



County Biodiversity Action Plan 2015-2020

Screening for Appropriate Assessment

April 2015

TABLE OF CONTENTS

1. Background and Legal Requirement for Appropriate Assessment	3
2. Screening for Appropriate Assessment	3
3. Formal Guidance	4
4. Data Sources	4
5. Description of plan and plan area characteristics	5
6. Identification of Natura 2000 sites, information on their qualifying interests and conservation objectives	5
6.1 Conservation Objectives	12
7. Assessment of Likely Effects – Direct, Indirect and Cumulative	13
8. Screening Statement	19

1. Background and Legal Requirement for Appropriate Assessment

This Screening Report has been prepared to assess the potential impact of the Biodiversity Action Plan 2015-2020 on the Natura 2000 network.

The preparation of the Biodiversity Plan has regard to Article 6 of the Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the Habitats Directive). This is transposed in Ireland by the European Communities (Birds and Natural Habitats) Regulations, 2001 (S.I. 477) (hereafter referred to as the Habitats Regulations) and Part XAB of the Planning and Development Act 2010-2014.

Article 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites (Annex 1.1).

Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment (AA)). Article 6(3) sets down the requirements to carry out an Appropriate Assessment as follows:

Article 6(3): ‘Any plan or project not directly connected with or necessary to the management of the Natura 2000 site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public’.

This Habitat Directive Screening Report is a documentary record of the Appropriate Assessment process for the County Meath Biodiversity Action Plan 2015-2020.

2. Screening for Appropriate Assessment

Screening for Appropriate Assessment has been undertaken in accordance with ‘*Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities*’. It will deal with the following 4 steps:

1. Description of the plan and plan area characteristics;
2. Identification of Natura 2000 sites and compilation of information on their qualifying interests and conservation objectives;
3. Assessment of the likely effects – direct, indirect and cumulative - undertaken on the basis of available information;
4. Screening statement with conclusions.

3. Formal Guidance

This AA screening has taken account of guidance contained in the following documents:

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision).
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.* Circular NPW 1/10 & PSSP 2/10.
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission Environment Directorate-General, 2001); hereafter referred to as the EC Article 6 Guidance Document. The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive.
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (EC Environment Directorate-General, 2000); hereafter referred to as MN2000.
- *Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence.* Opinion of the European Commission (European Commission, January 2007).
- *Guidelines for Good Practice Appropriate Assessment of Plans Under Article 6(3) Habitats Directive* (International Workshop on Assessment of Plans under the Habitats Directive, 2011)

4. Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites relied upon are listed below:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie and Google Earth (accessed on dates from October 2011 to April 2012).
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie
 - Natura 2000 network Data Form
 - Online database of rare, threatened and protected species
 - Publicly accessible biodiversity datasets
- Information on water quality in the area available from www.epa.ie
- Information on the River Basin Districts from www.wfdireland.ie

- Information on soils, geology and hydrogeology in the area available from www.gsi.ie
- *Status of EU Protected Habitats in Ireland*. (National Parks & Wildlife Service, 2013)
- County Meath Tree, Woodland & Hedgerow Survey 2011
- County Meath Wetlands and Coastal Habitats Survey, August 2010
- Coastal Monitoring Project 2004-2006. (2009) Report for NPWS.
http://www.npws.ie/publications/archive/Ryle_et_al_2009_Coastal_Monitoring_Project-1.pdf

5. Description of plan and plan area characteristics

County Meath (*na Mí*), with an area of 2,342 km² and a population of 184,135 inhabitants (CSO, 2011), is situated in the east midlands of Ireland, in the Province of Leinster. It stretches from a 10 kilometre long east coast strip between the Boyne and Delvin rivers as far inland as Lough Sheelin. Apart from the coastal strip it is bounded on the east by county Dublin, on the south by counties Kildare and Offaly, on the west by county Westmeath and on the north by counties Cavan, Monaghan and Louth.

The largest river within the county is the River Boyne and the importance of this river system is recognised by the fact that it has been designated a Special Area of Conservation (SAC) and a Special Protection Area (SPA). Meath also contains some important lakes such as the White Lough, Ben Loughs and Lough Doo complex, and in the west of the county there are areas of degraded raised bog and small areas of active raised bog such as a section of the Moneybeg raised bog SAC.

The Meath Biodiversity Action Plan 2015-2020 sets out a series of actions to be undertaken over the plan period in relation to biodiversity in the County. The focus of the Plan is to raise awareness of biodiversity within the County and therefore enhance its protection. This will have a positive impact on biodiversity in the County. Actions will be undertaken by a range of stakeholders as part of the implementation of the Plan which is led by Meath County Council. The Plan sets out 27 actions under the following four themes:

1. To raise awareness of biodiversity in Meath, its value and the issues facing it.
2. To better understand the biodiversity in Meath.
3. To conserve and enhance habitats and species in Meath, taking account of national and local priorities.
4. To foster active participation to help biodiversity in Meath, encouraging a partnership approach to help our species and habitats.

6. Identification of Natura 2000 sites, their qualifying interests and conservation objectives

In accordance with the Department of Environment, Heritage and Local Government guidance (DoEHLG, 2010), an initial distance of 15km from the County boundary was

selected for consideration of Natura 2000 sites. This distance was deemed to be sufficient to cover all likely significant effects which may arise from the implementation of the Biodiversity Action Plan on Natura 2000 sites. Appendix B details the Natura 2000 network spatially with the 15km buffer zone¹.

All Natura 2000 sites which fall within 15km of the County boundary are listed in Table 1 below. Table 2 details the qualifying interests in County Meath and the underpinning environmental conditions.

Table 1: Natura 2000 sites found in County Meath and within 15km buffer zone.

Sites within County Meath	
Candidate Special Areas of Conservation	Special Protection Areas
Boyne Coast and Estuary	Boyne Estuary
River Boyne and Blackwater	River Nanny Estuary and Shore
Rye Water Valley / Carton	Lough Sheelin
Mount Hevey Bog	River Boyne and Blackwater
White Lough, Ben Loughs and Lough Doo	
Lough Bane and Lough Glass	
Killyconny Bog (Cloughbally)	
Monybeg and Clareisland Bogs	
Within 15km Buffer Zone	
Candidate Special Areas of Conservation	Special Protection Areas
Ardagullion Bog	Stabannan Braganstown
Garriskil Bog	North Bull Island
Lough Lene	(South Dublin Bay) Sandymount Strand / River Tolka Estuary
Lough Ennell	Baldoyle Bay
Raheenmore Bog	Rogerstown Estuary
The Long Derries, Edenderry	Skerries Islands
Ballynafagh Bog	(Malahide Estuary) Broadmeadow / Swords Estuary
Ballynafagh Lake	Dundalk Bay
North Dublin Bay	Lough Kinale and Derragh Lough
Baldoyle Bay	Garriskill Bog
Malahide Estuary	Lough Derraghvarragh
Rogerstown Estuary	Lough Ennell
Clogher Head	Rockabill
Dundalk Bay	
Rockabill to Dalkey Island	

¹ (Cawley, Scott 2013): This was taken from the Natura Impact Report prepared as part of the Meath County Development Plan. 2013-2019

Table 2: Qualifying Interests in County Meath and the underpinning environmental conditions

