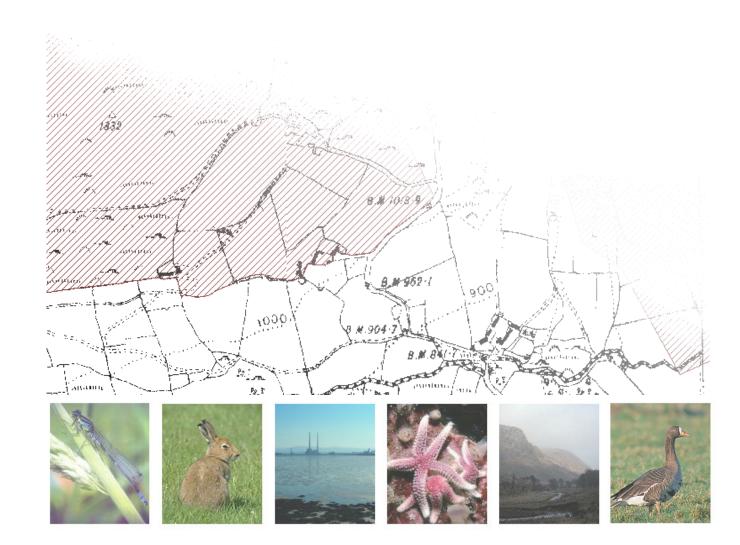


National Parks and Wildlife Service Conservation Plan for 2005-2010



Termon Strand cSAC

Site Code 1195 Co. Donegal



SUMMARY

Introduction

Termon Strand has been designated as a candidate Special Area of Conservation under the EU Habitats Directive. The site was designated due to the presence of Maghery Lough; a lagoon and a priority habitat listed under Annex I of the EU Habitats Directive. The lagoon is a good representative of a type of lagoon that is relatively rare outside Co. Galway and is in a good conservation state with a diverse community of flora and fauna, some of which are rare.

Description of Termon Strand cSAC

Termon Strand is a small coastal site situated around the village of Maghery, about 5 km of west of Dunglow on the west coast of Co. Donegal. Maghery Lough, the primary ecological interest of the site, is a good example of a moderate sized, shallow, saline lake lagoon with a tidal inlet. This habitat is a priority habitat under Annex I of the Habitats Directive.

In general, the plant community is typically lagoonal with two species of Tasselweed and occasional plants of Eelgrass. Foxtail Stonewort, known in only about a dozen sites in Ireland, has been recorded in the Lough. This plant is categorised as 'vulnerable' in the Irish Red Data Book. Although several additional records of this species have been found recently, this is the only known occurrence in Ulster.

Other habitats on this site include a stretch of strand, sand dunes, species rich wet grassland and a small area of mudflats in the extreme North of the site. The beach and mudflats provide feeding sites for Shelduck, Curlew and Ringed Plover. The Lough is also a used by wintering waterfowl including Whooper Swan (a species listed in Annex I of the Birds Directive), Mute Swan, Wigeon and Goldeneye. Whooper Swan has been recorded occasionally on the site. Maghery Lough, the intertidal flats and the beach areas are used by low numbers of wintering waterfowl. The most significant populations using the site are the small but regular numbers of Ringed Plover and Goldeneye.

The faunal community is moderately rich and typically brackish with seven lagoonal specialists and three possibly rare species. The thriving population of Soft Clam of various age classes indicates fairly stable conditions although salinities vary somewhat and many of the species are euryhaline. Nevertheless, a diverse assemblage of species from oligonaline to marine has been recorded.

The tidal inlet of the lagoon has been modified, some of the surrounding grasslands have been improved but otherwise it is in relatively natural condition, and apparently un-threatened by any major impacts.

Main conservation objectives

- To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status; *Coastal lagoon* (21% area of the site).
- To maintain the extent, biodiversity and species richness of the site
- To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Main management issues

- Debris
- Erosion
- Grazing
- Water quality

Main strategies to achieve objectives

- Water quality and water salinity monitoring
- Site surveillance
- Establish grazing levels
- Supplementary feeding controls

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READER'S GUIDE

The National Parks and Wildlife Service (NPWS) of the Department of the Environment, Heritage and Local Government (DEHLG) has produced this plan to provide ecological information about the site and to outline the main objectives for the conservation of the special features of the site. The purpose of this draft is to provide stakeholders the opportunity to input into the development of the plan.

The **Introduction** section outlines the **policy background** to the site's designation and the relevant legislation.

The **Site Descripion** section contains **general information** on the site's boundaries and ownership and on the statutory bodies with responsibility for its conservation. It also contains sections on the **physical aspects** of the site such as the geology and hydrology as well as the **biological features**, in particular, the habitats and species found there. **Land use** and cultural features are also described.

The **Conservation Value** section assesses the main ecological attributes of the site.

The **Management Framework** section outlines the management necessary for the conservation of the site. It starts with a set of specific **conservation objectives.** These are followed by the main **management issues** that may impact on the conservation of the site and the **strategies** that are proposed to achieve the conservation objectives. In the final section, the site is divided into management **zones** to indicate where each strategy applies.

The appendices include a **glossary** where scientific and technical terms are explained, **reference material** consulted in the preparation of the plan and a list of **notifiable actions** relevant to each habitat within the site.

By preparing, implementing and reviewing this plan on a five-year basis, DEHLG aims to achieve the objectives of the EU Habitats Directive in relation to this site.

INTRODUCTION

Legal Background for Conservation Plans

The legal basis for selection and designation of **Special Areas of Conservation** (SACs) is the **EU Habitats Directive**, which was adopted in 1992. Focusing on the conservation of natural and seminatural habitats and species of flora and fauna, the Habitats Directive seeks to establish "Natura 2000", a network of protected areas throughout the European Community. The Habitats Directive includes a list of habitats that require SAC designation and specific conservation measures. This list is known as Annex I and the habitats are referred to as Annex I habitats. On this list, habitats that require special attention because they are in danger of disappearance, are termed 'priority habitats'. A second list, Annex II in the Habitats Directive comprises species that must be afforded special protection.

In Ireland, the habitats and species that must be afforded protection under the Habitats Directive include:

- 16 Annex I priority habitats that require particular attention including raised bogs, active blanket bogs, turloughs and machair,
- 45 other Annex I habitats such as certain types of heaths, lakes and woodlands,
- 25 Annex II species including Otter, Freshwater Pearl Mussel and Killarney Fern.

It is the responsibility of each member state to designate SACs to protect the Annex I habitats and Annex II species. These sites, together with the **Special Protection Areas** (SPAs) designated under the **EU Birds Directive** (1979), form the European "Natura 2000" network.

The Birds Directive contains annexes, which are lists of birds that require particular conservation measures (Annex I), and also species that may be hunted, and species that may be sold. There are 28 Annex I species regularly occurring in Ireland including Whooper Swan, Greenland White-fronted Goose, Peregrine Falcon, Corncrake and Terns. Member states are also required to protect sites that are important for migratory species such as ducks, geese and waders.

The Habitats Directive was transposed into Irish law through the **European Communities** (Natural Habitats) Regulations 1997. The Wildlife Act 1976 is the main statute governing the protection of wildlife in Ireland and was amended in 2000 to take account of European law, particularly the Habitats and Birds Directives. The Wildlife (Amendment) Act 2000 also makes legal provision for the designation and protection of a national network of Natural Heritage Areas (NHAs). Over 1,100 proposed NHAs were published in 1995 and almost 400 of these are also selected as candidate SACs.

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The European Communities (Natural Habitats) Regulations 1997 include the following points:

The Minister for the Environment, Heritage and Local Government must transmit a candidate list of sites to the European Commission for consideration.

Following adoption of this list by the Commission, the Minister will formally designate the sites as SACs.

Sites are legally protected once they are publicly advertised.

