scoter ( <i>Melanitta nigra</i> ) [A065], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Great Northern Diver ( <i>Gavia immer</i> ) [A003]	E01, F02.03, G01.02, F01, A08, F02.03.01	Urbanised areas, human habitation, Leisure fishing, Walking, horseriding and non-motorised vehicles, Marine and Freshwater Aquaculture, Fertilisation, Bait digging or collection
004038	Killarney National Park SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Merlin ( <i>Falco columbarius</i> ) [A098]	D01.01, K04.01, F02.03, G03, A04, B, G01.02, E01, A08	Paths, tracks, cycling tracks, Competition (flora), Leisure fishing, Interpretative centres, Grazing, Sylviculture, forestry, Walking, horseriding and non-motorised vehicles, Urbanised areas, human habitation, Fertilisation
004039	Derryveagh and Glendowan Mountains SPA	Peregrine falcon ( <i>Falco peregrinus</i> ) [A103], Merlin ( <i>Falco columbarius</i> ) [A098], Dunlin ( <i>Calidris alpina</i> ) [A149], Golden Plover ( <i>Pluvialis</i>	G01.02, F04, D01.01, A04, I01, G01.04, B, C01.03.01, G03, F03.02	Walking, horseriding and non-motorised vehicles, Taking or Removal of terrestrial plants, general, Paths, tracks, cycling tracks, Grazing, Invasive non-native species, Mountaineering, rock climbing, speleology, Sylviculture, forestry, Hand cutting of peat, Interpretative centres, Taking and removal of animals

		apricaria) [A140], Red-throated Diver ( <i>Gavia stellata</i> ) [A001]		(terrestrial)
004040	Wicklow Mountains SPA	Peregrine falcon ( <i>Falco peregrinus</i> ) [A103], Merlin ( <i>Falco columbarius</i> ) [A098]	C01.03, B, A04, G01.02, G03, D01.01	Peat extraction, Sylviculture, forestry, Grazing, Walking, horseriding and non-motorised vehicles, Interpretative centres, Paths, tracks, cycling tracks
004041	Ballyallia Lough SPA	Wigeon ( <i>Anas penelope</i> ) [A050], Coot ( <i>Fulica atra</i> ) [A125], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Shoveler ( <i>Anas clypeata</i> ) [A056], Wetland and Waterbirds [A999], Gadwall ( <i>Anas strepera</i> ) [A051], Teal ( <i>Anas crecca</i> ) [A052], Mallard ( <i>Anas platyrhynchos</i> ) [A053]	E01, A04, G01.02, A08, G01.01	Urbanised areas, human habitation, Grazing, Walking, horseriding and non-motorised vehicles, Fertilisation, Nautical sports
004042	Lough Corrib SPA	Common Scoter ( <i>Melanitta nigra</i> ) [A065], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Pochard ( <i>Aythya ferina</i> ) [A059], Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Coot ( <i>Fulica atra</i> ) [A125], Gadwall ( <i>Anas strepera</i> ) [A051], Common Gull ( <i>Larus canus</i> ) [A182], Wetland and Waterbirds [A999], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Common tern ( <i>Sterna hirundo</i> ) [A193], Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Tufted Duck ( <i>Aythya fuligula</i> ) [A061], Shoveler ( <i>Anas clypeata</i> ) [A056], Hen Harrier ( <i>Circus cyaneus</i> ) [A082]	A04, E01, A08, F03.01, F02.03, G01.01, B	Grazing, Urbanised areas, human habitation, Fertilisation, Hunting, Leisure fishing, Nautical sports, Sylviculture, forestry
004043	Lough Derravaragh SPA	Pochard ( <i>Aythya ferina</i> ) [A059], Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Wetland and Waterbirds [A999], Coot ( <i>Fulica atra</i> ) [A125], Tufted Duck ( <i>Aythya</i>	A05.01, F03.01, F02.03, B, A08	Animal breeding, Hunting, Leisure fishing, Sylviculture, forestry, Fertilisation

		fuligula) [A061]		
004044	Lough Ennell SPA	Wetland and Waterbirds [A999], Pochard (Aythya ferina) [A059], Coot (Fulica atra) [A125], Tufted Duck (Aythya fuligula) [A061]	F02.03, G01.02, E01, G05.01, A08, F03.01, B, G01.01	Leisure fishing, Walking, horseriding and non-motorised vehicles, Urbanised areas, human habitation, Trampling, overuse, Fertilisation, Hunting, Sylviculture, forestry, Nautical sports
004045	Glen Lough SPA	Whooper Swan (Cygnus cygnus) [A038]	A08, X, B01	Fertilisation, No threats or pressures, Forest planting on open ground
004046	Lough Iron SPA	Coot (Fulica atra) [A125], Wigeon (Anas penelope) [A050], Wetland and Waterbirds [A999], Shoveler (Anas clypeata) [A056], Golden Plover (Pluvialis apricaria) [A140], Teal (Anas crecca) [A052], Whooper Swan (Cygnus cygnus) [A038], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]	B, A08, A04	Sylviculture, forestry, Fertilisation, Grazing
004047	Lough Owel SPA	Coot (Fulica atra) [A125], Wetland and Waterbirds [A999], Shoveler (Anas clypeata) [A056]	B, F02.03, F03.01, J02, A08	Sylviculture, forestry, Leisure fishing, Hunting, Human induced changes in hydraulic conditions, Fertilisation
004048	Lough Gara SPA	Whooper Swan (Cygnus cygnus) [A038], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]	B, X, A08	Sylviculture, forestry, No threats or pressures, Fertilisation
004049	Lough Oughter SPA	Wetland and Waterbirds [A999], Wigeon (Anas penelope) [A050], Whooper Swan (Cygnus cygnus) [A038], Great Crested Grebe (Podiceps cristatus) [A005]	G01.01, F03.01, A05.01, B, F02.03, A08	Nautical sports, Hunting, Animal breeding, Sylviculture, forestry, Leisure fishing, Fertilisation
004050	Lough Arrow SPA	Tufted Duck (Aythya fuligula) [A061], Little Grebe (Tachybaptus ruficollis) [A004], Wetland and Waterbirds [A999]	F02.03, A08	Leisure fishing, Fertilisation

004051	Lough Carra SPA	Common Gull ( <i>Larus canus</i> ) [A182]	B, F02.03, A10, A08	Sylviculture, forestry, Leisure fishing, Restructuring agricultural land holding, Fertilisation
004052	Carrowmore Lake SPA	Sandwich Tern ( <i>Sterna sandvicensis</i> ) [A191]	F02.03, K03.04, B	Leisure fishing, Predation, Sylviculture, forestry
004056	Lough Cutra SPA	Cormorant ( <i>Phalacrocorax carbo</i> ) [A017]	F03.01, A04, A08, B, F02.03	Hunting, Grazing, Fertilisation, Sylviculture, forestry, Leisure fishing
004057	Lough Derg (Donegal) SPA	Herring Gull ( <i>Larus argentatus</i> ) [A184], Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183]	F02.03, G05, B, I01	Leisure fishing, Other human intrusions and disturbances, Sylviculture, forestry, Invasive non-native species
004058	Lough Derg (Shannon) SPA	Tufted Duck ( <i>Aythya fuligula</i> ) [A061], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Goldeneye ( <i>Bucephala clangula</i> ) [A067], Wetland and Waterbirds [A999], Common tern ( <i>Sterna hirundo</i> ) [A193]	A08, F02.03, F03.01, G01.01	Fertilisation, Leisure fishing, Hunting, Nautical sports
004060	Lough Fern SPA	Pochard ( <i>Aythya ferina</i> ) [A059], Wetland and Waterbirds [A999]	A08, F02.03, B	Fertilisation, Leisure fishing, Sylviculture, forestry
004061	Lough Kinale and Derragh Lough SPA	Tufted Duck ( <i>Aythya fuligula</i> ) [A061], Wetland and Waterbirds [A999], Pochard ( <i>Aythya ferina</i> ) [A059]	X, B, A05.01, F03.01, F02.03, A08	No threats or pressures, Sylviculture, forestry, Animal breeding, Hunting, Leisure fishing, Fertilisation
004062	Lough Mask SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Common tern ( <i>Sterna hirundo</i> ) [A193], Wetland and Waterbirds [A999], Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183], Common Gull ( <i>Larus canus</i> ) [A182], Tufted Duck ( <i>Aythya fuligula</i> ) [A061], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179]	B, F02.03, A08, A10	Sylviculture, forestry, Leisure fishing, Fertilisation, Restructuring agricultural land holding
004063	Poulaphouca Reservoir SPA	Greylag Goose ( <i>Anser anser</i> )	F02.03, B01,	Leisure fishing, Forest planting on open ground, Nautical sports,

		[A043], Lesser Black-backed Gull (Larus fuscus) [A183]	G01.01, F03.01, D01.05	Hunting, Bridge, viaduct
004064	Lough Ree SPA	Common Scoter (Melanitta nigra) [A065], Lapwing (Vanellus vanellus) [A142], Goldeneye (Bucephala clangula) [A067], Little Grebe (Tachybaptus ruficollis) [A004], Wetland and Waterbirds [A999], Tufted Duck (Aythya fuligula) [A061], Mallard (Anas platyrhynchos) [A053], Common tern (Sterna hirundo) [A193], Coot (Fulica atra) [A125], Wigeon (Anas penelope) [A050], Whooper Swan (Cygnus cygnus) [A038], Shoveler (Anas clypeata) [A056], Golden Plover (Pluvialis apricaria) [A140], Teal (Anas crecca) [A052]	A04, B, F02.03, G01.01, A08, F03.01, G01.02, I01	Grazing, Sylviculture, forestry, Leisure fishing, Nautical sports, Fertilisation, Hunting, Walking, horseriding and non-motorised vehicles, Invasive non-native species
004065	Lough Sheelin SPA	Tufted Duck (Aythya fuligula) [A061], Goldeneye (Bucephala clangula) [A067], Pochard (Aythya ferina) [A059], Wetland and Waterbirds [A999], Great Crested Grebe (Podiceps cristatus) [A005]	A05.01, A08, B, F02.03	Animal breeding, Fertilisation, Sylviculture, forestry, Leisure fishing
004066	The Bull and The Cow Rocks SPA	Gannet (Morus bassanus) [A016], Storm Petrel (Hydrobates pelagicus) [A014], Puffin (Fratrercula arctica) [A204]	X	No threats or pressures
004068	Inishmurray SPA	Herring Gull (Larus argentatus) [A184], Barnacle goose (Branta leucopsis) [A045], Shag (Phalacrocorax aristotelis) [A018], Arctic tern (Sterna paradisaea) [A194]	G01.02, X	Walking, horseriding and non-motorised vehicles, No threats or pressures
004069	Lambay Island SPA	Herring Gull (Larus argentatus) [A184], Cormorant	G01.01, A03, A04, E01.03, F03.01,	Nautical sports, Mowing or cutting of grassland, Grazing,

		(Phalacrocorax carbo) [A017], Guillemot (Uria aalge) [A199], Greylag Goose (Anser anser) [A043], Shag (Phalacrocorax aristotelis) [A018], Puffin (Fracercula arctica) [A204], Fulmar (Fulmarus glacialis) [A009], Kittiwake (Rissa tridactyla) [A188], Lesser Black-backed Gull (Larus fuscus) [A183], Razorbill (Alca torda) [A200]	D03.02	Dispersed habitation, Hunting, Shipping lanes
004072	Stags of Broad Haven SPA	Leach's Storm-petrel (Oceanodroma leucorhoa) [A015], Storm Petrel (Hydrobates pelagicus) [A014]	X, F02	No threats or pressures, Fishing and harvesting aquatic resources
004073	Tory Island SPA	Puffin (Fracercula arctica) [A204], Fulmar (Fulmarus glacialis) [A009], Corncrake (Crex crex) [A122], Razorbill (Alca torda) [A200]	E01, A04, G01.02, D01.02, A01, E01.03, C01.03	Urbanised areas, human habitation, Grazing, Walking, horseriding and non-motorised vehicles, Roads, motorways, Cultivation, Dispersed habitation, Peat extraction
004074	Illanmaster SPA	European storm petrel (Hydrobates pelagicus) [A014]	X	No threats or pressures
004075	Lough Swilly SPA	Greenland White-fronted Goose (Anser albifrons flavirostris) [A395], Whooper Swan (Cygnus cygnus) [A038], Black-headed Gull (Chroicocephalus ridibundus) [A179], Great Crested Grebe (Podiceps cristatus) [A005], Wigeon (Anas penelope) [A050], Red-breasted Merganser (Mergus serrator) [A069], Mallard (Anas platyrhynchos) [A053], Common Gull (Larus canus) [A182], Grey Heron (Ardea cinerea) [A028], Oystercatcher (Haematopus ostralegus) [A130], Coot (Fulica	G01.01, A01, A04, F02.03, E01, A08, F01	Nautical sports, Cultivation, Grazing, Leisure fishing, Urbanised areas, human habitation, Fertilisation, Marine and Freshwater Aquaculture



		<p>atra [A125], Shoveler (<i>Anas clypeata</i>) [A056], Wetland and Waterbirds [A999], Shelduck (<i>Tadorna tadorna</i>) [A048], Curlew (<i>Numenius arquata</i>) [A160], Goldeneye (<i>Bucephala clangula</i>) [A067], Greylag Goose (<i>Anser anser</i>) [A043], Greenshank (<i>Tringa nebularia</i>) [A164], Dunlin (<i>Calidris alpina</i>) [A149], Knot (<i>Calidris canutus</i>) [A143], Sandwich Tern (<i>Sterna sandvicensis</i>) [A191], Redshank (<i>Tringa totanus</i>) [A162], Teal (<i>Anas crecca</i>) [A052], Scaup (<i>Aythya marila</i>) [A062], Common tern (<i>Sterna hirundo</i>) [A193]</p>		
004076	Wexford Harbour and Slobs SPA	<p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Goldeneye (<i>Bucephala clangula</i>) [A067], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Bewick's Swan (<i>Cygnus columbianus bewickii</i>) [A037], Grey Heron (<i>Ardea cinerea</i>) [A028], Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395], Lapwing (<i>Vanellus vanellus</i>) [A142], Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Dunlin (<i>Calidris alpina</i>) [A149], Shelduck (<i>Tadorna tadorna</i>) [A048], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Wetland and Waterbirds [A999], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Knot (<i>Calidris canutus</i>) [A143], Curlew</p>	<p>A01, D01.02, J02.12, A04, F03.01, B, F01, J02.01.01, G03, G01.02, A08, E01</p>	<p>Cultivation, Roads, motorways, Dykes, embankments, artificial beaches, general, Grazing, Hunting, Sylviculture, forestry, Marine and Freshwater Aquaculture, Polderisation, Interpretative centres, Walking, horseriding and non-motorised vehicles, Fertilisation, Urbanised areas, human habitation</p>

		<p>(Numenius arquata) [A160], Black-headed Gull (Chroicocephalus ridibundus) [A179], Little Grebe (Tachybaptus ruficollis) [A004], Redshank (Tringa totanus) [A162], Hen Harrier (Circus cyaneus) [A082], Oystercatcher (Haematopus ostralegus) [A130], Grey Plover (Pluvialis squatarola) [A141], Coot (Fulica atra) [A125], Little Tern (Sterna albifrons) [A195], Pintail (Anas acuta) [A054], Scaup (Aythya marila) [A062], Golden Plover (Pluvialis apricaria) [A140], Sanderling (Calidris alba) [A144], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Mallard (Anas platyrhynchos) [A053], Teal (Anas crecca) [A052], Wigeon (Anas penelope) [A050], Whooper Swan (Cygnus cygnus) [A038]</p>		
004077	River Shannon and River Fergus Estuaries SPA	<p>Knot (Calidris canutus) [A143], Wetland and Waterbirds [A999], Ringed Plover (Charadrius hiaticula) [A137], Dunlin (Calidris alpina) [A149], Greenshank (Tringa nebularia) [A164], Bar-tailed Godwit (Limosa lapponica) [A157], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Golden Plover (Pluvialis apricaria) [A140], Shoveler (Anas clypeata) [A056], Cormorant (Phalacrocorax carbo) [A017], Whooper Swan (Cygnus cygnus) [A038], Wigeon (Anas penelope) [A050],</p>	D03.02, F01, E03, E01, A08, G01.01, E02	Shipping lanes, Marine and Freshwater Aquaculture, Discharges, Urbanised areas, human habitation, Fertilisation, Nautical sports, Industrial or commercial areas

		Shelduck ( <i>Tadorna tadorna</i> ) [A048], Pintail ( <i>Anas acuta</i> ) [A054], Teal ( <i>Anas crecca</i> ) [A052], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Redshank ( <i>Tringa totanus</i> ) [A162], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Curlew ( <i>Numenius arquata</i> ) [A160], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Scaup ( <i>Aythya marila</i> ) [A062]		
004078	Carlingford Lough SPA	Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Wetland and Waterbirds [A999]	F01	Marine and Freshwater Aquaculture
004080	Boyne Estuary SPA	Little Tern ( <i>Sterna albifrons</i> ) [A195], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Redshank ( <i>Tringa totanus</i> ) [A162], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Knot ( <i>Calidris canutus</i> ) [A143], Sanderling ( <i>Calidris alba</i> ) [A144], Wetland and Waterbirds [A999], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Turnstone ( <i>Arenaria interpres</i> ) [A169], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156]	F02.03, F01, G01.02, J02.01.02, J02.11, J02.05, E01, G02.01, I01	Leisure fishing, Marine and Freshwater Aquaculture, Walking, horseriding and non-motorised vehicles, Reclamation of land from sea, estuary or marsh, Siltation rate changes, dumping, depositing of dredged deposits, Modification of hydrographic functioning, general, Urbanised areas, human habitation, Golf course, Invasive non-native species
004081	Clonakilty Bay SPA	Dunlin ( <i>Calidris alpina</i> ) [A149], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Curlew ( <i>Numenius arquata</i> ) [A160], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Wetland and Waterbirds [A999]	I01, G01.01, A04, A08, G01.02, F02.03.01, E01, J02.01.02	Invasive non-native species, Nautical sports, Grazing, Fertilisation, Walking, horseriding and non-motorised vehicles, Bait digging or collection, Urbanised areas, human habitation, Reclamation of land from sea, estuary or marsh

004082	Greers Isle SPA	Sandwich Tern ( <i>Sterna sandvicensis</i> ) [A191], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Common Gull ( <i>Larus canus</i> ) [A182]	F02.03	Leisure fishing
004083	Inishbofin, Inishdooney and Inishbeg SPA	Corncrake ( <i>Crex crex</i> ) [A122], Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183], Common Gull ( <i>Larus canus</i> ) [A182]	A04, E01.03, G01.02, A03	Grazing, Dispersed habitation, Walking, horseriding and non-motorised vehicles, Mowing or cutting of grassland
004084	Inishglora and Inishkeeragh SPA	Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Herring Gull ( <i>Larus argentatus</i> ) [A184], Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Storm Petrel ( <i>Hydrobates pelagicus</i> ) [A014], Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183]	A04, G01.02	Grazing, Walking, horseriding and non-motorised vehicles
004086	River Little Brosna Callows SPA	Pintail ( <i>Anas acuta</i> ) [A054], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Wetland and Waterbirds [A999], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Wigeon ( <i>Anas penelope</i> ) [A050], Teal ( <i>Anas crecca</i> ) [A052], Shoveler ( <i>Anas clypeata</i> ) [A056]	A03, D01.01, F02.03, E01.03, A04, F03.01, A08	Mowing or cutting of grassland, Paths, tracks, cycling tracks, Leisure fishing, Dispersed habitation, Grazing, Hunting, Fertilisation

004087	Lough Foyle SPA	Wetland and Waterbirds [A999], Greylag Goose ( <i>Anser anser</i> ) [A043], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Eider ( <i>Somateria mollissima</i> ) [A063], Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Herring Gull ( <i>Larus argentatus</i> ) [A184], Knot ( <i>Calidris canutus</i> ) [A143], Common Gull ( <i>Larus canus</i> ) [A182], Mallard ( <i>Anas platyrhynchos</i> ) [A053], Teal ( <i>Anas crecca</i> ) [A052], Bewick's Swan ( <i>Cygnus columbianus bewickii</i> ) [A037], Dunlin ( <i>Calidris alpina</i> ) [A149], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Curlew ( <i>Numenius arquata</i> ) [A160], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Great Crested Grebe ( <i>Podiceps cristatus</i> ) [A005], Red-throated Diver ( <i>Gavia stellata</i> ) [A001], Redshank ( <i>Tringa totanus</i> ) [A162], Red-breasted Merganser ( <i>Mergus serrator</i> ) [A069], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Wigeon ( <i>Anas penelope</i> ) [A050]	E01, X	Urbanised areas, human habitation, No threats or pressures
004089	Rahasane Turlough SPA	Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Wigeon ( <i>Anas penelope</i> ) [A050], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Wetland and Waterbirds [A999], Greenland White-fronted Goose	A04, F03.01, A08	Grazing, Hunting, Fertilisation

		(Anser albifrons flavirostris) [A395]		
004090	Sheskinmore Lough SPA	Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]	A04, A03, A08, A05.02, G02.08, K01.01	Grazing, Mowing or cutting of grassland, Fertilisation, Stock feeding, Camping and caravans, Erosion
004091	Stabannan-Braganstown SPA	Greylag goose (Anser anser) [A043]	A01, A08, D01.02, A04, A02	Cultivation, Fertilisation, Roads, motorways, Grazing, Modification of cultivation practices
004092	Tacumshin Lake SPA	Wigeon (Anas penelope) [A050], Lapwing (Vanellus vanellus) [A142], Teal (Anas crecca) [A052], Black-tailed Godwit (Limosa limosa) [A156], Gadwall (Anas strepera) [A051], Grey Plover (Pluvialis squatarola) [A141], Bewick's Swan (Cygnus columbianus bewickii) [A037], Coot (Fulica atra) [A125], Wetland and Waterbirds [A999], Tufted Duck (Aythya fuligula) [A061], Pintail (Anas acuta) [A054], Golden Plover (Pluvialis apricaria) [A140], Little Grebe (Tachybaptus ruficollis) [A004], Shoveler (Anas clypeata) [A056], Whooper Swan (Cygnus cygnus) [A038]	A01, F03.01, A04, G01.08, G01.02, A08, J02.05	Cultivation, Hunting, Grazing, Other outdoor sports and leisure activities, Walking, horseriding and non-motorised vehicles, Fertilisation, Modification of hydrographic functioning, general
004093	Termoncarragh Lake and Annagh Machair SPA	Dunlin (Calidris alpina) [A149], Barnacle goose (Branta leucopsis) [A045], Lapwing (Vanellus vanellus) [A142], Wetland and Waterbirds [A999], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395], Whooper Swan (Cygnus cygnus) [A038], Chough (Pyrrhocorax pyrrhocorax) [A346], Corncrake (Crex crex) [A122]	D01.02, A10, E01.03, A04, A08	Roads, motorways, Restructuring agricultural land holding, Dispersed habitation, Grazing, Fertilisation

004094	Blackwater Callows SPA	Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Wetland and Waterbirds [A999], Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Teal ( <i>Anas crecca</i> ) [A052], Wigeon ( <i>Anas penelope</i> ) [A050]	A08, A04, F02.03, E01	Fertilisation, Grazing, Leisure fishing, Urbanised areas, human habitation
004095	Kilcolman Bog SPA	Wetland and Waterbirds [A999], Teal ( <i>Anas crecca</i> ) [A052], Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Shoveler ( <i>Anas clypeata</i> ) [A056]	J02.05, A08, K01.03, G03	Modification of hydrographic functioning, general, Fertilisation, Drying out, Interpretative centres
004096	Middle Shannon Callows SPA	Lapwing ( <i>Vanellus vanellus</i> ) [A142], Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Wetland and Waterbirds [A999], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Wigeon ( <i>Anas penelope</i> ) [A050], Corncrake ( <i>Crex crex</i> ) [A122], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156]	A04, A04.03, A08, D01.05, G01.02, E01, D01.01, F02.03, G01.01, F03.01, A03	Grazing, Abandonment of pastoral systems lack of grazing, Fertilisation, Bridge, viaduct, Walking, horseriding and non-motorised vehicles, Urbanised areas, human habitation, Paths, tracks, cycling tracks, Leisure fishing, Nautical sports, Hunting, Mowing or cutting of grassland
004097	River Suck Callows SPA	Wigeon ( <i>Anas penelope</i> ) [A050], Wetland and Waterbirds [A999], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Lapwing ( <i>Vanellus vanellus</i> ) [A142]	F02.03, A04, B, F03.01, A03, A08, E01.03, G01.01	Leisure fishing, Grazing, Sylviculture, forestry, Hunting, Mowing or cutting of grassland, Fertilisation, Dispersed habitation, Nautical sports
004098	Owenduff/Nephin Complex SPA	Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Merlin ( <i>Falco columbarius</i> ) [A098]	B, J01, F02.03, A04, F03.01, E01.03, A08, D01.02, C01.03	Sylviculture, forestry, Fire and fire suppression, Leisure fishing, Grazing, Hunting, Dispersed habitation, Fertilisation, Roads, motorways, Peat extraction
004099	Pettigo Plateau Nature Reserve SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	A04, B, C01.03	Grazing, Sylviculture, forestry, Peat extraction

004100	Inishtrahull SPA	Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Common Gull ( <i>Larus canus</i> ) [A182], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018]	X, A04	No threats or pressures, Grazing
004101	Ballykenny-Fisherstown Bog SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	A04, F02.03, B, F03.01, G01.01	Grazing, Leisure fishing, Sylviculture, forestry, Hunting, Nautical sports
004102	Garriskil Bog SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	A10, J01, D01.04, A04, J02.05.02, B01	Restructuring agricultural land holding, Fire and fire suppression, Railway lines, TGV, Grazing, Modifying structures of inland water courses, Forest planting on open ground
004103	All Saints Bog SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	C01.01, E01.03, A04, A01, D01.02, F03.01, A03, C01.03, J01, C01.03.02, A08, B01	Sand and gravel extraction, Dispersed habitation, Grazing, Cultivation, Roads, motorways, Hunting, Mowing or cutting of grassland, Peat extraction, Fire and fire suppression, Mechanical removal of peat, Fertilisation, Forest planting on open ground
004105	Bellanagare Bog SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	B01, C01.03, D01.02, A04, J02.05.02	Forest planting on open ground, Peat extraction, Roads, motorways, Grazing, Modifying structures of inland water courses
004107	Coole-Garryland SPA	Whooper swan ( <i>Cygnus cygnus</i> ) [A038]	A04, G01.02, F03.01, A08, G03, E03.01, B, B03, K03	Grazing, Walking, horseriding and non-motorised vehicles, Hunting, Fertilisation, Interpretative centres, Disposal of household or recreational facility waste, Sylviculture, forestry, Forest exploitation without replanting or natural regrowth, Interspecific faunal relations
004108	Eirk Bog SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	X, A04	No threats or pressures, Grazing
004109	The Gearagh SPA	Wetland and Waterbirds [A999], Teal ( <i>Anas crecca</i> ) [A052], Wigeon ( <i>Anas penelope</i> ) [A050], Coot ( <i>Fulica atra</i> ) [A125], Mallard ( <i>Anas platyrhynchos</i> ) [A053]	A04, F03.01, J02, J02.04	Grazing, Hunting, Human induced changes in hydraulic conditions, Flooding modifications
004110	Lough Nillan Bog SPA	Greenland White-fronted Goose	D01.02, C01.03.02,	Roads, motorways, Mechanical removal of peat, Dispersed