Qualifying Interests	Key environmental conditions supporting site integrity
Active raised bog	Surface water supply. Low nutrient, acidic conditions to support growth of <i>Sphagnum</i> spp. Restricted drainage at perimeter.
Alkaline fens	High water table. Ground surface water supply. Calcium-rich conditions.
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)	Riparian/lacustrine habitat prone to flooding
Annual vegetation of drift lines	Sandy substrate. Physical impact and nutrient supply from tidal flow.
Arctic Tern (<i>Sterna paradisaea</i>)	Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel). Predation.
Atlantic Salmon <i>Salmo salar</i>	Riverine habitat. Water quality (Q4-5). Riverbed breeding gravels. Quality riparian vegetation. Unhindered migratory routes.
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	Frequency of tidal submergence
Bar-tailed Godwit (<i>Limosa lapponica</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	Food availability (intertidal fauna/pasture/sewage). Coastal water quality.
Black-tailed Godwit (<i>Limosa limosa</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Common Gull (<i>Larus canus</i>)	Marine prey availability. Wetland foraging area. Undisturbed roost site availability.
Common Scoter (<i>Melanitta nigra</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds.
Common Tern (<i>Sterna hirundo</i>)	Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel).
Coot (<i>Fulica atra</i>)	Food availability (aquatic flora and fauna). Undisturbed freshwater roosting sites close to feeding sites.
Curlew (<i>Numenius</i>)	Food availability (interidal fauna/pasture). Flooding

Qualifying Interests	Key environmental conditions supporting site integrity
<i>arquata</i>)	regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Degraded raised bogs still capable of natural regeneration	Dessication from drainage. Low moss cover.
Depressions on peat substrates of the Rhynchosporion	Peat cutting. Surface water supply.
Dunlin (<i>Calidris alpina</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Embryonic shifting dunes	Dune-building grasses <i>Elytrigia juncea</i> and <i>Leymus arenarius</i> . Supply of windblown sand
Estuaries	Supply of riverine freshwater. Unimpeded tidal flow. Shelter from open coasts. Diverse invertebrate communities.
European dry heaths	Free-draining, nutrient poor, acid soils. Grazing and burning.
Fixed coastal dunes with herbaceous vegetation (grey dunes)	Low wind, weakly saline conditions in shelter of <i>Ammophila arenaria</i> dunes. Grazing.
Golden Plover (<i>Pluvialis apricaria</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Goldeneye (<i>Bucephala clangula</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to feeding sites.
Great Crested Grebe (<i>Podiceps cristatus</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds.
Grey Plover (<i>Pluvialis squatarola</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Greylag Goose (<i>Anser anser</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing.
Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Calcium rich, shallow, low nutrient waters.
Herring Gull (<i>Larus argentatus</i>)	Coastal water quality.
Humid dune slacks	High water maintained by groundwater and impermeable soils. Grazing. Salinity.
Kingfisher (<i>Alcedo atthis</i>)	Marine/freshwater food availability. Undisturbed soft substrate riparian nest sites. Regularity of extreme weather. Water quality.

Qualifying Interests	Key environmental conditions supporting site integrity
Lapwing (<i>Vanellus vanellus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing.
Little Tern (<i>Sterna albifrons</i>)	Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel).
Mallard (<i>Anas platyrhynchos</i>)	Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel). Predation.
Marsh Fritillary <i>Euphydryas aurinia</i>	Larval foodplant <i>Succisia pratensis</i> . Grassland sward structure. Water supply for damp conditions.
Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	Frequency of tidal submergence.
Merlin (<i>Falco columbarius</i>)	Moorland Prey availability. Undisturbed forested/moorland nest sites. Regularity of extreme weather. Water quality.
Mudflats and sandflats not covered by seawater at low tide	Silt deposits in sheltered estuaries.
Otter <i>Lutra lutra</i>	Prey availability. Water Quality. Riparian vegetation for breeding sites. Unhindered passage along waterways.
Oystercatcher (<i>Haematopus ostralegus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Perennial vegetation of stony banks	Cobble substrate. Tidal levels. Sediment supply from wind and waves.
Petalwort <i>Petalophyllum ralfsii</i>	Lime-rich sandy habitat. Overgrazing. Fluctuating water table for damp conditions.
Petrifying springs with tufa formation (Cratoneurion)	Calcium-rich, nutrient-poor groundwater/surface water supply.
Pintail (<i>Anas acuta</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed freshwater/coastal roosting sites close to feeding sites.
Pochard (<i>Aythya ferina</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds.
Purple Sandpiper (<i>Calidris maritima</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal

Qualifying Interests	Key environmental conditions supporting site integrity
	roosting sites close to feeding areas.
Red-breasted Merganser (<i>Mergus serrator</i>)	Fish/crustacean prey availability in shallow inshore waters. Undisturbed, ice-free marine/freshwater feeding grounds.
Redshank (<i>Tringa totanus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Ringed Plover (<i>Charadrius hiaticula</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
River Lamprey <i>Lampetra fluviatilis</i>	Riverine habitat. Water quality. Riverbed breeding gravels and silt nursery substrate. Unhindered migratory channels.
Roseate Tern (<i>Sterna dougallii</i>)	Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel). Predation.
Salicornia and other annuals colonizing mud and sand	Frequency of tidal submergence. Absence of erosion.
Sanderling (<i>Calidris alba</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites)	Dry, shallow, calcium-rich nutrient-poor soils. Light grazing.
Shag (<i>Phalacrocorax aristotelis</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds and roosting sites.
Shelduck (<i>Tadorna tadorna</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to feeding sites.
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	Supply of wind-blown sand.
Shoveler (<i>Anas clypeata</i>)	Food availability (interidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Snipe (<i>Gallinago gallinago</i>)	Frequency of tidal submergence. Supply of mud sediment on seaward edge of saltmarsh.
Spartina swards	Food availability (intertidal flora and

Qualifying Interests	Key environmental conditions supporting site integrity
(Spartinion maritimae)	fauna/pasture/cereal). Undisturbed freshwater/coastal roosting sites close to feeding sites.
Teal (<i>Anas crecca</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed freshwater/coastal roosting sites close to feeding sites.
Tufted Duck (<i>Aythya fuligula</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds.
Turnstone (<i>Arenaria interpres</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas.
Vegetated sea cliffs of the Atlantic and Baltic coasts	Flat topography on coastal cliff bedrock. High pH influence of sands and seabird guano.
<i>Vertigo angustior</i>	Stable wetland water table. Emergent vegetation. Groundwater supply. Lime-rich conditions.
<i>Vertigo moulinsiana</i>	Stable wetland water table. Emergent vegetation. Groundwater supply. Lime-rich conditions.
White clawed Crayfish <i>Austropotamobius pallipes</i>	Well oxygenated lakes/rivers with high pH. Riparian/lacustrine substrate of cobbles/submerged vegetation.
Whooper Swan (<i>Cygnus cygnus</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing.

The key output of this stage was the identification of the types of threats to the integrity of the Natura 2000 sites. These can then be related to the consequences of implementing the County Biodiversity Action Plan 2015-2020 to see if there is a risk of any likely significant effects.

The following generic threats were identified:

Rural/Agricultural activities

- Agricultural Intensification;
- Fertilisation;
- Grazing, (under grazing /overgrazing);
- Restructuring agricultural land holdings;
- Forestry (afforestation/deforestation);
- Stock Feeding;
- Drainage/flooding;
- Offshore/onshore aquaculture;
- Pesticides, and;
- Peat Extraction.

Economic and Infrastructural Development

- Golf Courses;
- Roads, motorways;
- Coastal protection works;
- Sewage outflows;
- Housing developments;
- Communications Networks;
- Quarries;
- Canalisation;
- Landfill land reclamation;
- Disposal of household waste;
- River Channel Maintenance, and;
- Invasive Alien Species.

Recreation and Leisure

- Walking, horse riding and non-motorised vehicles;
- Offshore motorised vehicles;
- Bait Digging, and;
- New Paths and Tracks.

6.1 Conservation Objectives

The E.C. Habitats Directive requires the focus of the assessment at this stage to be on the integrity of the site as indicated by its Conservation Objectives. The National Parks and Wildlife Service have by in large only prepared generic objectives for cSACs with the exception of the Boyne Coast and Estuary SAC (001957), which has 13 specific objectives.

The generic objective for each cSAC is as follows:

‘To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected’.