Landowners and other users with a legal entitlement should be notified of designation, and the Minister must make all reasonable efforts to do so. Notification also includes a list of activities that may alter, damage, destroy or interfere with the integrity of the site. A person who illegally damages a site may be prosecuted or required to repair damage.

Landowners and other users with a legal entitlement may appeal the designation of lands on scientific grounds.

Landowners and other users with a legal entitlement will be compensated for actual loss of income arising from restrictions imposed as a result of designation.

DEHLG is the government department with responsibility for the designation and protection of wildlife habitats, species and areas of conservation interest. As part of their responsibility in relation to biodiversity and wildlife under the Wildlife Acts (1976 and 2000), the Minister's brief extends far beyond the habitats and species listed in the annexes of the Habitats and Birds Directives. For this reason, cSAC conservation plans may deal with species that are not mentioned in these annexes.

Reasons for Designation of Termon Strand cSAC

HABITATS LISTED IN ANNEX I OF THE EU HABITATS DIRECTIVE		CONSERVATION VALUE			
	 *Coastal Lagoons (EU Habitat Code 1150) 	Maghery Lough is a good example of a moderate sized, shallow, saline lake lagoor with a tidal inlet. The site is in a relatively natural condition and is apparently un threatened by any major impacts.			

^{*} indicates priority habitat as listed in Annex I of the Habitats Directive



Maghery Lough (photo by Emer Magee).

Implications of Site Designation for Landowners and other Site Users

In most areas designated as cSACs, current practices will not have to change significantly.

In cases where users with a legal entitlement are required to change practices or restrict activities to protect the wildlife interest of the site, compensation will be payable based on actual loss of income.

If a user with a legal entitlement wishes to carry out certain activities, not covered by licence or consent from another statutory body, within the designated area, they must consult with, and get consent from, the Minister for the Environment, Heritage and Local Government. These activities are listed as "Notifiable Actions" for each habitat (see Appendix VII).

The designation of the site can be appealed by landowners and legal users on scientific grounds. Details of the appeals procedure are also given in Appendix VIII.

SITE DESCRIPTION

Location Including Site Boundaries

Termon Strand is located 5 km SW of Dunglow in West Co. Donegal around the village of Maghery.

Grid Ref.: B 71 10

Latitude: N 54°55'40" **Longitude:** W 08°26'15"

Area: 90 ha

Altitude Range: 0 m to 10 m

Townlands: Roshine South, Termon

& Maghery.

Site Boundaries

The north and north-western boundary of the site is taken at the highest line of the highest tide and some rocky banks occur here in places. Parts of the boundary in the west and south are demarcated where the wetland vegetation meets more improved pasture. A wall forms most of the boundary in the north-west and parts in the south and east. In the south, part of the boundary comprises a bank constructed at the edge of the dunes for drying out kelp rods. Parts of the south of the site are bounded by fences. Roads form a just a small section of the site's boundary in the south-west and in the east. Most of the east's boundary occurs at the low tide mark.

Site Infrastructure

Two small roads run through the site and can be seen on Map 2. There is a 'No Dumping' sign erected by Donegal Co. Council at the beach and another sign prohibits the removal of material from the beach.

Legal Status

Ownership

The site is owned by a number of private landowners. The foreshore is State owned.

Designations of the Site

candidate Special Area of Conservation Sitecode IE0001195

Published on 01/03/97

Proposed Natural Heritage Area Sitecode 1195 1995

Past Status and Designation of the Site

Maghery Lough was originally listed as an Area of Scientific Interest (ASI) (1195).

Government Departments and Agencies

Department of the Environment, Heritage and Local Government (DEHLG) DEHLG is the government department with responsibility for the protection and conservation of Ireland's natural heritage.

National Parks & Wildlife Service (NPWS)

NPWS is the section of the DEHLG responsible for maintaining the nature conservation value of the site. Periodic inspection of the site is carried out by the local Conservation Ranger.

Regional staff also participate in research and survey projects by collecting data on the site, provide advice to planning authorities on the impacts of development applications and provide an education and advisory service to the public (see Appendix X) for further details of NPWS regional staff.

Donegal County Council Donegal County Council is the planning authority for the site. As such it is obliged to ensure appropriate assessment of the implications of developments requiring planning permission that may have an impact, either individually or in combination with other developments on the designated area.

Environmental Protection Agency (EPA) The EPA is an independent state sponsored body with a wide range of statutory duties including monitoring environmental quality and overseeing the performance by local authorities of their statutory environmental protection functions. They may have a role in water quality monitoring at this site in the future.

Department of Communications, Marine and Natural Resources (DCMNR) The DCMNR is responsible for licensing and regulating fishing, aquaculture, commercial and other development below mean high water; and under Regulation 31 of the EU Natural Habitats Regulations, for ensuring that such activities in the cSAC do not adversely affect it. Monitoring functions are carried out by individual divisions of the department and by the executive agencies under its direction namely the Central and Regional Fisheries Boards, The Marine Institute and an Bord Iascaigh Mhara.

North Western Regional Fisheries Board (NWRFB) The North Western Regional Fisheries Board is responsible for maintaining and improving environmental quality and developing and protecting the fisheries resource in their region. The Boards responsibilities cover both inland waterways and out to the twelve-mile limit off the coast. The NWRFB has carried out water sampling at this site in the past.

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Údarás na Gaeltachta

An t-Údaras is the Regional Development Agency of the **Department of Community, Rural and Gaeltacht Affairs** with responsibility for the economic, social and cultural development of the Gaeltacht regions ensuring the continuation of the Irish language as the spoken language of the community in these regions. As such it provides financial and non-financial assistance to new and expanding activities in the region. Taighde Mara Teoranta is the development arm of an t-Údaras, which focused on aquaculture research and development in Gaeltacht areas.

Local Authority Policy in relation to the Site

Donegal County Council, in its most recent Development Plan (1998), states that "the proposed Natural Heritage Areas reflect the rich and diverse heritage resource which survives in the County. The Council views them in a positive rather than a negative light. Like other heritage resources they can contribute, in themselves, to the wealth of experience and opportunity which the County offers to residents and visitors. The Council will work with relevant authorities, voluntary and community groups, to optimise the contribution of these and other heritage resources to the sustainable development of the county." It states that the Council will inform Dúchas of any planning applications or proposed service works likely to impact on pNHAs. It also states that the obligations of the Council in regard to planning applications and cSACs and SPAs are set out in the European Communities (Natural Habitats Regulations 1997). There is currently (2005) a new draft County Development Plan undergoing public consultation.

Physical Features

Climate

The site has an average annual rainfall of approximately 1061 mm and a mean daily air temperature of 9.3°C. The closest synoptic weather station to the site is the Malin Head station and the 30-Year Average information for this station was obtained from the Met Éireann website. The full details are presented in Appendix III. In summary, the mean daily air temperature at the station is 9.3°C, ranging from an average low of 2.9°C in February to an average high of 16.6°C in August. The average rainfall is 1061 mm and the average daily duration of sunshine is 3.4 hours. The wind speed is on average 16.3 knots. There is an average of 26 days with snow or sleet recorded for the Malin Head station with only 3.3 days where snow was still lying on the ground 9am.

Geology & Geomorphology

The study area is a low-lying coastal site sheltered by Termon to the north and Crohy Head to the south. It is floored by granite with blown sand occurring over much of the coastal rocks.

No other information is available at present.

Soils & Soil Processes

Soils are lithosols, the parent material being granite and sandstone and shallow glacial till (quartzite in places). The shoreline is rocky with some earth cliffs. Substrate near the outlet of the lagoon is anaerobic mud with rocks and stones. The substrate of the lagoon is rock, stones and coarse sand near the tidal inlet, soft, sandy organic silt in sheltered areas and in parts of the centre, clean fine sand along parts of the western shore.