		(Anser albifrons flavirostris) [A395], Golden Plover (Pluvialis apricaria) [A140], Merlin (Falco columbarius) [A098], Dunlin (Calidris alpina) [A149]	E01.03, A04, D01.01, B, C01.03.01	habitation, Grazing, Paths, tracks, cycling tracks, Sylviculture, forestry, Hand cutting of peat
004111	Duvillaun Islands SPA	Fulmar (Fulmarus glacialis) [A009], Storm Petrel (Hydrobates pelagicus) [A014], Barnacle goose (Branta leucopsis) [A045]	A04	Grazing
004113	Howth Head Coast SPA	Kittiwake (Rissa tridactyla) [A188]	J01, G01.02	Fire and fire suppression, Walking, horseriding and non-motorised vehicles
004114	Illaunonearaun SPA	Barnacle goose (Branta leucopsis) [A045]	X	No threats or pressures
004115	Inishduff SPA	European shag (Phalacrocorax aristotelis) [A018]	X	No threats or pressures
004116	Inishkeel SPA	Barnacle goose (Branta leucopsis) [A045]	G01.02, A04	Walking, horseriding and non-motorised vehicles, Grazing
004117	Ireland's Eye SPA	Herring Gull (Larus argentatus) [A184], Razorbill (Alca torda) [A200], Cormorant (Phalacrocorax carbo) [A017], Guillemot (Uria aalge) [A199], Kittiwake (Rissa tridactyla) [A188]	F02.03, G01.02	Leisure fishing, Walking, horseriding and non-motorised vehicles
004118	Keeragh Islands SPA	Cormorant (Phalacrocorax carbo) [A017]	X	No threats or pressures
004119	Loop Head SPA	Guillemot (Uria aalge) [A199], Kittiwake (Rissa tridactyla) [A188]	G01.02, A04	Walking, horseriding and non-motorised vehicles, Grazing
004120	Rathlin O'Birne Island SPA	Barnacle goose (Branta leucopsis) [A045]	F02, X	Fishing and harvesting aquatic resources, No threats or pressures

004121	Roaninish SPA	Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Herring Gull ( <i>Larus argentatus</i> ) [A184]	X	No threats or pressures
004122	Skerries Islands SPA	Turnstone ( <i>Arenaria interpres</i> ) [A169], Herring Gull ( <i>Larus argentatus</i> ) [A184], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Purple Sandpiper ( <i>Calidris maritima</i> ) [A148], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018]	G01.02	Walking, horseriding and non-motorised vehicles
004124	Sovereign Islands SPA	Cormorant ( <i>Phalacrocorax carbo</i> ) [A017]	X	No threats or pressures
004125	Magharee Islands SPA	Common Gull ( <i>Larus canus</i> ) [A182], Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Little Tern ( <i>Sterna albifrons</i> ) [A195], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Common tern ( <i>Sterna hirundo</i> ) [A193], Storm Petrel ( <i>Hydrobates pelagicus</i> ) [A014]	G01.01, A04	Nautical sports, Grazing
004127	Wicklow Head SPA	Black-legged kittiwake ( <i>Rissa tridactyla</i> ) [A188]	G01.02	Walking, horseriding and non-motorised vehicles
004129	Ballysadare Bay SPA	Dunlin ( <i>Calidris alpina</i> ) [A149], Redshank ( <i>Tringa totanus</i> ) [A162], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Wetland and Waterbirds [A999], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046]	F03.01, E01.01, F01, A08	Hunting, Continuous urbanisation, Marine and Freshwater Aquaculture, Fertilisation

004132	Illancrone and Inishkeeragh SPA	Common tern ( <i>Sterna hirundo</i> ) [A193], Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Little Tern ( <i>Sterna albifrons</i> ) [A195], Barnacle goose ( <i>Branta leucopsis</i> ) [A045]	A04	Grazing
004133	Aughris Head SPA	Kittiwake ( <i>Rissa tridactyla</i> ) [A188]	A04	Grazing
004134	Lough Rea SPA	Coot ( <i>Fulica atra</i> ) [A125], Wetland and Waterbirds [A999], Shoveler ( <i>Anas clypeata</i> ) [A056]	G01.01, F03.01, F02.03, A08, B, E01	Nautical sports, Hunting, Leisure fishing, Fertilisation, Sylviculture, forestry, Urbanised areas, human habitation
004135	Ardboline Island and Horse Island SPA	Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017]	X	No threats or pressures
004136	Clare Island SPA	Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Guillemot ( <i>Uria aalge</i> ) [A199], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Common Gull ( <i>Larus canus</i> ) [A182], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346], Razorbill ( <i>Alca torda</i> ) [A200]	A04, G01.02	Grazing, Walking, horseriding and non-motorised vehicles
004137	Dovegrove Callows SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	A08	Fertilisation
004139	Lough Croan Turlough SPA	Shoveler ( <i>Anas clypeata</i> ) [A056], Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Wetland and Waterbirds [A999], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140]	A04, A08	Grazing, Fertilisation
004140	Four Roads Turlough SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Wetland and Waterbirds	A04	Grazing

		[A999], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140]		
004142	Cregganna Marsh SPA	Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	E01.02, A08, A04	Discontinuous urbanisation, Fertilisation, Grazing
004143	Cahore Marshes SPA	Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Wetland and Waterbirds [A999], Wigeon ( <i>Anas penelope</i> ) [A050], Lapwing ( <i>Vanellus vanellus</i> ) [A142]	E01.03, G01.02, A08, A04	Dispersed habitation, Walking, horseriding and non-motorised vehicles, Fertilisation, Grazing
004144	High Island, Inishshark and Davillaun SPA	Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Barnacle goose ( <i>Branta leucopsis</i> ) [A045]	X	No threats or pressures
004145	Durnesh Lough SPA	Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395]	K02.03, G01.02, A04, A08, E03	Eutrophication (natural), Walking, horseriding and non-motorised vehicles, Grazing, Fertilisation, Discharges
004146	Malin Head SPA	Corncrake ( <i>Crex crex</i> ) [A122]	A04, A01, A03, E01.02	Grazing, Cultivation, Mowing or cutting of grassland, Discontinuous urbanisation
004148	Fanad Head SPA	Corncrake ( <i>Crex crex</i> ) [A122]	E01.02, A03, A04	Discontinuous urbanisation, Mowing or cutting of grassland, Grazing
004149	Falcarragh to Meenlaragh SPA	Corncrake ( <i>Crex crex</i> ) [A122]	A03, A04, A01, E01.02	Mowing or cutting of grassland, Grazing, Cultivation, Discontinuous urbanisation
004150	West Donegal Coast SPA	Peregrine falcon ( <i>Falco peregrinus</i> ) [A103], Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346], Herring Gull ( <i>Larus argentatus</i> ) [A184],	K03.01, K03.04, A04, A08	Competition (fauna), Predation, Grazing, Fertilisation

		Razorbill ( <i>Alca torda</i> ) [A200], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017]		
004151	Donegal Bay SPA	Great Northern Diver ( <i>Gavia immer</i> ) [A003], Wetland and Waterbirds [A999], Sanderling ( <i>Calidris alba</i> ) [A144], Common Scoter ( <i>Melanitta nigra</i> ) [A065], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046]	A08, A04, G01.02, F01, G01.01, E01.01, D01.02	Fertilisation, Grazing, Walking, horseriding and non-motorised vehicles, Marine and Freshwater Aquaculture, Nautical sports, Continuous urbanisation, Roads, motorways
004152	Inishmore SPA	Little Tern ( <i>Sterna albifrons</i> ) [A195], Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Guillemot ( <i>Uria aalge</i> ) [A199], Arctic tern ( <i>Sterna paradisaea</i> ) [A194]	A01, A04, G01.02, E01.02, A08	Cultivation, Grazing, Walking, horseriding and non-motorised vehicles, Discontinuous urbanisation, Fertilisation
004153	Dingle Peninsula SPA	Peregrine falcon ( <i>Falco peregrinus</i> ) [A103], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346], Northern fulmar ( <i>Fulmarus glacialis</i> ) [A009]	A04, K03.01, K03.04, E04.01, A08	Grazing, Competition (fauna), Predation, Agricultural structures, buildings in the landscape, Fertilisation
004154	Iveragh Peninsula SPA	Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Guillemot ( <i>Uria aalge</i> ) [A199], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346], Peregrine falcon ( <i>Falco peregrinus</i> ) [A103], Kittiwake ( <i>Rissa tridactyla</i> ) [A188]	K03.04, A04, K03.01, A08	Predation, Grazing, Competition (fauna), Fertilisation
004155	Beara Peninsula SPA	Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346], Fulmar ( <i>Fulmarus glacialis</i> ) [A009]	X	No threats or pressures
004156	Sheep's Head to Toe Head SPA	Peregrine falcon ( <i>Falco peregrinus</i> ) [A103], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346]	K03.04, A08, A04, K03.01	Predation, Fertilisation, Grazing, Competition (fauna)
004158	River Nanny Estuary and Shore	Herring Gull ( <i>Larus argentatus</i> ) [A184], Sanderling ( <i>Calidris alba</i> )	E01.01, G01.02	Continuous urbanisation, Walking, horseriding and non-

	SPA	[A144], Wetland and Waterbirds [A999], Knot ( <i>Calidris canutus</i> ) [A143], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140]		motorised vehicles
004159	Slyne Head to Ardmore Point Islands SPA	Little Tern ( <i>Sterna albifrons</i> ) [A195], Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Sandwich Tern ( <i>Sterna sandvicensis</i> ) [A191], Barnacle goose ( <i>Branta leucopsis</i> ) [A045]	X, M02, G01, H03	No threats or pressures, Changes in biotic conditions, Outdoor sports and leisure activities, recreational activities, Marine water pollution
004160	Slieve Bloom Mountains SPA	Hen harrier ( <i>Circus cyaneus</i> ) [A082]	D01.02, D01.01, C01.03, E01.03, A04, B	Roads, motorways, Paths, tracks, cycling tracks, Peat extraction, Dispersed habitation, Grazing, Sylviculture, forestry
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	Hen harrier ( <i>Circus cyaneus</i> ) [A082]	D01.02, C01.03, D01.01, E01.03, B, A09	Roads, motorways, Peat extraction, Paths, tracks, cycling tracks, Dispersed habitation, Sylviculture, forestry, Irrigation
004162	Mullaghanish to Musheramore Mountains SPA	Merlin ( <i>Falco columbarius</i> ) [A098], Hen harrier ( <i>Circus cyaneus</i> ) [A082]	D01.02, A04, E01.03, D01.01, B, C01.03	Roads, motorways, Grazing, Dispersed habitation, Paths, tracks, cycling tracks, Sylviculture, forestry, Peat extraction
004165	Slievefelim to Silvermines Mountains SPA	Hen harrier ( <i>Circus cyaneus</i> ) [A082]	C01.03, B, D01.01, A04, E01.03, D01.02	Peat extraction, Sylviculture, forestry, Paths, tracks, cycling tracks, Grazing, Dispersed habitation, Roads, motorways
004167	Slieve Beagh SPA	Hen harrier ( <i>Circus cyaneus</i> ) [A082]	D01.02, D01.01, C01.03	Roads, motorways, Paths, tracks, cycling tracks, Peat extraction
004168	Slieve Aughty Mountains SPA	Hen harrier ( <i>Circus cyaneus</i> ) [A082], Merlin ( <i>Falco columbarius</i> ) [A098]	D01.01, E01.03, A04, D01.02, C01.03, B	Paths, tracks, cycling tracks, Dispersed habitation, Grazing, Roads, motorways, Peat extraction, Sylviculture, forestry
004170	Cruagh Island SPA	Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Manx shearwater ( <i>Puffinus puffinus</i> ) [A013]	X, A04	No threats or pressures, Grazing

004172	Dalkey Islands SPA	Common tern ( <i>Sterna hirundo</i> ) [A193], Roseate tern ( <i>Sterna dougallii</i> ) [A192], Arctic tern ( <i>Sterna paradisaea</i> ) [A194]	A04, G01.02, G01.01, E01	Grazing, Walking, horseriding and non-motorised vehicles, Nautical sports, Urbanised areas, human habitation
004175	Deenish Island and Scariff Island SPA	Arctic tern ( <i>Sterna paradisaea</i> ) [A194], Storm Petrel ( <i>Hydrobates pelagicus</i> ) [A014], Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183], Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Manx Shearwater ( <i>Puffinus puffinus</i> ) [A013]	X	No threats or pressures
004177	Bills Rocks SPA	Puffin ( <i>Fratercula arctica</i> ) [A204], Storm Petrel ( <i>Hydrobates pelagicus</i> ) [A014]	X	No threats or pressures
004181	Connemara Bog Complex SPA	Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Common Gull ( <i>Larus canus</i> ) [A182], Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Merlin ( <i>Falco columbarius</i> ) [A098]	G01.02, D01.02, E01.03, I01, C01.03.02, B	Walking, horseriding and non-motorised vehicles, Roads, motorways, Dispersed habitation, Invasive non-native species, Mechanical removal of peat, Sylviculture, forestry
004182	Mid-Clare Coast SPA	Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Turnstone ( <i>Arenaria interpres</i> ) [A169], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Purple Sandpiper ( <i>Calidris maritima</i> ) [A148], Wetland and Waterbirds [A999], Sanderling ( <i>Calidris alba</i> ) [A144], Dunlin ( <i>Calidris alpina</i> ) [A149]	F02.03, A04, G01.02, G01.01	Leisure fishing, Grazing, Walking, horseriding and non-motorised vehicles, Nautical sports
004186	The Murrough SPA	Wetland and Waterbirds [A999], Little Tern ( <i>Sterna albifrons</i> ) [A195], Teal ( <i>Anas crecca</i> ) [A052], Wigeon ( <i>Anas penelope</i> ) [A050], Greylag Goose ( <i>Anser</i>	D01.04, A08, G01.02	Railway lines, TGV, Fertilisation, Walking, horseriding and non-motorised vehicles

		anser) [A043], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Red-throated Diver ( <i>Gavia stellata</i> ) [A001], Herring Gull ( <i>Larus argentatus</i> ) [A184], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179]		
004187	Sligo/Leitrim Uplands SPA	Peregrine falcon ( <i>Falco peregrinus</i> ) [A103], Chough ( <i>Pyrrhocorax pyrrhocorax</i> ) [A346]	I01, A04, C01.01.01, E01.01, G02.08, K01.01, G01.02, C01.03.02, B01, G01.04, C01.01, A04.03	Invasive non-native species, Grazing, Sand and gravel quarries, Continuous urbanisation, Camping and caravans, Erosion, Walking, horseriding and non-motorised vehicles, Mechanical removal of peat, Forest planting on open ground, Mountaineering, rock climbing, speleology, Sand and gravel extraction , Abandonment of pastoral systems lack of grazing
004188	Tralee Bay Complex SPA	Golden Plover ( <i>Pluvialis apricaria</i> ) [A140], Teal ( <i>Anas crecca</i> ) [A052], Shelduck ( <i>Tadorna tadorna</i> ) [A048], Mallard ( <i>Anas platyrhynchos</i> ) [A053], Scaup ( <i>Aythya marila</i> ) [A062], Bar-tailed Godwit ( <i>Limosa lapponica</i> ) [A157], Whooper Swan ( <i>Cygnus cygnus</i> ) [A038], Turnstone ( <i>Arenaria interpres</i> ) [A169], Dunlin ( <i>Calidris alpina</i> ) [A149], Pintail ( <i>Anas acuta</i> ) [A054], Redshank ( <i>Tringa totanus</i> ) [A162], Ringed Plover ( <i>Charadrius hiaticula</i> ) [A137], Wigeon ( <i>Anas penelope</i> ) [A050], Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> ) [A046], Lapwing ( <i>Vanellus vanellus</i> ) [A142], Wetland and Waterbirds [A999], Grey Plover ( <i>Pluvialis squatarola</i> ) [A141], Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156], Common Gull ( <i>Larus canus</i> ) [A182], Curlew ( <i>Numenius arquata</i> ) [A160],	G01.02, A04, C01.01.02, E01, G01.01, A08	Walking, horseriding and non-motorised vehicles, Grazing, Removal of beach materials, Urbanised areas, human habitation, Nautical sports, Fertilisation



		Sanderling ( <i>Calidris alba</i> ) [A144], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130]		
004189	Kerry Head SPA	Chough ( <i>Pyrhocorax pyrrhocorax</i> ) [A346], Northern fulmar ( <i>Fulmarus glacialis</i> ) [A009]	A02, A04.03, E05, E04.01, A01, A07, A04	Modification of cultivation practices, Abandonment of pastoral systems lack of grazing, Storage of materials, Agricultural structures, buildings in the landscape, Cultivation, Use of biocides, hormones and chemicals, Grazing
004190	Galley Head to Duneen Point SPA	Chough ( <i>Pyrhocorax pyrrhocorax</i> ) [A346]	D02.01, A05.02, E01.03, A08, A04, D01.02, E04.01, D01.04, A01, A04.03, A07, G01.02	Electricity and phone lines, Stock feeding, Dispersed habitation, Fertilisation, Grazing, Roads, motorways, Agricultural structures, buildings in the landscape, Railway lines, TGV, Cultivation, Abandonment of pastoral systems lack of grazing, Use of biocides, hormones and chemicals, Walking, horseriding and non-motorised vehicles
004191	Seven Heads SPA	Chough ( <i>Pyrhocorax pyrrhocorax</i> ) [A346]	E04.01, A09, E01, K03.04, K03.01, A01, A04.03, A04, J01	Agricultural structures, buildings in the landscape, Irrigation, Urbanised areas, human habitation, Predation, Competition (fauna), Cultivation, Abandonment of pastoral systems lack of grazing, Grazing, Fire and fire suppression
004192	Helvick Head to Ballyquin SPA	Chough ( <i>Pyrhocorax pyrrhocorax</i> ) [A346], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Herring Gull ( <i>Larus argentatus</i> ) [A184], Peregrine falcon ( <i>Falco peregrinus</i> ) [A103], Kittiwake ( <i>Rissa tridactyla</i> ) [A188]	G01.03, X, I01, K01.01	Motorised vehicles, No threats or pressures, Invasive non-native species, Erosion
004193	Mid-Waterford Coast SPA	Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Chough ( <i>Pyrhocorax pyrrhocorax</i> ) [A346], Herring Gull ( <i>Larus argentatus</i> ) [A184], Peregrine falcon ( <i>Falco peregrinus</i> ) [A103]	A04, A02, E05, E04.01, A04.03	Grazing, Modification of cultivation practices, Storage of materials, Agricultural structures, buildings in the landscape, Abandonment of pastoral systems lack of grazing
004194	Horn Head to Fanad Head SPA	Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Guillemot ( <i>Uria aalge</i> ) [A199], Razorbill ( <i>Alca torda</i> ) [A200], Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Kittiwake	A02, G01.02, I01, D01.01, G01.03, C01.01.02, A10, A08, G02.08, K01.01	Modification of cultivation practices, Walking, horseriding and non-motorised vehicles, Invasive non-native species, Paths, tracks, cycling tracks, Motorised vehicles, Removal of beach materials, Restructuring agricultural land holding, Fertilisation,

		(Rissa tridactyla) [A188], Shag (Phalacrocorax aristotelis) [A018], Chough (Pyrrhocorax pyrrhocorax) [A346], Peregrine falcon (Falco peregrinus) [A103], Cormorant (Phalacrocorax carbo) [A017], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]		Camping and caravans, Erosion
004212	Cross Lough (Killadoon) SPA	Sandwich tern (Sterna sandvicensis) [A191]	C01.01.02, K03.04, G01, F03.01, X, G01.01	Removal of beach materials, Predation, Outdoor sports and leisure activities, recreational activities, Hunting, No threats or pressures, Nautical sports
004219	Courtmacsherry Bay SPA	Dunlin (Calidris alpina) [A149], Black-tailed Godwit (Limosa limosa) [A156], Lapwing (Vanellus vanellus) [A142], Red-breasted Merganser (Mergus serrator) [A069], Golden Plover (Pluvialis apricaria) [A140], Shelduck (Tadorna tadorna) [A048], Black-headed Gull (Chroicocephalus ridibundus) [A179], Bar-tailed Godwit (Limosa lapponica) [A157], Common Gull (Larus canus) [A182], Great Northern Diver (Gavia immer) [A003], Curlew (Numenius arquata) [A160], Wigeon (Anas penelope) [A050], Wetland and Waterbirds [A999]	G01.01, A04, E03.01	Nautical sports, Grazing, Disposal of household or recreational facility waste
004220	Corofin Wetlands SPA	Whooper Swan (Cygnus cygnus) [A038], Teal (Anas crecca) [A052], Black-tailed Godwit (Limosa limosa) [A156], Wigeon (Anas penelope) [A050], Wetland and Waterbirds [A999], Little Grebe (Tachybaptus ruficollis) [A004]	A04, E01.03, E01, D01.02	Grazing, Dispersed habitation, Urbanised areas, human habitation, Roads, motorways

004221	Illaunnaon SPA	Sandwich tern ( <i>Sterna sandvicensis</i> ) [A191]	X	No threats or pressures
004227	Mullet Peninsula SPA	Corncrake ( <i>Crex crex</i> ) [A122]	A01, A03, A04, E01.02	Cultivation, Mowing or cutting of grassland, Grazing, Discontinuous urbanisation
004228	Lough Conn and Lough Cullin SPA	Common Scoter ( <i>Melanitta nigra</i> ) [A065], Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> ) [A395], Tufted Duck ( <i>Aythya fuligula</i> ) [A061], Common Gull ( <i>Larus canus</i> ) [A182], Wetland and Waterbirds [A999]	B, F02.03, I01, A08	Sylviculture, forestry, Leisure fishing, Invasive non-native species, Fertilisation
004230	West Donegal Islands SPA	Barnacle goose ( <i>Branta leucopsis</i> ) [A045], Corncrake ( <i>Crex crex</i> ) [A122], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Herring Gull ( <i>Larus argentatus</i> ) [A184], Common Gull ( <i>Larus canus</i> ) [A182]	X, K03.05	No threats or pressures, Antagonism arising from introduction of species
004231	Inishbofin, Omev Island and Turbot Island SPA	Corncrake ( <i>Crex crex</i> ) [A122]	X	No threats or pressures
004232	River Boyne and River Blackwater SPA	Kingfisher ( <i>Alcedo atthis</i> ) [A229]	E01.03, X, D01.02, J02, E01	Dispersed habitation, No threats or pressures, Roads, motorways, Human induced changes in hydraulic conditions, Urbanised areas, human habitation
004233	River Nore SPA	Kingfisher ( <i>Alcedo atthis</i> ) [A229]	X, J02.01, D03.01	No threats or pressures, Landfill, land reclamation and drying out, general, Port areas
004234	Ballintemple and Ballygilgan SPA	Barnacle goose ( <i>Branta leucopsis</i> ) [A045]	X, D04.01, E01	No threats or pressures, Airport, Urbanised areas, human habitation
004235	Doogort Machair SPA	Dunlin ( <i>Calidris alpina</i> ) [A149]	M02, X, A04	Changes in biotic conditions, No threats or pressures, Grazing
UK0030089	Binevenagh SAC	Calcareous rocky slopes with chasmophytic vegetation [8210]	A04, B03, H04, I01, I02, M01	Grazing, forest exploitation without replanting or natural regrowth, Air pollution, air-borne pollutants, invasive non-native species, problematic native species, Changes in abiotic conditions