These Annex I habitats and Annex II species are listed in Appendix A. The 13 specific objectives for the Boyne Coast and Estuary SAC are more explicit and relate to each of the qualifying interests. They can be found at:

<http://www.npws.ie/media/npwsie/content/images/protectedsites/conservationobjectives/CO001957.pdf>

Favourable Conservation status/condition is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long term maintenance exist and are likely to continue to exist for the foreseeable future, and,
- the conservation status of its typical species is “favourable”.

“Favourable” is defined as:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long term basis.

Two of the SPAs within County Meath, Lough Sheelin SPA (004065) and the River Boyne and Blackwater SPA (004232) have the following generic objective:

“Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA”

However, the Boyne Estuary SPA (004080) has 12 specific objectives which can be found at:

<http://www.npws.ie/media/npwsie/content/images/protectedsites/conservationobjectives/CO004080.pdf>

Further, the River Nanny Estuary and Shore SPA (004158) has 7 specific objectives which can be found at:

<http://www.npws.ie/media/npwsie/content/images/protectedsites/conservationobjectives/CO004158.pdf>

7. Assessment of Likely Effects – Direct, Indirect and Cumulative

The actions set down in the Biodiversity Action Plan 2015-2020 aim to improve awareness of biodiversity across the County. The Plan is not aimed at Natura 2000 sites which have a significant level of protection and are well documented. It focuses on our everyday environment and the biodiversity that can be seen throughout the County. It is not considered that any of the 27 actions will have a direct, indirect or cumulative impact on Natura 2000 sites. The actions will not result in any works which could impact Natura 2000 sites either directly, indirectly, or in combination with other plans and projects. A significant number of the actions relate to the collation of data and awareness/education activities which should enhance biodiversity awareness and protection. Table 1 below sets out each action of the Draft Biodiversity Action Plan 2015-2020.

Table 3: Assessment of actions from the County Meath Biodiversity Action Plan 2015-2020

No	Action	Direct Impact to Natura 2000 sites	Indirect Impacts to Natura 2000 sites	Cumulative impacts to Natura 2000 sites	Comment
1	Appoint a Biodiversity Officer. (Subject to (a) DoECLG sanction for the filling of staffing positions, and (b) the availability of sufficient budgetary resources to meet the salaries of any approved staffing positions).	No impact	No impact	No impact	This action relates to resources. The employment of a Biodiversity Officer would raise the profile of biodiversity within the council.
2	Develop and provide guidance on hedge planting and management (including choice of appropriate species lists for landscape character areas) for planning conditions. Run workshops on hedgerow management on demonstration farms and an annual hedgerow management competition for landowners.	No impact	No impact	No impact	All planning applications are screened for Appropriate Assessment.
3	As part of planning applications, encourage all developers and contractors commissioned to do EIAs and flora and fauna surveys to submit all biodiversity records collected as part of such surveys to the National Biodiversity Data Centre online record submission system in accordance with proper data collection and submission protocols	No impact	No impact	No impact	This relates to the collation of data and data sharing.
4	Disseminate the results of the <i>County Wetlands and Coastal Habitats Survey</i> and develop an awareness, education and research programme on the sustainable management of wetlands and coastal areas in the county.	No impact	No impact	No impact	This relates to the dissemination of data and education.
5	Continue to monitor alien invasive species in the County focusing on the 'Dirty Dozen' as outlined 'Report on the Dirty Dozen non-native invasive	No impact	No impact	No impact	All plans and programmes are subject to Appropriate Assessment Screening. Tackling the issue of invasive species will

	<i>species - Co. Meath</i> ' by National Biodiversity Data Centre (2010) and American Mink and Sea Buckthorn or other potential threats that may arise.				have a positive impact on biodiversity in the County.
6	Formulate and promote guidance on biodiversity features on Meath's farms, including hedgerows, wetlands and grasslands, with a target audience of agro-environment scheme planners and the farming community. Guidance to include biodiversity importance, ecological services and appropriate management options.	No impact	No impact	No impact	This relates to the preparation of guidance.
7	Encourage public participation in the biology.ie road kill survey to increase knowledge of whether particular species (e.g. the Otter an EU Habitats Directive species) are prone to this type of mortality and also whether road kills show <i>seasonal</i> or <i>geographic</i> patterns. Also encourage the public to participate in recording important and easily identifiable species send their records to the National Biodiversity Data Centre.	No impact	No impact	No impact	This relates to raising awareness and the dissemination of information.
8	Undertake collation of existing biodiversity data and promote acquisition of additional information on the flora and fauna of Meath's significant aquatic habitats (rivers, lakes, ponds, canals and wetlands) in order to promote understanding and guardianship and to facilitate implementation of protection policies.	No impact	No impact	No impact	This action relates primarily to the collation of existing data.
9	Undertake an assessment of the biodiversity value of all abandoned railway lines and other selected habitats (e.g. graveyards, parks and quarries) in the County and their potential to enhance biodiversity in line with Article 10 of the Habitats Directive) by for example acting as wildlife corridors or stepping stones	No impact	No impact	No impact	

	linking habitat fragments.				
10	Maintain a database to facilitate planning decisions, including species records from council surveys and other available sources (IWeBS etc), sites of county importance and past Environmental Impact Assessments to better facilitate judgement on likely individual and cumulative impact of proposals. Ensure that the database is compatible with and is linked with the National Biodiversity Data Centre databases.	No impact	No impact	No impact	This relates to the dissemination of information and data sharing.
11	In partnership with other agencies, undertake a project (e.g. adopt a river scheme) to proactively encourage water users (e.g. anglers) to participate in recording and monitoring programmes relating to important species, alien species and environmental impact.	No impact	No impact	No impact	Where this project relates to a Natura 2000 site, it would be subject to Appropriate Assessment Screening under the provisions of Article 6 (3) of the Habitats Directive.
12	Agree and adopt a Council code of practice on issues affecting biodiversity, including the promotion of certified timber, recycled wood and paper products and peat-free compost alternatives.	No impact	No impact	No impact	
13	Develop an access to biodiversity programme at publically accessible sites to promote important habitat and species.	No impact	No impact	No impact	
14	Commission a process of data collection on the current state of all significant peatland sites within the County as detailed on the IPCC peatland database to ensure that a full up to date site synopses of sites of conservation concern within the County is maintained.	No impact	No impact	No impact	
15	Continue to monitor the ecological and geological interest of remaining esker sites in the County (e.g. proposed NHA Rathmoylan esker and Trim Esker).	No impact	No impact	No impact	
16	Encourage all Tidy Town Groups to draw up a habitat map and a biodiversity survey of their areas after appropriate training.	No impact	No impact	No impact	This action would raise awareness and understanding of important biodiversity areas within towns.

17	Provide bat survey training to community groups to include use of handheld bat detectors, development impacts on bats, bat handling and how to locate and monitor summer and winter roosts to increase our knowledge on bat species distribution in the County. In tandem with this training instigate a Bat Box programme at sites with the most potential to attract bats in conjunction with community groups. Undertake a bat survey of road bridges in Co. Meath	No impact	No impact	No impact	This action relates to training.
18	Organise training events on the identification of poorly recorded species groups.	No impact	No impact	No impact	This is about engaging the public in biodiversity
19	Organise a workshop on the importance of pollinators and the safe application and minimal use of agrichemicals in accordance with EU best practice for the farming community, bee keepers associations and allotment holders.	No impact	No impact	No impact	This action relates to training and raising awareness.
20	Organise annual events to raise awareness of biodiversity and disseminate information on the biodiversity of the County through meath.ie website, local media and utilising new technologies (including social media, smartphone apps, audio and video).	No impact	No impact	No impact	This action relates to raising awareness.
21	Commission an inventory of all sites of local nature conservation importance by utilising existing survey data (e.g. hedgerow, wetland and trees surveys) and further fieldwork in under surveyed areas. List the sites in any future County Development Plans to guide planning decisions.	No impact	No impact	No impact	This relates to sites of local importance.
22	Promote awareness of ill-health in trees and encourage the public to report instances of unusual signs of ill-health in trees via the Department of Agriculture, Food and the Marine's Tree Health app.	No impact	No impact	No impact	