Hydrology & Water Quality

Maghery Lough is a moderately sized shallow (1-2m), saline lake lagoon with a modified, sluiced outlet. It is separated from the sea by a broad barrier of rocky grassland. Seawater enters the lagoon on most tides but the salinity is lowered by several small streams which flow into the lagoon from surrounding hills and wet grassland. Salinity regime is generally meso-polyhaline. Eelgrass (*Zostera* spp.) and Glaucous Bulrush (*Schoenoplectus tabernaemoni*), both indicators of brackish water have been recorded in the Lough (J. Ryan, *pers.comm.*). The presence in the lake of marine algae and fauna indicate regular inflow of seawater. Salinity and water quality were measured by the NRFB in February 2001 (Appendix IV) and salinity was found to be between 20.2ppt. and 22.3ppt and there were no indications of enrichment. The salinity for lagoons should be generally between 1 and 30ppt. (Healy, B. 1998). Donegal County Council (DCC) installed a sluice gate in 2003. DCC agreed to modify the sluice to ensure that it does not close until the tide is more than half way in. Salinity was subsequently measured a number of times in 2003 and 2004 (Appendix IV). The tests show that the salinity of the water has not changed significantly (E. Magee, 2005, *pers. comm*).

Biological Features

Habitats and Vegetation

Note: Throughout the conservation plan, habitats are named and described under two different systems: the Annex I habitat is as listed in the EU Habitats Interpretation Manual Version EUR 15/2(1999), while all other habitats are as listed according to the classification system of 'A Guide to Habitats in Ireland' (Fossitt, 2000).

The following table lists the habitats within the site. The Annex I habitat of the Habitats Directive for which the site was selected is listed, with the relevant Guide to Habitats category also shown. Annex I priority habitats are denoted by an asterisk (*). The Indicative Habitat map for the site is presented in Map 2. The percentage area presented for each habitat type is based on the approximate geographic area of each habitat, as shown in Map 2.

Habitats Found within Termon Strand cSAC

ANNEX I HABITAT TYPE	HABITAT CATEGORY	% AREA
*Coastal Lagoons (1150)	Lagoons & Saline Lakes (CW1)	21%
	Buildings & Artificial Surfaces (BL3)	<1%
	Dry Calcareous & Neutral Grassland (GS1)	15%
	Muddy Sand Shores (LS3)	22%
	Reed and Large Sedge Swamps (FS1)	4%
	Sand dunes (CD1/CD2)	2%
	Sand Shores (LS2)	10%
	Sheltered Rocky Shores (LR3)	3%
	Wet Grassland (GS4)	9%
	Wet Heath (HH3)	12%
	Upper Salt Marsh (CM2)	<1%

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Annex I Habitat:

Lagoon (1150) (21% or 18ha)

Maghery Lough is a medium-large lake, separated from the sea by a broad barrier of rocky grassland. Salinity in the lagoon is generally mesopolyhaline. Vegetation in the lake is composed of a typical community of intertidal algae near the outlet, and beds of Common Reed (Phragmites australis) fringe the inland shore. Marginal vegetation is well developed and includes Saltmarsh Rush (Juncus gerardii), Sea Rush (J. maritimus), Softstem Bulrush (Schoenoplectus tabernaemontani) and Common Reed grading into freshwater marsh. The presence in the lake of marine algae and fauna, including fucoids, barnacles and jellyfish, indicate regular inflow of seawater. Marine algae recorded in the lake include Knotted Wrack (Ascophyllum nodosum), Toothed Wrack (Fucus serratus), Bladder Wrack (Fuscus vesiculosus), Carragheen (Chondrus crispus), green seaweeds, Chaetomorpha linum and Cladophora spp. And Tasselweed species (Ruppia maritima and R. cirrhosa), (Healy, Oliver, Hatch & Good, 1997). Eelgrass (Zostera spp.) and Glaucous Bulrush (Schoenoplectus tabernaemoni), both indicators of brackish water, have also been recorded in the Lough (J. Ryan, pers.comm.). Floristically, the most notable feature of the lagoon is the presence of the Red Data Book species; Foxtail Stonewort (*Lamprothamnion papulosum*) (see photo).

The fauna of the lagoon is mostly euryhaline and marine/polyhaline and not particularly rich but it also contains a quite diverse brackish water community and two possibly rare species. One of the most notable features of the lagoon is the large population in various age classes of the soft clam Mya arenaria and a diversity of ecological groups of fauna from oligohaline to marine. A total of 32 aquatic faunal taxa were recorded of which four species are regarded as lagoonal specialists in Britain; Lagoon Cockle (Cerastoderma glaucum, the crustacean Idotea chelipes, Atlantic Ditch Shrimp (Palaemonetes varians) and the encrusting bryozoan Conopeum seurati). Three additional species recorded are proposed lagoonal specialists for Ireland; the marine crustaceans Jaera ischiosetosa, J. nordmanni and the opossum shrimp Neomysis integer). 36 beetle species were recorded in the lake, one of which (Atheta aquatalis) is regarded as an indicator species of ecologically well-developed sites with relatively undisturbed natural processes still operating and appears to be rare.

Other Habitats:

Buildings and artificial surfaces (BL3)
Dry calcareous and neutral grassland (GS1)

Two small narrow roadways divide the site and can be seen on Map 2.

Dry grassland found on the back dunes west of the road, is dominated by Fescue species (*Festuca* spp.) and Bent Grasses (*Agrostis* spp.) with Marram Grass occurring around rocky outcrops and close to walls. This area is partially improved and grazed by cattle with plants such as Daisy (*Bellis perennis*) and Ribwort Plantain (*Plantago lanceolata*) common in places.

Sand Dunes (CD1/CD2)

Low lying sand dunes (<10m) are found to the back of Maghery Strand. These foredunes are dominated by Sea Couch (*Elymus arenarius*) and represent Embryonic Dune formations.

The fixed dunes, or Marram Dunes, are dominated by Marram Grass (*Ammophila arenaria*) with Sand Sedge (*Carex arenaria*), some Dandelion (*Taraxacum* spp.), Ragworts (*Senecio* spp.) and Mayweeds (*Matricaria* spp.) also occurring

Muddy sand shores (LS3)

Anaerobic mud flats are found to the extreme north of the site. These appear to be a feeding site for wintering wildfowl including Mallard (*Anas platyrhynchos*), Curlew (*Numenius arquata*) and Shelduck (*Tadorna tadorna*).

Reed and large sedge swamps (FS1) Dense reedbeds of Common Reed occur on the edge of Maghery Lough to the west and south.

Sand shores (LS2)

Maghery Strand is a sandy beach supplying sand to the dunes behind. This is a feeding site for bird species such as Ringed Plover (*Charadrius hiaticula*) and Oystercatcher (*Haematopus ostralegus*).

Sheltered rocky shores (LR3)

A narrow boulder beach separates Maghery Strand and the dunes. Kelp (*Laminaria* spp.) rods are gathered here by local people.

Wet grassland (GS4)

Wet grassland is found north of the dunes merging into the saltmarsh at the edge of the mudflats. Species that are found here include Fescue species and Bent Grasses with Sharp-flowered Rush (*Juncus acutiflorus*), Soft Rush (*Juncus effusus*), Common Reed and Yellow Iris (*Iris pseudacorus*). Other species that are found here include Tormentil (*Potentilla erecta*), Dock species (*Rumex* spp.), Black Knapweed (*Centaurea nigra*), Primrose (*Primula vulgaris*) and Creeping Buttercup (*Ranunculus repens*).

Wet heath (HH3)

Heath vegetation is found on hummocks within a Rush dominated wet grassland to the east of the Maghery Lough. The dominant plants are Ling Heather (*Calluna vulgaris*) and Bell Heather (*Erica cinerea*). Wild Thyme (*Thymus praecox*), Purple Moor-grass (*Molinia caerulea*) and Cross-leaved Heath (*Erica tetralix*) also occur in wetter parts. Lichens (*Cladonia* spp.) are also common.