UK0030383	Skerries and Causeway	Reefs [1170], Sandbanks which are slightly covered by sea water all the time [1110], Submerged and partially submerged sea caves [8330]	C02, C03, D03, F02, G01, G01, H01, H03, I01, M01	Exploration and extraction of oil or gas, Renewable abiotic energy use, Shipping lanes, ports, marine constructions, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, invasive non-native species, Changes in abiotic conditions
UK0030084	Bann Estuary SAC	Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150]	A04, B03, G01, G01, H04, I01, I02, J01, J02, J02, K02, M01	Grazing, forest exploitation without replanting or natural regrowth, Outdoor sports and leisure activities, recreational activities, Outdoor sports and leisure activities, recreational activities, Air pollution, air-borne pollutants, invasive non-native species, problematic native species, fire and fire suppression, human induced changes in hydraulic conditions, human induced changes in hydraulic conditions, Biocenotic evolution, succession, Changes in abiotic conditions
UK0016613	Magillagan	Dunes with Salix repens ssp. argentea (Salicion arenariae) [2170], Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150], Humid dune slacks [2190]	A03, A04, A04, B03, G01, G01, G04, G04, H02, I02, J01, J02, J02, K02, M01	mowing / cutting of grassland, grazing, forest exploitation without replanting or natural regrowth, Outdoor sports and leisure activities, recreational activities, Outdoor sports and leisure activities, recreational activities, Military use and civil unrest, Pollution to groundwater (point sources and diffuse sources), problematic native species, fire and fire suppression, human induced changes in hydraulic conditions, Biocenotic evolution, succession, Changes in abiotic conditions
UK9020031	Lough Foyle	Bewick's Swan (Cygnus columbianus bewickii) [A037], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Whooper Swan (Cygnus cygnus) [A038], Great Crested Grebe (Podiceps cristatus) [A005], Wigeon (Anas penelope) [A050], Golden Plover (Pluvialis apricaria) [A140], Bar-tailed Godwit (Limosa lapponica) [A157] Cormorant (Phalacrocorax carbo) [A017], Greylag Goose (Anser anser) [A043], Shelduck (Tadorna tadorna) [A048], Teal (Anas	A02, D02, D04, F01, F03, G01, G01, H01, H03, I01, J03, M01, M02	modification of cultivation practices, Utility and service lines, airports, flightpaths, Marine and Freshwater Aquaculture, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, invasive non-native species, Other ecosystem modifications, Changes in abiotic conditions, Changes in biotic conditions

		crecca) [A052], Mallard (Anas platyrhynchos) [A053], Eider (Somateria mollissima) [A063], Red-breasted Merganser (Mergus serrator) [A069], Oystercatcher (Haematopus ostralegus) [A130], Lapwing (Vanellus vanellus) [A142], Knot (Calidris canutus) [A143], Dunlin (Calidris alpina) [A149], Curlew (Numenius arquata) [A160], Redshank (Tringa totanus) [A162]		
UK0030361	River Faughan and Tributaries	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Otter (Lutra lutra) [1355], Atlantic salmon (Salmo salar) [1106]	B02, C01, C03, F02, G01, G03, H01, I01, J02, M01	Forest and Plantation management & use, Mining and quarrying, Renewable abiotic energy use, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Interpretative centres, Pollution to surface waters (limnic & terrestrial, marine & brackish), invasive non-native species, human induced changes in hydraulic conditions, Changes in abiotic conditions
UK00030320	River Foyle and Tributaries SAC	Otter (Lutra lutra) [1355], Atlantic salmon (Salmo salar) [1106] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]	B02, C01, C03, F02, H01, I01, J02, M01	Forest and Plantation management & use, Mining and quarrying, Renewable abiotic energy use, Fishing and harvesting aquatic resources, Pollution to surface waters (limnic & terrestrial, marine & brackish), invasive non-native species, human induced changes in hydraulic conditions, Changes in abiotic conditions
UK0030211	Moneygal Bog SAC	Active raised bogs [7110]	C01, H04, J01, J02	Mining and quarrying, Air pollution, air-borne pollutants, fire and fire suppression, human induced changes in hydraulic conditions
UK0016622	Slieve Beagh SAC	Blanket bogs * if active bog [7130], Natural dystrophic lakes and ponds [3160], European dry heaths [4030]	A04, C01, H04, I01, J01, J02	Grazing, Mining and quarrying, Air pollution, air-borne pollutants, invasive non-native species, fire and fire suppression, human induced changes in hydraulic conditions
UK9020302	Slieve Beagh-Mullaghfad-Lisnaskea SPA	Hen harrier (Circus cyaneus) [A082]	A04, B02, C01, C03, F03, G01, J01, J03, M01, M02	Grazing, Forest and Plantation management & use, Mining and quarrying, Renewable abiotic energy use, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, fire and fire suppression, Other ecosystem modifications, Changes in abiotic conditions, Changes in biotic

				conditions
UK0016621	Magheraveely Marl Loughs SAC	], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], White-clawed crayfish (Austropotamobius pallipes) [1092], Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	A04, B03, G01, H01, H02, H04, I01, J02, K02, XO	Grazing, forest exploitation without replanting or natural regrowth, Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Pollution to groundwater (point sources and diffuse sources), Air pollution, air-borne pollutants, invasive non-native species, human induced changes in hydraulic conditions, Biocenotic evolution, succession, Threats and pressures from outside the Member State
UK0030212	Moninea Bog SAC	Active raised bogs [7110]	A04, H04, J01, J02, K02	Grazing, air pollution, air-borne pollutants, fire and fire suppression, human induced changes in hydraulic conditions, biocenotic evolution, succession
UK0016603	Cuilcagh Mountain SAC	Blanket bogs * if active bog [7130]	B02, B06, F03, G01, G02, H01, H04, I01, J02	Grazing, roads, paths and railroads, outdoor sports and leisure activities, recreational activities, interpretative centres, air pollution, air-borne pollutants, problematic native species, fire and fire suppression, human induced changes in hydraulic conditions, biocenotic evolution, succession
UK0030047	Lough Melvin	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Atlantic salmon (Salmo salar) [1106]	A04, B03, B06, G01, H01, I01, I02, J02, K02, XO	Grazing, forest exploitation without replanting or natural regrowth, grazing in forests/ woodland, Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), invasive non-native species, problematic native species, human induced changes in hydraulic conditions, Biocenotic evolution, succession, Threats and pressures from outside the Member State
UK0030068	Fardrum and Roosky Turloughs	Turloughs [3180]	A03, A04, B03, H01, H02, J02, K02,	mowing / cutting of grassland, grazing, forest exploitation without replanting or natural regrowth, Pollution to surface waters (limnic & terrestrial, marine & brackish), Pollution to groundwater (point sources and diffuse sources), human induced changes in hydraulic conditions, Biocenotic evolution, succession
UK0030300	West Fermanagh Scarplands SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)	B02, K04, A04, G05, B03, B06, F03, G01, H01, H02, H04, I01,	Forestry plantation management and use, interspecific floral relations, grazing, forest exploitation, outdoor sports and leisure activities, recreational activities, pollution to surface waters

		* important orchid sites [6210], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Limestone pavements [8240], 9180 Tilio-Acerion forests of slopes, screes and ravines [9180]	J01, J02, K02	(limnic & terrestrial, marine & brackish), pollution to groundwater (point sources and diffuse sources), air pollution, air-borne pollutants, invasive non-native species, fire and fire suppression, human induced changes in hydraulic conditions, biocenotic evolution, succession, interspecific floral relations
UK0016619	Monawilkin SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]	A04, B02, G01, H04, I01, K02	Grazing, outdoor sports and leisure activities, recreational activities, air pollution, air-borne pollutants, invasive non-native species, biocenotic evolution, succession
UK0030045	Largalinn SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	E02, B06, F03, H04, I01	Forest and plantation management & use, grazing in forests/ woodland, hunting and collection of wild animals (terrestrial), air pollution, air-borne pollutants, invasive non-native species
UK9020051	Pettigoe Plateau SPA	Golden Plover (Pluvialis apricaria) [A140]	F03.01, F02.03, I01, A04, G01.01, G01.02, B, A08	Hunting, invasive non-native species, grazing, sports, horse-riding and non-motorised vehicles, forestry, fertilisation
UK0016607	Pettigoe Plateau SAC	Natural dystrophic lakes and ponds [3160], Blanket bogs * if active bog [7130]	B02, B06, F03, G01, G02, H01, H04, I01, J02	Grazing, roads, paths, outdoor sports and leisure activities, recreational activities, interpretative centres, air pollution, air-borne pollutants, problematic native species, fire and fire suppression, succession
UK0016611	Fairy Water Bogs SAC	Active raised bogs [7110]	H04, J01, J02, K02	Air pollution, air-borne pollutants, fire and fire suppression, human induced changes in hydraulic conditions, Biocenotic evolution, succession
UK0016614	Upper Lough Erne SAC	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Otter (Lutra lutra) [1355]	B02, B06, F03, G01, G02, H01, H04, I01, J02	Forest and plantation management & use, grazing in forests/ woodland, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, sport and leisure structures, pollution to surface waters (limnic & terrestrial, marine & brackish), air pollution, air-borne pollutants, invasive non-native species, human induced changes in hydraulic conditions

UK9020071	Upper Lough Erne SPA	Whooper swan ( <i>Cygnus cygnus</i> ) [A038]	A02, A04, D02, G01, H01, M01, M02	Modification of cultivation practices, grazing, utility and service lines, outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), changes in abiotic conditions, changes in biotic conditions
UK0030116	Cladagh (Swanlinbar) River	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260], Freshwater pearl mussel <i>Margaritifera margaritifera</i> [1029]	B02, C01, C03, F02, H01, I01, J02, M01	Forest and plantation management & use, mining and quarrying, renewable abiotic energy use, fishing and harvesting aquatic resources, pollution to surface waters (limnic & terrestrial, marine & brackish), invasive non-native species, human induced changes in hydraulic conditions, changes in abiotic conditions
UK9020161	Carlingford Lough SPA	Brent Goose ( <i>Branta berniciahrota</i> ) [A674], Common tern ( <i>Sterna hirundo</i> ) [A193], Sandwich tern ( <i>Sterna sandvicensis</i> ) [A191]	I01, D02, H03, D03, F02, M02, F01, M01, G01, J03, K03	Invasive non-native species, Utility and service lines, Marine water pollution, Shipping lanes, ports, marine constructions, Fishing and harvesting aquatic resources, Changes in biotic conditions, Marine and Freshwater Aquaculture, Changes in abiotic conditions, Outdoor sports and leisure activities, recreational activities, Other ecosystem modifications, Interspecific faunal relations
UK0016620	Derryleckagh SAC	Transition mires and quaking bogs [7140]	I01, H04, K02, B06, A04, H01, J02	Air pollution, air-borne pollutants, Invasive non-native species, Biocenotic evolution, succession, Grazing in forests/ woodland, Grazing, Pollution to surface waters (limnic & terrestrial, marine & brackish), Human induced changes in hydraulic conditions
UK0166105	Eastern Mourne SAC	Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], European dry heaths [4030]	O4, J02, J01, G01, I01, I02, A04, M01	Air pollution, air-borne pollutants, Human induced changes in hydraulic conditions, Fire and fire suppression, Outdoor sports and leisure activities, recreational activities, Invasive nonnative species, Problematic native species, Cultivation, Changes in abiotic conditions
UK0030268	Rostrevor Wood SAC	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]	I01, H04	Air pollution, air-borne pollutants, Invasive non-native species
UK0030300	West Fermanagh Scarplands SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) * important orchid sites [6210], <i>Molinia</i> meadows on	B02, K04, A04, G05, B03, B06, F03, G01, H01, H02, H04, I01, J01, J02, K02	Forestry plantation management and use, interspecific floral relations, grazing, forest exploitation, outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), pollution to groundwater (point sources and diffuse sources), air pollution,



		calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Limestone pavements [8240], 9180 Tilio-Acerion forests of slopes, screes and ravines [9180]		air-borne pollutants, invasive non-native species, fire and fire suppression, human induced changes in hydraulic conditions, biocenotic evolution, succession, interspecific floral relations
UK0016619	Monawilkin SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]	A04, B02, G01, H04, I01, K02	Grazing, outdoor sports and leisure activities, recreational activities, air pollution, air-borne pollutants, invasive non-native species, biocenotic evolution, succession
UK0030045	Largalunny SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	E02, B06, F03, H04, I01	Forest and plantation management & use, grazing in forests/ woodland, hunting and collection of wild animals (terrestrial), air pollution, air-borne pollutants, invasive non-native species
UK9020051	Pettigoe Plateau SPA	Golden Plover (Pluvialis apricaria) [A140]	F03.01, F02.03, I01, A04, G01.01, G01.02, B, A08	Hunting, invasive non-native species, grazing, sports, horse-riding and non-motorised vehicles, forestry, fertilisation
UK0016607	Pettigoe Plateau SAC	Natural dystrophic lakes and ponds [3160], Blanket bogs * if active bog [7130]	B02, B06, F03, G01, G02, H01, H04, I01, J02	Grazing, roads, paths, outdoor sports and leisure activities, recreational activities, interpretative centres, air pollution, air-borne pollutants, problematic native species, fire and fire suppression, succession
UK0016611	Fairy Water Bogs SAC	Active raised bogs [7110]	H04, J01, J02, K02	Air pollution, air-borne pollutants, fire and fire suppression, human induced changes in hydraulic conditions, Biocenotic evolution, succession
UK0016614	Upper Lough Erne SAC	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Otter (Lutra lutra) [1355]	B02, B06, F03, G01, G02, H01, H04, I01, J02	Forest and plantation management & use, grazing in forests/ woodland, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, sport and leisure structures, pollution to surface waters (limnic & terrestrial, marine & brackish), air pollution, air-borne pollutants, invasive non-native species, human induced changes in hydraulic conditions
UK9020071	Upper Lough Erne SPA	Whooper swan (Cygnus cygnus) [A038]	A02, A04, D02, G01, H01, M01, M02	Modification of cultivation practices, grazing, utility and service lines, outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine &

				brackish), changes in abiotic conditions, changes in biotic conditions
UK0030116	Cladagh (Swanlinbar) River	Water courses of plain to montane levels with the Ranunculus fluitans and Callitriche-Batrachion vegetation [3260], Freshwater pearl mussel Margaritifera margaritifera [1029]	B02, C01, C03, F02, H01, I01, J02, M01	Forest and plantation management & use, mining and quarrying, renewable abiotic energy use, fishing and harvesting aquatic resources, pollution to surface waters (limnic & terrestrial, marine & brackish), invasive non-native species, human induced changes in hydraulic conditions, changes in abiotic conditions
UK9020161	Carlingford Lough SPA	Brent Goose (Branta berniciahrota) [A674], Common tern (Sterna hirundo) [A193], Sandwich tern (Sterna sandvicensis) [A191]	I01, D02, H03, D03, F02, M02, F01, M01, G01, J03, K03	Invasive non-native species, Utility and service lines, Marine water pollution, Shipping lanes, ports, marine constructions, Fishing and harvesting aquatic resources, Changes in biotic conditions, Marine and Freshwater Aquaculture, Changes in abiotic conditions, Outdoor sports and leisure activities, recreational activities, Other ecosystem modifications, Interspecific faunal relations
UK0016620	Derryleckagh SAC	Transition mires and quaking bogs [7140]	I01, H04, K02, B06, A04, H01, J02	Air pollution, air-borne pollutants, Invasive non-native species, Biocenotic evolution, succession, Grazing in forests/ woodland, Grazing, Pollution to surface waters (limnic & terrestrial, marine & brackish), Human induced changes in hydraulic conditions
UK0166105	Eastern Mourne SAC	Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030]	04, J02, J01, G01, I01, I02, A04, M01	Air pollution, air-borne pollutants, Human induced changes in hydraulic conditions, Fire and fire suppression, Outdoor sports and leisure activities, recreational activities, Invasive nonnative species, Problematic native species, Cultivation, Changes in abiotic conditions
UK0030268	Rostrevor Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	I01, H04	Air pollution, air-borne pollutants, Invasive non-native species
UK0030277	Slieve Gullion SAC	European dry heaths [4030]	G01, J01, A02, H04, A04, I01	Outdoor sports and leisure activities, recreational activities, Fire and fire suppression, Modification of cultivation practices, Air pollution, air-borne pollutants, Grazing, Invasive non-native species
003001	Porcupine Bank Canyon SAC	Reefs [1170]	F02.02.02, F05.06, F02.01	Pelagic trawling, Professional passive fishing, removal for collection purposes

002278	Southern Canyons SAC	Reefs [1170]	Data not available yet as of 28/09/2023	Data not available yet as of 28/09/2023
004236	North-west Irish Sea SPA	Red-throated Diver ( <i>Gavia stellata</i> ) [A001], Great Northern Diver ( <i>Gavia immer</i> ) [A003], Fulmar ( <i>Fulmarus glacialis</i> ) [A009], Manx Shearwater ( <i>Puffinus puffinus</i> ) [A013], Cormorant ( <i>Phalacrocorax carbo</i> ) [A017], Shag ( <i>Phalacrocorax aristotelis</i> ) [A018], Common Scoter ( <i>Melanitta nigra</i> ) [A065], Little Gull ( <i>Larus minutus</i> ) [A177], Black-headed Gull ( <i>Chroicocephalus ridibundus</i> ) [A179], Common Gull ( <i>Larus canus</i> ) [A182], Lesser Black-backed Gull ( <i>Larus fuscus</i> ) [A183], Herring Gull ( <i>Larus argentatus</i> ) [A184], Great Black-backed Gull ( <i>Larus marinus</i> ) [A187], Kittiwake ( <i>Rissa tridactyla</i> ) [A188], Roseate Tern ( <i>Sterna dougallii</i> ) [A192], Common Tern ( <i>Sterna hirundo</i> ) [A193], Arctic Tern ( <i>Sterna paradisaea</i> ) [A194], Little Tern ( <i>Sterna albifrons</i> ) [A195], Guillemot ( <i>Uria aalge</i> ) [A199], Razorbill ( <i>Alca torda</i> ) [A200], Puffin ( <i>Fratercula arctica</i> ) [A204]	Data not available yet as of 28/09/2023	Data not available yet as of 28/09/2023



**Table 2-3 Article 17 reporting overview of current threats related to each qualifying interest – as per the 2019 NPWS status report data – as well as known sensitivity summaries for each**

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Geyer's Whorl Snail ( <i>Vertigo geyeri</i> )	[1013]	Loss of riverside and canalside habitat; exploitation of esker sites and drainage of wetlands, and sheep grazing and overexploitation of dune sites.	Changes to ground vegetation condition, groundwater dependent and is highly sensitive to hydrological changes.
Narrow-mouthed Whorl Snail ( <i>Vertigo angustior</i> )	[1014]	Loss of riverside and canalside habitat; exploitation of esker sites and drainage of wetlands, and sheep grazing and overexploitation of dune sites.	Changes to ground vegetation condition, groundwater dependent and is highly sensitive to hydrological changes.
Desmoulin's Whorl Snail ( <i>Vertigo moulinsiana</i> )	[1016]	Loss of riverside and canalside habitat; exploitation of esker sites and drainage of wetlands, and sheep grazing and overexploitation of dune sites.	Changes to ground vegetation condition, groundwater dependent and is highly sensitive to hydrological changes.
Kerry Slug ( <i>Geomalacus maculosus</i> )	[1024]	Distance to human activities, accidental entanglement in fishing gear competition for prey resources, illegal killing, pollution and habitat degradation.	Prey availability, reduction in available habitat and water quality.
Freshwater Pearl Mussel ( <i>Margaritifera margaritifera</i> )	[1029]	In stream works, hydrological and morphological alterations, sediment and enrichment, pollution due urbanisation etc. Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.	Surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution.
Marsh Fritillary ( <i>Euphydryas aurinia</i> )	[1065]	Declines in habitat quality lead to species decline.	Habitat management; land use change and drainage.
White-clawed Crayfish ( <i>Austropotamobius pallipes</i> )	[1092]	Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.	Invasive species, disease, surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution.
Sea Lamprey ( <i>Petromyzon marinus</i> )	[1095]	Barriers to upstream migration (e.g. weirs), which limit access to spawning beds and juvenile habitat are main threats to this species.	Marine water dependent. Low sensitivity to hydrological changes. Coastal development, trampling from recreational activity.
Brook Lamprey ( <i>Lampetra planeri</i> )	[1096]	Channel maintenance, barriers, passage obstruction,	Surface water dependent. Highly sensitive to hydrological change. Availability of suitable

		gross pollution and specific pollutants.	spawning ground is a considerable issue for the species.
River Lamprey ( <i>Lampetra fluviatilis</i> )	[1099]	Channel maintenance, barriers, passage obstruction, gross pollution and specific pollutants.	Surface water dependent. Highly sensitive to hydrological change. Availability of suitable spawning ground is a considerable issue for the species.
Twaite Shad ( <i>Alosa fallax fallax</i> )	[1103]	Habitat quality, particularly at spawning sites is the most notable threat to this species.	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.
Salmon ( <i>Salmo salar</i> )	[1106]	Marine survival rates are of concern for the populations.	Disease, parasites and barriers to movement.
Sandbanks which are slightly covered by sea water all the time	[1110]	None identified by the NPWS in the 2019 publication of the Status of EU protected habitats and species in Ireland.	None identified.
Estuaries	[1130]	Pollution, fishing /aquaculture and habitat quality.	Inappropriate development, changes in turbidity
Mudflats and sandflats not covered by seawater at low tide	[1140]	Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, particularly cord-grass; hard coastal defence structures; sea-level rise.	Surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to pollution. Changes to salinity and tidal regime. Coastal development.
Coastal lagoons	[1150]	Eutrophication. Modification of hydrological flow and drainage.	Erosion and silting up. Accumulation of seaweed. Land use management resulting in hydrological interactions.
Large shallow inlets and bays	[1160]	Pressures on the habitat include nutrient enrichment, dredging and invasive alien species. Overall Status is assessed as Bad and deteriorating, a genuine decline since the 2013 assessment of Inadequate and improving, and is based on more detailed information.	Inappropriate development, changes in turbidity, surface water runoff, discharge etc. On site management activities.
Reefs	[1170]	Professional fishing; taking for fauna; taking for flora; water pollution; climate change; and change in species composition.	Sensitive to disturbance and pollution.

Annual vegetation of drift lines	[1210]	Grazing; sand and gravel extraction; recreational activities; coastal protection works.	Overgrazing and erosion. Changes in management.
Perennial vegetation of stony banks	[1220]	Disruption of the sediment supply, owing to the interruption of the coastal processes, caused by developments such as car parks and coastal defence structures including rock armour and sea walls. The removal of gravel.	Marine water dependent. Low sensitivity to hydrological changes. Coastal development, trampling from recreational activity and gravel removal.
Vegetated sea cliffs of the Atlantic and Baltic coasts	[1230]	A number of significant pressures were identified, including trampling by walkers, invasive non-native species, gravel extraction, and sea-level and wave exposure changes due to climate change. There have been no significant losses in sea cliff habitat since the Directive came into force.	Land use activities such as tourism and/or agricultural practices. Direct alteration to the habitat or effects such as burning or drainage.
Lesser horseshoe bat( <i>Rhinolophus hipposideros</i> )	[1303]	Habitat availability, range and roost availability.	Temperature fluctuations in their roosts. Resource availability. Habitat connectivity. Lighting and noise effects. Urbanisation.
Salicornia and other annuals colonising mud and sand	[1310]	Invasive Species; erosion and accretion.	Marine water dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Infilling, reclamation, invasive species.
Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> )	[1330]	Overgrazing; erosion; invasive species, particularly common cordgrass ( <i>Spartina anglica</i> ); infilling and reclamation.	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Overgrazing, erosion and accretion.
Bottlenose Dolphin ( <i>Tursiops truncatus</i> )	[1349]	Pressures acting on the species in Irish waters mainly involve commercial vessel-based activities such as impacts arising from geophysical seismic exploration or from local/regional prey removal from fisheries.	Large vessel movement effecting distributions. Prey availability, reduction in available habitat and water quality.
Harbour Porpoise( <i>Phocoena phocoena</i> )	[1351]	Pressures acting on the species in Irish waters mainly involve commercial vessel-based activities such as impacts arising from geophysical seismic exploration or from local/regional prey removal from fisheries.	Sensitive to disturbance, prey availability and pollution.
Otter ( <i>Lutra lutra</i> )	[1355]	Decrease in water quality: Use of pesticides; fertilization; vegetation removal; professional fishing	Surface and marine water dependent. Moderately sensitive to hydrological change.

		(including lobster pots and fyke nets); unting; poisoning; sand and gravel extraction; mechanical removal of peat; urbanised areas; human habitation; continuous urbanization; drainage; management of aquatic and bank vegetation for drainage purposes; and canalization or modifying structures of inland water course.	Sensitivity to pollution.
Grey Seal( <i>Halichoerus grypus</i> )	[1364]	Distance to human activities, accidental entanglement in fishing gear competition for prey resources, illegal killing, pollution and habitat degradation.	Prey availability, reduction in available habitat and water quality.
Harbour Seal( <i>Phoca vitulina</i> )	[1365]	Distance to human activities, accidental entanglement in fishing gear competition for prey resources, illegal killing, pollution and habitat degradation.	Prey availability, reduction in available habitat and water quality.
Petalwort( <i>Petalophyllum ralfsii</i> )	[1395]	There are no significant impacts affecting this species.	None identified.
Mediterranean salt meadows ( <i>Juncetalia maritimi</i> )	[1410]	Over-grazing by cattle or sheep; infilling and reclamation.	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Coastal development and reclamation.
Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Sarcocornetea fruticosi</i> )	[1420]	Area losses, associated with algal mats formed as a consequence of water pollution, which resulted in a contraction of the range of the habitat.	Changes in management. Changes in nutrient or base status. Introduction of alien species.
Killarney Fern ( <i>Trichomanes speciosum</i> )	[1421]	Threatened by habitat loss, deliberate collection, encroachment of invasive or vigorous species, or indirectly by water pollution, removal of woodland or alteration of watercourses.	Land use management and direct impacts.
Marsh Saxifrage( <i>Saxifraga hirculus</i> )	[1528]	None identified by the NPWS in the 2019 publication of the Status of EU protected habitats and species in Ireland.	None identified.
Slender Naiad( <i>Najas flexilis</i> )	[1833]	Enrichment from human induced pressures leading to eutrofication.	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.



River Nore Freshwater Pearl Mussel ( <i>Margaritifera durrovensis</i> )	[1990]	In stream works, hydrological and morphological alterations, sediment and enrichment, pollution due urbanisation etc. Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.	Surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution.
Embryonic shifting dunes	[2110]	Natural erosion processes exacerbated by recreation and sand extraction. Coastal protection interfering with natural processes.	Overgrazing, and erosion. Changes in management.
Shifting dunes along the shoreline with white dunes( <i>Ammophila arenaria</i> )	[2120]	Recreation and coastal defences, which may interfere with local sediment dynamics.	Overgrazing, and erosion. Changes in management.
Fixed coastal dunes with herbaceous vegetation (grey dunes)	[2130]	Recreation; overgrazing and inappropriate grazing: non-native plant species, particularly sea buckthorn ( <i>Hippophae rhamnoides</i> ).	Overgrazing, and erosion. Changes in management.
Decalcified fixed dunes with <i>Empetrum nigrum</i>	[2140]	Land abandonment, recreational activity, and bracken encroachment.	Overgrazing, and erosion. Changes in management.
Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> )	[2150]	Land abandonment, recreational activity, and bracken encroachment.	Overgrazing, and erosion. Changes in management.
Dunes with willow scrub( <i>Salix repens</i> ssp. <i>argentea</i> and <i>Salicion arenariae</i> )	[2170]	Agricultural improvement; overgrazing and inappropriate grazing; forestry; recreational activity.	Overgrazing, and erosion. Changes in management.
Humid dune slacks	[2190]	Agricultural improvement; overgrazing and inappropriate grazing; forestry; recreational activity.	Overgrazing, and erosion. Changes in management. Sensitive to hydrological change.
Machairs (* in Ireland)	[21A0]	Unsuitable grazing pressures are the key concern.	Overgrazing, and erosion. Changes in management. Mismanaged recreational activity.
Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	[3110]	Nutrient enrichment; afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Oligotrophic to mesotrophic standing waters with vegetation ( <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i> )	[3130]	Nutrient enrichment; afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.