23	Organise a series of training events for Council staff and the community on best practice in biodiversity management and on protected species e.g. bats and otters.	No impact	No impact	No impact	This action relates to raising awareness.
24	Meath County Council to initiate a pilot project on the control of ragwort in partnership with landowners/farmers within selected pilot area.	No impact	No impact	No impact	
25	Meath IFA, in partnership with the Environmental Awareness Officer and Meath County Council, to develop and deliver an agriculture and environmental awareness schools education project.	No impact	No impact	No impact	This action relates to raising awareness.
26	Promote best practice in the use of rodenticides in order to limit the risks to birds, animals and humans.	No impact	No impact	No impact	This action focuses on achieving best practice in the use of pest control chemicals.
27	Continue to work in partnership with the East Border Region Biodiversity Sub-Group as a follow on from EU INTERREG IVA Project ' <i>Action for Biodiversity</i> ' to further advance the implementation of the <i>East Border Region Biodiversity Framework</i> and <i>Why Biodiversity Matters Communications Strategy</i> and to seek EU funding for a further or a cross-border biodiversity partnership project.	No impact	No impact	No impact	
28	Work in partnership with relevant stakeholders and the local community to prepare and implement a Management Plan for Girley Bog including a habitat map	No impact	No impact	No impact	It is possible that certain works on Girley Bog could result in indirect impacts to Natura 2000 sites. Any such proposals will be subject to further assessment as part of the AA Screening for projects.

8. Screening Statement

The *County Meath Biodiversity Action Plan 2015-2020* is not directly connected with or necessary to the nature conservation management any NATURA 2000 site.

Screening has established that there is no potential for significant effects by the implementation of the *County Meath Biodiversity Action Plan 2015-2020*, either alone or in combination with other plans or projects, on any Natura 2000 site.

Therefore in accordance with *Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (2010)*; as significant impacts can be ruled out no further assessment is required.

APPENDIX A

Table A1 Qualifying Interests and Threats to Key Conditions for Natura 2000 sites²

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
CANDIDATE SPECIAL AREAS OF CONSERVATION				
Boyne Coast and Estuary	IE0001957	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion & Accretion
		Embryonic shifting dunes	Dune-building grasses <i>Elytrigia juncea</i> and <i>Leymus arenarius</i> . Supply of windblown sand	Erosion, Walking horse riding and non-motorised vehicles, Trampling overuse, Sea defence or coastal protection works
		Estuaries	Supply of riverine freshwater. Unimpeded tidal flow. Shelter from open coasts. Diverse invertebrate communities	Aquaculture, Recreational fishing, Housing development, Sewage outflow, Industrialisation, Autoroutes, Port/Marina, Water pollution, Reclamation of land, Drainage, Dredging, Invasion of Species
		Fixed coastal dunes with herbaceous vegetation (grey dunes)	Low wind, weakly saline conditions In shelter of <i>Ammophila arenaria</i> dunes. Grazing	Erosion, Walking horse riding and non-motorised vehicles, Grazing, Undergrazing, Invasion by a species, Trampling, Overuse, Camping/Caravans, Agricultural Improvement/Restructuring agricultural land holdings, Stock Feeding,

² Note: The sites outlined in green are those found within Meath.

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
				Motorised Vehicles, Paths Tracks & Cycling Routes, Golf Courses, Fertilisation, Sea defences or coastal protection works
		Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion
		Mudflats and sandflats not covered by seawater at low tide	Silt deposits in sheltered estuaries	Aquaculture, Professional fishing, Bait Digging, Removal of Fauna, Reclamation of Land, Coastal protection works, Invasion by a species
		Salicornia and other annuals colonizing mud and sand	Frequency of tidal submergence	Invasive Species, Erosion & Accretion, Grazing
		Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	Supply of wind-blown sand	Erosion, Walking/ Horse riding and non-motorised vehicles, Trampling - overuse, Motorised Vehicles
River Boyne and Blackwater	IE0002299	Alkaline fens	High water table. Ground-surface water supply. Calcium-rich conditions.	Agriculture & Land Reclamation, abstraction, Drainage, Turf Cutting, Afforestation
		Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)	Riparian/lacustrine habitat prone to flooding	Grazing, Invasive Species, Drainage, Planting of non-native conifers, felling of native tree species
		Atlantic Salmon	Riverine habitat. Water	Cultivation (Pesticides, Fertilisation, Grazing),

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		<i>Salmo salar</i>	quality (Q4-5). Riverbed breeding gravels. Quality riparian vegetation. Unhindered migratory routes.	Pollution (Water Pollution), Grazing, Trampling/Overuse, Erosion, Afforestation, Aquaculture, Fishing, Sand & Gravel Abstraction, Quarries, Peat Extraction, Mining, Urbanisation, canalisation, barriers, invasive species, introduction of diseases
		River Lamprey <i>Lampetra fluviatilis</i>	Riverine habitat. Water quality. Riverbed breeding gravels and silt nursery substrate. Unhindered migratory channels.	River Channel Maintenance.
		Otter <i>Lutra lutra</i>	Prey availability. Water Quality. Riparian vegetation for breeding sites. Unhindered passage along waterways	Water Pollution, Mortalities/Illegal Killings, Recreation/Disturbances, Hydroelectric Schemes, Aquaculture/fisheries, chemical spillages, American Mink
Rye Water Valley / Carton	IE0001398	Petrifying springs with tufa formation (Cratoneurion)	Calcium-rich, nutrient poor groundwater/surface water supply	Agriculture & Land Reclamation, Drainage, Afforestation
		<i>Vertigo angustior</i>	Stable wetland water table. Emergent vegetation. Groundwater supply. Lime-rich conditions	Agriculture & Land Reclamation. Habitat loss due to roads, motorways and urbanisation. Raising of water through reopening of disused feeder canal.
		<i>Vertigo moulinsiana</i>	Stable wetland water	Climate Change, Flooding, Urbanisation (Habitat

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
			table. Emergent vegetation. Groundwater supply. Lime-rich conditions.	Encroachment, Pesticides, Fertilised, Grazing, Undergrazing, Afforestation, Stock Feeding, Burning, Peat Extraction, Communications Networks, Paths & Tracks, Walking/horse riding & non-motorised vehicles, Water Pollution, Landfill, Drainage, Modifying structures of inland watercourses.
Mount Hevey Bog	IE0002342	Active raised bogs	Surface water supply. Low nutrient, acidic conditions. <i>Sphagnum</i> spp.	Peat Cutting, Drainage Burning, Afforestation, Invasive Species
		Degraded raised bogs still capable of natural regeneration	Dessication from drainage.	Restructuring agricultural land holding, General Forestry Management, Burning, Mechanical Removal of Peat, Drainage, Invasion by Species
		Depressions on peat substrates of the Rhynchosporion	Peat cutting, Surface water supply	Drainage, Burning, Mechanical removal of peat, Overgrazing by sheep, Forestry Planting, Landfill land reclamation and drying out, climate change (Via habitat desiccation), Erosion, Invasion by species
White Lough, Ben Loughs and Lough Doo	IE0001810	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Calcium rich, shallow, low nutrient waters.	Eutrophication, Overgrazing, Fertilisation, Afforestation, Invasive Alien Species, Sport & Leisure Activities, Housing Developments
		White clawed Crayfish	Well oxygenated lakes/rivers with high	Loss of Water Quality, Discharges: sewage effluent, Industrial discharges, organic compounds