Upper salt marsh (CM2)

A small area of salt marsh occurs around the edge of the mudflats here. Vegetation that is found includes Sharp-flowered Rush, Common Scurvygrass (*Cochleria officinalis*), Soft Rush and Sea-club Rush (*Scirpus maritimus*).

Notable Flora:

Lower Plants

Foxtail Stonewort, a species listed in the Red Data Book as vulnerable both in Ireland and Britain, is found on the site. It is protected in Britain, but does not have any legal protection is this country. It has been recently recorded from approximately a dozen sites in the country, but this is the most northerly site for the species in Ireland and is the only known site in Ulster (Roden, 1999). The species grows best in salinities in the range 8-28°/oo, but it can tolerate up to 32 ° /oo (UK BAP, 1999).

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Foxtail Stonewort (Courtesy: The Marine Life Information Network for Britain and Ireland (MarLIN)).

Fauna:

Invertebrates

A large population of the Soft Clam (*Mya arenaria*), in various age classes, is present in the lagoon and a total of 32 invertebrate taxa have been recorded here. Four of the species are regarded as being lagoonal specialists and two species appear to be rare or under-recorded, namely a Slater, *Jaera ischiosetosa* and a bryozoan, *Conopeum seurati*.

Other invertebrates that have been recorded in the Lough include Common Jellyfish (*Aurelia aurita*), Shrimp spp. (Mysidacea unid.), Sandhoppers (Amphipoda), Prawn (*Palaemonetes varians*), Shore-crab (*Carcinus maenas*), Chironomidae, Laver Spire Shell (*Hydrobia ulvae*), Spire Shell (*Potamopyrgus antipodarum*), Mussel (*Mytilus edulis*) and Seamats (Bryozoa). Acorn Barnacle (*Semibalanus balanoides*), Edible Periwinkle (*Littorina littorea*) and Rough Periwinkle (*L. saxatilis*) were recorded at the outlet to the lake only (Healy *et al.*, 1997).

16 species of beetle have been recorded around the shoreline of the Lagoon. This includes one apparently rare species- *Atheta aquatalis*, which is regarded as an indicator species of ecologically well developed sites with relatively undisturbed natural processes still operating (Good, 1999).

Fish

Common Eel (*Anguilla anguilla*) and Three-spined Stickleback (*Gastrosteus aculeatus*), Sea Trout (*Salmo trutta*) and other fish have been recorded at the site (Healy *et al.*, 1997).

Birds

Data from Seabird 2000 show that six pairs of Chough (*Pyrrhocorax pyrrhocorax*) (Annex I, Birds Directive), nest south of the site, along the sea cliffs running south-east from Crohy Head (B707086) to B730060. These pairs periodically come together to form a small flock (10 to 13 birds). This flock and its constituent pairs forage extensively over the area. The dune system at Maghery Strand and the adjacent dune pasture to the west would appear to be important to these

pairs breeding in the vicinity during the build up to the breeding season (early April) and over the autumn and winter months. See Appendix V for detailed I-WEBS data.

I-WeBS data have recorded Whooper Swan (Cygnus cygnus), another Annex 1 species, for Maghery Lake. Annex 11 species recorded for Maghery Lake include Curlew (*Numenius arquata*), Goldeneye (Bucephala clangula), Mallard (Anas platyrhynchos), Mute Swan (Cygnus olor), Teal (Anas crecca), Wigeon (Anas penelope) and for Maghery Beaches; Eider (Somateria mollissima), Great Black-backed Gull (Larus marinus), Oystercatcher (Haematopus ostralegus) and Redshank (Tringa totanus). See Appendix VI for detailed Seabird 2000 data.

Mammals

Otter (Lutra lutra), a species listed in Annex II of the Habitats Directive and in the Red Data Book, has been recorded around the lake. Common Seals (*Phoca vitulina*), also an Annex II species, are regularly seen in the vicinity of the site. American Mink (Mustela vison) have also been recorded in the site.

Land Use

Land use on the site

Agriculture Grassland on the site has undergone a degree of agricultural improvement

> that has resulted in lowering of species diversity. Cattle and ponies graze on the site through out the year (there were approximately 15 cattle on the site during the facilitator's visit). Poaching damage was evident where supplementary feeding was taking place and soils were eroded to

bedrock. It would appear that cattle are overwintering on the site.

Amenity area Maghery Strand is a popular beach that is heavily used in the summer

time.

Aquaculture and Kelp harvesting, Bladder Wrack harvesting and Oyster cultivation all marine harvesting occur on the site though on a very small scale. These activities are not

considered to cause significant damage to the site.

Land use adjacent to the site

Agriculture This is much the same as inside the site. Fields surrounding Maghery

Lough to the west and south have been fertilised.

Habitation The site is situated around the small village of Maghery which is located

to the south of the strand. There are many houses and small holdings

within 1 km of the site.

Past human use

The area is relatively undeveloped or improved. There is no information on past farming practices, though it is likely that the dunes have been used for grazing animals for a long time. There are no listed monuments on the site, though two holy wells and the remains of an old church lie adjacent to the site to the north, indicating settlement in the past.

Recorded Monuments and Other Features

None recorded for the site.

CONSERVATION VALUE OF TERMON STRAND CSAC

The moderate sized lagoon habitat of Maghery Lough is a good example of a saline lagoon in an almost completely natural condition. It is in a good state of conservation with a diverse community of flora and fauna, much of which is characteristically lagoonal but also contains several rare species and therefore rated as good in terms of global conservation value. The faunal community is moderately rich and typically brackish with seven lagoonal specialists and three possibly rare species. The thriving population of Soft Clam at various age classes indicates fairly stable conditions.

Floristically, the most notable feature of the lagoon is the presence of the Red Data Book species Foxtail Stonewort. This is a very rare plant in Ireland, being known only from counties Clare, Wexford and Donegal.

Maghery Lough is of some local value for wintering waterfowl, including Mute Swan, Wigeon, Goldeneye and an occasional Whooper Swan. The beach, grasslands, dunes and mud flats are used by other birds such as Chough, Shelduck, Curlew and Ringed Plover. Otter and common seals are regularly seen in the vicinity of the site.

The site is of particular importance for the presence of a lagoon, a much threatened habitat in western Europe. The occurrence of the very rare Foxtail Stonewort further adds to its conservation significance. The amenity value of the sandy beach, together with the presence of rare species and the exceptional beauty of the site, combine to make this site an area of great conservation value.

MANAGEMENT FRAMEWORK

Conservation Objectives

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status areas designated as candidate Special Areas of Conservation. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

According to the EU Habitats Directive, favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, is stable or increasing, and
- the ecological factors that 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 as defined below.

The favourable conservation status of a species is achieved when:

- population data on the species concerned indicate that it is maintaining itself, and
- the natural range of the species is neither being reduced or 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.

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Objective 1: To maintain the Annex I habitats for which the cSAC has been selected at

favourable conservation status; Coastal lagoon (21% area of the site).

Objective 2: To maintain the extent, biodiversity and species richness of the site

Objective 3: To establish effective liaison and co-operation with landowners, legal

users and relevant authorities.

Management Issues

The following issues have been identified for this site.

- Debris
- Erosion
- Grazing
- Water quality

Debris

As with all other coastal sites flotsam in the form of boating materials and plastic has been washed up on the beach and is unsightly and may represent a danger to shore birds.

Erosion

An attempt to rehabilitate the dunes behind Maghery Strand has resulted in the loss of vegetation from this area and exposure of sand which makes the dunes vulnerable to erosion.

Grazing

Overgrazing by cattle, of the grassland on dunes, is resulting in localised erosion of this habitat and a reduction in its scientific value. Rabbit density can be high and may also be resulting in the above.

Water quality and salinity

The lagoon is vulnerable to pollution from outside the site as a result of the threat of runoff from fertilised lands and development of housing upslope. There is lack of information about the water quality of the Lough.