Hard oligo-mesotrophic waters with benthic vegetation of muskgrass( <i>Chara</i> spp.)	[3140]	Hydrological changes, afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> - type vegetation	[3150]	Hydrological changes, afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Natural dystrophic lakes and ponds	[3160]	Nutrient alterations; management shifts in the associated peatland habitat, afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution
Turloughs	[3180]	Nutrient enrichment; afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Water courses of plain to montane levels with vegetation( <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> )	[3260]	Hydrological and morphological changes, water quality, enrichment, and surface water discharges from industrial site and/or agriculture.	Surface water dependent Highly sensitive to hydrological change and direct physical interactions.
Rivers with muddy banks with vegetation( <i>Chenopodion rubri p.p.</i> and <i>Bidention p.p.</i> )	[3270]	Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, particularly cord-grass; hard coastal defence structures; sea-level rise.	Surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to pollution. Changes to salinity and tidal regime. Coastal development.
Northern Atlantic wet heaths with <i>Erica tetralix</i>	[4010]	Reclamation, afforestation and burning; overstocking; invasion by non-heath species; exposure of peat to severe erosion.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
European dry heaths	[4030]	Afforestation, overburning, over-grazing, under-grazing and bracken invasion.	Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status.
Alpine and Boreal heaths	[4060]	Abandonment; overgrazing; burning; outdoor recreation; quarries; communication networks; and wind farm developments.	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.
Killarney Shad( <i>Alosa fallax killarnensis</i> )	[5046]	Enrichment from human induced pressures leading to eutrofication.	Surface water dependent. Highly sensitive to hydrological change. Availability of suitable spawning ground is a considerable issue for the species.

Juniperus communis formations on heaths or calcareous grasslands	[5130]	Overgrazing, erosion, scrub clearance, inappropriate land use management, and succession processes.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Calaminarian grasslands of the Murawy galmanowa(Violetalia calaminariae)	[6130]	Land reclamation, afforestation; drainage; and infrastructural development.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)* important orchid sites	[6210]	Land reclamation, afforestation; drainage; and infrastructural development.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	[6230]	Bracken encroachment, succession, inappropriate grazing, afforestation; drainage; and infrastructural development.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	[6410]	Agricultural intensification; drainage; abandonment of pastoral systems.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	[6430]	Agricultural intensification; drainage; abandonment of pastoral systems.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	[6510]	Agricultural intensification; drainage; abandonment of pastoral systems.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Active raised bogs	[7110]	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface water interactions. Groundwater isolated system with sensitivities related to the bog basin. Drainage and land use management are the key things.
Degraded raised bogs still capable of natural regeneration	[7120]	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface water interactions. Groundwater isolated system with sensitivities related to the

			bog basin. Drainage and land use management are the key things.
Blanket bogs (* if active bog)	[7130]	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface water interactions. Drainage and land use management are the key things.
Transition mires and quaking bogs	[7140]	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface water interactions. Groundwater isolated system with sensitivities related to the bog basin. Drainage and land use management are the key things.
Depressions on peat substrates of the Rhynchosporion	[7150]	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface and ground water interactions. Drainage and land use management are the key things.
Calcareous fens with species of mariscus sedge and bog cotton (Cladium mariscus and Caricion davallianae)	[7210]	Hydrological changes, pollution to surface waters, urbanisation, roads development, groundwater interactions, grazing and cultivation practices and the inappropriate use of pesticides.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
Petrifying springs with tufa formation (Cratoneurion)	[7220]	Ground water interactions, on site management activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Alkaline fens	[7230]	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	[8110]	Overgrazing, undergrazing and succession were recorded as medium-importance pressures in this reporting period, and Structure and functions were again assessed as Inadequate, the trend is considered to be stable rather than improving. This change is due to improved knowledge and the habitat is considered to have been stable since before the last assessment.	Erosion, overgrazing and recreation.
Calcareous and calcshist screes of the montane to alpine levels (Thlaspietalia rotundifolii)	[8120]	Overgrazing and ressurances associated with the non-native invasive species New Zealand willowherb (Epilobium brunnescens).	Erosion, overgrazing and recreation.

Calcareous rocky slopes with chasmophytic vegetation	[8210]	Overgrazing; extractive industries; recreational activities and improved access.	Erosion, overgrazing and recreation.
Siliceous rocky slopes with chasmophytic vegetation	[8220]	Pressures associated with the non-native invasive species New Zealand willowherb ( <i>Epilobium brunnescens</i> ).	Erosion, overgrazing and recreation.
Limestone pavements	[8240]	Overgrazing; extractive industries; recreational activities and improved access.	Erosion, overgrazing and recreation.
Caves not open to the public	[8310]	Cave systems are mainly protected for the Lesser Horseshoe bat which require stable temperatures and limited disturbances. None reported to be significant.	None identified.
Submerged or partially submerged sea caves	[8330]	There are no pressures acting on this resource.	There are no pressures acting on this resource.
Old sessile oak woods with Ilex and Blechnum in the British Isles	[91A0]	The introduction of alien species; sub-optimal grazing patterns; general forestry management; increases in urbanisation and human habitation adjacent to oak woodlands; and the construction of communication networks through the woodland.	Changes in management. Changes in nutrient or base status. Introduction of alien species.
Bog woodland	[91D0]	The introduction of alien species; sub-optimal grazing patterns; general forestry management; increases in urbanisation and human habitation adjacent to oak woodlands; and the construction of communication networks through the woodland.	Changes in management. Changes in nutrient or base status. Introduction of alien species.
Taxus baccata woods of the British Isles	[91J0]	Invasive Species; erosion and accretion.	Changes in management. Changes in nutrient or base status. Introduction of alien species.

Table 2-4 Article 12 reporting summary of the known threats and pressures for each special conservation interest – as per the 2019 NPWS report

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A001	Red-throated Diver	<i>Gavia stellata</i>	A04, C01, C03, F02, G01, H03, I01, J02, J02.06, K03, M02	Grazing, Mining and quarrying, Renewable abiotic energy use, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Invasive non-native species, Human induced changes in hydraulic conditions, Water abstraction from surface waters, Interspecific faunal relations, Changes in biotic conditions
A003	Common Loon	<i>Gavia immer</i>	C03, F02, G01, H03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution
A009	Northern Fulmar	<i>Fulmarus glacialis</i>	C03, F02	Renewable abiotic energy use, Fishing and harvesting aquatic resources
A013	Manx Shearwater	<i>Puffinus puffinus</i>	C03, H03, I01	Renewable abiotic energy use, Marine water pollution, Invasive non-native species
A015	Leach's Storm Petrel	<i>Oceanodroma leucorhoa</i>	C03, I01	Renewable abiotic energy use, Invasive non-native species
A016	Northern Gannet	<i>Morus bassanus</i>	C03, F02, H03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Marine water pollution
A017	Cormorant	<i>Phalacrocorax carbo</i>	C03, F02, F03, G01, H03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, Recreational activities, Marine water pollution
[A018]	Shag	<i>Phalacrocorax aristotelis</i>	C03, H03	Renewable abiotic energy use, Marine water pollution
A037	Bewick's Swan	<i>Cygnus columbianus bewickii</i>	A02, B01, C03, D02, G01, H07, M02	Modification of cultivation practices, Forest planting on open ground, Renewable abiotic energy use, Utility and service lines, Outdoor sports and leisure activities, recreational activities, Other forms of pollution, Changes in biotic conditions
A043	Greylag Goose	<i>Anser anser</i>	A02, A11, C03, D02, F03, G01, H07	Modification of cultivation practices, Agriculture activities not referred to above, Renewable abiotic energy use, Utility and service lines, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Other forms of pollution
A048	Common Shelduck	<i>Tadorna tadorna</i>	F01, F02, G01, H03, M01	Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Changes in abiotic conditions
A050	Eurasian Wigeon	<i>Anas penelope</i>	C03, F01, F03, G01, H01,	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Hunting and collection of

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
			H03, H07, I01, J02, J03	wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Invasive non-native species, Human induced changes in hydraulic conditions, Other Ecosystem Modifications
A054	Northern Pintail	<i>Anas acuta</i>	C03, F01, F03, G01, H01, H03, H07, J02	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Human induced changes in hydraulic conditions
A056	Northern Shoveler	<i>Anas clypeata</i>	C03, F03, G01, H01, H03, H07	Renewable abiotic energy use, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution
A059	Common Pochard	<i>Aythya ferina</i>	C03, F03, G01, H01, H07, M02	Renewable abiotic energy use, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Other forms of pollution, Changes in biotic conditions
A061	Tufted Duck	<i>Aythya fuligula</i>	C03, F03, G01, H01, H07, M02	Renewable abiotic energy use, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Other forms of pollution, Changes in biotic conditions
A062	Greater Scaup	<i>Aythya marila</i>	C03, F01, F02, F03, G01, H01, H03	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution
A063	Common Eider	<i>Somateria mollissima</i>	F02, H03	Fishing and harvesting aquatic resources, Marine water pollution
[A065]	Common Scoter	<i>Melanitta nigra</i>	A04, C03, F02, G01, H01, H03, I01, K03, M02	Grazing, Renewable abiotic energy use, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Invasive non-native species, Interspecific faunal relations, Changes in biotic conditions
A067	Common Goldeneye	<i>Bucephala clangula</i>	C03, F01, F03, G01, H01, H03, H07, M02	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Changes in biotic conditions

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A069	Red-Breasted Merganser	<i>Mergus serrator</i>	C03, F01, F02, G01, H03	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution
A082	Hen Harrier	<i>Circus cyaneus</i>	A02, B01, B02, C01, C03, F03, G01, I01, J01, J03	Modification of cultivation practices, Forest planting on open ground, Forest and Plantation management & use, Mining and quarrying, Renewable abiotic energy use, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Invasive non-native species, Fire and Fire suppression, Other Ecosystem Modifications
A098	Merlin	<i>Falco columbarius</i>	A02, B01, B02, C03, M02	Modification of cultivation practices, Forest planting on open ground, Forest and Plantation management & use, Renewable abiotic energy use, Changes in biotic conditions
A122	Corn Crane	<i>Crex crex</i>	A03.01, A04.01, K03.04, M01.03	Intensive Mowing or intensification, Intensive grazing, Predation, Flooding and rising precipitations
A130	Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	C03, F01, F02, G01, H03, J02	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions
A137	Common Ringed Plover	<i>Charadrius hiaticula</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A140	European Golden Plover	<i>Pluvialis apricaria</i>	A02, A04, B01, C01, C03, F01, G01, H03, J01, K03, M02	Modification of cultivation practices, Grazing, Forest planting on open ground, Mining and quarrying, Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Fire and Fire suppression, Interspecific faunal relations, Changes in biotic conditions
A141	Grey Plover	<i>Pluvialis squatarola</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A142	Northern Lapwing	<i>Vanellus vanellus</i>	A02, C03, F01, G01, H03	Modification of cultivation practices, Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution
A143	Red Knot	<i>Calidris canutus</i>	C03, F01, F02, G01, H03,	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water



Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
			J02, J03, M01	pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A144	Sanderling	<i>Calidris alba</i>	C03, F01, G01, H03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Changes in abiotic conditions
A149	Dunlin	<i>Calidris alpina</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A157	Bar-Tailed Godwit	<i>Limosa lapponica</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A162	Common Redhank	<i>Tringa totanus</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A164	Common Greenshank	<i>Tringa nebularia</i>	C03, F01, G01, H03, J02, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Changes in abiotic conditions
A169	Ruddy Turnstone	<i>Arenaria interpres</i>	C03, F01, G01, H03, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Other Ecosystem Modifications, Changes in abiotic conditions
A177	Little Gull	<i>Larus minutus</i>	No threats or pressures	
A179	Black-Headed Gull	<i>Larus ridibundus</i>	A04, C03, F02, H03, J03, M01	Grazing, Renewable abiotic energy use, Fishing and harvesting aquatic resources, Marine water pollution, Other Ecosystem Modifications, Changes in abiotic conditions
A182	Common Gull	<i>Larus canus</i>	A04, C03, F02, H03, J03, M01	Grazing, Renewable abiotic energy use, Fishing and harvesting aquatic resources, Marine water pollution, Other Ecosystem Modifications, Changes in abiotic conditions
A183	Lesser Black-backed Gull	<i>Larus fuscus</i>	C03, F02, H03, J03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Marine water pollution, Other Ecosystem Modifications

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A184	European Herring Gull	<i>Larus argentatus</i>	C03, F02, H03, J03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Marine water pollution, Other Ecosystem Modifications
A187	Great Black-backed Gull	<i>Larus marinus</i>	No threats or pressures	
A188	Black-Legged Kittiwake	<i>Rissa tridactyla</i>	C03, F02, H03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Marine water pollution
A191	Sandwich Tern	<i>Sterna sandvicensis</i>	C03, I01	Renewable abiotic energy use, Invasive non-native species
[A192	Roseate Tern	<i>Sterna dougalli</i>	C03, D01, G01, I01	Renewable abiotic energy use, Roads, paths and railroads, Outdoor sports and leisure activities, recreational activities, Invasive non-native species
A193	Common Tern	<i>Sterna hirundo</i>	C03, D01, D03, G01, I01	Renewable abiotic energy use, Roads, paths and railroads, Shipping lanes, ports, marine constructions, Outdoor sports and leisure activities, recreational activities, Invasive non-native species
A194	Arctic Tern	<i>Sterna paradisaea</i>	C03, D01, G01, I01, M01	Renewable abiotic energy use, Roads, paths and railroads, Outdoor sports and leisure activities, recreational activities, Invasive non-native species, Changes in abiotic conditions
A195	Little Tern	<i>Sterna albifrons</i>	C03, D01, I01, I02, M01	Renewable abiotic energy use, Roads, paths and railroads, Invasive non-native species, Problematic native species, Changes in abiotic conditions
A199	Guillemot	<i>Uria aalge</i>	C03, H03	Renewable abiotic energy use, Marine water pollution
A200	Razorbill	<i>Alca torda</i>	C03, H03	Renewable abiotic energy use, Marine water pollution
A204	Atlantic Puffin	<i>Fratercula arctica</i>	C03, H03, I01	Renewable abiotic energy use, Marine water pollution, Invasive non-native species
A229	Common Kingfisher	<i>Alcedo atthis</i>	A11, D01, G01, H01, I01, J02	Agriculture activities not referred to above, Roads, paths and railroads, Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Invasive non-native species, Human induced changes in hydraulic conditions
A346	Red-Billed Cough	<i>Pyrhcorax pyrrhcorax</i>	A02, A04, E06, G01	Modification of cultivation practices, Grazing, Other urbanisation, industrial and similar activities, Outdoor sports and leisure activities, recreational activities
A395	Greater White-	<i>Anser albifrons flavirostris</i>	A02, A04, A06, A11, B01, C03, D02, D05, F01,	Modification of cultivation practices, Grazing, Annual and perennial non-timber crops, Agriculture activities not referred to above, Forest planting on open ground, Renewable abiotic

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
	Fronted Goose		F03, G01, H03, H07, K03, M01, M02	energy use, Utility and service lines, Improved access to site, Marine and Freshwater Aquaculture, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Marine water pollution, Other forms of pollution, Interspecific faunal relations, Changes in abiotic conditions, Changes in biotic conditions

### 3. APPENDIX 3 RELATIONSHIP OTHER PLANS AND PROGRAMMES

This appendix is not intended to be a full and comprehensive review of EU Directives, the transposing regulations or the regulatory framework for environmental protection and management. The information is not exhaustive and it is recommended to consult the Directive, Regulation, Plan or Programme to become familiar with the full details of each.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<b>SEA Directive (2001/42/EC)</b> European Level	<ul style="list-style-type: none"> <li>Contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.</li> <li>Provide for a high level of protection of the environment by carrying out an environmental assessment of plans and programmes which are likely to have significant effects on the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Carry out an environmental assessment for plans or programmes referred to in Articles 2 to 4 of the Directive.</li> <li>Prepare an environmental report which identifies, describes and evaluates the likely significant effects on the environment of implementing the plan or programme and reasonable alternatives that consider the objectives and the geographical scope of the plan or programme.</li> <li>Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission.</li> <li>Consult other Member States where the implementation of a plan or programme is likely to have transboundary environmental effects.</li> <li>Inform relevant authorities and stakeholders on the decision to implement the plan or programme.</li> <li>Issue a statement to include requirements detailed in Article 9 of the Directive.</li> <li>Monitor and mitigate significant environmental effects identified by the assessment.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EIA Directive (2011/92/EU as amended by 2014/52/EU)</b>	<ul style="list-style-type: none"> <li>Requires the assessment of the environmental effects of public and private projects which are likely to have significant effects on the environment.</li> <li>Aims to assess and implement avoidance or mitigation measures to eliminate environmental effects, before consent is given of projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects. Those projects are defined in Article 4.</li> </ul>	<ul style="list-style-type: none"> <li>All projects listed in Annex I are considered as having significant effects on the environment and require an EIA.</li> <li>For projects listed in Annex II, a "screening procedure" is required to determine the effects of projects on the basis of thresholds/criteria or a case by case examination. This should take into account Annex III.</li> <li>The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and the cultural heritage, the interaction between each factor.</li> <li>Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission before a decision is made.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

<b>Habitats Directive (92/43/EEC)</b>	<ul style="list-style-type: none"> <li>Promote the preservation, protection and improvement of the quality of the environment, including the conservation of natural habitats and of wild fauna and flora.</li> <li>Contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora.</li> <li>Maintain or restore to favourable conservation status, natural habitats and species of wild fauna and flora of community interest.</li> <li>Promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Propose and protect sites of importance to habitats, plant and animal species.</li> <li>Establish a network of European sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, to enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range.</li> <li>Carry out comprehensive assessment of habitat types and species present.</li> <li>Establish a system of strict protection for the animal species and plant species listed in Annex IV.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Birds Directive (2009/147/EC)</b>	<ul style="list-style-type: none"> <li>Conserve all species of naturally occurring birds in the wild state including their eggs, nests and habitats.</li> <li>Protect, manage and control these species and comply with regulations relating to their exploitation.</li> <li>The species included in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.</li> </ul>	<ul style="list-style-type: none"> <li>Preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Annex 1.</li> <li>Preserve, maintain and establish biotopes and habitats to include the creation of protected areas (Special Protection Areas).</li> <li>Ensure the upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones, re-establish destroyed biotopes and creation of biotopes.</li> <li>Measures for regularly occurring migratory species not listed in Annex I is required as regards their breeding, moulting and wintering areas and staging posts along their migration routes. The protection of wetlands and particularly wetlands of international importance.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>EU Bathing Water Directive (revised) 2006 [2006/7/EC]</b>	<ul style="list-style-type: none"> <li>The purpose of this Directive is to preserve, protect and improve the quality of the environment and to protect human health by complementing Directive 2000/60/EC</li> </ul>	<p>This Directive lays down provisions for:</p> <ul style="list-style-type: none"> <li>the monitoring and classification of bathing water quality;</li> <li>the management of bathing water quality; and</li> <li>the provision of information to the public on bathing water quality</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>EU Nitrates Directive (91/676/EC)</b></p>	<ul style="list-style-type: none"> <li>Reducing water pollution caused or induced by nitrates from agricultural sources and - preventing further such pollution.</li> </ul>	<p>Ireland’s Nitrates Action Programme is designed to prevent pollution of surface waters and ground water from agricultural sources and to protect and improve water quality. Ireland’s third NAP came into operation in 2014. Each Member State’s NAP must include:</p> <ul style="list-style-type: none"> <li>a limit on the amount of livestock manure applied to the land each year</li> <li>set periods when land spreading is prohibited due to risk</li> <li>set capacity levels for the storage of livestock manure</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU Integrated Pollution Prevention Control Directive (2008/1/EC)</b></p>	<ul style="list-style-type: none"> <li>The purpose of this Directive is to achieve integrated prevention and control of pollution arising from the activities listed in Annex I. It lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the abovementioned activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole, without prejudice to Directive 85/337/EEC and other relevant Community provisions.</li> </ul>	<p>The IPPC Directive is based on several principles:</p> <ul style="list-style-type: none"> <li>an integrated approach</li> <li>best available techniques,</li> <li>flexibility; and</li> <li>public participation</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU Plant Protection (products) Directive 2009/127/EC</b></p>	<ul style="list-style-type: none"> <li>The Directive aims at reducing the risks and impacts of pesticide use on human health and the environment by introducing different targets, tools and measures such as Integrated Pest Management (IPM) or National Action Plans (NAPs).</li> </ul>	<ul style="list-style-type: none"> <li>The Framework Directive applies to pesticides which are plant protection products.</li> <li>Regarding pesticide application equipment already in professional use, the Framework Directive introduces requirements for the inspection and maintenance to be carried out on such equipment.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>EU Renewables Directive (2009/28/EC)</b></p>	<ul style="list-style-type: none"> <li>The Renewable Energy Directive establishes an overall policy for the production and promotion of energy from renewable sources in the EU.</li> <li>It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets.</li> <li>All EU countries must also ensure that at least 10% of their transport fuels come from renewable sources by 2020.</li> </ul>	<ul style="list-style-type: none"> <li>The Directive promotes cooperation amongst EU countries (and with countries outside the EU) to help them meet their renewable energy targets.</li> <li>The Directive specifies national renewable energy targets for each country, taking into account its starting point and overall potential for renewables.</li> <li>EU countries set out how they plan to meet these targets and the general course of their renewable energy policy in national renewable energy action plans.</li> <li>Progress towards national targets is measured every two years when EU countries publish national renewable energy progress reports.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Indirect Land Use Change Directive (2012/0288(COD))</b></p>	<ul style="list-style-type: none"> <li>Article 3(4) of Directive 2009/28/EC of the European Parliament and of the Council (3) requires Member States to ensure that the share of energy from renewable energy sources in all forms of transport in 2020 is at least 10 % of their final energy consumption.</li> <li>The blending of biofuels is one of the methods available for Member States to meet this target, and is expected to be the main contributor.</li> <li>Other methods available to meet the target are the reduction of energy consumption, which is imperative because a mandatory percentage target for energy from renewable sources is likely to become increasingly difficult to achieve sustainably if overall demand for energy for transport continues to rise, and the use of electricity from renewable energy sources.</li> </ul>	<ul style="list-style-type: none"> <li>Limit the contribution that conventional biofuels (with a risk of ILUC emissions) make towards attainment of the targets in the Renewable Energy Directive;</li> <li>Improve the greenhouse gas performance of biofuel production processes (reducing associated emissions) by raising the greenhouse gas saving threshold for new installations subject to protecting installations already in operation on 1st July 2014;</li> <li>Encourage a greater market penetration of advanced (low-ILUC) biofuels by allowing such fuels to contribute more to the targets in the Renewable Energy Directive than conventional biofuels;</li> <li>Improve the reporting of greenhouse gas emissions by obliging Member States and fuel suppliers to report the estimated indirect land-use change emissions of biofuels.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Alternative Fuels Infrastructure Directive (2014/94/EU)</b></p>	<ul style="list-style-type: none"> <li>This Directive establishes a common framework of measures for the deployment of alternative fuels infrastructure in the Union in order to minimise dependence on oil and to mitigate the environmental impact of transport.</li> </ul>	<ul style="list-style-type: none"> <li>This Directive sets out minimum requirements for the building-up of alternative fuels infrastructure, including recharging points for electric vehicles and refueling points for natural gas (LNG and CNG) and hydrogen, to be implemented by means of Member States' national policy frameworks, as well as common technical specifications for such recharging and refueling points, and user information requirements.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>EU Energy Efficiency Directive (2012/27/EU)</b></p>	<ul style="list-style-type: none"> <li>Establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020.</li> <li>Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain, from production to final consumption.</li> </ul>	<ul style="list-style-type: none"> <li>Energy distributors or retail energy sales companies have to achieve 1.5% energy savings per year through the implementation of energy efficiency measures</li> <li>EU countries can opt to achieve the same level of savings through other means, such as improving the efficiency of heating systems, installing double glazed windows or insulating roofs</li> <li>The public sector in EU countries should purchase energy efficient buildings, products and services</li> <li>Every year, governments in EU countries must carry out energy efficient renovations on at least 3% (by floor area) of the buildings they own and occupy</li> <li>Energy consumers should be empowered to better manage consumption. This includes easy and free access to data on consumption through individual metering</li> <li>National incentives for SMEs to undergo energy audits</li> <li>Large companies will make audits of their energy consumption to help them identify ways to reduce it</li> <li>Monitoring efficiency levels in new energy generation capacities.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU Seveso Directive (2012/18/EU)</b></p>	<ul style="list-style-type: none"> <li>This Directive lays down rules for the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for human health and the environment, with a view to ensuring a high level of protection throughout the Union in a consistent and effective manner.</li> </ul>	<p>The Seveso Directive is well integrated with other EU policies, thus avoiding double regulation or other administrative burden. This includes the following related policy areas:</p> <ul style="list-style-type: none"> <li>Classification, labelling and packaging of chemicals;</li> <li>The Union's Civil Protection Mechanism;</li> <li>The Security Union Agenda including CBRN-E and Protection of critical infrastructure;</li> <li>Policy on environmental liability and on the protection of the environment through criminal law;</li> <li>Safety of offshore oil and gas operations.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU Maritime Spatial Planning Directive (2014/89/EU)</b></p>	<ul style="list-style-type: none"> <li>This Directive establishes a framework for maritime spatial planning aimed at promoting the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources.</li> </ul>	<ul style="list-style-type: none"> <li>Each Member State shall establish and implement maritime spatial planning.</li> <li>In doing so, Member States shall take into account land-sea interactions.</li> <li>The resulting plan or plans shall be developed and produced in accordance with the institutional and governance levels determined by Member States. This Directive shall not interfere with Member States' competence to design and determine the format and content of that plan or those plans.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