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		<i>Austropotamobius pallipes</i>	pH. Riparian/ lacustrine substrate of cobbles/submerged vegetation	in water), Loss of Habitat Quality (cattle watering, trampling, infrastructural development, alteration of stream morphology by canalisation and dredging, eutrophication of rivers), Angling Leisure and introduction of species
Lough Bane and Lough Glass	IE0002120	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	Calcium rich, shallow, low nutrient waters	Eutrophication, Overgrazing, Fertilisation, Afforestation, Invasive Alien Species, Sport & Leisure Activities, Housing Developments, Abstraction
Killyconny Bog (Cloughbally)	IE0000006	Active raised bog	Surfacewater supply. Low nutrient acidic conditions. <i>Sphagnum</i> spp.	Peat Cutting, Drainage Burning, Afforestation, Invasive Species
		Degraded raised bogs still capable of natural regeneration	Dessication from drainage. Low moss cover	Restructuring agricultural land holding, General Forestry Management, Burning, Mechanical Removal of Peat, Drainage, Invasion by Species
Monybeg and Clareisland Bogs	IE0002340	Active raised bogs	Surface water supply. Low nutrient, acidic conditions. <i>Sphagnum</i> spp.	Peat Cutting, Drainage Burning, Afforestation, Invasive Species
		Degraded raised bogs still capable of natural regeneration	Dessication from drainage	Restructuring agricultural land holding, General Forestry Management, Burning, Mechanical Removal of Peat, Drainage, Invasion by Species
		Depressions on peat substrates of the	Peat cutting, Surface water supply	Drainage, Burning, Mechanical removal of peat, Overgrazing by sheep, Forestry Planting, Landfill

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Rhynchosporion		land reclamation and drying out, climate change (Via habitat desiccation), Erosion, Invasion by species
Ardagullion Bog	IE0002341	Active raised bogs	Surface water supply. Low nutrient, acidic conditions. <i>Sphagnum</i> spp.	Peat Cutting, Drainage Burning, Afforestation, Invasive Species
		Degraded raised bogs still capable of natural regeneration	Dessication from drainage.	Restructuring agricultural land holding, General Forestry Management, Burning, Mechanical Removal of Peat, Drainage, Invasion by Species
		Depressions on peat substrates of the Rhynchosporion	Peat cutting, Surface water supply	Drainage, Burning, Mechanical removal of peat, Overgrazing by sheep, Forestry Planting, Landfill land reclamation and drying out, climate change (Via habitat desiccation), Erosion, Invasion by species
Garriskil Bog	IE0000679	Active raised bogs	Surface water supply. Low nutrient, acidic conditions. <i>Sphagnum</i> spp.	Peat Cutting, Drainage Burning, Afforestation, Invasive Species
		Degraded raised bogs still capable of natural regeneration	Dessication from drainage	Restructuring agricultural land holding, General Forestry Management, Burning, Mechanical Removal of Peat, Drainage, Invasion by Species
		Depressions on peat substrates of the Rhynchosporion	Peat cutting, Surface water supply	Drainage, Burning, Mechanical removal of peat, Overgrazing by sheep, Forestry Planting, Landfill land reclamation and drying out, climate change (Via habitat desiccation), Erosion, Invasion by

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
				species
Lough Lene	IE0002121	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	Calcium rich, shallow, low nutrient waters	Eutrophication, Overgrazing, Fertilisation, Afforestation, Invasive Alien Species, Sport & Leisure Activities, Housing Developments
		White clawed Crayfish <i>Austropotamobius pallipes</i>	Well oxygenated lakes/rivers with high pH. Riparian/ lacustrine substrate of cobbles/submerged vegetation	Loss of Water Quality, Discharges: sewage effluent, Industrial discharges, organic compounds in water), Loss of Habitat Quality (cattle watering, trampling, infrastructural development, alteration of stream morphology by canalisation and dredging, eutrophication of rivers), Angling Leisure and introduction of species
Lough Ennell	IE0000685	Alkaline fens	High water table. Ground/surface water supply. Calcium-rich, nutrient-rich conditions	Agriculture & Land Reclamation, Drainage, Turf Cutting, Afforestation
Raheenmore Bog	IE0000582	Active raised bogs	Surface water supply. Low nutrient, acidic conditions. <i>Sphagnum</i> spp.	Peat Cutting, Drainage Burning, Afforestation, Invasive Species
		Degraded raised bogs still capable of natural regeneration	Dessication from drainage	Restructuring agricultural land holding, General Forestry Management, Burning, Mechanical Removal of Peat, Drainage, Invasion by Species
		Depressions on peat substrates of the	Peat cutting, Surface water supply	Drainage, Burning, Mechanical removal of peat, Overgrazing by sheep, Forestry Planting, Landfill

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Rhynchosporion		land reclamation and drying out, climate change (Via habitat desiccation), Erosion, Invasion by species
The Long Derries, Edenderry	IE0000925	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites)	Dry, shallow, calcium rich nutrient poor soils. Light grazing	Encroachment by <i>Pteridium aquilinum</i> and woody shrub species, undergrazing, Fertiliser, Agricultural Improvement - cultivation, Abandonment of pastoral systems, sand and gravel extraction
Ballynafagh Bog	IE0000391	Active raised bogs	Surface water supply. Low nutrient, acidic conditions. <i>Sphagnum</i> spp.	Peat Cutting, Drainage Burning, Afforestation, Invasive Species
		Degraded raised bogs still capable of natural regeneration	Dessication from drainage	Restructuring agricultural land holding, General Forestry Management, Burning, Mechanical Removal of Peat, Drainage, Invasion by Species
		Depressions on peat substrates of the Rhynchosporion	Peat cutting, Surface water supply	Drainage, Burning, Mechanical removal of peat, Overgrazing by sheep, Forestry Planting, Landfill land reclamation and drying out, climate change (Via habitat desiccation), Erosion, Invasion by species
Ballynafagh Lake	IE0001387	Alkaline fens	High water table. Ground/surface water supply. Calcium-rich, nutrient-rich conditions	Agriculture & Land Reclamation, Drainage, Turf Cutting, Afforestation

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Marsh Fritillary <i>Euphydryas aurinia</i>	Larval foodplant <i>Succisia pratensis</i> . Grassland sward structure. Water supply for damp conditions	Changes in agricultural regimes, habitat loss roads, motorways Urbanised areas
		Whorl Snail <i>Vertigo moulinsiana</i>	Stable wetland water table. Emergent vegetation. Groundwater supply. Lime-rich conditions	Climate Change, Flooding, Urbanisation (Habitat Encroachment, Pesticides, Fertilised, Undergrazing, Afforestation, Stock Feeding, Burning, Peat Extraction, Communications Networks, Paths & Tracks, Walking/horse riding & non-motorised vehicles, Water Pollution, Landfill, Drainage, Modifying structures of inland watercourse. Raising water levels through reopening of disused feeder canal
North Dublin Bay	IE0000206	Annual vegetation of drift lines	Sandy substrate. Physical impact and nutrient supply from tidal flow	Grazing, Sand & Gravel extraction - Removal of Beach materials, Walking horse riding - non motorised vehicles, outdoor sports & motorised vehicles, other leisure & tourism impacts, Trampling overuse, sea defences & coastal protection works
		Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion & Accretion

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Embryonic shifting dunes	Dune-building grasses <i>Elytrigia juncea</i> and <i>Leymus arenarius</i> . Supply of windblown sand	Erosion, Walking horse riding and non-motorised vehicles, Trampling overuse, Sea defence or coastal protection works
		Fixed coastal dunes with herbaceous vegetation (grey dunes)	Low wind, weakly saline conditions In shelter of <i>Ammophila arenaria</i> dunes. Grazing	Erosion, Walking horse riding and non-motorised vehicles, Grazing, Undergrazing, Invasion by a species, Trampling, Overuse, Camping/Caravans, Agricultural Improvement/Restructuring agricultural land holdings, Stock Feeding, Motorised Vehicles, Paths Tracks & Cycling Routes, Golf Courses, Fertilisation, Sea defences or coastal protection works
		Humid dune slacks	High water maintained by groundwater and impermeable soils. Grazing. Salinity	Agricultural Improvement, Fertilisation, Grazing, Restructuring agricultural land holding, Forestry, Stock Feeding, Golf Course, Walking, horse riding and non-motorised vehicles, motorised vehicles, trampling/overuse, drainage, other human changes in hydraulic conditions, drying out, invasion by a species
		Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion
		Mudflats and sandflats not covered by seawater at low tide	Silt deposits in sheltered estuaries	Aquaculture, Professional fishing, Bait Digging, Removal of Fauna, Reclamation of Land, Coastal protection works, Invasion by a species