A steel sluice gate was installed by Donegal County Council in 2003. Very little data exist to determine the effect of this sluice gate on the salinity of the lough.



New steel sluice gate installed at Maghery Lough in 2003 by Donegal County Council (photo Emer Magee).

General Strategies

Specific strategies that relate to the above objectives are outlined below. However, there are a number of strategies that relate to the site as a whole. These are as follows:

Implement plan

DEHLG will seek to ensure that the aims of this conservation plan are achieved through:

- liaison with the landowners, relevant authorities and interested parties.
- implementation of REPS or NPWS farm plans, which will use this document as a guideline for prescribing management on a farm by farm basis, and also will ensure that the agreed prescriptions for the relevant habitats are adhered to
- enforcement of Regulations under the Habitats/Birds Directives and the Wildlife Acts.

Establish a monitoring regime

The monitoring regime for the site will comprise:

Water quality monitoring

Water quality will be monitored at regular intervals by the EPA and/or local authority or the NRFB.

Under the Water Framework Directive local authorities are obliged to establish River Basin District plans covering all inland and coastal waters that will lead to the identification and implementation of effective measures for improved water management.

NPWS will liaise with the EPA, the local authorities and other relevant statutory agencies and research organisations to:

- determine the quality and quantity of waters associated with water dependent habitats
- establish reference conditions necessary for monitoring the status of the habitats and species and to
- ensure that the sampling regime is adequate to detect changes in their conservation status

Scientific monitoring

Monitoring of the conservation status of the lagoon will be done by, or on behalf of, the staff of the Monitoring Section of the NPWS or staff working to NPWS in accordance with the procedures laid down by that section.

Protocols for monitoring Termon Strand cSAC will be developed, in consultation with other agencies where appropriate, to determine if the site is being maintained at favourable conservation status.

Site surveillance

Regular inspection of the site by the NPWS staff, with special attention to the notable habitats will identify any major changes, damaging operations, or threats should they arise.

Bird counts

As part of the I-WeBS project, bird counts are carried out using standard methodology. These will be continued.

Enforce notifiable actions

Certain activities may be restricted in SACs. Notifiable Actions for particular habitats and species are listed in Appendix VII of this plan. Consent from the Minister may be required before these actions may be carried out within the designated area For example reclamation, infilling, ploughing or land drainage within 50m of the lagoon are Notifiable Actions.

Specific Strategies

Objective 1.

To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Coastal lagoons(21% area of the site).

Strategies:

1.1. Monitor salinity

A sluice gate was built in 2000 by the Rosses Anglers group. This was removed in 2002 and Donegal County Council installed a modified sluice in 2003. This was in line with NPWS advice to allow seawater to enter the lagoon twice a day. The long term effects of this sluice need to be identified and mitigated against if they are deemed to be negative. The lagoon's salinity should be established in a baseline survey. This should be compared to pre-sluice levels to establish if the sluice is having a negative impact and if so, to identify remedial action.

1.2 Nonintervention If results from water monitoring (General Strategies) and salinity monitoring (1.1) show that the lagoon is under no threat, then a strategy of non-intervention should be employed and the General Strategies applied.

Objective 2.

To maintain the extent, biodiversity and species richness of the site

Strategies:

2.1. Establish grazing levels

Grazing animals are causing some damage to the site, in particular at round feeders where localised poaching of the ground is occurring. It is desirable that the current grazing regime is established and adjusted if levels are deemed to be too high. Grazing levels will be enforced through DEHLG Farm Plans or REPS plans.

2.2. Supplementary feeding controls

The use of round feeders is not to be encouraged. If supplementary feeding is deemed necessary this should be carried out by spreading of fodder around the site to reduce the threat of poaching damage.

2.3. To maintain, and where possible increase the population of Foxtail Stonewort on the site

Strategies that ensure the protection of the water quality and salinity of Maghery Lough should be sufficient to safeguard this protected species on the site. Baseline data on the status of the plant at the site should be established and its conservation status monitored according to the General Strategies. Strategy 1.1 applies.

2.4 To maintain the population(s) of notable species on the site; otter, common seal, chough and wintering waterfowl.

Monitoring and Site Surveillance as per the General Strategies apply.

Objective 3.

To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Strategies:

3.1. Liaise with interested parties

NPWS will strive to initiate and maintain effective liaison with landowners, legal users (particularly through the Liaison Committee), relevant authorities and interested parties on achieving the objectives for conservation of the site.

3.2. Liaise with REPS REPS planners should consult with local NPWS staff when they are developing plans for land within the site.

Zoning

Note: Zoning is the division of a nature conservation site and neighbouring areas into a number of sub-units. Four types of zones are identified (not necessarily all occurring within a site): See Map 3. A, B and C are zone types within the site. D is a zone type outside the site where activities may have an impact on the site. The relevant strategies are listed for each site.

Zone A: A Natural Zone

Areas of high conservation value, that require no or little management intervention.

1A: NON-INTERVENTION AREAS

1A1: Maghery Lough and reed and large sedge swamps. Strategies 1.1, 1.2, 2.3, 3.1, 3.2 and the General Strategies apply.

1A2: Muddy sand shores, upper saltmarsh and sheltered rocky shores. Strategies 1.2, 2.4, 3.1, 3.2 and the General Strategies apply.

2A: MAINTENANCE AREAS WITH LIMITED MANAGEMENT INTERVENTION

2A1: Wet grassland, dry calcareous and neutral grassland and wet heath. Strategies 2.1, 2.2, 2.4, 3.1, 3.2 and the General Strategies apply.

2A2: Sandy coastal beach.

Strategies 1.2, 2.4, 3.1, 3.2 and the General Strategies apply.

Zone B: Active Management

Areas of high conservation value where high management input is needed to maintain, rehabilitate, restore to a more desirable state.

B1: Sand dunes

Strategies 1.2, 2.1, 2.2, 2.4, 3.1, 3.2 and the General Strategies apply.

Zone C: Intensive use Zone

Intensively used areas/infrastructure, which form an integral part of a nature conservation site.

C1: Buildings and artificial surfaces
Strategies 3.1, 3.2 and the General Strategies apply.

C2: Aquaculture developments (muddy sand shores) 1.1, 1.2, 2.3, 3.1, 3.2 and the General Strategies apply.

Zone D: Impact Zone

Areas outside the site where activities may have an impact on the site.

D1: Improved fields

1.2, 2.3, 3.1, 3.2 and the General Strategies apply.

Summary of Specific Strategies

Note: It is implicit with all the strategies presented that their implementation is dependent on availability of adequate resources in terms of staff, expertise and financial resources. Also, that cooperation with landowners and other key stakeholders is key to achieving the stated objectives.

	Strategy	Action required	Who to implement	When/Duration/ Frequency	Estimated Total Cost	Additional Resources needed
1.1	Monitor salinity	Establish lagoon's salinity in baseline survey and continue to monitor salinity levels.	NPWS/ NWRFB			
1.2	Non-intervention	Establish if activities having effect on water salinity/quality.	NPWS			
2.1	Establish grazing levels	Quantify current grazing levels & adjust if necessary.	NPWS/REPS planners			
2.2	Supplementary feeding controls	Discourage use of round feeders. Controlled use according to guidelines if necessary.	NPWS/REPS planners			
2.3	To maintain and where possible, increase, the population of Foxtail Stonewort on the site.	Establish lagoon's salinity and water quality in baseline survey and continue to monitor.	NPWS/ NWRFB			
2.4	To maintain the population(s) of notable species on the site; otter, common seal, chough and wintering waterfowl.	Carry out monitoring and site surveillance.	NPWS			
3.1	Liaise with interested parties.	Initiation and maintenance of liaison with relevant stakeholders.	NPWS			
3.2	Liaise with REPS planners	Contact maintained between NPWS and REPS planners regarding plans for land within the site.	NPWS/REPS			

APPENDIX I: GLOSSARY

ABSTRACTION - The process of taking water form a river, stream, spring pond or lake or from ground water. This process is "abstracting" water or making an "abstraction".