		<ul style="list-style-type: none"> <li>Maritime spatial planning shall aim to contribute to the objectives listed in Article 5 and fulfil the requirements laid down in Articles 6 and 8.</li> <li>When establishing maritime spatial planning, Member States shall have due regard to the particularities of the marine regions, relevant existing and future activities and uses and their impacts on the environment, as well as to natural resources, and shall also take into account land-sea interactions.</li> <li>Member States may include or build on existing national policies, regulations or mechanisms that have been or are being established before the entry into force of this Directive, provided they are in conformity with the requirements of this Directive.</li> </ul>	
<p><b>UK Marine Policy Statement</b></p>	<ul style="list-style-type: none"> <li>Achieving a sustainable marine economy</li> <li>Ensuring a strong, healthy and just society</li> <li>Living within environmental limits</li> <li>Promoting good governance</li> <li>Using sound science responsibly</li> </ul>	<p>The MPS will facilitate and support the formulation of Marine Plans, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives and thereby:</p> <ul style="list-style-type: none"> <li>Promote sustainable economic development;</li> <li>Enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects;</li> <li>Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and heritage assets; and</li> <li>Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Marine and Coastal Access Act 2009</b></p>	<ul style="list-style-type: none"> <li>Aims to provide the legal mechanism to help ensure clean, healthy, safe, productive and biologically diverse oceans and seas by putting in place a new system for improved management and protection of the marine and coastal environment.</li> </ul>	<p>The Marine Act comprises eight key elements:</p> <ul style="list-style-type: none"> <li>Marine Management Organisation (MMO)</li> <li>Strategic Marine Planning System</li> <li>Streamlined Marine Licensing System</li> <li>Marine Nature Conservation</li> <li>Fisheries Management and Marine Enforcement</li> <li>Migratory and Freshwater Fisheries</li> <li>Coastal Access</li> <li>Coastal and Estuarine Management</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Marine (Northern Ireland) Act 2013</b></p>	<ul style="list-style-type: none"> <li>Aims to provide for marine plans in relation to the Northern Ireland inshore region; to provide for marine conservation zones in that region; to make further provision in relation to marine licensing for certain electricity works in that region; and for connected purposes.</li> </ul>	<p>The Marine Act sets out a new framework for Northern Ireland's seas based on: a system of marine planning that will balance conservation, energy and resource needs; improved management for marine nature conservation and the streamlining of marine licensing for some electricity projects. The main provisions of the Act are outlined below:</p> <ul style="list-style-type: none"> <li>Marine Planning</li> <li>Nature Conservation</li> <li>Marine Licensing</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>European Union Biodiversity Strategy to 2020</b></p>	<ul style="list-style-type: none"> <li>Aims to halt or reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy.</li> <li>Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible.</li> </ul>	<ul style="list-style-type: none"> <li>Outlines six targets and twenty actions to aid European Union in halting the loss to biodiversity and eco-system services.</li> <li>The six targets cover:             <ul style="list-style-type: none"> <li>Full implementation of EU nature legislation to protect biodiversity</li> <li>Maintaining, enhancing and protecting for ecosystems, and green infrastructure</li> <li>Ensuring sustainable agriculture, and forestry</li> <li>Sustainable management of fish stocks</li> <li>Reducing invasive alien species</li> <li>Addressing the global need to contribute towards averting global biodiversity loss</li> </ul> </li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Biodiversity Strategy for 2030 - Bringing nature back into our lives (European Commission, 2020)</b></p>	<p>The EU's biodiversity strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030, and contains specific actions and commitments.</p>	<p>The Strategy contains specific commitments and actions to be delivered by 2030, including:</p> <ul style="list-style-type: none"> <li>Establishing a larger EU-wide network of protected areas on land and at</li> <li>sea, building upon existing Natura 2000 areas, with strict protection for areas of very high biodiversity and climate value.</li> <li>An EU Nature Restoration Plan - a series of concrete commitments and actions to restore degraded ecosystems across the EU by 2030, and manage them sustainably, addressing the key drivers of biodiversity loss.</li> <li>A set of measures to enable the necessary transformative change: setting in motion a new, strengthened governance framework to ensure better implementation and track progress, improving knowledge, financing and investments and better respecting nature in public and business decision making.</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

		<ul style="list-style-type: none"> <li>Measures to tackle the global biodiversity challenge, demonstrating that the EU is ready to lead by example towards the successful adoption of an ambitious global biodiversity framework under the Convention on Biological Diversity.</li> </ul>	
<b>EU Green Infrastructure Strategy</b>	Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.	<ul style="list-style-type: none"> <li>Promoting GI in the main EU policy areas.</li> <li>Supporting EU-level GI projects.</li> <li>Improving access to finance for GI projects.</li> <li>Improving information and promoting innovation.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>UNESCO (1972) The Convention for the Protection of the World Cultural and Natural Heritage</b>	<ul style="list-style-type: none"> <li>links concepts of nature conservation and the preservation of cultural properties; and</li> <li>recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two.</li> </ul>	<ul style="list-style-type: none"> <li>sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them;</li> <li>each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage;</li> <li>encourages to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management
<b>UN (1992) The Convention on Biological Diversity</b>	An overall objective is to develop national strategies for the conservation and sustainable use of biological diversity.	The Convention has three main goals: <ul style="list-style-type: none"> <li>the conservation of biological diversity (or biodiversity);</li> <li>the sustainable use of its components; and</li> <li>the fair and equitable sharing of benefits arising from genetic resources.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in

			combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>UN (1992) Framework Convention on Climate Change</b>	It is aimed at stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.	The Convention acknowledges the vulnerability of all countries to the effects of climate change and calls for special efforts to ease the consequences, especially in developing countries which lack the resources to do so on their own.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>UN Kyoto Protocol (2nd Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris Agreement)</b>	<p>The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions.</p> <p>The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol.</p>	<ul style="list-style-type: none"> <li>• The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II).</li> <li>• EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP.</li> <li>• Under COP21, governments agreed to come together every 5 years to set more ambitious targets as required by science; report to each other and the public on how well they are doing to implement their targets; track progress towards the long-term goal through a robust transparency and accountability system.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

	At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.		
<b>EU 2020 Climate and Energy Package</b>	<ul style="list-style-type: none"> <li>• Binding legislation which aims to ensure the European Union meets its climate and energy targets for 2020.</li> <li>• Aims to achieve a 20% reduction in EU greenhouse gas emissions from 1990 levels.</li> <li>• Aims to raise the share of EU energy consumption produced from renewable resources to 20%.</li> <li>• Achieve a 20% improvement in the EU's energy efficiency.</li> </ul>	<p>Four pieces of complimentary legislation:</p> <ul style="list-style-type: none"> <li>• Reform of the EU Emissions Trading System (EU ETS) to include a cap on emission allowances in addition to existing system of national caps.</li> <li>• Member States have agreed national targets for non-EU ETS emissions from countries outside the EU.</li> <li>• Meet the national renewable energy targets of 16% for Ireland by 2020.</li> <li>• Preparing a legal framework for technologies in carbon capture and storage.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EU 2030 Framework for Climate and Energy</b>	<ul style="list-style-type: none"> <li>• A 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030 that has been agreed by European countries.</li> <li>• Targets include a 40% cut in greenhouse gas emissions compared to 1990 levels, at least a 27% share of renewable energy consumption and at least 27% energy savings compared with the business-as-usual scenario.</li> </ul>	<p>To meet the targets, the European Commission has proposed the following policies for 2030:</p> <ul style="list-style-type: none"> <li>• A reformed EU emissions trading scheme (ETS).</li> <li>• New indicators for the competitiveness and security of the energy system, such as price differences with major trading partners, diversification of supply, and interconnection capacity between EU countries.</li> <li>• First ideas for a new governance system based on national plans for competitive, secure, and sustainable energy. These plans will follow a common EU approach. They will ensure stronger investor certainty, greater transparency, enhanced policy coherence and improved coordination across the EU.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<p><b>The Clean Air for Europe Directive (2008/50/EC) (EU Air Framework Directive)</b></p> <p><b>Fourth Daughter Directive (2004/107/EC)</b></p>	<ul style="list-style-type: none"> <li>• The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive).</li> <li>• Sets new air quality objectives for PM2.5 (fine particles) including the limit value and exposure related objectives.</li> <li>• Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values.</li> </ul>	<ul style="list-style-type: none"> <li>• Sets objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole.</li> <li>• Aims to assess the ambient air quality in Member States on the basis of common methods and criteria.</li> <li>• Obtains information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and community measures.</li> <li>• Ensures that such information on ambient air quality is made available to the public.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

	<ul style="list-style-type: none"> <li>Allows the possibility for time extensions of three years (PM10) or up to five years (NO2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.</li> <li>The Fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.</li> </ul>	<ul style="list-style-type: none"> <li>Aims to maintain air quality where it is good and improving it in other cases.</li> <li>Aims to promote increased cooperation between the Member States in reducing air pollution.</li> </ul>	
<b>Noise Directive (2002/49/EC)</b>	<p>The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source.</p>	<p>The Directive requires competent authorities in Member States to:</p> <ul style="list-style-type: none"> <li>Draw up strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels;</li> <li>Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and</li> <li>Inform and consult the public about noise exposure, its effects, and the measures considered to address noise.</li> </ul> <p>The Directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Floods Directive (2007/60/EC)</b>	<ul style="list-style-type: none"> <li>Establishes a framework for the assessment and management of flood risks</li> <li>Reduce adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community</li> </ul>	<ul style="list-style-type: none"> <li>Assess all water courses and coast lines at risk from flooding through Flood Risk Assessment</li> <li>Prepare flood hazard maps and flood risk maps outlining the extent or potential of flooding and assets and humans at risk in these areas at River Basin District level (Article 3(2) (b)) and areas covered by Article 5(1) and Article 13(1) (b) in accordance with paragraphs 2 and 3.</li> <li>Implement flood risk management plans and take adequate and coordinated measures to reduce flood risk for the areas covered by the Articles listed above.</li> <li>Inform the public and allow the public to participate in planning process.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Water Framework Directive (2000/60/EC)</b></p>	<ul style="list-style-type: none"> <li>Establish a framework for the protection of water bodies to include inland surface waters, transitional waters, coastal waters and groundwater and their dependent wildlife and habitats.</li> <li>Preserve and prevent the deterioration of water status and where necessary improve and maintain “good status” of water bodies.</li> <li>Promote sustainable water usage.</li> <li>The Water Framework Directive repealed the following Directives:           <ul style="list-style-type: none"> <li>The Drinking Water Abstraction Directive</li> <li>Sampling Drinking Water Directive</li> <li>Exchange of Information on Quality of Surface Freshwater Directive</li> <li>Shellfish Directive</li> <li>Freshwater Fish Directive</li> <li>Groundwater Directive</li> <li>Dangerous Substances Directive</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Protect, enhance and restore all water bodies and meet the environmental objectives outlined in Article 4 of the Directive.</li> <li>Achieve "good status" for all waters.</li> <li>Manage water bodies based on identifying and establishing river basins districts.</li> <li>Involve the public and streamline legislation.</li> <li>Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected Areas.</li> <li>Establish a programme of monitoring for surface water status, groundwater status and protected areas.</li> <li>Recover costs for water services.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Groundwater Directive (2006/118/EC)</b></p>	<ul style="list-style-type: none"> <li>Protect, control and conserve groundwater.</li> <li>Prevent the deterioration of the status of all bodies of groundwater.</li> <li>Implements measures to prevent and control groundwater pollution, including criteria for assessing good groundwater chemical status and criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals.</li> </ul>	<ul style="list-style-type: none"> <li>Meet minimum groundwater standards listed in Annex 1 of Directive.</li> <li>Meet threshold values adopted by national legislation for the pollutants, groups of pollutants and indicators of pollution which have been identified as contributing to the characterisation of bodies or groups of bodies of groundwater as being at risk, also taking into account Part B of Annex II.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Drinking Water Directive (98/83/EC)</b></p>	<ul style="list-style-type: none"> <li>Improve and maintain the quality of water intended for human consumption.</li> <li>Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.</li> </ul>	<ul style="list-style-type: none"> <li>Set values applicable to water intended for human consumption for the parameters set out in Annex I.</li> <li>Set values for additional parameters not included in Annex I, where the protection of human health within national territory or part of it so requires. The values set should, as a minimum, satisfy the requirements of Article 4(1) (a).</li> <li>Implement all measures necessary to ensure that regular monitoring of the quality of water intended for human consumption is carried out, in order to check that the water available to consumers meets the requirements of this Directive and in particular the parametric values set in accordance with Article 5.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



		<ul style="list-style-type: none"> <li>• Ensure that any failure to meet the parametric values set in accordance with Article 5 is immediately investigated in order to identify the cause.</li> <li>• Ensure that the necessary remedial action is taken as soon as possible to restore its quality and shall give priority to their enforcement action.</li> <li>• Undertake remedial action to restore the quality of the water where necessary to protect human health.</li> <li>• Notify consumers when remedial action is being undertaken except where the competent authorities consider the non-compliance with the parametric value to be trivial.</li> </ul>	
<b>Urban Waste Water Treatment Directive (91/271/EEC)</b>	<ul style="list-style-type: none"> <li>• This Directive concerns the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors.</li> <li>• The objective of the Directive is to protect the environment from the adverse effects of waste water discharges.</li> </ul>	<ul style="list-style-type: none"> <li>• Urban waste water entering collecting systems shall before discharge, be subject to secondary treatment.</li> <li>• Annex II requires the designation of areas sensitive to eutrophication which receive water discharges.</li> <li>• Establishes minimum requirements for urban waste water collection and treatment systems in specified agglomerations to include special requirements for sensitive areas and certain industrial sectors.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU</b>	<ul style="list-style-type: none"> <li>• Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage.</li> </ul>	<ul style="list-style-type: none"> <li>• Relates to environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent.</li> <li>• Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

		<p>Where environmental damage has occurred the operator shall, without delay, inform the competent authority of all relevant aspects of the situation and take all practicable steps to immediately control, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services and the necessary remedial measures, in accordance with Article 7.</p> <ul style="list-style-type: none"> <li>• The operator shall bear the costs for the preventive and remedial actions taken pursuant to this Directive.</li> <li>• The competent authority shall be entitled to initiate cost recovery proceedings against the operator.</li> <li>• The operator may be required to provide financial security guarantees to ensure their responsibilities under the directive are met.</li> <li>• The Environmental Liability Directive has been amended through a number of Directives that are not of significant relevance to the SEA for the Guidelines. Implementation of the Environmental Liability Directive is contributed towards by a Multi-Annual Work Programme (MAWP) 'Making the Environmental Liability Directive more fit for purpose' that is updated annually to changing developments, growing knowledge and new needs.</li> </ul>	
<p><b>Marine Framework (2008/56/EC), as amended</b></p>	<p><b>Strategy Directive as</b></p> <ul style="list-style-type: none"> <li>• The aim of the European Union's ambitious Marine Strategy Framework Directive is to protect more effectively the marine environment across Europe.</li> </ul>	<p>The Directive provides various requirements, including:</p> <ul style="list-style-type: none"> <li>• Completion of an initial assessment of Irish marine waters;</li> <li>• Establishment of establish environmental targets and indicators;</li> <li>• Establishment of a monitoring programme;</li> <li>• Establishment of a programme of measures; and</li> <li>• Implementation of the programme of measures and monitoring programme.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

		Implementation of the Directive is contributed towards by a set of detailed criteria and methodological standards that were revised in 2017 leading to a Commission Decision on “laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU”. Annex III “Indicative lists of characteristics, pressures and impacts” of the Directive was amended in 2017.	
<b>European Convention on the Protection of the Archaeological Heritage (Valletta 1992)</b>	<ul style="list-style-type: none"> <li>The aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.</li> </ul>	The Valletta Convention makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. The Convention sets guidelines for the funding of excavation and research work and publication of research findings. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage. It also constitutes an institutional framework for pan-European co-operation on the archaeological heritage, entailing a systematic exchange of experience and experts among the various States.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Convention of the Protection of the Architectural Heritage of Europe (Granada 1995)</b>	<ul style="list-style-type: none"> <li>The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co- operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented.</li> </ul>	<ul style="list-style-type: none"> <li>The reinforcement and promotion of policies for protecting and enhancing the heritage within the territories of the parties.</li> <li>The affirmation of European solidarity with regard to the protection of the heritage and the fostering of practical co-operation between states and regions.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>ICOMOS (2011) Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes ('Dublin Principles')</b>	It is aimed to assist in the documentation, protection, conservation and appreciation of industrial heritage as part of the heritage of human societies around the World.	<ul style="list-style-type: none"> <li>(I) Document and understand industrial heritage structures, sites, areas and landscapes and their values;</li> <li>(II) Ensure effective protection and conservation of the industrial heritage structures, sites, areas and landscapes;</li> <li>(III) Conserve and maintain the industrial heritage structures, sites, areas and landscapes; and</li> <li>(IV) Present and communicate the heritage dimensions and values of industrial structures, sites, areas and landscapes to raise public and corporate awareness, and support training and research.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies

			and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro 2005)</b>	<ul style="list-style-type: none"> <li>Cultural heritage is a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time.</li> <li>A heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations.</li> </ul>	<ul style="list-style-type: none"> <li>Recognise that rights relating to cultural heritage are inherent in the right to participate in cultural life, as defined in the Universal Declaration of Human Rights.</li> <li>Recognise individual and collective responsibility towards cultural heritage.</li> <li>Emphasise that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal.</li> <li>Take the necessary steps to apply the provisions of this Convention concerning the role of cultural heritage in the construction of a peaceful and democratic society.</li> <li>Greater synergy of competencies among all the public, institutional and private actors concerned.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>European Landscape Convention 2000</b>	<ul style="list-style-type: none"> <li>The developments in agriculture, forestry, industrial and mineral production techniques, together with the practices followed in town and country planning, transport, networks, tourism and recreation, and at a more general level, changes in the world economy, have in many cases accelerated the transformation of landscapes. The Convention expresses a concern to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment. It aims to respond to the public's wish to enjoy high quality landscapes.</li> </ul>	<ul style="list-style-type: none"> <li>Promote protection, management and planning of landscapes.</li> <li>Organise European co-operation on landscape issues.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)</b>	<p>It identifies three key objectives:</p> <ul style="list-style-type: none"> <li>to protect, conserve and enhance the Union's natural capital</li> <li>to turn the Union into a resource-efficient, green, and competitive low-carbon economy</li> <li>to safeguard the Union's citizens from environment- related pressures and risks to health and wellbeing</li> </ul>	<p>Four so called "enablers" will help Europe deliver on these objectives (goals):</p> <ul style="list-style-type: none"> <li>Better implementation of legislation.</li> <li>Better information by improving the knowledge base.</li> <li>More and wiser investment for environment and climate policy.</li> <li>Full integration of environmental requirements and considerations into other policies.</li> </ul> <p>Two additional horizontal priority objectives complete the programme:</p> <ul style="list-style-type: none"> <li>To make the Union's cities more sustainable.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