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Salicornia and other annuals colonizing mud and sand	Frequency of tidal submergence	Invasive Species, Erosion & Accretion, Grazing
		Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	Supply of wind-blown sand.	Erosion, Walking/ Horse riding and non-motorised vehicles, Trampling - overuse, Motorised Vehicles
		Petalwort <i>Petalophyllum ralfsii</i>	Lime-rich sandy habitat. Overgrazing. Water supply for damp conditions.	Grazing Imbalance, Physical Disturbance, Pollution, Desiccation, trampling from stock and recreation, changes in land use.
Baldoyle Bay	IE0000199	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion
		Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	Frequency of tidal submergence	Aquaculture, Professional fishing, Bait Digging, Removal of Fauna, Reclamation of Land, Coastal protection works, Invasion by a species
		Mudflats and sandflats not covered by seawater at low tide	Diverse invertebrate communities. Silt deposits in sheltered estuaries	Invasive Species, Erosion & Accretion, Grazing
		Salicornia and other annuals colonizing mud and sand	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
Malahide Estuary	IE0000205	Atlantic salt meadows (Glauco-Puccinellietalia maritima)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion & Accretion
		Fixed coastal dunes with herbaceous vegetation (grey dunes)	Low wind, weakly saline conditions In shelter of <i>Ammophila arenaria</i> dunes. Grazing	Erosion, Walking horse riding and non-motorised vehicles, Grazing, Undergrazing, Invasion by a species, Trampling, Overuse, Camping/Caravans, Agricultural Improvement/Restructuring agricultural land holdings, Stock Feeding, Motorised Vehicles, Paths Tracks & Cycling Routes, Golf Courses, Fertilisation, Sea defences or coastal protection works,
		Mediterranean salt meadows (Juncetalia maritimi)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion
		Mudflats and sandflats not covered by seawater at low tide	Silt deposits in sheltered estuaries.	Aquaculture, Professional fishing, Bait Digging, Removal of Fauna, Reclamation of Land, Coastal protection works, Invasion by a species
		Salicornia and other annuals colonizing mud and sand	Frequency of tidal submergence	Invasive Species, Erosion & Accretion, Grazing
		Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	Supply of wind-blown sand	Erosion, Walking/ Horse riding and non-motorised vehicles, Trampling - overuse, Motorised Vehicles
		Spartina swards	Frequency of tidal	Erosion (Non-Native Habitat)

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		(Spartinion maritima)	submergence. Supply of mud sediment on seaward edge of saltmarsh	
Rogerstown Estuary	IE0000208	Atlantic salt meadows (Glauco-Puccinellietalia maritima)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion & Accretion
		Estuaries	Supply of riverine freshwater. Unimpeded tidal flow. Shelter from open coasts. Diverse invertebrate communities	Aquaculture, Recreational fishing, Housing development, Sewage outflow, Industrialisation, Autoroutes, Port/Marina, Water pollution, Reclamation of land, Drainage, Dredging, Invasion of Species
		Fixed coastal dunes with herbaceous vegetation (grey dunes)	Low wind, weakly saline conditions In shelter of <i>Ammophila arenaria</i> dunes. Grazing	Erosion, Walking horse riding and non-motorised vehicles, Grazing, Undergrazing, Invasion by a species, Trampling, Overuse, Camping/Caravans, Agricultural Improvement/Restructuring agricultural land holdings, Stock Feeding, Motorised Vehicles, Paths Tracks & Cycling Routes, Golf Courses, Fertilisation, Sea defences or coastal protection works,
		Mediterranean salt meadows (Juncetalia maritimi)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion
		Mudflats and sandflats not covered by	Silt deposits in sheltered estuaries.	Aquaculture, Professional fishing, Bait Digging, Removal of Fauna, Reclamation of Land, Coastal

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		seawater at low tide		protection works, Invasion by a species
		Salicornia and other annuals colonizing mud and sand	Frequency of tidal submergence	Invasive Species, Erosion & Accretion, Grazing
		Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	Supply of wind-blown sand.	Erosion, Walking/ Horse riding and non-motorised vehicles, Trampling - overuse, Motorised Vehicles
Clogher Head	IE0001459	European dry heaths	Free-draining nutrient poor acid soils. Grazing and burning	Agricultural Improvements, Removal of Scrub, Cultivation, Fertilisation, Over Grazing by sheep, Burning, Invasion by Species, Vandalism,
		Vegetated sea cliffs of the Atlantic and Baltic coasts	Flat topography on coastal cliff bedrock. High pH influence of sands and seabird guano	Fertilisation, Grazing, Overgrazing, Restructuring agricultural land holding, Burning, Disposal of household waste, Golf Course, Trampling overuse, Sea defences/ coastal protection works, Erosion
Dundalk Bay	IE0000455	Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)	Frequency of tidal submergence	Grazing, Infilling & Reclamation, Invasive Species, Erosion & Accretion
		Estuaries	Supply of riverine freshwater. Unimpeded tidal flow. Shelter from open coasts	Aquaculture, Recreational fishing, Housing development, Sewage outflow, Industrialisation, Autoroutes, Port/Marina, Water pollution, Reclamation of land, Drainage, Dredging, Invasion of Species
		Mediterranean salt	Frequency of tidal	Grazing, Infilling & Reclamation, Invasive

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		meadows (<i>Juncetalia maritimi</i>)	submergence	Species, Erosion
		Mudflats and sandflats not covered by seawater at low tide	Silt deposits in sheltered estuaries.	Aquaculture, Professional fishing, Bait Digging, Removal of Fauna, Reclamation of Land, Coastal protection works, Invasion by a species
		Perennial vegetation of stony banks	Cobble substrate. Tidal levels. Sediment supply from wind and waves.	Sand & Gravel extraction - Removal of Beech Materials, Infrastructure development
		Salicornia and other annuals colonizing mud and sand	Frequency of tidal submergence	Invasive Species, Erosion & Accretion, Grazing
Rockabill to Dalkey Island	Unknown	Reefs and Harbour Porpoise <i>Phocoena phocoena</i>	Marine currents, food supply for Porpoises.	Underwater noise and vibration, aquaculture, dredging and dumping at sea.
SPECIAL PROTECTION AREAS				
Boyne Estuary	[004080]	Shelduck (<i>Tadorna tadorna</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to feeding sites	Infilling of Intertidal mudflats, Pollution from Drogheda town, hard coastal developments. Disturbance from recreational activities at coast and offshore.
		Oystercatcher (<i>Haematopus ostralegus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands	
		Golden Plover		

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		<i>(Pluvialis apricaria)</i>	Undisturbed coastal roosting sites close to feeding areas	
		Grey Plover (<i>Pluvialis squatarola</i>)		
		Lapwing (<i>Vanellus vanellus</i>)		
		Knot (<i>Calidris canutus</i>)		
		Sanderling (<i>Calidris alba</i>)		
		Black-tailed Godwit (<i>Limosa limosa</i>)		
		Redshank (<i>Tringa totanus</i>)		
		Turnstone (<i>Arenaria interpres</i>)		
		Little Tern (<i>Sterna albifrons</i>)	Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel). Predation	
		Wetlands & Waterbirds	-	
River Nanny	[004158]	Oystercatcher	Food availability	Infilling of Intertidal mudflats, Pollution from