ALGAE - Microscopic plants which contain chlorophyll and live floating or suspended in water. They also may be attached to structures, rocks or other submerged surfaces. They are food for fish and small aquatic animals. Excess algal growths can impart tastes and odours to potable water. Algae produce oxygen during sunlight hours and use oxygen during the night hours. Their biological activities appreciably affect the pH and dissolved oxygen of the water.

ALTITUDE - Vertical height above sea level.

AMPHIBIANS – A vertebrate group whose members spend part of their life cycle in water and part on land e.g. Frog.

ANAEROBIC - A biological process that occurs in the absence of oxygen.

ANNEX I - of the EU Birds Directive, lists birds that are strictly protected so that they cannot be killed, captured, disturbed or traded.

ANNEX I - of the EU Habitats Directive, lists habitats including priority habitats for which SACs have to be designated.

ANNEX II - of the EU Birds Directive lists birds which may be hunted.

ANNEX II - of the EU Habitats Directive is a list of species for which SACs have to be designated.

ANNEX III - of the EU Habitats Directive gives the criteria for selecting sites to be designated as SACs.

ANNEX IV - of the EU Habitats Directive lists animal and plant species of Community interest in need of strict protection.

ANNEX V - of the EU Habitats Directive lists animal and plant species of Community interest whose taking in the wild and exploitation may be subject to management measures.

AQUACULTURE - The use of cages, tanks, troughs or artificial substrates to raise invertebrates (e.g. oysters, mussels or clams) or finned fish in marine or freshwater environments. (This does not cover lakes which have been stocked for angling). It can occur onshore, intertidally or subtidally and be intensive of extensive in nature. Intensive aquaculture involves growing stock at high densities with the aid of artificial structure (e.g. caged fin-fish suspended mussels, clams under nets and oysters in bags). In extensive aquaculture stock is usually grown on the seabed at lower densities, harvesting involves simply collecting marine organisms (wild fish, shellfish, worms and seaweed).

AQUATIC ENVIRONMENT – Rivers, streams, lakes, ponds, springs and features that depend on natural waters e.g. marsh, bogs and wetlands.

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ARABLE LAND – Farmland that includes all areas growing cereals or other crops, ploughed and planted annually.

ASIs - Areas of Scientific Interest. Areas that were identified in the 1970s as being of conservation interest. The NHA designation developed from ASIs.

ASSEMBLAGE - A collection of organisms.

BIODIVERSITY – A general term used to describe all aspects of biological diversity, including: the number of species present in a given environment; the genetic diversity present within a species; the number of different ecosystems present within a given environment.

BIOTIC FACTORS – The influence of living components of the environment on organisms.

BIRDS DIRECTIVE (Council Directive 79/ 409/ 2nd April 1979) - Under this Directive Ireland is required to conserve the habitats of two categories of wild birds: 1) Listed rare and vulnerable species and 2) Regularly occurring migratory species. The Directive also obliges Ireland to conserve wetlands, especially those of international importance and regulates the hunting and trading of wildbirds. It was transposed into Irish legislation by the EU (Natural Habitats) Regulations, 1997.

BRACKISH WATER - Saline water with a salt concentration of between that of freshwater and seawater.

BRYOZOAN - Any member of the phylum Bryozoa, marine invertebrate animals with planktonic larvae that settle and form attached branched or mossy colonies by budding. Some bryozoans encrust rocky surfaces, shells, or seaweeds.

CATCHMENT - An area of land draining to a defined point. The term river catchment refers to the area of land that drains into a particular river system.

COLONISATION - The entry and spread of a species into an area, habitat or population from which it was formerly absent.

COMMONAGE – An area of land which are undivided but are owned by more than one person / or the rights to use the land are owned by more than one person.

COMMUNITY - a well-defined assemblage of plants and/or animals, clearly distinguishable from other such assemblages.

CONSERVATION STATUS - The sum of the influences acting on a habitat and its typical species that may affect its long term distribution, structure and functions. Also refers to the long-term survival of its typical species within the European territory of the Member States.

CRUSTACEAN - An invertebrate animal with a hard shell and many jointed legs. Prawns, crabs, lobsters and crayfish are crustaceans.

DEHLG - Department of Environment, Heritage and Local Government

DEVELOPMENT PLANS - Local Authorities (Co. Councils & Corporations) are obliged under statute to produce a document which sets out the planned development of their areas for a given number of years. In the future Local Authorities will be asked to incorporate designated NHAs, SACs and SPAs classifications into their development plans.

DIVERSITY - see biodiversity.

DOMESTIC PURPOSES - Used in relation to the cutting of peat. Peat that is cut for domestic purposes is not for commercial sale and is cut at the rate of one year's supply for a household per year.

DCMNR - Department of Communications, Marine and Natural Resources

ECOLOGY - The study of the interactions between organisms, and their physical, chemical and biological environment.

ELEVATION - The height of something above a given place, usually above sea level.

ENVIRONMENT – The biological and physical conditions in which an organism lives.

EPA – Environmental Protection Agency

EROSION - The processes whereby the materials of the Earth's crust are dissolved, or worn away and simultaneously moved from one place to another by natural agencies which include weathering, solution, corrosion and transportation.

EUROPEAN BIRDS DIRECTIVE (79/409/2nd April 1979) - See Birds Directive.

EURYHALINE – Describes organisms capable of tolerating a wide variety of salinities in their surrounding medium

EUTROPHICATION - The nutrient enrichment of aquatic ecosystems usually by phosphates and nitrates. It may occur naturally but can also be the result of human activity (fertiliser run-off/sewage discharge/seepage from silage etc.).

FACILITATOR - A person who, in consultation with others, assists NPWS staff in the production of a conservation or management plan.

FAUNA - Animal life.

FAVOURABLE CONSERVATION STATUS - The conservation status of a natural habitat will be taken as "favourable" when: its natural range and areas 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.

FLORA - plant life.

FORESHORE – That part of the shore below the high water. The foreshore is in most cases owned by the State.

FRESHWATER - water with very low soluble mineral content; sources include lakes, streams, rivers, glaciers, and underground aquifers.

FUCOID - a reference to algae that resembles Fucus or other rockweeds

FUCUS - Fucus is a small genus of macroscopic marine seaweeds called wracks.

GEOMORPHOLOGY – The study of the form and structure of the landscape, which is shaped by the underlying geology.

HABITAT - Refers to the environment defined by specific abiotic and biotic factors, in which a species lives at any stage of its biological cycle. In general terms it is a species home. In the Habitats Directive this term is used more loosely to mean plant communities and areas to be given protection.

HABITATS DIRECTIVE - (Council Directive 92/43/EEC). The Directive on the conservation of Natural Habitats and of Wild Flora and Fauna. This Directive seeks to legally protect wildlife and its habitats. It was transposed into Irish legislation by the EU (Natural Habitats) Regulations, 1997.

HERBICIDE - A chemical or biological preparation which kills plants.

HYDROLOGY - The movement of water through a catchment area including freshwater and seawater inputs, water level changes and drainage mechanisms which are all influenced by the underlying geology.

HYPERSALINITY - Raised levels of dissolved salt in an aqueous solution.

INTERTIDAL - The environment between the level of high tide and low tide

I-WeBS - Irish Wetland Bird Survey, published by Birdwatch Ireland, summarises winter waterfowl counts from 923 sites in the Republic of Ireland.

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INDICATOR SPECIES - A species whose status provides information on the overall health of the ecosystem and of other species in that ecosystem. Indicator species reflect the quality and changes in environmental conditions as well as aspects of community composition.

INSECTICIDE - A chemical preparation which kills insects.

INVERTEBRATES - Animals without backbones.