		<ul style="list-style-type: none"> <li>To help the Union address international environmental and climate challenges more effectively.</li> </ul>	
<b>Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)</b>	<p>The convention has three main aims:</p> <ul style="list-style-type: none"> <li>to conserve wild flora and fauna and their natural habitats</li> <li>to promote cooperation between states</li> <li>to give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species</li> </ul>	<p>The Parties under the convention recognise the intrinsic value of nature, which needs to be preserved and passed to future generations, they also:</p> <ul style="list-style-type: none"> <li>Seek to ensure the conservation of nature in their countries, paying particular attention to planning and development policies and pollution control.</li> <li>Look at implementing the Bern Convention in central Eastern Europe and the Caucus.</li> <li>Take account of the potential impact on natural heritage by other policies.</li> <li>Promote education and information of the public, ensuring the need to conserve species is understood and acted upon.</li> <li>Develop an extensive number of species action plans, codes of conducts, and guidelines, at their own initiative or in co-operation with other organisations.</li> <li>Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Bali Road Map (2007)</b>	<p>The overall goals of the project are twofold:</p> <ul style="list-style-type: none"> <li>To increase national capacity to co-ordinate ministerial views, participate in the UNFCCC process, and negotiate positions within the timeframe of the Bali Action Plan; and</li> <li>To assess investment and financial flows to address climate change for up to three key sectors and/or economic activities.</li> </ul>	<p>The Bali Action Plan is centred on four main building Blocks:</p> <ul style="list-style-type: none"> <li>mitigation</li> <li>adaptation</li> <li>technology</li> <li>financing</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Cancun Agreements (2010)</b>	<p>Set of decisions taken at the COP 16 Conference in Cancun in 2010 which addresses a series of key issues in the fight against climate change. Cancun Agreements' main objectives cover:</p> <ul style="list-style-type: none"> <li>Mitigation</li> <li>Transparency of actions</li> <li>Technology</li> <li>Finance</li> <li>Adaptation</li> <li>Forests</li> <li>Capacity building</li> </ul>	<p>Among the most prominent agreements is the establishment of a Green Climate Fund to transfer money from the developed to developing world to tackle the impacts of climate change.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Doha Climate Gateway (2012)</b></p>	<p>Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.</p>	<p>The following actions were committed to by governments at this conference:</p> <ul style="list-style-type: none"> <li>• Set out a timetable to adopt a universal climate agreement by 2015 (to come into effect in 2020);</li> <li>• Complete the work under Bali Action Plan and to focus on new completing new targets;</li> <li>• Strengthen the aim to cut greenhouse gases and help vulnerable countries to adapt; Amend Kyoto Protocol to include a new commitment period for cutting down the greenhouse gases emissions; and</li> <li>• Provide the financial and technology support and new institutions to allow clean energy investment and sustainable growth in developing countries.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU Common Agricultural Policy</b></p>	<ul style="list-style-type: none"> <li>• To improve agricultural productivity, so that consumers have a stable supply of affordable food; and</li> <li>• To ensure that EU farmers can make a reasonable living.</li> </ul>	<ul style="list-style-type: none"> <li>• ensuring viable food production that will contribute to feeding the world’s population, which is expected to rise considerably in the future;</li> <li>• Climate change and sustainable management of natural resources;</li> <li>• Looking after the countryside across the EU and keeping the rural economy alive.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU REACH Regulation (EC 1907/2006)</b></p>	<ul style="list-style-type: none"> <li>• Aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances.</li> </ul>	<p>The aims are achieved by applying REACH, namely:</p> <ul style="list-style-type: none"> <li>• Registration,</li> <li>• Evaluation,</li> <li>• Authorisation; and</li> <li>• Restriction of chemicals.</li> </ul> <p>REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Stockholm Convention</b></p>	<ul style="list-style-type: none"> <li>The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.</li> </ul>	<ul style="list-style-type: none"> <li>Prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex A to the Convention</li> <li>Restrict the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex B to the Convention</li> <li>Reduce or eliminate releases from unintentionally produced POPs that are listed in Annex C to the Convention</li> <li>Ensure that stockpiles and wastes consisting of, containing or contaminated with POPs are managed safely and in an environmentally sound manner</li> <li>To target additional POPs</li> <li>Other provisions of the Convention relate to the development of implementation plans, information exchange, public information, awareness and education, research, development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Ramsar Convention</b></p>	<p>The Convention’s mission is “the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”.</p>	<p>Under the “three pillars” of the Convention, the Contracting Parties commit to:</p> <ul style="list-style-type: none"> <li>Work towards the wise use of all their wetlands;</li> <li>Designate suitable wetlands for the list of Wetlands of International Importance (the “Ramsar List”) and ensure their effective management;</li> <li>Cooperate internationally on transboundary wetlands, shared wetland systems and shared species.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>OSPAR Convention</b></p>	<p>The mission of OSPAR is to conserve marine ecosystems and safeguard human health in the North-East Atlantic by preventing and eliminating pollution; by protecting the marine environment from the adverse effects of human activities; and by contributing to the sustainable use of the seas.</p>	<p>OSPAR's work is organised under six strategies:</p> <ul style="list-style-type: none"> <li>Biodiversity and Ecosystem Strategy</li> <li>Eutrophication Strategy</li> <li>Hazardous Substances Strategy</li> <li>Offshore Industry Strategy</li> <li>Radioactive Substances Strategy</li> <li>Strategy for the Joint Assessment and Monitoring Programme</li> </ul> <p>These six strategies fit together to underpin the ecosystem approach. For each strategy a programme of work is designed and implemented annually.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>European Strategy for Growth</b> 2020</p>	<p>Europe 2020 sets out a vision of Europe’s social market economy for the 21st century and puts forward three mutually reinforcing priorities:</p> <ul style="list-style-type: none"> <li>• Smart growth: developing an economy based on knowledge and innovation;</li> <li>• Sustainable growth: promoting a more resource efficient, greener and more competitive economy;</li> <li>• Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.</li> </ul>	<p>In order to reach these priorities, the Commission proposes five quantitative targets to fulfil by 2020:</p> <ol style="list-style-type: none"> <li>1. 75 % of the population aged 20-64 should be employed;</li> <li>2. 3% of the EU’s GDP should be invested in R&amp;D;</li> <li>3. the “20/20/20” climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right);</li> <li>4. the share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree;</li> <li>5. 20 million less people should be at risk of poverty.</li> </ol>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>The European Green Deal (EGD)</b> 2019</p>	<p>The deal sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people’s quality of life, caring for nature and leaving no one behind.</p>	<ul style="list-style-type: none"> <li>• It sets out a roadmap with actions to boost the efficient use of resources by moving to a clean, circular economy, restore biodiversity and cut pollution.</li> <li>• It outlines investments required, financing tools available and explains how to ensure a just and inclusive transition.</li> <li>• In order to meet the goal to become climate neutral by 2050 as part of the European Green Deal, the European Union (EU) Commission proposed on 4th March 2020 to bring about the first European Climate Law and legally bind the target of net zero greenhouse gas emissions by 2050</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU (2018) Clean Air Policy Package</b></p>	<p>Aims to substantially reduce air pollution across the EU.</p>	<p>The proposed strategy sets out objectives for reducing the health and environmental impacts of air pollution by 2030, and contains legislative proposals to implement stricter standards for emissions and air pollution.</p>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<b>National Level</b>  <b>Ireland 2040 - Our Plan, the National Planning Framework, and the National Development Plan (2021 - 2030)</b>	<ul style="list-style-type: none"> <li>The National Planning Framework is the Government's high-level strategic plan for shaping the future growth and development of to the year 2040. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment - from villages to cities, and everything around and in between.</li> <li>The National Development Plan sets out the investment priorities that will underpin the successful implementation of the new National Planning Framework. This will guide national, regional and local planning and investment decisions in Ireland over the next two decades, to cater for an expected population increase of over 1 million people.</li> </ul>	<p>The National Planning Framework published alongside the National Development Plan yields ten National Strategic Outcomes as follows:</p> <ol style="list-style-type: none"> <li>1. Compact Growth</li> <li>2. Enhanced Regional Accessibility</li> <li>3. Strengthened Rural Economies and Communities</li> <li>4. Sustainable Mobility</li> <li>5. A Strong Economy, supported by Enterprise, Innovation and Skills</li> <li>6. High-Quality International Connectivity</li> <li>7. Enhanced Amenity and Heritage</li> <li>8. Transition to a Low-Carbon and Climate-Resilient Society</li> <li>9. Sustainable Management of Water and other Environmental Resources</li> <li>10. Access to Quality Childcare, Education and Health Services</li> </ol>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Planning, Land Use and Transport Outlook 2040 [In Preparation]</b>	<p>The PLUTO will take account of forecasted future economic and demographic scenarios, affordability considerations and relevant Government policies and will:</p> <p>Quantify in broad terms the appropriate scale of financial investment in land transport over the long term;</p> <p>Consider how fiscal, environmental and technological developments might impact on this investment; and,</p> <p>Identify strategic priorities for future investment to ensure land transport infrastructure provision facilitates the objectives of Project Ireland 2040.</p>	<p>In preparation.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Planning and Development Act 2000 (as amended)</b></p>	<ul style="list-style-type: none"> <li>The core principal objectives of this Act are to amend the Planning Acts of 2000 – 2022 with specific regard given to supporting economic renewal and sustainable development.</li> </ul>	<ul style="list-style-type: none"> <li>Development, with certain exceptions, is subject to development control under the Planning Acts and the local authorities grant or refuse planning permission for development, including ones within protected areas.</li> <li>There are, however, a range of exemptions from the planning system. Use of land for agriculture, peat extraction and afforestation, subject to certain thresholds, is generally exempt from the requirement to obtain planning permission.</li> <li>Additionally, Environmental Impact Assessment (EIA) is required for a range of classes and large scale projects.</li> <li>Under planning legislation, Development Plans must include mandatory objectives for the conservation of the natural heritage and for the conservation of European sites and any other sites which may be prescribed. There are also discretionary powers to set objectives for the conservation of a variety of other elements of the natural heritage.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>European Communities (Environmental Assessment of Certain Plans and Programmes Regulations 2004 (S.I. 435 of 2004), as amended by S.I. 200 of 2011</b></p>	<ul style="list-style-type: none"> <li>The purpose of these Regulations is to transpose into Irish law Directive 2001/42/EC of 27 June 2001 (O.J. No. L 197, 21 July 2001) on the assessment of the effects of certain plans and programmes on the environment — commonly known as the Strategic Environmental Assessment (SEA) Directive.</li> </ul>	<ul style="list-style-type: none"> <li>The Regulations cover plans and programmes in all of the sectors listed in article 3(2) of the Directive except land-use planning.</li> <li>These Regulations also amend certain provisions of the Planning and Development Act 2000 to provide the statutory basis for the transposition of the Directive in respect of land-use planning.</li> <li>Transposition in respect of the land-use planning sector is contained in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended)</b></p>	<ul style="list-style-type: none"> <li>These Regulations provide a new for the implementation in Ireland of Council Directive 92/43/EEC on habitats and protection of wild fauna and flora (as amended) and for the implementation of Directive 2009/147/EC of the European Parliament and of the Council on the protection of wild birds.</li> </ul>	<ul style="list-style-type: none"> <li>They provide, among other things, for: the appointment and functions of authorized officers; identification, classification and other procedures relative to the designation of Community sites.</li> <li>The Regulations have been prepared to address several judgments of the CJEU against Ireland, notably cases C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Waste Management Act 1996, as amended</b></p>	<ul style="list-style-type: none"> <li>To make provision in relation to the prevention, management and control of waste; to give effect to provisions of certain acts adopted by institutions of the European communities in respect of those matters; to amend the Environmental Protection Agency Act, 1992, and to repeal certain enactments and to provide for related matters.</li> </ul>	<ul style="list-style-type: none"> <li>The Waste Management Act contains a number of key legal obligations, including requirements for waste management planning, waste collection and movement, the authorisation of waste facilities, measures to reduce the production of waste and/or promote its recovery.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009 (S.I. 296 of 2009)</b></p>	<ul style="list-style-type: none"> <li>The purpose of these Regulations is to support the achievement of favourable conservation status for freshwater pearl mussels</li> </ul>	<p>Actions:</p> <ul style="list-style-type: none"> <li>Set environmental quality objectives for the habitats of the freshwater pearl mussel populations named in the First Schedule to these Regulations that are within the boundaries of a site notified in a candidate list of European sites, or designated as a Special Area of Conservation, under the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94/1997).</li> <li>Require the production of sub-basin management plans with programmes of measures to achieve these objectives.</li> <li>Set out the duties of public authorities in respect of the sub-basin management plans and programmes of measure</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>European Communities Environmental Objectives (Groundwater) Regulations 2016 (S.I. No. 366 of 2016)</b></p>	<ul style="list-style-type: none"> <li>To amend the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) to make further provision to implement Commission Directive 2014/80/EU of 20 June 2014 amending Annex II to Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration.</li> </ul>	<p>The substances and threshold values set out in Schedule 5 to S.I. No. 9 of 2010 have been reviewed and amended where necessary, based on existing monitoring information and international guidelines on appropriate threshold values.</p> <ul style="list-style-type: none"> <li>Part A of Schedule 6 has been amended to include changes to the rules governing the determination of background levels for the purposes of establishing threshold values for groundwater pollutants and indicators of pollution.</li> <li>Part B of Schedule 6 has been amended to include nitrites and phosphorus (total) / phosphates among the minimum list of pollutants and their indicators which the Environmental Protection Agency (EPA) must consider when establishing threshold values</li> <li>Part C of Schedule 6 amends the information to be provided to the Minister by the EPA with regard to the pollutants and their indicators for which threshold values have been established</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2014 (S.I. No. 31 of 2014)</b></p>	<ul style="list-style-type: none"> <li>• These Regulations, which give effect to Irelands 3rd Nitrates Action Programme, provide statutory support for good agricultural practice to protect waters against pollution from agricultural sources</li> </ul>	<p>The Regulations include measures such as:</p> <ul style="list-style-type: none"> <li>• Periods when land application of fertilisers is prohibited</li> <li>• Limits on the land application of fertilisers</li> <li>• Storage requirements for livestock manure; and</li> <li>• Monitoring of the effectiveness of the measures in terms of agricultural practice and impact on water quality.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Bathing Water Quality Regulations 2008 (S.I. 79 of 2008)</b></p>	<ul style="list-style-type: none"> <li>• These Regulations provide for transposition of the EU Bathing Water Directive 2006 (Directive 2006/7/EC of 15 February 2006) which aims:             <ul style="list-style-type: none"> <li>○ To improve health protection for bathers</li> <li>○ To establish a more pro-active approach to management of bathing waters, and</li> <li>○ To promote increased public involvement and dissemination of information to the public.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The Regulations establish a new classification system for bathing water quality based on four classifications “poor”, “sufficient”, “good” and “excellent” and generally require that a classification of at least “sufficient” be achieved by 2015 for all bathing waters.</li> <li>• Local authorities must take appropriate measures with a view to improving waters which are classified as “poor” and increasing the number of bathing waters classified as “good” or “excellent”.</li> <li>• A permanent advice against bathing must be issued in a case where a bathing water is classified as “poor” for five consecutive years.</li> <li>• Local authorities are required annually to identify bathing waters, establish a monitoring calendar, carry out the specified monitoring, report the results to the EPA, carry out appropriate management measures where necessary and provide information to the public.</li> <li>• There must be public participation in the identification of waters and the general implementation of the Regulations.</li> <li>• The EPA is required by the Regulations to classify bathing waters, generally on the basis of the monitoring results for the four preceding bathing seasons, and to publish an annual report in relation to bathing water quality.</li> <li>• Monitoring by local authorities is to commence not later than 2011 with a view to ensuring that a classification is assigned to bathing waters not later than 2015.</li> <li>• Private controllers of access lands may be required to contribute towards the costs incurred by a local authority or the EPA.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Bathing Water Quality (Amendment) Regulations 2011 (S.I 351 of 2011)</b></p>	<ul style="list-style-type: none"> <li>This Regulation defines further the minimum number of bathing water samples required to carry out a bathing water quality assessment.</li> </ul>	<ul style="list-style-type: none"> <li>Further defines the minimum number of bathing water samples required to carry out a bathing water quality assessment.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Climate Action and Low Carbon Development (Amendment) Act 2021</b></p>	<p>An Act to provide for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy.</p>	<p>When considering a plan or framework, for approval, the Government shall endeavour to achieve the national transition objective within the period to which the objective relates and shall, in endeavouring to achieve that objective, ensure that such objective is achieved by the implementation of measures that are cost effective and shall, for that purpose, have regard to:</p> <ul style="list-style-type: none"> <li>The ultimate objective specified in Article 2 of the United Nations Framework Convention on Climate Change done at New York on 9 May 1992 and any mitigation commitment entered into by the European Union in response or otherwise in relation to that objective,</li> <li>The policy of the Government on climate change,</li> <li>Climate justice,</li> <li>Any existing obligation of the State under the law of the European Union or any international agreement referred to in section 2; and</li> <li>The most recent national greenhouse gas emissions inventory and projection of future greenhouse gas emissions, prepared by the Agency.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Climate Action Plan 2023</b></p>	<p>The Climate Action Plan 2023 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.</p>	<p>The Plan lists the actions needed to deliver on our climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated annually, to ensure alignment with Ireland’s legally binding economy-wide carbon budgets and sectoral ceilings</p>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Ireland’s Second National Implementation Plan for the Sustainable Development Goals (2022 - 2024)</b></p>	<ul style="list-style-type: none"> <li>National Implementation Plan 2022 - 2024 is in direct response to the 2030 Agenda for Sustainable Development and provides a whole-of-government approach to implement the 17 Sustainable Development Goals (SDGs).</li> <li>The first version of the Plan (2018 – 2020) provided a 'SDG Matrix' which identifies the responsible Government Departments for each of the</li> </ul>	<p>The Plan identifies five strategic objectives to guide implementation:</p> <ul style="list-style-type: none"> <li>To embed the SDG framework into the work of Government Departments to achieve greater Policy Coherence for Sustainable Development;</li> <li>To integrate the SDGs into Local Authority work to better support the localisation of the SDGs;</li> <li>Greater partnerships for the Goals;</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

	169 targets. It also included a 'SDG Policy Map' indicating the relevant national policies for each of the targets.	<ul style="list-style-type: none"> <li>To further incorporate the principle of Leave No One Behind into Ireland's Agenda 2030 implementation and reporting mechanisms; and</li> <li>Strong reporting mechanisms</li> </ul>	
<b>Infrastructure and Capital Investment Plan (2016-2021)</b>	<ul style="list-style-type: none"> <li>€27 billion multi-annual Exchequer Capital Investment Plan, which is supported by a programme of capital investment in the wider State sector, and which over the period 2016 to 2021 will help to lay the foundations for continued growth in Ireland.</li> </ul>	<ul style="list-style-type: none"> <li>This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all.</li> <li>It includes allocations for new projects across a number of key areas and funding to ensure that the present stock of national infrastructure is refreshed and maintained.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Ireland's National Renewable Energy Action Plan 2010 (Irish Government submission to the European Commission)</b>	<ul style="list-style-type: none"> <li>The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under Directive 2009/28/EC.</li> </ul>	<ul style="list-style-type: none"> <li>The NREAP sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Strategy for Renewable Energy (2012-2020)</b>	<ul style="list-style-type: none"> <li>The Government's overarching strategic objective is to make renewable energy an increasingly significant component of Ireland's energy supply by 2020, so that at a minimum it will achieve its legally binding 2020 target in the most cost efficient manner for consumers.</li> </ul> <p>Of critical importance is the role which the renewable energy's activity as part of the Government's action plan for jobs sector plays in job creation and economic</p>	<p>This document sets out five strategic goals, reflecting the key dimensions of the renewable energy challenge to 2020:</p> <ul style="list-style-type: none"> <li>Increasing on and offshore wind,</li> <li>Building a sustainable bioenergy sector,</li> <li>Fostering R&amp;D in renewables such as wave &amp; tidal,</li> <li>Growing sustainable transport; and</li> <li>Building out robust and efficient networks.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

<p><b>National Climate Mitigation Plan 2017</b></p>	<ul style="list-style-type: none"> <li>The Plan represents an initial step to set Ireland on a pathway to achieve the deep decarbonisation required in Ireland by mid-century in line with the Government's policy objectives.</li> </ul>	<p>The National Mitigation Plan focuses on the following issues:</p> <ul style="list-style-type: none"> <li>Climate Action Policy Framework</li> <li>Decarbonising Electricity Generation</li> <li>Decarbonising the Built Environment</li> <li>Decarbonising Transport</li> <li>An Approach to Carbon Neutrality for Agriculture, Forest and Land Use Sectors</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Policy Position on Climate Action and Low Carbon Development (2014)</b></p>	<ul style="list-style-type: none"> <li>The National Policy Position provides a high-level policy direction for the adoption and implementation by Government of plans to enable the State to move to a low carbon economy by 2050.</li> <li>Statutory authority for the plans is set out in the Climate Action and Low Carbon Development Act 2015.</li> </ul>	<p>National climate policy in Ireland:</p> <ul style="list-style-type: none"> <li>Recognises the threat of climate change for humanity;</li> <li>Anticipates and supports mobilisation of a comprehensive international response to climate change, and global transition to a low-carbon future;</li> <li>Recognises the challenges and opportunities of the broad transition agenda for society; and</li> <li>Aims, as a fundamental national objective, to achieve transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Clean Air Strategy for Ireland (2023)</b></p>	<ul style="list-style-type: none"> <li>The Clean Air Strategy provides the strategic policy framework necessary to identify and promote integrated measures across government policy that are required to reduce air pollution and promote cleaner air while delivering on wider national objectives.</li> </ul>	<ul style="list-style-type: none"> <li>Through this document Ireland can develop the necessary policies and measures to comply with new and emerging EU legislation.</li> <li>The Strategy should also help tackle climate change.</li> <li>The Strategy considers a wider range of national policies that are relevant to clean air policy such as transport, energy, home heating and agriculture.</li> <li>In any discussion relating to clean air policy, the issue of people's health is paramount, this is a strong theme of the Strategy.</li> </ul>	<p>Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>EirGrid 's Grid25 Strategy and associated</b></p> <p><b>Grid25 Implementation Programme 2017 - 2022</b></p>	<ul style="list-style-type: none"> <li>EirGrid 's mission is to develop, maintain and operate a safe, secure, reliable, economical and efficient transmission system for Ireland.</li> <li><i>"Our vision is of a grid developed to match future needs, so it can safely and reliably carry power all over the country to the major towns and cities and onwards to every home, farm and business where the electricity is consumed and so it can meet the needs of consumers and generators in a sustainable way."</i></li> </ul>	<ul style="list-style-type: none"> <li>Grid25, EirGrid 's roadmap to uprate the electricity transmission grid by 2025, continues to be implemented so as to increase the capacity of the grid, to satisfy future demand, and to help Ireland meet its target of 40 per cent of electricity from renewable energy by 2020.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>All Island Grid Study 2008</b></p>	<ul style="list-style-type: none"> <li>The All Island Grid Study is the first comprehensive assessment of the ability of the electrical power system and, as part of that, the transmission network ("the grid") on the island of Ireland to absorb large amounts of electricity produced from renewable energy sources.</li> <li>The objective of this five-part study is to assess the technical feasibility and the relative costs and benefits associated with various scenarios for increased shares of electricity sourced from renewable energy in the all island power system.</li> </ul>	<p>Key conclusions of the study:</p> <ul style="list-style-type: none"> <li>The presented results indicate that the differences in cost between the highest cost and the lowest cost portfolios are low (7%), given the assumptions made and costs included in the Study.</li> <li>All but the high coal-based portfolio lead to significant reductions of CO2 emissions compared to portfolio 1</li> <li>All but the high coal-based portfolio lead to reductions on the dependency of the all island system on fuel and electricity imports.</li> <li>The limitations of the study may overstate the technical feasibility of the portfolios analysed and could impact the costs and benefits resulting. Further work is required to understand the extent of such impact.</li> <li>Timely development of the transmission networks, requiring means to address the planning challenge, is a precondition for implementation of the portfolios considered.</li> <li>Market mechanisms must facilitate the installation of complementary, i.e. flexible, dispatchable plant, so as to maintain adequate levels of system security.</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management</p>

<p><b>Strategy for the Future Development of National and Regional Greenways (2018)</b></p>	<ul style="list-style-type: none"> <li>The objective of this Strategy is to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations constructed to an appropriate standard in order to deliver a quality experience for all Greenways users.</li> <li>It also aims to increase the number and geographical spread of Greenways of scale and quality around the country over the next 10 years with a consequent significant increase in the number of people using Greenways as a visitor experience and as a recreational amenity.</li> </ul>	<ul style="list-style-type: none"> <li>A Strategic Greenway network of national and regional routes, with a number of high capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure;</li> <li>Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals thereby contributing to a healthier society through increased physical activity;</li> <li>Greenways that provide a substantially segregated offroad experience linking places of interest, recreation and leisure in areas with beautiful scenery of different types with plenty to see and do; and</li> <li>Greenways that provide opportunities for the development of local businesses and economies, and</li> <li>Greenways that are developed with all relevant stakeholders in line with an agreed code of practice.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Water Resources Plan (2021)</b></p>	<ul style="list-style-type: none"> <li>The NWRP is a plan on how to provide a safe, secure and reliable water supply to customers for the next 25 years, without causing adverse impact on the environment.</li> <li>The objective of the NWRP is to set out how we intend to maintain the supply and demand for drinking water over the short, medium and long term whilst minimising the impact on the environment.</li> </ul>	<p>The key objectives of the plan are to:</p> <ul style="list-style-type: none"> <li>Identify areas where there are current and future potential water supply shortfalls, taking into account normal and extreme weather conditions</li> <li>Assess the current and future water demand from homes, businesses, farms, and industry</li> <li>Consider the impacts of climate change on Ireland’s water resources</li> <li>Develop a drought plan advising measures to be taken before and during drought events</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