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
Estuary and Shore		<i>(Haematopus ostralegus)</i>	(intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas	upstream urbanisation, hard coastal developments. Disturbance from recreational activities at coast and offshore.
		Ringed Plover (<i>Charadrius hiaticula</i>)		
		Knot (<i>Calidris canutus</i>)		
		Sanderling (<i>Calidris alba</i>)		
		Wetlands & Waterbirds	-	
Lough Sheelin	[004065]	Great Crested Grebe (<i>Podiceps cristatus</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds	Eutrophic conditions, phosphorus inputs to the feeder streams entering the lake. Disturbance from recreational and wildfowling activities
		Pochard (<i>Aythya ferina</i>)		
		Tufted Duck (<i>Aythya fuligula</i>)		
		Goldeneye (<i>Bucephala clangula</i>)		
		Wetlands & Waterbirds	-	
River Boyne and Blackwater	[004232]	Kingfisher (<i>Alcedo atthis</i>)	Marine/freshwater food availability. Undisturbed soft substrate riparian nest sites. Regularity of extreme weather. Water quality	Disturbance from riverside recreation, loss of nest sites due to bankside interference. Loss of riparian scrub and woodland

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
Stabannan Braganstown	[004091]	Greylag Goose (<i>Anser anser</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing	Infilling of habitats, Pollution from upstream urbanisation, hard coastal developments. Disturbance from recreational activities
North Bull Island	[004006]	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing	Infilling of Intertidal mudflats, Pollution from upstream urbanisation, hard coastal developments. Disturbance from recreational activities at coast and offshore
		Shelduck (<i>Tadorna tadorna</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to feeding sites	
		Teal (<i>Anas crecca</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed freshwater/coastal roosting sites close to	

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
			feeding sites	
		Pintail (<i>Anas acuta</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed freshwater/coastal roosting sites close to feeding sites	
		Shoveler (<i>Anas clypeata</i>)		
		Oystercatcher (<i>Haematopus ostralegus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas	
		Grey Plover (<i>Pluvialis squatarola</i>)		
		Knot (<i>Calidris canutus</i>)		
		Sanderling (<i>Calidris alba</i>)		
		Black-tailed Godwit (<i>Limosa limosa</i>)		
		Bar-tailed Godwit (<i>Limosa lapponica</i>)		
		Curlew (<i>Numenius arquata</i>)		
		Redshank (<i>Tringa totanus</i>)		
		Turnstone (<i>Arenaria</i>)		

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		<i>interpres</i>)		
		Golden Plover (<i>Pluvialis apricaria</i>)		
		Black-headed Gull (<i>Chroicocephalus ridibundus</i>)		
		Dunlin (<i>Calidris alpina</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas	
		Wetlands & Waterbirds	-	
(South Dublin Bay) Sandymount Strand / River Tolka Estuary	[004024]	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing	Infilling of Intertidal mudflats, Pollution from upstream urbanisation, hard coastal developments. Disturbance from recreational activities at coast and offshore
		Oystercatcher (<i>Haematopus ostralegus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands	
		Ringed Plover		

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		<i>(Charadrius hiaticula)</i> Golden Plover <i>(Pluvialis apricaria)</i> Knot (<i>Calidris canutus</i>) Sanderling (<i>Calidris alba</i>) Bar-tailed Godwit <i>(Limosa lapponica)</i> Redshank (<i>Tringa totanus</i>)	Undisturbed coastal roosting sites close to feeding areas	
		Roseate Tern (<i>Sterna dougallii</i>) Common Tern (<i>Sterna hirundo</i>) Arctic Tern (<i>Sterna paradisaea</i>)	Sea level. Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events. Marine prey availability (sand eel). Predation	
Baldoyle Bay	[004016]	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing	Infilling of Intertidal mudflats, Pollution from upstream urbanisation, hard coastal developments. Disturbance from recreational activities at coast and offshore

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Shelduck (<i>Tadorna tadorna</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to feeding sites	
		Ringed Plover (<i>Charadrius hiaticula</i>)	Food availability (intertidal fauna/pasture).	
		Grey Plover (<i>Pluvialis squatarola</i>)	Flooding regime of coastal grasslands.	
		Bar-tailed Godwit (<i>Limosa lapponica</i>)	Undisturbed coastal roosting sites close to feeding areas	
		Golden Plover (<i>Pluvialis apricaria</i>)		
		Wetlands & Waterbirds	-	
Rogerstown Estuary	[004015]	Greylag Goose (<i>Anser anser</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing	Infilling of Intertidal mudflats, Pollution from upstream urbanisation, hard coastal developments. Disturbance from recreational activities at coast and offshore
		Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)		
		Shelduck (<i>Tadorna tadorna</i>)	Food availability (intertidal flora and fauna/pasture/cereal)	
		Shoveler (<i>Anas</i>)		

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		<i>clypeata</i>)	Undisturbed freshwater/coastal roosting sites close to feeding sites	
		Oystercatcher (<i>Haematopus ostralegus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas	
		Ringed Plover (<i>Charadrius hiaticula</i>)		
		Grey Plover (<i>Pluvialis squatarola</i>)		
		Knot (<i>Calidris canutus</i>)		
		Black-tailed Godwit (<i>Limosa limosa</i>)		
		Redshank (<i>Tringa totanus</i>)		
Skerries Islands	[004122]	Shag (<i>Phalacrocorax aristotelis</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds and roosting sites	Invasive predatory species (Rats, birds, foxes). Offshore pollution (chemical spillages)
		Light-bellied Brent Goose (<i>Branta</i>	Food availability (intertidal aquatic	

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		<i>bernicle hrota</i>)	vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing	
		Purple Sandpiper (<i>Calidris maritima</i>)	Food availability (intertidal fauna/pasture).	
		Turnstone (<i>Arenaria interpres</i>)	Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas	
(Malahide Estuary) Broadmeadow / Swords Estuary	[004025]	Great Crested Grebe (<i>Podiceps cristatus</i>)	Fish/crustacean prey availability in shallow inshore waters. Undisturbed, ice-free marine/freshwater feeding grounds	Infilling of Intertidal mudflats, Pollution from upstream urbanisation (Broadmeadow River & Sewage Plants at Swords & Malahide), hard coastal developments. Disturbance from recreational activities at coast and offshore
		Light-bellied Brent Goose (<i>Branta bernicle hrota</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing	
		Shelduck (<i>Tadorna</i>)	Food availability	

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		<i>tadorna</i>)	(intertidal invertebrates and vegetation). Undisturbed coastal roosting sites close to feeding sites	
		Pintail (<i>Anas acuta</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to feeding sites	
		Goldeneye (<i>Bucephala clangula</i>)		
		Red-breasted Merganser (<i>Mergus serrator</i>)	Fish/crustacean prey availability in shallow inshore waters. Undisturbed, ice-free marine/freshwater feeding grounds.	
		Oystercatcher (<i>Haematopus ostralegus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas	
		Golden Plover (<i>Pluvialis apricaria</i>)		
		Grey Plover (<i>Pluvialis squatarola</i>)		
		Knot (<i>Calidris canutus</i>)		

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Black-tailed Godwit (<i>Limosa limosa</i>)		
		Bar-tailed Godwit (<i>Limosa lapponica</i>)		
		Redshank (<i>Tringa totanus</i>)		
		Wetlands & Waterbirds	-	
Dundalk Bay	[004026]	Great Crested Grebe (<i>Podiceps cristatus</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds	Infilling of Intertidal mudflats, Pollution (point-source and diffuse -agricultural and domestic), hard coastal developments. Disturbance from recreational activities at coast and offshore.
		Greylag Goose (<i>Anser anser</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites close to feeding sites. Grazing	
		Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)		
		Shelduck (<i>Tadorna tadorna</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to	
		Teal (<i>Anas crecca</i>)		

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
			feeding sites	
		Mallard (<i>Anas platyrhynchos</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed roosting sites close to feeding sites	
		Pintail (<i>Anas acuta</i>)	Food availability (intertidal flora and fauna/pasture/cereal). Undisturbed coastal roosting sites close to feeding sites	
		Common Scoter (<i>Melanitta nigra</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds	
		Red-breasted Merganser (<i>Mergus serrator</i>)		
		Oystercatcher (<i>Haematopus ostralegus</i>)	Food availability (intertidal fauna/pasture). Flooding regime of coastal grasslands. Undisturbed coastal roosting sites close to feeding areas	
		Ringed Plover (<i>Charadrius hiaticula</i>)		
		Golden Plover (<i>Pluvialis apricaria</i>)		