IUCN – World Conservation Union

LAGOON – A priority habitat listed in Annex I of the EU Habitats Directive describing expanses of shallow coastal salt water, wholly or partly separated from the sea by sand banks, shingle or rocks.

LATITUDE – The angular distance measured in degrees north or south of the equator.

LIAISON COMMITTEE - This is a special group set up to discuss the contents of a conservation management plan and the implementation of the plan. The committee will include representation of landowners, right-holders and other interest groups. It shall be the function of the committee to advise NPWS managers on the interaction between site conservation management and local interests. The Liaison Committee will nominate a member to the official Appeals Board which will consider appeals against site designation and other issues. The Liaison Committee will be independent from the NPWS.

LITTORAL ZONE - A zone at the edge of a lake or ocean that is periodically exposed to the air and is periodically immersed in water.

LOCAL – A term used in ecology which is applied to distribution of species when assessed on a national grid reference system. The assessment is made on the basis of the number of occupied 10 km National Grid squares. Local applies to 26-75, 10 km squares in this context.

MANAGEMENT - a) Controlling processes within a site (this can be actively carrying out work or can be doing nothing), preferably in accordance with a conservation plan. - b) The practical implementation of the management plan. - c) Undertaking any task or project identified in the management plan, including the identification of new opportunities.

MANAGEMENT AGREEMENTS - The Wildlife Act, 1976, enables DEHLG to enter into voluntary management agreements with private landowners. Under these agreements landowners will manage their lands to ensure that desirable wildlife habitats and species are protected. Payment for such responsible management may be agreed. However, the number and type of such agreements will vary depending on the resources available to the National Parks and Wildlife at the time.

MARINE - Found in, or relating to the sea.

MESO-In the middle or intermediate

MITIGATE - To make or become less severe or harsh / moderate.

MONITORING – A repeat or repeats of a survey using the same methodology. Designed to look for or measure specific changes and the rate or extent of change. Used to check the "health" quantity or quality of a habitat or species.

MULTIPLE PRIVATE OWNERSHIP- Lands that are divided into areas which are privately owned. There must be more than one private landowner under this heading. (lands in commonage are not described under this heading).

NATIONAL PARKS AND WILDLIFE SERVICE (NPWS) – the section of the Environment Infrastructure and Services division of the Department of Environment, Heritage and Local Government with responsibility for nature conservation and implementation of Government conservation policy as enunciated by the Minister for the Environment, Heritage and Local Government.

NATURA 2000 - A network of sites across the European Community, selected for the purpose of conserving natural habitats and species of plants and animals which are rare, endangered or vulnerable in the European Community. SACs and SPAs form the Natura 2000 network.

NATURAL HABITAT - Can be aquatic or terrestrial areas distinguished by geographic, abiotic and biotic features, whether entirely natural or semi-natural.

NATURALNESS - Refers to how much or little a site/habitat/species has been modified by mankind.

NATURE RESERVES (NRs) - Under National legislation, the Wildlife Act of 1976, a number of sites have been designated as Nature Reserves. These areas are mainly owned by the NPWS and are managed for the purposes of conservation.

NGOs - Non- Governmental Organisations.

NHAs - Proposed Natural Heritage Areas. These are areas that are important for wildlife conservation. Some of these sites are small, such as roosting areas for rare bats; others can be large such as a blanket bog or a sand dune system.

NOTABLE SPECIES - Plants or animals which are worthy of mentioning either because they are particularly typical of a habitat, or because they are rare/ scarce/ atypical.

NOTIFIABLE ACTIONS - Actions specified under the cSAC regulations and are listed in the appendices of a conservation plan. These are actions which could cause damage to the site, and for which prior approval is required before they can be carried out.

NPWS - National Parks and Wildlife Service

NRFB - Northern Regional Fisheries Board.

OLIGO – Prefix denoting few or little

OLIGOHALINE - Low salinity; brackish (0.5-5 ppt).

ORGANIC - being or relating to or derived from or having properties characteristic of living organisms; "organic life"; "organic growth"; "organic remains found in rock"

ORGANISM - Any living thing.

OS – Ordnance Survey

PATROL MONITORING - Regular monitoring of a site usually carried out by the Conservation Ranger to check for damaging activities and to carry out other activities such as to assess the vegetation, to assess the effectiveness of the management regime on the condition of the site, etc.

PER-ANNUM - Each year.

PERIPHERY - Distant from the centre, on the fringe/edge.

POACHING - Damage caused to the vegetation by excessive numbers of large grazers.

PODZOL - Type of light-coloured soil found predominantly under coniferous forests and on moorlands in cool regions where rainfall exceeds evaporation.

POLYHALINE - Highly brackish water with a salinity of range 18-30 ppt.

PPT. – Parts per thousand - (denoted by '%' [the per mil symbol], and occasionally 'ppt') denotes one particle of a given substance for every 999 other particles. This is roughly equivalent to one drop of ink in a cup of water, or one second per 17 minutes. 'Parts per thousand' is often used to record the salinity of seawater.

PRIORITY HABITAT - A subset of the habitats listed in Annex I of the EU Habitats Directive. These are habitats which are in danger of disappearance and whose natural range mainly falls within the territory of the European Union. These habitats are of the highest conservation status and require measures to ensure that their favourable conservation status is maintained.

PRIVATE OWNERSHIP - Land which is owned by one private landowner.

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PROGRAMME - When several closely related tasks are grouped together to achieve an objective.

RAMSAR CONVENTION - The convention on Wetlands of International Importance especially as Waterfowl Habitat, Ireland ratified in 1984.

RARE - An ecological term applied to distribution of species when assessed on a national grid reference system. The assessment is made on the basis of the number of occupied 10 km National Grid squares. A species is described as rare if has been recorded in to 3-10, 10 km squares.

RARITY - Refers to how common or scarce a site/habitat/species is.

RED DATA BOOK – A register of threatened species that includes definitions of degrees of threat.

RED DATA BOOK (lower plants) - This Red Data Book deals with Stoneworts which are recognised as a separate class, Characea, of the Green Algae Chlorophyta). Many of these species are threatened by loss of habitat or pollution.

RED DATA BOOK 1 (vascular plants) This Red Data Book deals with rare and threatened flowering plants and ferns of Ireland with an account of their present distributions and conservation status.

RED DATA BOOK 2 (mammals, birds, amphibians and fish) - identifies those species threatened in Ireland or those species whose populations are considered to be of international importance, though not necessarily threatened in Ireland. It details the current state of Irish vertebrates and provides a concise summary of the various legislation for each species.

REFUGE FOR FAUNA - Under the Wildlife Act, 1976, the Minister may designate Refuges for wild birds or wild animals and impose protective measures to conserve both the species and their habitats. A number of these refuges already exist; they are mainly islands and cliff faces.

REPS - Rural Environmental Protection Scheme. This is an Agri-Environmental programme which seeks to draw up agreements with farmers, according to the type of farming, landscape and features on the land. The overall objectives of REPS are to achieve: the use of farming practices which reduce the polluting effects of agriculture by minimising nutrient loss- an environmentally favourable extensification of crop farming, and sheep farming and cattle farming; - ways of using agricultural land which are compatible with protection and improvement of the environment, the countryside, the landscape, natural resources the soil and genetic diversity; - long-term set-aside of agricultural land for reasons connected with the environment; - land management for public access;- education and training for farmers in types of farming compatible with the requirements of environmental protection and upkeep of the countryside.

SACs - Special Areas of Conservation have been selected from the prime examples of wildlife conservation areas in Ireland. Their legal basis from which selection is derived is The Habitats Directive (92/43/EEC of the 21st May 1992). SAC's have also been known as cSAC's which stands for "candidate Special Areas of Conservation", and pcSAC's which stands for "proposed candidate Special Areas of Conservation."

SALINITY - a measure of the concentration of dissolved salt in seawater water in parts per thousand (ppt.).