		<ul style="list-style-type: none"> <li>• Develop a plan detailing how we deal with the material that is produced as a result of treating drinking water</li> <li>• Identify, develop and assess options to help meet potential shortfalls in water supplies</li> <li>• Assess the water resources available at a national level including lakes, rivers and groundwater</li> </ul>	
<p><b>Draft National Strategic Plan for Aquaculture Development 2030</b>  <b>[Awaiting publication]</b></p>	<p><i>“This multi-annual National Strategic Plan Sustainable Aquaculture Development (2022 – 2030) (NSPSA) overlaps with the EU’s new ‘Strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030’, as well as the programming period (2021 to 2027) of the European Maritime Fisheries and Aquaculture Fund (EMFAF). As such, this plan provides the strategic vision and framework for funding under EMFAF, as well as other EU and national initiatives.”</i></p>	<ul style="list-style-type: none"> <li>• Develop ‘Designated Marine Area Plans’ (DMAPs) for aquaculture to ensure that the sector is championed in Ireland’s Marine Spatial Plan to facilitate investment in different forms of sustainable aquaculture.</li> <li>• More vigilant and responsive monitoring if aquatic diseases and food safety risks.</li> <li>• Develop a comprehensive human capacity plan for Irish aquaculture to promote the sector as an attractive career option, develop leadership, management and business capacity in the sector and provide the necessary skills required over the strategy time period.</li> <li>• Provide coordinated messaging on the sustainable, low carbon nature of Irish aquaculture production, supported by independent certification and open dialogue.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Construction 2020, A Strategy for a Renewed Construction Sector</b></p>	<ul style="list-style-type: none"> <li>• Construction 2020 sets out a package of measures agreed by the Government and is aimed at stimulating activity in the building industry.</li> <li>• The Strategy aims both to increase the capacity of the sector to create and maintain jobs, and to deliver a sustainable sector, operating at an appropriate level. It seeks to learn the lessons of the past and to ensure that the right structures and mechanisms are in place so that they are not repeated.</li> </ul>	<p>This Strategy therefore addresses issues including:</p> <ul style="list-style-type: none"> <li>• A strategic approach to the provision of housing, based on real and measured needs, with mechanisms in place to detect and act when things are going wrong;</li> <li>• Continuing improvement of the planning process, striking the right balance between current and future requirements;</li> <li>• The availability of financing for viable and worthwhile projects;</li> <li>• Access to mortgage finance on reasonable and sustainable terms;</li> <li>• Ensuring we have the tools we need to monitor and regulate the sector in a way that underpins public confidence and worker safety;</li> <li>• Ensuring a fit for purpose sector supported by a highly skilled workforce achieving high quality and standards; and</li> <li>• Ensuring opportunities are provided to unemployed former construction workers to contribute to the recovery of the sector.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Sustainable Development: A Strategy for Ireland (1997)</b></p>	<ul style="list-style-type: none"> <li>The overall aim of this Strategy is to ensure that economy and society in Ireland can develop to their full potential within a well-protected environment, without compromising the quality of that environment, and with responsibility towards present and future generations and the wider international community.</li> </ul>	<ul style="list-style-type: none"> <li>The Strategy addresses all areas of Government policy, and of economic and societal activity, which impact on the environment. It seeks to re-orientate policies as necessary to ensure that the strong growth Ireland enjoys and seeks to maintain will be environmentally sustainable.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Landscape Strategy for Ireland 2015-2025 and National Landscape Character Assessment (pending preparation)</b></p>	<ul style="list-style-type: none"> <li>The National Landscape Strategy will be used to ensure compliance with the European Landscape Convention and to establish principles for protecting and enhancing the landscape while positively managing its change. It will provide a high level policy framework to achieve balance between the protection, management and planning of the landscape by way of supporting actions.</li> <li>Landscape Strategy Vision: <i>“Our landscape reflects and embodies our cultural values and our shared natural heritage and contributes to the well-being of our society, environment and economy. We have an obligation to ourselves and to future generations to promote its sustainable protection, management and planning.”</i></li> </ul>	<p>The objectives of the National Landscape Strategy are to:</p> <ul style="list-style-type: none"> <li>Implement the European Landscape Convention by integrating landscape into the approach to sustainable development;</li> <li>Establish and embed a public process of gathering, sharing and interpreting scientific, technical and cultural information in order to carry out evidence-based identification and description of the character, resources and processes of the landscape;</li> <li>Provide a policy framework, which will put in place measures at national, sectoral - including agriculture, tourism, energy, transport and marine - and local level, together with civil society, to protect, manage and properly plan through high quality design for the sustainable stewardship of the landscape;</li> <li>Ensure that we take advantage of opportunities to implement policies relating to landscape use that are complementary and mutually reinforcing and that conflicting policy objectives are avoided in as far as possible.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>National Hazardous Waste Management Plan (EPA) 2021 - 2027</b></p>	<ul style="list-style-type: none"> <li>This Plan sets out the priorities to be pursued over the next six years and beyond to improve the management of hazardous waste, taking into account the progress made since the previous plan and the waste policy and legislative changes that have occurred since the previous plan was published.</li> </ul> <p>Section 26 of the Waste Management Act 1996 as amended, sets out the overarching objectives for the National Hazardous Waste Management Plan. In this context, the following objectives are included as priorities for the revised Plan period:</p> <ul style="list-style-type: none"> <li>To prevent and reduce the generation of hazardous waste by industry and society generally;</li> <li>To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste;</li> <li>To strive for increased self-sufficiency in the management of hazardous waste and to minimise hazardous waste export;</li> <li>To minimise the environmental, health, social and economic impacts of hazardous waste generation and management.</li> </ul>	<p>The revised Plan makes 20 recommendations under the following topics:</p> <ul style="list-style-type: none"> <li>Policy and Regulation</li> <li>Prevention</li> <li>Collection and Treatment</li> <li>Implementation</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
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<p><b>National Ports Policy 2013</b></p>	<ul style="list-style-type: none"> <li>The core objective of National Ports Policy is to facilitate a competitive and effective market for maritime transport services.</li> </ul>	<p>National Ports Policy introduces clear categorisation of the ports sector into Ports of National Significance (Tier 1), Ports of National Significance (Tier 2) and Ports of Regional Significance.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Aviation Policy 2015</b></p>	<p>Specifically, the principal goals of this National Aviation Policy are:</p> <ul style="list-style-type: none"> <li>To enhance Ireland’s connectivity by ensuring safe, secure and competitive access responsive to the needs of business, tourism and consumers;</li> <li>To foster the growth of aviation enterprise in Ireland to support job creation and position Ireland as a recognised global leader in aviation; and</li> <li>To maximise the contribution of the aviation sector to Ireland’s economic growth and development.</li> </ul>	<p>The National Aviation Policy commits to:</p> <ul style="list-style-type: none"> <li>Maintaining safety as the number one priority in Irish aviation and ensuring that safety regulation is robust, effective and efficient;</li> <li>Creating conditions to encourage the development of new routes and services, particularly to new and emerging markets;</li> <li>Ensuring a high level of competition among airlines operating in the Irish market;</li> <li>Optimising the operation of the Irish airport network to ensure maximum connectivity to the rest of the world;</li> <li>Ensuring that the regulatory framework for aviation reflects best international practice and that economic regulation facilitates continued investment in aviation infrastructure at Irish airports to support traffic growth;</li> <li>Supporting the aircraft leasing and aviation finance sectors to maintain Ireland’s leading global position in these spheres; and</li> <li>Maintaining a safe and innovative general aviation sector to support Ireland’s broader aviation industry</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Ministerial Guidelines such as Sustainable Rural Housing Guidelines and Flood Risk Management Guidelines</b></p>	<ul style="list-style-type: none"> <li>The Department produces a range of guidelines designed to help planning authorities, An Bord Pleanála, developers and the general public and cover a wide range of issues amongst others, architectural heritage, child care facilities, landscape, quarries and residential density.</li> </ul>	<ul style="list-style-type: none"> <li>The Minister issues statutory guidelines under Section 28 of the Act which planning authorities and An Bord Pleanála are obliged to have regard to in the performance of their planning functions.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>HSE Healthy Ireland Framework for Improved Health and Wellbeing 2013-2025</b></p>	<ul style="list-style-type: none"> <li>The vision is: <i>“A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone’s responsibility.”</i></li> </ul>	<p>These four goals are interlinked, interdependent and mutually supportive:</p> <ul style="list-style-type: none"> <li>Goal 1: Increase the proportion of people who are healthy at all stages of life</li> <li>Goal 2: Reduce health inequalities</li> <li>Goal 3: Protect the public from threats to health and wellbeing</li> <li>Goal 4: Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Marine Planning Framework 2021</b></p>	<p>The NMPF is a key consideration for decision makers on all marine authorisations. The NMPF creates the overarching framework for decision making that is consistent, evidence based, and secures a sustainable future for the maritime area.</p>	<p>The National Marine Planning Framework is a succinct strategic document that will deal with, inter alia, the following environmental, social and economic issues:</p> <ul style="list-style-type: none"> <li>Key marine activities such as fisheries, tourism, transport, offshore renewable energy generation, oil and gas exploration and production, aquaculture, and how they interact;</li> <li>Climate change and related impacts;</li> <li>Communities and health;</li> <li>Cultural heritage;</li> <li>Marine environment and biodiversity;</li> <li>Transboundary interactions with other jurisdictions.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Tourism Action Plan 2019 - 2021</b></p>	<p>Includes a total of 27 actions to be addressed in the period between now and 2018 aimed at securing continued growth in overseas tourism revenue and employment.</p>	<p>23 actions address a range of key issues, including the marketing of Ireland as a visitor destination overseas, visitor access to and within Ireland, the effective presentation of Irish culture, sport, and events to visitors, the role of Local Authorities in supporting tourism, visitor accommodation capacity, and skills development in the tourism sector. The actions are directed at specific tourism stakeholders in the public and private sectors, all of whom are expected to proactively work towards completion of each action within the specified timeframe.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025</b></p>	<p>The main goal of this policy statement is to have a vibrant, attractive tourism sector that makes a significant contribution to employment across the country; is economically, socially and environmentally sustainable; helps promote a positive image of Ireland overseas, and is a sector in which people want to work.</p>	<p>The Tourism Policy Statement sets three headline targets to be achieved by 2025:</p> <ul style="list-style-type: none"> <li>• Overseas tourism revenue of €5 billion per year</li> <li>• net of inflation excluding carrier receipts;</li> <li>• 250,000 people employed in tourism; and</li> <li>• 10 million overseas visitors to Ireland per year.</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Tourism 2020: Tourism Strategy for Northern Ireland to 2020</b></p>	<ul style="list-style-type: none"> <li>• Northern Ireland's Tourism Strategy until 2020</li> <li>• Vision is to “Create the new Northern Ireland experience and get it on everyone’s destination wish list”</li> <li>• Details an Action Plan to achieving targets for People, Products and Places, Promotion and Partnership</li> </ul>	<ul style="list-style-type: none"> <li>• Sets targets for:             <ul style="list-style-type: none"> <li>○ Increasing visitor numbers</li> <li>○ Increasing tourism earnings</li> <li>○ Accelerating visitor spend</li> <li>○ Targeting specific markets and segments</li> <li>○ Supporting indigenous high quality businesses</li> <li>○ Being visitor inspired</li> </ul> </li> <li>• Plan provides for development of at least 22 key sites on Causeway Coastal Route</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Our Sustainable Future: A framework for Sustainable Development for Ireland 2012</b></p>	<p>A medium to long term framework for advancing sustainable development and the green economy in Ireland. It identifies spatial planning as a key challenge for sustainable development and sets a series of measures to address these challenges.</p>	<ul style="list-style-type: none"> <li>• Sets out the challenges facing us and how we might address them in making sure that quality of life and general wellbeing can be improved and sustained in the decades to come.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020 (2009)</b></p>	<ul style="list-style-type: none"> <li>• Outlines a policy for how a sustainable travel and transport system can be achieved.</li> <li>• Sets out five key goals:           <ul style="list-style-type: none"> <li>○ To reduce overall travel demand.</li> <li>○ To maximise the efficiency of the transport network.</li> <li>○ To reduce reliance on fossil fuels.</li> <li>○ To reduce transport emissions.</li> <li>○ To improve accessibility to transport.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Others lower level aims include:           <ul style="list-style-type: none"> <li>○ reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment</li> <li>○ ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking</li> <li>○ improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies</li> <li>○ strengthening institutional arrangements to deliver the targets</li> </ul> </li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Investment Framework for Transport in Ireland (NIFTI) 2021</b></p>	<ul style="list-style-type: none"> <li>• NIFTI is the Department of Transport’s framework for prioritising future investment in the land transport network to support the delivery of the National Strategic Outcomes.</li> <li>• The NIFTI will guide transport investment in the years ahead to enable the National Planning Framework, support the Climate Action Plan, and promote social, environmental and economic outcomes throughout Ireland.</li> </ul>	<p>The four investment priorities stated in NIFTI are:</p> <ul style="list-style-type: none"> <li>• Mobility of people and goods in urban areas.</li> <li>• Protection and renewal.</li> <li>• Enhanced regional and rural connectivity.</li> <li>• Decarbonisation.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007 – 2020 (2007)</b></p>	<ul style="list-style-type: none"> <li>• White paper setting out a framework for delivering a sustainable energy future in Ireland.</li> <li>• Outlines strategic Goals for:           <ul style="list-style-type: none"> <li>○ Security of Supply</li> <li>○ Sustainability of Energy</li> <li>○ Competitiveness of Energy Supply</li> </ul> </li> </ul>	<p>The underpinning Strategic Goals are:</p> <ul style="list-style-type: none"> <li>• Ensuring that electricity supply consistently meets demand</li> <li>• Ensuring the physical security and reliability of gas supplies to Ireland</li> <li>• Enhancing the diversity of fuels used for power generation</li> <li>• Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks</li> <li>• Creating a stable attractive environment for hydrocarbon exploration and production</li> <li>• Being prepared for energy supply disruptions</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>National Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans (including transport)</b></p>	<ul style="list-style-type: none"> <li>• NAF specifies the national strategy for the application of adaptation measures in different sectors and by local authorities in their administrative areas in order to reduce the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur</li> </ul>	<ul style="list-style-type: none"> <li>• Adaptation under this Framework should seek to minimise costs and maximise the opportunities arising from climate change.</li> <li>• Adaptation actions range from building adaptive capacity (e.g. increasing awareness, sharing information and targeted training) through to policy and finance based actions.</li> <li>• Adaptation actions must be risk based, informed by existing vulnerabilities of our society and systems and an understanding of projected climate change.</li> <li>• Adaptation actions taken to increase climate resilience must also consider impacts on other sectors and levels of governance</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Governments White Paper ‘Ireland’s Transition to a Low Carbon Energy Future’ (2015 – 2030)</b></p>	<p>The White Paper sets out a vision and a framework to guide Irish energy policy between now and 2030. A complete energy policy update informed by the vision to transform Ireland into a low carbon society and economy by 2050.</p>	<p>2030 will represent a significant milestone, meaning:</p> <ul style="list-style-type: none"> <li>• Reduced GHG emissions from the energy sector by between 80% and 95%</li> <li>• Ensuring that secure supplies of competitive and affordable energy remain available to citizens and businesses.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Renewable Energy Action Plan (2010)</b></p>	<ul style="list-style-type: none"> <li>• Sets out the Member State’s national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive.</li> </ul>	<p>Including Ireland’s 16% target of gross final consumption to come from renewables by 2020.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>National Energy Efficiency Action Plan for Ireland (2009 – 2020)</b></p>	<ul style="list-style-type: none"> <li>This is the second National Energy Efficiency Action Plan for Ireland.</li> </ul>	<ul style="list-style-type: none"> <li>The Plan reviews the original 90 actions outlined in the first Plan and updates/renews/removes them as appropriate.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Wildlife Act of 1976</b>  <b>Wildlife (Amendment) Act, 2000</b></p>	<ul style="list-style-type: none"> <li>The act provides protection and conservation of wild flora and fauna.</li> </ul>	<ul style="list-style-type: none"> <li>Provides protection for certain species, their habitats and important ecosystems</li> <li>Give statutory protection to NHAs</li> <li>Enhances wildlife species and their habitats</li> <li>Includes more species for protection</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Actions for Biodiversity (2017- 2021) Ireland’s National Biodiversity Plan</b></p>	<ul style="list-style-type: none"> <li>Sets out strategic objectives, targets and actions to conserve and restore Ireland’s biodiversity and to prevent and reduce the loss of biodiversity in Ireland and globally.</li> </ul>	<ul style="list-style-type: none"> <li>To mainstream biodiversity in the decision-making process across all sectors.</li> <li>To substantially strengthen the knowledge base for conservation, management and sustainable use of biodiversity.</li> <li>To increase awareness and appreciation of biodiversity and ecosystems services.</li> <li>To conserve and restore biodiversity and ecosystem services in the wider countryside.</li> <li>To conserve and restore biodiversity and ecosystem services in the marine environment.</li> <li>To expand and improve on the management of protected areas and legally protected species.</li> <li>To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>National Broadband Plan (2012)</b></p>	<ul style="list-style-type: none"> <li>Sets out the strategy to deliver high speed broadband throughout Ireland.</li> </ul>	<p>The Plan sets out:</p> <ul style="list-style-type: none"> <li>A clear statement of Government policy on the delivery of High Speed Broadband.</li> <li>Specific targets for the delivery and rollout of high speed broadband and the speeds to be delivered.</li> <li>The strategy and interventions that will underpin the successful implementation of these targets.</li> <li>A series of specific complementary measures to promote implementation of Government policy in this area.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009)</b></p>	<ul style="list-style-type: none"> <li>Sets out comprehensive mechanisms for the incorporation of flood risk identification, assessment and management into the planning process.</li> <li>Ensures flood risk is a key consideration in preparing land use plans and in the assessment of planning applications.</li> <li>Implementation of the Guidelines is through actions at national, regional, local authority and site-specific levels.</li> <li>Planning authorities and An Bord Pleanála are required to have regard to the Guidelines in carrying out their functions under the Planning Acts.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid inappropriate development in areas at risk of flooding.</li> <li>Avoid new developments increasing flood risk elsewhere, including that which may arise from surface water run-off.</li> <li>Ensure effective management of residual risks for development permitted in floodplains.</li> <li>Avoid unnecessary restriction of national, regional or local economic and social growth.</li> <li>Improve the understanding of flood risk among relevant stakeholders.</li> <li>Ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management.</li> </ul> <p>The 2009 Flood Risk Management Guidelines were amended by Circular PL 2/2014 (Department of the Environment, Community and Local Government) that provides advice on the use of OPW flood mapping in assessing planning applications and clarifies some advice from the 2009 Guidelines.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>European Communities (Water Policy) Regulations of 2003 (SI 722 of 2003)</b></p> <p><b>European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)</b></p>	<ul style="list-style-type: none"> <li>Transpose the Water Framework Directive into legislation.</li> <li>Outlines the general duty of public authorities in relation to water.</li> <li>Identifies the competent authorities in charge of water policy (amended to Irish Water in 2013) and gives EPA and the CER the authority to regulate and supervise their actions.</li> </ul>	<ul style="list-style-type: none"> <li>Implements River basin districts and characterisation of RBDs and River Basin Management Plans.</li> <li>Requires the public to be informed and consulted on the Plan and for progress reports to be published on RBDs.</li> <li>Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies.</li> <li>Allows the competent authority to recover the cost of damage/destruction of status of water body.</li> <li>Outlines environmental objectives and programme of measures and environmental quality standards for priority substances.</li> <li>Outlines criteria for assessment of groundwater.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>European Communities Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of 2009)</b></p>		<ul style="list-style-type: none"> <li>• Outlines environmental objectives to be achieved for surface water bodies.</li> <li>• Outlines surface water quality standards.</li> <li>• Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality.</li> </ul>	
<p><b>European Communities Environmental Objectives (Groundwater) Regulations of 2010 (SI 9 of 2010)</b></p>	<ul style="list-style-type: none"> <li>• Transpose the requirements of the Groundwater Directive 2006/118/EC into Irish Legislation.</li> </ul>	<ul style="list-style-type: none"> <li>• Outlines environmental objectives to be achieved for groundwater bodies of groundwater against pollution and deterioration in quality.</li> <li>• Sets groundwater quality standards.</li> <li>• Outlines threshold values for the classification and protection of groundwater.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Local Government (Water Pollution) Acts 1977 to 1990</b></p>	<ul style="list-style-type: none"> <li>• The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division.</li> </ul>	<p>The Water Pollution Acts enable local authorities to:</p> <ul style="list-style-type: none"> <li>• Prosecute for water pollution offences.</li> <li>• Attach appropriate pollution control conditions in the licensing of effluent discharges from industry, etc., made to waters.</li> <li>• Issue notices ("section 12 notices") to farmers, etc., specifying measures to be taken within a prescribed period to prevent water pollution.</li> <li>• Issue notices requiring a person to cease the pollution of waters and requiring the mitigation or remedying of any effects of the pollution in the manner and within the period specified in such notices;</li> <li>• Seek court orders, including High Court injunctions, to prevent, terminate, mitigate or remedy pollution/its effects.</li> <li>• Prepare water quality management plans for any waters in or adjoining their functional areas.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Water Services Act 2007</b></p> <p><b>Water Services (Amendment) Act 2012</b></p> <p><b>Water Services Act (No. 2) 2013</b></p>	<ul style="list-style-type: none"> <li>• Provides the water services infrastructure.</li> <li>• Outlines the responsibilities involved in delivering and managing water services.</li> <li>• Identifies the authority in charge of provision of water and waste water supply.</li> <li>• Irish Water was given the responsibility of the provision of water and wastewater services in the amendment act during 2013, therefore these services are no longer the responsibility of the 34 Local Authorities in Ireland.</li> </ul>	<p>Key strategic objectives include:</p> <ul style="list-style-type: none"> <li>• Ensuring Irish Water delivers infrastructural projects that meet key public health, environmental and economic objectives in the water services sector.</li> <li>• Ensuring the provision of adequate water and sewerage services in the gateways and hubs listed in the National Spatial Strategy, and in other locations where services need to be enhanced.</li> <li>• Ensuring good quality drinking water is available to all consumers of public and group water supplies, in compliance with national and EU drinking water standards</li> <li>• Ensuring the provision of the remaining infrastructure needed to provide secondary wastewater treatment, for compliance with the requirements of the EU Urban Wastewater Treatment Directive.</li> <li>• Promoting water conservation through Irish Water’s Capital Investment Plan, the Rural Water Programme and other measures.</li> <li>• Monitoring the on-going implementation of septic tanks inspection regime and the National Inspection Plan for Domestic Waste Water Treatment Systems.</li> <li>• Ensuring a fair funding model to deliver water services.</li> <li>• Overseeing the establishment of an economic regulation function under the CER.</li> </ul>	<p>Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Irish Water’s (now known as Uisce Eireann) Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2020 - 2024)</b></p>	<ul style="list-style-type: none"> <li>• This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term.</li> </ul>	<p>Six strategic objectives as follows:</p> <ul style="list-style-type: none"> <li>• Meet Customer Expectations.</li> <li>• Ensure a Safe and Reliable Water Supply.</li> <li>• Provide Effective Management of Wastewater.</li> <li>• Protect and Enhance the Environment.</li> <li>• Support Social and Economic Growth.</li> <li>• Invest in the Future.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Raised Bog SAC Management Plan and Review of Raised Bog Natural Heritage Areas 2017 - 2022</b></p>	<ul style="list-style-type: none"> <li>Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that the implications of management choices for water levels, quantity and quality are fully explored, understood and factored into policy making and land use planning.</li> <li>Review the current raised bog NHA network in terms of its contribution to the national conservation objective for raised bog habitats and determine the most suitable sites to replace the losses of active raised bog habitat and high bog areas within the SAC network and to enhance the national network of NHAs.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Food Harvest 2020</b></p>	<ul style="list-style-type: none"> <li>Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas.</li> </ul>	<ul style="list-style-type: none"> <li>Seeks for the improvement of all agricultural sectors at all levels in terms of sustainability, environmental consideration and marketing development.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Agri-vision 2015 Action Plan</b></p>	<p>Outlines the vision for agricultural industry to improve competitiveness and response to market demand while respecting and enhancing the environment</p>	<p>not applicable</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Rural Environmental Protection Scheme (REPS)</b></p> <p><b>Agri-Environmental Options Scheme (AEOS)</b></p> <p><b>Green, Low-Carbon, Agri-environment Scheme (GLAS)</b></p>	<ul style="list-style-type: none"> <li>• Agri-environmental funding schemes aimed at rural development for the environmental enhancement and protection.</li> <li>• GLAS is the new replacement for REPS and AEOS which are both expiring.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish best practice farming methods and production methods in order to protect landscapes and maximise conservation.</li> <li>• Protect biodiversity, endangered species of flora and fauna and wildlife habitats.</li> <li>• Ensure food is produced with the highest regard to the environment.</li> <li>• Implement nutrient management plans and grassland management plans.</li> <li>• Protect and maintain water bodies, wetlands and cultural heritage.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Rural Development Programme</b></p>	<ul style="list-style-type: none"> <li>• The National Rural Development Programme, prepared by the Department of Agriculture, Fisheries and Food, sets out a national programme based on the EU framework for rural development and prioritises improving the competitiveness of agriculture, improving the environment and improving the quality of life in rural areas</li> </ul>	<p>At a more detailed level, the programme also:</p> <ul style="list-style-type: none"> <li>• Supports structural change at farm level including training young farmers and encouraging early retirement, support for restructuring, development and innovation;</li> <li>• Aims to improve the environment, biodiversity and the amenity value of the countryside by support for land management through funds such as Natura 2000 payments etc.; and</li> <li>• Aims to improve quality of life in rural areas and encouraging diversification of economic activity through the implementation of local development strategies such as non-agricultural activities</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>National Forestry Programme (2014-2020)</b></p>	<ul style="list-style-type: none"> <li>Represents Ireland’s proposals for 100% State aid funding for a new Forestry Programme for the period 2014 – 2020.</li> </ul>	<p>Measures include the following:</p> <ul style="list-style-type: none"> <li>Afforestation and Creation of Woodland</li> <li>NeighbourWood Scheme</li> <li>Forest Roads</li> <li>Reconstitution Scheme</li> <li>Woodland Improvement Scheme</li> <li>Native Woodland Conservation Scheme</li> <li>Knowledge Transfer and Information Actions</li> <li>Producer Groups</li> <li>Innovative Forest Technology</li> <li>Forest Genetic Reproductive Material</li> <li>Forest Management Plans</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>River Basin Management Plan</b></p>	<ul style="list-style-type: none"> <li>River Basin Management Plans set out the measures planned to maintain and improve the status of waters.</li> </ul>	<ul style="list-style-type: none"> <li>Aim to protect and enhance all water bodies in the RBD and meet the environmental objectives outlined in Article 4 of the Water Framework Directive.</li> <li>Identify and manages water bodies in the RBD.</li> <li>Establish a programme of measures for monitoring and improving water quality in the RBD.</li> <li>Involve the public through consultations.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Peatlands Strategy (2015-2025)</b></p>	<p>This Strategy aims to provide a long-term framework within which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations.</p>	<p>Objectives of the Strategy:</p> <ul style="list-style-type: none"> <li>To give direction to Ireland’s approach to peatland management.</li> <li>To apply to all peatlands, including peat soils.</li> <li>To ensure that the relevant State authorities and state owned companies that influence such decisions contribute to meeting cross-cutting objectives and obligations in their policies and actions.</li> <li>To ensure that Ireland’s peatlands are sustainably managed so that their benefits can be enjoyed responsibly.</li> <li>To inform appropriate regulatory systems to facilitate good decision making in support of responsible use.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

		<ul style="list-style-type: none"> <li>To inform the provision of appropriate incentives, financial supports and disincentives where required.</li> <li>To provide a framework for determining and ensuring the most appropriate future use of cutover and cutaway bogs.</li> </ul> <p>To ensure that specific actions necessary for the achievement of its objectives are clearly identified and delivered by those involved in or responsible for peatlands management or for decisions affecting their management.</p>	
<b>Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme</b>	<ul style="list-style-type: none"> <li>The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive.</li> </ul>	CFRAM Studies have been undertaken for all River Basin Districts. The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. Flood Risk and Hazard mapping, including Flood Extent Mapping, was finalised in 2017. The final outputs from the studies are the CFRAM Plans, finalised in 2018. The Plans define the current and future flood risk in the River Basin Districts and set out how this risk can be managed.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Draft National Bioenergy Plan 2014 - 2020</b>	<p>The Draft Bioenergy Plan sets out a vision as follows:</p> <ul style="list-style-type: none"> <li>Bioenergy resources contributing to economic development and sustainable growth, generating jobs for citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.</li> </ul>	<p>Three high level goals, of equal importance, based on the concept of sustainable development are identified:</p> <ul style="list-style-type: none"> <li>To harness the market opportunities presented by bioenergy in order to achieve economic development, growth and jobs.</li> <li>To increase awareness of the value, opportunities and societal benefits of developing bioenergy.</li> <li>To ensure that bioenergy developments do not adversely impact the environment and its living and non-living resources.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Draft Renewable Electricity Policy and Development Framework (DCCA) 2016</b>	<p>Goal: To optimise the opportunities in Ireland for renewable electricity development on land at significant scale, to serve both the All Island Single Electricity Market and any future regional market within the European Union, in accordance with European and Irish law, including Directive 2009/28/EC: On the promotion of the use of energy from renewable resources.</p>	<p>Objective: To develop a Policy and Development Framework for renewable electricity generation on land to serve both the All Island Single Electricity Market and any future regional market within the European Union, with particular focus on large scale projects for indigenous renewable electricity generation. This will, inter alia, provide guidance for planning authorities and An Bord Pleanála.</p>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

<p><b>National Alternative Fuels Infrastructure for the Transport Sector (DTTAS) 2017- 2030</b></p>	<p>This Framework sets targets to achieve an appropriate level of alternative fuels infrastructure for transport, which is relative to national policy and Irish market needs. Non- infrastructure-based incentives to support the use of the infrastructure and the uptake of alternative fuels are also included within the scope of the Framework.</p>	<p>Targets for alternative fuel infrastructure include the following:</p> <ul style="list-style-type: none"> <li>• AFV forecasts</li> <li>• Electricity targets</li> <li>• Natural gas (CNG, LNG) targets</li> <li>• Hydrogen targets</li> <li>• Biofuels targets</li> <li>• LPG targets</li> <li>• Synthetic and paraffinic fuels targets</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Food Wise 2025 (DAFM)</b></p>	<p>Food Wise 2025 sets out a ten year plan for the agri-food sector. It underlines the sector’s unique and special position within the Irish economy, and it illustrates the potential which exists for this sector to grow even further.</p>	<p>Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including:</p> <ul style="list-style-type: none"> <li>• 85% increase in exports to €19 billion.</li> <li>• 70% increase in value added to €13 billion.</li> <li>• 60% increase in primary production to €10 billion.</li> <li>• The creation of 23,000 additional jobs all along the supply chain from producer level to high end value added product development.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Cycle Network Scoping Study 2010</b></p>	<ul style="list-style-type: none"> <li>• Outlines objectives and actions aimed at developing a strong cycle network in Ireland</li> <li>• Sets out 19 specific objectives, and details the 109 actions, aimed at ensuring that a cycling culture is developed</li> </ul>	<ul style="list-style-type: none"> <li>• Sets a target where 10% of all journeys will be made by bike by 2020</li> <li>• Proposes the planning, infrastructure, communication, education and stakeholder participations measures required to implement the initiative</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Strategic Planning Policy Statement (SPPS) NI</b></p>	<p>The SPPS consolidates some twenty separate policy publications into one document and sets out strategic subject planning policy for a wide range of planning matters. It also provides the core planning principles to underpin delivery of the two-tier planning system with the aim of furthering sustainable development.</p>	<ul style="list-style-type: none"> <li>• The overall objective of the planning system is to further sustainable development and improve well-being for the people of the North.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>National Policy Framework For Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030</b></p>	<ul style="list-style-type: none"> <li>This National Policy Framework on Alternative Fuels Infrastructure for Transport represents the first step in communicating our longer term national vision for decarbonising transport by 2050, the cornerstone of which is our ambition that by 2030 all new cars and vans sold in Ireland will be zero-emissions capable.</li> <li>By 2030 it is envisaged that the movement in Ireland to electrically-fuelled cars and commuter rail will be well underway, with natural gas and biofuels developing as major alternatives in the freight and bus sectors.</li> </ul>	<p>This policy set out to achieve five key goals in transport:</p> <ul style="list-style-type: none"> <li>Reduce overall travel demand</li> <li>Maximise the efficiency of the transport network</li> <li>Reduce reliance on fossil fuels</li> <li>Reduce transport emissions</li> <li>Improve accessibility to transport</li> </ul> <p>These goals remain the cornerstone of transport policy and are fully aligned to the objectives of this National Policy Framework.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Regional/ County/Local Level</b></p>			
<p><b>Regional Economic and Spatial Strategies</b></p>	<p>The Regional Spatial and Economic Strategies provide a long-term regional level strategic planning and economic framework in support of the implementation of the National Planning Framework.</p>	<p>The Eastern and Midland Regional Economic and Spatial Strategy includes provisions for its 12 constituent local authorities: Fingal County Council; Dublin City Council; South Dublin County Council; Dún Laoghaire-Rathdown County Council; Louth County Council; Kildare County Council; Meath County Council; Wicklow County Council; Longford County Council; Laois County Council; Offaly County Council; and Westmeath County Council.</p> <p>The Southern Regional Economic and Spatial Strategy includes provisions for its nine constituent local authorities: Waterford City and County Council, Cork City Council, Cork County Council, Tipperary County Council, Wexford County Council, Kerry County Council, Clare County Council, Limerick City and County Council, Kilkenny County Council and Carlow County Council.</p> <p>The Northern and Western Regional Spatial and Economic Strategy includes provisions for its eight constituent local authorities: Donegal County Council, Leitrim County Council, Sligo County Council, Cavan County Council, Monaghan County Council, Mayo County Council, Roscommon County Council; and Galway County Council.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<p><b>Regional Development Strategy 2035 (Northern Ireland)</b></p>	<ul style="list-style-type: none"> <li>Spatial strategy for the future development of Northern Ireland.</li> <li>Strategic planning framework to facilitate and guide public and private sectors.</li> </ul>	<ul style="list-style-type: none"> <li>Aims to provide long-term policy direction with a strategic spatial perspective.</li> </ul>	<p>Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Greater Dublin Area (GDA) Transport Strategy (2016-2035)</b></p>	<ul style="list-style-type: none"> <li>It sets out how transport will be developed across the region, covering Dublin, Meath, Wicklow and Kildare, over the period of the strategy and has been approved by the Minister for Transport, Tourism and Sport in accordance with the relevant legislation.</li> <li>The Vision Statement: <i>“The GDA by 2022 is an economically vibrant, active and sustainable international Gateway Region, with strong connectivity across the GDA Region, nationally and worldwide; a region which fosters communities living in attractive, accessible places well supported by community infrastructure and enjoying high quality leisure facilities; and promotes and protects across the GDA green corridors, active agricultural lands and protected natural areas.”</i> Full SEA and Stage 2 AA have been undertaken on this Strategy</li> </ul>	<p>They set out a number of core principles deriving from the strategic vision, which are:</p> <ul style="list-style-type: none"> <li>Dublin as the capital city of Ireland and a major European centre shall grow and progress, competing with other cities in the EU, and serving a wide range of international, national, regional and local needs.</li> <li>The Dublin and Mid-East Regions will be attractive, vibrant locations for industry, commerce, recreation and tourism and will be a major focus for economic growth within the Country.</li> <li>The GDA, through its ports and airport connections will continue to be the most important entry/exit point for the country as a whole, and as a Gateway between the European Union and the rest of the World. Access to and through the GDA will continue to be a matter of national importance.</li> <li>Development in the GDA shall be directly related to investment in integrated high quality public transport services and focused on compact urban form.</li> <li>Development within the existing urban footprint of the Metropolitan Area will be consolidated to achieve a more compact urban form</li> <li>Development in the Hinterland Area will be focused on the high quality integrated growth and consolidation of development in key identified towns, separated from each other by extensive areas of strategic green belt land devoted to agriculture and similar uses.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