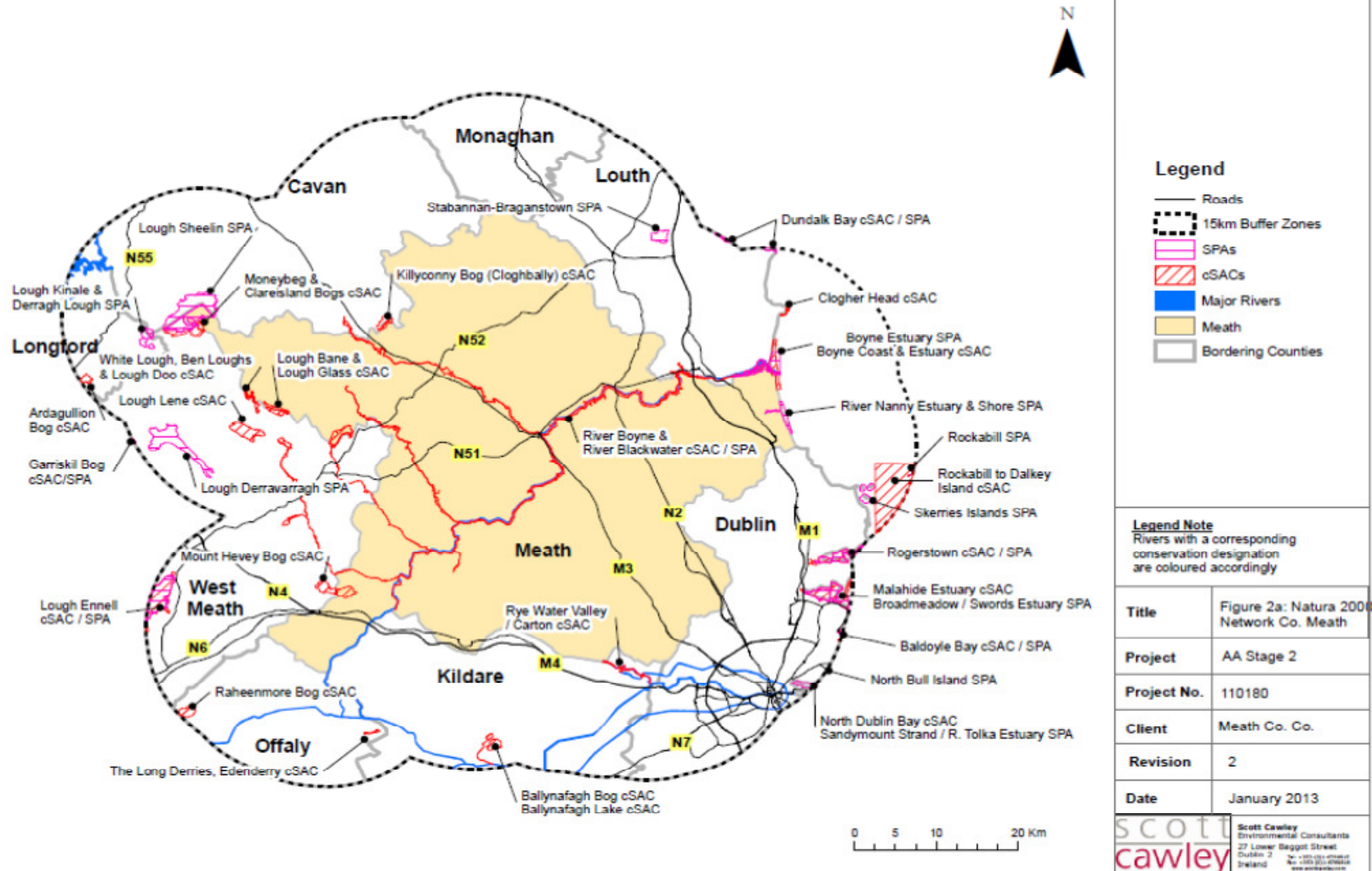
Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Grey Plover (<i>Pluvialis squatarola</i>)		
		Lapwing (<i>Vanellus vanellus</i>)		
		Knot (<i>Calidris canutus</i>)		
		Dunlin (<i>Calidris alpina</i>)		
		Black-tailed Godwit (<i>Limosa limosa</i>)		
		Bar-tailed Godwit (<i>Limosa lapponica</i>)		
		Curlew (<i>Numenius arquata</i>)		
		Redshank (<i>Tringa totanus</i>)		
		Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	Food availability (intertidal fauna/pasture/sewage). Coastal water quality	
		Common Gull (<i>Larus canus</i>)	Marine prey availability. Wetland foraging area. Undisturbed roost site availability.	
		Herring Gull (<i>Larus argentatus</i>)	Coastal water quality	

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
		Wetlands & Waterbirds	-	
Lough Kinale and Derragh Lough	[004061]	Pochard (<i>Aythya ferina</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters. Undisturbed, ice-free marine/freshwater feeding grounds	Eutrophication. Siltation of shallow waters. Pollution (point-source and diffuse -agricultural and domestic), hard coastal developments. Disturbance from recreational activities at coast and offshore
		Tufted Duck (<i>Aythya fuligula</i>)		
Garriskill Bog	[004102]	Merlin (<i>Falco columbarius</i>)	Moorland Prey availability. Undisturbed forested/moorland nest sites. Regularity of extreme weather. Water quality	Drainage, modification of inland rivers, afforestation/deforestation, Restructuring agricultural land holding. Burning
		Snipe (<i>Gallinago gallinago</i>)	Food availability (intertidal fauna/pasture).	
		Curlew (<i>Numenius arquata</i>)	Flooding regime of coastal grasslands.	
		Redshank (<i>Tringa totanus</i>)	Undisturbed coastal roosting sites close to feeding areas	
Lough Derraghvarragh	[004043]	Whooper Swan (<i>Cygnus cygnus</i>)	Food availability (intertidal aquatic vegetation/ pasture/ crops). Undisturbed coastal roosting sites	Infilling of Intertidal mudflats, Pollution (point-source and diffuse -agricultural and domestic), Disturbance from recreational and wildfowling activities.

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
			close to feeding sites. Grazing	
		Pochard (<i>Aythya ferina</i>)	Fish/crustacean prey availability in shallow inshore waters.	
		Tufted Duck (<i>Aythya fuligula</i>)	Undisturbed, ice-free marine/freshwater feeding grounds	
		Coot (<i>Fulica atra</i>)	Food availability (aquatic flora and fauna). Undisturbed freshwater roosting sites close to feeding sites	
Lough Ennell	[004044]	Pochard (<i>Aythya ferina</i>)	Fish/crustacean/vegetation availability in shallow inshore/freshwaters.	Pollution (point-source and diffuse -agricultural and domestic), Increases in recreational activity
		Tufted Duck (<i>Aythya fuligula</i>)	Undisturbed, ice-free marine/freshwater feeding grounds	
		Coot (<i>Fulica atra</i>)		
Rockabill	[004014]	Roseate Tern (<i>Sterna dougallii</i>)	Sea level.	Invasive predatory species (Rats, birds, foxes). Offshore pollution (chemical spillages)
		Common Tern (<i>Sterna hirundo</i>)	Natural/artificial nest site availability. Undisturbed breeding sites. Regularity of extreme weather events.	
		Arctic Tern (<i>Sterna paradisaea</i>)	Marine prey availability (sand eel).	

Site name	Site Number	Qualifying Interests	Key environmental conditions supporting site integrity	Threats to Key Conditions
			Predation	

APPENDIX B



Source: Volume IV – County Meath Development Plan 2013-2019 - Natura Impact Report