<b>Transport Strategy for the Cork Metropolitan Area 2040</b>	<ul style="list-style-type: none"> <li>The Strategy addresses all transport modes and its objective will be to provide a long-term strategic planning framework for the integrated development of transport infrastructure and services in the Cork Metropolitan Area, over the next two decades</li> </ul>	<ul style="list-style-type: none"> <li>It will be used to inform transport investment levels and investment prioritisation over both the longer and shorter terms and will be able to inform sustainable integrated land use and transport policy formulation at the strategic (Metropolitan Area) level and at the local level.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Greater Dublin Area Cycle Network Plan</b>	<ul style="list-style-type: none"> <li>Sets out a ten year cycling strategy for Counties Dublin, Kildare, Meath and Wicklow</li> <li>Plan to increase regions cycle network dramatically</li> <li>The Plan refers to the EuroVelo International Cycle Route Network of the European Cyclists Federation is a network of 15 long distance cycle routes connecting and uniting the whole European continent. Two of these routes are in Ireland including EV2 from Galway through Dublin to London, Berlin, Warsaw and Moscow.</li> </ul>	<p>Aims to identify and determine:</p> <ul style="list-style-type: none"> <li>The Urban Cycle Network at the Primary, Secondary and Feeder level</li> <li>The Inter-Urban Cycle Network linking the relevant sections of the Urban Network including the elements of the National Cycle Network within the Greater Dublin Area including linkages to key transport locations outside of urban areas such as airports and ports</li> <li>The Green Route Network being cycle routes for development of tourist, recreational and leisure purposes.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Dublin to Galway Greenway Plan</b>	<ul style="list-style-type: none"> <li>Develop a segregated cycling and walking trail to international standards, extending from Dublin City to Galway which is of a scale that will allow Ireland to harness the potential of an identified growing tourism market for cycling.</li> <li>This route forms part of an interconnected National Cycle Network of high quality, traffic free, inter urban routes, which will establish Ireland as a quality international tourism destination for a broad range of associated recreational activities and pursuits.</li> </ul>	<ul style="list-style-type: none"> <li>To provide a segregated, substantially off road cycle route from Dublin City to Clifden via Galway City, maximising the use of – where feasible – existing and approved routes and disused railway line corridors and to also use existing plans and/or permitted projects where these have been subject to a consent process that has previously included the carrying out or screening for SEA, EIA and AA.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Regional Development Strategy 2035 (Northern Ireland)</b>	<ul style="list-style-type: none"> <li>Spatial strategy for the future development of Northern Ireland.</li> <li>Strategic planning framework to facilitate and guide public and private sectors.</li> </ul>	<ul style="list-style-type: none"> <li>Aims to provide long-term policy direction with a strategic spatial perspective.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and</p>

			management.
<b>Water Quality Management Plans</b>	<ul style="list-style-type: none"> <li>Ensure that the quality of waters covered by the plan is maintained.</li> <li>Maintain and improve the quantity and quality of water included in the Plan scope.</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring of water bodies against quality standards.</li> <li>Outlines management programmes for water catchments.</li> <li>Purpose is to maintain and improve the quantity and quality of groundwater.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Port Masterplans (such as Dublin Port Masterplan 2012-2040 and 2017 Review)</b>	<ul style="list-style-type: none"> <li>The Masterplan sets out a vision for the operations of the port and land utilisation.</li> <li>The Masterplan is a non-statutory plan which has nonetheless been framed within the context of EU, national, regional and local development plan policies.</li> </ul>	Not applicable	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs</b>	<p>Management planning for nature conservation sites has a number of aims. These include:</p> <ul style="list-style-type: none"> <li>To identify and evaluate the features of interest for a site</li> <li>To set clear objectives for the conservation of the features of interest</li> <li>To describe the site and its management</li> <li>To identify issues (both positive and negative) that might influence the site</li> <li>To set out appropriate strategies/management actions to achieve the objectives</li> </ul>	<ul style="list-style-type: none"> <li>Conservation objectives for SACs and SPAs (i.e. sites within the Natura 2000 network) have to be set for the habitats and species for which the sites are selected.</li> <li>These objectives are used when carrying out appropriate assessments for plans and projects that might impact on these sites.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

<b>Groundwater Protection Schemes</b>	<ul style="list-style-type: none"> <li>A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.</li> </ul>	<ul style="list-style-type: none"> <li>A Groundwater Protection Scheme aims to maintain the quantity and quality of groundwater, and in some cases improve it, by applying a risk assessment-based approach to groundwater protection and sustainable development.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Local Economic and Community Plans (LECP)</b>	<ul style="list-style-type: none"> <li>The overarching vision for each LECP is: “to promote the well-being and quality of life of citizens and communities”</li> </ul>	<ul style="list-style-type: none"> <li>The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Development Plans, Local Area Plans, Planning Schemes</b>	<ul style="list-style-type: none"> <li>Outlines planning objectives for land use development (including transport objectives).</li> <li>Strategic framework for planning and sustainable development including those set out in National Planning Framework and Regional Economic and Spatial Strategies.</li> <li>Sets out the policies and proposals to guide development in the specific Local Authority area.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies future infrastructure, development and zoning required.</li> <li>Protects and enhances amenities and environment.</li> <li>Guides planning authority in assessing proposals.</li> <li>Aims to guide development in the area and the amount of nature of the planned development.</li> <li>Aims to promote sustainable development.</li> <li>Provide for economic development and protect natural environmental, heritage.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Green Infrastructure Plans/Strategies</b>	<ul style="list-style-type: none"> <li>Promotes the maintenance and improvement of green infrastructure in an area.</li> <li>Aims to protect and enhance biodiversity and habitats.</li> </ul>	<p>not applicable</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<b>Biodiversity Action Plans</b>	<ul style="list-style-type: none"> <li>Aims to protect, conserve, enhance and restore biodiversity and ecosystem services across all spectrums.</li> </ul>	<ul style="list-style-type: none"> <li>Outlines the status of biodiversity and identifies species of importance.</li> <li>Outlines objectives and targets to be met to maintain and improve biodiversity.</li> <li>Aims to increase awareness.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Heritage Plans</b>	<ul style="list-style-type: none"> <li>Aims to highlight the importance of heritage at a strategic level.</li> </ul>	<ul style="list-style-type: none"> <li>Manage and promote heritage as well as increase awareness.</li> <li>Aim to conserve and protect heritage.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>County Landscape Character Assessments</b>	<ul style="list-style-type: none"> <li>Characterises the geographical dimension of the landscape.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies the quality, value, sensitivity and capacity of the landscape area.</li> <li>Guides strategies and guidelines for the future development of the landscape.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Freshwater Mussel Sub-Basin Management Plans</b>	<ul style="list-style-type: none"> <li>Identifies the current status of the species and the reason for loss or decline.</li> <li>Identifies measure required to improve or restore current status.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies pressures on Freshwater Pearl Mussels for each of the designated populations in Ireland.</li> <li>Outlines restoration measures required to ensure favourable conservation status.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

<b>Local Catchment Flood Risk Management Plans</b>	<ul style="list-style-type: none"> <li>Produced by Local Authorities.</li> <li>Outlines areas local flood risk.</li> <li>Sets out measures to manage and prevent flood risk at a local level.</li> </ul>	not applicable	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Shellfish Pollution Reduction Programmes</b>	Aims to improve water quality and ensure the protection or improvement of designated shellfish waters in order to support shellfish life and growth and contribute to the high quality of shellfish products directly edible by man.	<ul style="list-style-type: none"> <li>Identifies key and secondary pressures on water quality in designated shellfish areas.</li> <li>Outlines specific measures to address identified key and secondary pressures on water quality.</li> <li>Addresses the specific pressures acting on water quality in each area.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Regional Waste Management Plans</b>	These plans (for the Connacht-Ulster, Southern, and Eastern-Midlands regions) give effect to national and EU waste policy, and address waste prevention and management (including generation, collection and treatment) over the period 2015-2021.	To manage wastes in a safe and compliant manner, a clear strategy, policies and actions are required.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Draft Climate Change Action Plans 2019 - 2024</b>	Dublin’s four local authorities have joined together to develop Climate Change Action Plans as a collaborative response to the impact that climate change is having, and will continue to have, on the Dublin Region and its citizens. While each plan is unique to its functional area, they are unified in their approach to climate change adaptation and mitigation, and their commitment to lead by example in tackling this global issue.	The Climate Change Action Plan features a range of actions across five key areas - Energy and Buildings, Transport, Flood Resilience, Nature-Based Solutions and Resource Management - that collectively address the four targets of this plan: <ul style="list-style-type: none"> <li>A 33% improvement in the Council’s energy efficiency by 2020</li> <li>A 40% reduction in the Council’s greenhouse gas emissions by 2030</li> <li>To make Dublin a climate resilient region, by reducing the impacts of future climate change - related events</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.

		<ul style="list-style-type: none"> <li>To actively engage and inform citizens on climate change</li> </ul>	
<b>Noise Action Plans</b>	<p>The Noise Action Plans are prepared in accordance with the requirements of the Environmental Noise Regulations 2006, Statutory Instrument 140 of 2006. These Regulations give effect to the EU Directive 2002/49/EC relating to the assessment and management of environmental noise. This Directive sets out a process for managing environmental noise in a consistent manner across the EU and the Noise Regulations set out the approach to meeting the requirements of the Directive in Ireland.</p>	<p>The main purpose of the Noise Action Plan is to:</p> <ul style="list-style-type: none"> <li>Inform and consult the public about noise exposure, its effects and the measures which may be considered to address noise problems</li> <li>Address strategic noise issues by requiring competent authorities to draw up action plans to manage noise issues and their effects</li> <li>Reduce noise, where possible, and maintain the environmental acoustic quality where it is good</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.</p>

## Relevant EU and National Legislation

Legislation <sup>19</sup>	Context
<p><b>European &amp; National regulations that are relevant to planning the transmission network:</b></p> <ul style="list-style-type: none"> <li>• Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC;</li> <li>• Directive 2009/ 72/ EC;</li> <li>• Directive 2009/ 28/ EC;</li> <li>• Directive 2012/ 27/ EC;</li> <li>• Statutory Instrument (SI) No. 445 of 2000 as amended; and</li> <li>• Statutory Instrument (SI) No. 147 of 2011.</li> </ul>	<p>European regulations, relevant to planning the transmission network.</p>
<p><b>SEA Directive 2001/42/EC:</b></p> <ul style="list-style-type: none"> <li>• European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004) as amended; and</li> <li>• European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011) as amended.</li> </ul>	<p>EU Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (the SEA Directive) established the requirement for SEA as part of high-level decision-making process and the development of plans and programmes.</p>
<p><b>EU Energy Efficiency Directive 2012/27/EU</b></p>	<p>EU Directive 2012/27/EU establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain from its production to its final consumption.</p>
<p><b>EU Renewable Energy Directive 2009/28/EC</b></p>	<p>Establishes an overall policy for the production and promotion of energy from renewable sources in the EU. It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets.</p>
<p><b>Water Framework Directive (2000/60/EC):</b></p> <ul style="list-style-type: none"> <li>• Env. Quality Standards Directive 2008/105/EC;</li> <li>• The Water Policy Regulations (S.I. No. 722 of 2003);</li> <li>• The Surface Waters Regulations (S.I. No. 272 of 2009); and</li> <li>• The Groundwater Regulations (S.I. No. 9 of 2010).</li> </ul>	<p>The EU Water Framework Directive requires all Member States to protect and improve water quality in all waters so that we achieve good ecological status by 2015 or, at the latest, by 2027. It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management plans be prepared on a river basin basis and specifies a structured method for developing these plans.</p>
<p><b>Birds Directive (2009/147/EC) and Habitats Directive (92/43/EEC):</b></p> <ul style="list-style-type: none"> <li>• European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011); and</li> <li>• European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015 (S.I. No. 355 of 2015).</li> </ul>	<p>The EU Birds Directive requires all EU Member States to take measures to protect all wild birds and their habitats. The Birds Directive aims to protect all of the 500 wild bird species naturally occurring in the European Union.</p> <p>The EU Habitats Directive requires all EU Member States to ensure the conservation of a wide range of rare, threatened or endemic animal and plant species. Within this Directive, some 200 rare and characteristic habitat types are also targeted for conservation in their own right.</p>

Legislation <sup>19</sup>	Context
<p><b>Marine Strategy Framework Directive (2008/56/EC):</b></p> <ul style="list-style-type: none"> <li>European Communities (Marine Strategy Framework) Regulations (S.I. No. 249 of 2011).</li> </ul>	<p>The EU Marine Strategy Framework Directive (Marine Directive) requires all EU Member States to take measures to protect more effectively the marine environment across Europe. The Marine Directive aims to achieve ‘Good Environmental Status, (GES)’ of the EU’s marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend.</p>
<p><b>Maritime Spatial Planning Directive (2014/89/EU)</b></p>	<p>The EU Spatial Planning Directive requires member states to work across borders and sectors to ensure that any human activities at sea are carried out in an efficient, safe and sustainable manner. In Ireland, a roadmap to the development of Ireland’s first marine spatial plan, towards a Marine Spatial Plan for Ireland’ was published in December 2017. It is expected that the final plan will be prepared for submission to the Government.</p>
<p><b>Environmental Impact Assessment Directive (2014/52/EU):</b></p> <ul style="list-style-type: none"> <li>Not yet transposed as Irish National Legislation, expected before 2017.</li> </ul>	<p>The EU EIA Directive (2014/52/EU) amends the previous EIA Directive (2011/92/EU) on the assessment of the effects of certain public and private projects on the environment. It introduced changes in EIA requirements across the EU such as the introduction of mandatory ‘Competent Experts’, changes to screening procedures, and mandatory post-EIA monitoring. This Directive was expected to be enforced in Ireland by May 2017 but came into effect in September 2018.</p>
<p><b>2020 Climate and Energy Package and associated legislation</b></p>	<p>This package is comprised of a set of binding legislation to ensure the EU meets its climate and energy targets for the year 2020. The package sets three key targets as follows:</p> <ul style="list-style-type: none"> <li>20% cut in greenhouse gas emissions (from 1990 levels);</li> <li>20% of EU energy from renewables; and</li> <li>20% improvement in energy efficiency.</li> </ul>
<p><b>The Climate Action and Low Carbon Development Act 2015</b></p>	<p>The Climate Action and Low Carbon Development Act 2015, provides for the making of five-yearly National Mitigation Plans to specify the policy measures to reduce greenhouse gas emissions and a National Adaptation Framework to specify the national strategy for the application of adaptation measures in different sectors and by Local Authorities to reduce the vulnerability of the State to the negative effects of climate change.</p>
<p><b>Flood Directive (2007/60/EC):</b></p> <ul style="list-style-type: none"> <li>European Communities (Assessment and Management of Flood Risks) Regulations 2010. (S.I. No. 122 of 2010).</li> </ul>	<p>The EU ‘Floods Directive’ requires all EU Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.</p>
<p><b>Non-exhaustive list of Planning related legislation:</b></p> <ul style="list-style-type: none"> <li>Planning and Development Act 2000;</li> <li>Planning and Development (Strategic Infrastructure) Act 2006; and</li> <li>Planning &amp; Development Regulations 2001-2015.</li> </ul>	<p>Irish Planning related legislation that is relevant to planning the transmission network.</p>

Legislation <sup>19</sup>	Context
<p><b>Non-exhaustive list of Cultural Heritage related legislation:</b></p> <ul style="list-style-type: none"> <li>• National Monuments Act 1930 as amended;</li> <li>• Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999; and</li> <li>• The Heritage Act 1995.</li> </ul>	<p>Irish Cultural Heritage regulations that are relevant to the planning the transmission network.</p>
<p><b>Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC):</b></p> <ul style="list-style-type: none"> <li>• Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011).</li> </ul>	<p>Set down air quality standards in Ireland for a wide variety of pollutants.</p>
<p><b>Integrated Pollution Prevention Control Directive (96/61/EC replaced by 2008/1/EC):</b></p> <ul style="list-style-type: none"> <li>• Environmental Protection Agency Act 1992, amended by the Protection of the Environment Act 2003; and</li> <li>• Environmental Protection Agency (Integrated Pollution Control) (Licensing) Regulations 2013.</li> </ul>	<p>Regulates the licencing of industrial sites, including energy production.</p>
<p><b>Noise Directive (2002/49/EC):</b></p> <ul style="list-style-type: none"> <li>• Environmental Noise Regulations 2006 (S.I. No. 140 of 2006).</li> </ul>	<p>EU and Irish environmental noise related legislation.</p>

## Relevant Plans and Programmes

Scale	Plan or Programme	Context
International / EU	The Kyoto Protocol	<ul style="list-style-type: none"> <li>First international agreement in which many of the world's industrial nations concluded a verifiable agreement to reduce their emissions of six greenhouse gases in order to prevent global warming.</li> </ul>
	EU Biodiversity Strategy	<ul style="list-style-type: none"> <li>The EU Strategy aims to halt the loss of biodiversity and ecosystem services in the EU and help stop global biodiversity loss by 2020. It reflects the commitments taken by the EU in 2010, within the international Convention on Biological Diversity.</li> </ul>
	UK Marine Policy Statement	<ul style="list-style-type: none"> <li>This Statement is the framework for preparing marine plans and taking decisions affecting the marine environment and was jointly adopted across the UK Administrations including the Department of the Environment in Northern Ireland.</li> </ul>
National	National Planning Framework (NPF): Ireland 2040: Our Plan	<ul style="list-style-type: none"> <li>20-year strategy identifying strategic development requirements, infrastructure requirements and promoting sustainable strategies for the future.</li> </ul>
	Climate Action Plan 2023	<ul style="list-style-type: none"> <li>The plan implements the carbon budgets and sectoral emissions ceilings and sets out a roadmap for taking decisive action to halve our emissions by 2030 and reach net zero no later than 2050, as committed to in the Programme for Government. Climate Action Plan 2023 sets out how Ireland can accelerate the actions that are required to respond to the climate crisis, putting climate solutions at the centre of Ireland's social and economic development.</li> </ul>
	National Development Plan 2018 – 2027	<ul style="list-style-type: none"> <li>Sets out the investment priorities that will underpin the successful implementation of the National Planning Framework.</li> </ul>
	National Development Plan (NDP) 2007-2013	<ul style="list-style-type: none"> <li>Promotes security of energy supply, competitive prices and long-term energy diversification.</li> </ul>
	National Spatial Strategy (NSS) 2002-2020	<ul style="list-style-type: none"> <li>20-year planning framework for Ireland. Contains energy-related provisions for the significant development of the transmission network and new energy generation in regions across the country.</li> </ul>
	Capital Investment Plan 2016 – 2021	<ul style="list-style-type: none"> <li>Framework for investment in infrastructure in Ireland 2016-2021.</li> </ul>
	Energy White Paper: Delivering a Sustainable Energy Future for Ireland-the Energy Policy Framework 2007-2020	<ul style="list-style-type: none"> <li>Actions to achieve electricity supply which consistently meets demand and sets a target to meet 33% of consumption from renewable energy by 2020.</li> </ul>
	Framework for Sustainable Development in Ireland (2012)	<ul style="list-style-type: none"> <li>Outlines Ireland's Framework for Sustainable Development. Its timeframe is to 2020 to tie in with other national and international frameworks, but a longer-term horizon to 2050 is also considered where appropriate, to provide a framework for guiding and reporting on long-term broad development trends such as on climate change.</li> </ul>
	National Renewable Energy Action Plan	<ul style="list-style-type: none"> <li>Outlines Ireland's national trajectories for the share of energies from renewable sources consumed in transport, electricity, heating and cooling between now and 2020.</li> </ul>

Scale	Plan or Programme	Context
	National Climate Change Adaptation Framework (2012)	<ul style="list-style-type: none"> <li>Provides the policy context for a strategic national adaptation response to climate change in Ireland and is designed to evolve over time as planning and implementation progresses, and as further evidence becomes available.</li> </ul>
	National Mitigation Plan (2017)	<ul style="list-style-type: none"> <li>Outlines measures for transitioning Ireland to a low carbon, climate resilient and environmentally sustainable economy by 2050.</li> <li>Includes over 100 individual actions for various Ministers and public bodies to take forward as we move to implementation of what will be a living document.</li> </ul>
	National Energy Efficiency Action Plan 3 (NEEAP) (2014)	<ul style="list-style-type: none"> <li>Each NEEAP outlines the energy efficiency measures that will be implemented to reach the national energy saving targets as well as the progress towards this target.</li> </ul>
	Renewable Electricity Policy and Development Framework (DCCAE, ongoing).	<ul style="list-style-type: none"> <li>The aim of this framework is to guide the development of renewable electricity projects.</li> </ul>
	Wind Farm Development Guidelines 2006 (currently under review)	<ul style="list-style-type: none"> <li>Outline the guidelines to planning authorities on planning for wind energy through the development plan process and in determining planning permission.</li> </ul>
	Offshore Renewable Energy Development Plan (OREDPA) including interim review	<ul style="list-style-type: none"> <li>Describes the policy context for the development of offshore wind, wave and tidal energy in Irish waters.</li> </ul>
	Water Service Strategic Plan (WSSP)	<ul style="list-style-type: none"> <li>Provides strategic objectives for the delivery of water services up until 2040.</li> </ul>
	A National Landscape Strategy (NLS) for Ireland	<ul style="list-style-type: none"> <li>Mapping out paths toward sustainable development and management of national-human and natural-resources. This includes the Future National Landscape Character Assessment.</li> </ul>
	National Biodiversity Plan (NBP)	<ul style="list-style-type: none"> <li>Actions to raise awareness about the link between plans/programmes and biodiversity impacts.</li> </ul>
	National Heritage Plan (published in 2002)	<ul style="list-style-type: none"> <li>Outlines stipulations for proper planning, conservation and management of national heritage for all plans/programmes.</li> </ul>
	The Irish Geological Heritage Programme 1998 - ongoing	<ul style="list-style-type: none"> <li>Promotes awareness and protection of significant geological heritage sites.</li> </ul>
	Government Policy Statement on Strategic Importance of Transmission and Other Energy Infrastructure 2012	<ul style="list-style-type: none"> <li>Endorses the major investment underway in the high voltage electricity transmission system under EirGrid 's Grid25 Programme.</li> </ul>
	National Policy Framework on Alternative Fuels Infrastructure for Transport (AFF)	<ul style="list-style-type: none"> <li>Sets an ambitious target that by 2030 all new cars and vans sold in Ireland will be zero emissions (or zero emissions capable) with the use of fossil fuels vehicles rapidly receding.</li> </ul>
	Ireland and the Climate Change Challenge - Connecting How Much with How to (2012)	<ul style="list-style-type: none"> <li>Outlines the National Economic and Social Council Secretariat's vision for Ireland in 2050 as a carbon-neutral society. The report also outlines proposals for a pragmatic approach toward climate change.</li> </ul>
	River Basin Management Plans & draft River Basin Management Plan	<ul style="list-style-type: none"> <li>Plan setting out the status of waters in the River Basin Districts (RBDs); the proposed environmental objectives and the draft programme of measures to achieve those objectives by 2021.</li> </ul>



Scale	Plan or Programme	Context
	Flood Risk Management Plans (FRMP) 2017	<ul style="list-style-type: none"> <li>Plans which set out a range of proposed measures and actions to manage and reduce flood risk within the catchments and costal reaches covered by each Plan, focussing on the 300 areas of potentially significant flood risk around Ireland that were previously identified under the Preliminary Flood Risk Assessment (PFRA). These areas are referred to under the programme as Areas for Further Assessment (AFA).</li> </ul>
	Catchment Flood Risk Assessment and Management Programme	<ul style="list-style-type: none"> <li>Delivers on core components of the <u>National Flood Policy</u>, adopted in 2004, and on the requirements of the <u>EU 'Floods' Directive</u>; central to the medium to long-term strategy for the reduction and management of flood risk in Ireland.</li> </ul>
	Regional Spatial and Economic Strategies (RSEs)	<ul style="list-style-type: none"> <li>Act as building-blocks for sub-regional spatial and economic planning and statutory committees.</li> </ul>
	County Development Plans (various dates)	<ul style="list-style-type: none"> <li>Provides detailed county-level strategies to allow for the proper planning and sustainable development of an area.</li> </ul>
	County Wind Energy Strategies	<ul style="list-style-type: none"> <li>Provides recommendations for wind energy development policy and practice.</li> </ul>
	County Renewable Energy Strategies	<ul style="list-style-type: none"> <li>Provides for the preparation of County-level renewable energy strategies.</li> </ul>
	Regional Spatial and Economic Strategies (RSEs)	<ul style="list-style-type: none"> <li>Act as building-blocks for sub-regional spatial and economic planning and statutory committees.</li> </ul>
	County Biodiversity and or Heritage Plans (were available, various dates)	<ul style="list-style-type: none"> <li>Outlines stipulations for proper planning, conservation and management of biodiversity and heritage for all plans/programmes at a county level.</li> </ul>
	County Landscape Character Assessments (LCA)	<ul style="list-style-type: none"> <li>The LCA classifies and describes the landscape in a county.</li> </ul>
	County based waste management strategies and mineral plans	<ul style="list-style-type: none"> <li>Establishes a framework for the sustainable management of wastes generated in the county.</li> </ul>
	County-based recreation strategies	<ul style="list-style-type: none"> <li>Develops a framework to coordinate the objectives and targets of key stakeholders in a cohesive and integrated plan for the county, ensuring the provision, management and use of quality facilities and services for everyone, including future generations.</li> </ul>
	Local, City, Town and Electoral Area/Development Plans (where available, various dates)	<ul style="list-style-type: none"> <li>Statutory requirements for proper planning and sustainable development of a local area.</li> </ul>
EirGrid Plans	Your Grid, Your Tomorrow: Ireland's Grid Development Strategy 2016.	<ul style="list-style-type: none"> <li>Explain the need for, and drivers of, grid development.</li> </ul>
	Transmission Development Plan (TDP)	<ul style="list-style-type: none"> <li>Annual rolling operational document outlining the Draft Grid IP for the development of the ITS and interconnection.</li> </ul>