SCIENTIFIC MONITORING - this is carried out by the monitoring section of the NPWS, whose function here is to ensure that the favourable conservation status of the site is maintained and where possible improved.

SEABIRD 2000- Seabird 2000 is the third complete census of the entire breeding seabird population of Britain and Ireland.

SEAWATER - Seawater is a solution of salts of nearly constant composition, dissolved in variable amounts of water.

SEDIMENT - Solid particles that can originate by the weathering and erosion of pre-existing rock, by chemical precipitation from water, or by the breakdown of organisms.

SHELLFISH - The collective term used to describe mussels, oysters, clams, scallops, abalone and sea urchins.

SPAs - Special Protection Areas for Birds are areas which have been designated to ensure the conservation of certain categories of birds. Ireland is required to conserve the habitats of two categories of wild birds under the European Birds Directive (Council Directive 79/ 409/ 2nd April 1979). The NPWS is responsible for ensuring that such areas are protected from significant damage.

SPECIES - the lowest unit of classification normally used for plants and animals.

STRATEGY - A course of action or a broad approach towards achieving an objective . It is the general thrust of management towards achieving an objective. It is a description of how the objective is to be achieved.

SUPPLEMENTARY FEEDING - The practice of providing livestock with additional food, usually carried out in winter. This term is most often used when hay, silage or other foods are brought into a site to supply Cattle or Sheep with food during times when growing conditions are poor.

SURVEY - a) Study/visit to produce an inventory of what is present / record a situation.- b) Establishing a baseline (study).

SUSTAINABLE - The highest rate at which a renewable resource can be used without reducing its supply (without causing damage to the resource).

TAXON – Any grouping within the classification of organisms (plural = taxa)

TERRESTRIAL - A term used to refer to living on land. The opposite of aquatic.

TOPOGRAPHY - the study or detailed description of the surface features of a region.

TRADITIONAL MANAGEMENT PRACTICES Land management practices which were carried out prior to the 1950s. These practices were often less intensified than today's management practices. In REPS prescriptions traditional means an activity which has been carried out for a specified number of years on a site (usually 10 years).

TYPICALITY - Assessment of whether a site is typical of the habitat it represents.

VERTEBRATES - Animals with backbones.

ZONING - The division of a nature conservation site (& neighbouring lands) into a number of subunits. Within each zone the management prescriptions will be reasonably uniform and will differ in type or intensity from the other zones in the plan.

APPENDIX II: REFERENCE MATERIAL

Map References:

O.S. 1/2 inch (1:126,720) map: 1,3

O.S. Discovery (1:50,000) map:

O.S. 6 inch (1: 10,560) map: DL 048, DL 056

Databases:

NHA database, NPWS, The Department of Environment, Heritage and Local Government, 7 Ely Place, Dublin 2.

Natura 2000 database, NPWS, The Department of Environment, Heritage and Local Government, 7 Ely Place, Dublin 2.

I-WeBS Database, BirdWatch Ireland, Rockingham House, Newcastle, Co Wicklow

Seabird 2000 Database, BirdWatch Ireland, Rockhing House, Newcastle, Co. Wicklow.

Photographic Coverage:

1993: Film No:609, frame No:21-24, date taken: 10/7/93.

Film No:41205, date taken: 4/9/93.

1994: Film No:721, frame No:19-23A, date taken: 28/2/94

1995: Flight line 9, film no.s: 6991-6994

2000: Flight line 9, film n.s: 2260 and 2261.

NPWS, The Department of Environment, Heritage and Local Government, 7 Ely Place, Dublin 2.

Relevant Legislation:

S.I. No. 39 of 1976: Wildlife Act 1976

S.I. No. 38 of 2000: Wildlife (Amendment) Act 2000

S.I. No. 94/1997: European Communities (Natural Habitats) Regulations 1997.

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APPENDIX III: CLIMATE

TEMPERATURE (degrees Celsius)	jan	feb	mar	apr	may	iun	iul	aug	sep	oct	nov	dec	year
mean daily max.	7.6	7.5	8.7	10.3	12.7	15	16.2	16.6	15.3	13	9.8	8.4	11.8
mean daily min.	3.2	2.9	3.7	5	7.1	9.6	11.4	11.4	10.1	8.3	5.2	4.2	6.8
mean	5.4	5.2	6.2	7.6	9.9	12.3	13.8	14	12.7	10.7	7.5	6.3	9.3
absolute max.	13.9	13.8	19	19.5	24.7	25	27	25.3	23.2	19.6	16	15.1	27
absolute min.	-6.2	-6.2	-4.4	-1.8	-0.5	2.6	5.6	5.2	2	1	-2.5	-5.5	-6.2
mean no. of days with air frost	3.4	3.3	1.6	0.4	0	0	0	0	0	0	0.4	1.8	11
mean no. of days with ground frost	9.6	9.8	7.4	4.3	1	0	0	0	0.1	0.3	3.7	6.7	42.9
RELATIVE HUMIDITY (%)	<u> </u>	1											
mean at 0900UTC	83	82	81	79	79	81	84	84	83	83	82	83	82
mean at 1500UTC	80	77	76	76	76	78	80	79	78	78	79	81	78
SUNSHINE (hours)													
mean daily duration	1.2	2.2	3.1	5.1	6.2	5.7	4.3	4.3	3.5	2.4	1.5	0.9	3.4
greatest daily duration	7.5	9.2	11.1	14.1	15.5	16.2	16.1	14.8	11.9	9.4	7.6	6.7	16.2
mean no. of days with no sun	11	7	6	3	2	2	3	3	4	6	8	12	67
RAINFALL (mm)		1			ı								
mean monthly total	114.4	76.3	85.9	58.4	59.2	64.4	72.4	91.3	102.1	118	114.9	103.2	1060.6
greatest daily total	36.9	24.1	26.3	36.1	29.8	32.5	26.2	41.5	53.5	63.2	56.1	33.5	63.2
mean no. of days with >= 0.2mm	22	17	21	17	17	18	19	20	21	22	22	23	237
mean no. of days with >= 1.0mm	19	13	16	12	12	13	13	15	16	18	18	18	182
mean no. of days with >= 5.0mm	9	6	7	4	4	4	5	6	7	8	8	7	76
WIND (knots)	-												
mean monthly speed	19	18.4	17.9	15.1	14.2	13.2	13.2	13.2	15.7	17.5	18.3	19	16.3
max. gust	91	86	90	69	71	74	74	67	98	76	76	88	98
max. mean 10-minute speed	64	57	67	47	49	52	55	45	66	57	56	59	67
mean no. of days with gales	11.2	8.6	8	3.4	2.3	1.3	0.8	1.5	3.8	6.7	8.7	9.7	66
WEATHER (mean no. of days with)													
snow or sleet	6.6	6	4.6	2.4	0.2	0	0	0	0	0.1	1.9	3.9	25.8
snow lying at 0900UTC	0.9	1	0.5	0.1	0	0	0	0	0	0	0	0.8	3.3
hail	8.6	5.8	7.9	4.7	1.9	0.4	0.1	0.1	0.6	3.1	7.9	7.3	48.4
thunder	0.6	0.4	0.4	0.3	0.4	0.8	0.6	0.4	0.4	0.6	0.6	0.6	5.9
fog	0.4	0.5	0.7	1.9	1	2	2.2	1.3	0.6	0.4	0.2	0.4	11.8
J-8													

APPENDIX IV: WATER QUALITY

NPWS Water Salinity Analysis (Maghery Lough) (2003-2004)

Date	Location	Time	High Tide	Results	Comments
21.11.03	1.inside inlet	13.30	15.36	7ppt	
	2.outside inlet			7ppt	
	3.steps at pier			28ppt	
26.11.03	1.inside inlet	13.30	19.23	10ppt	Sample taken
	2.outside inlet			10ppt	at low tide
	3.steps at pier			20ppt	
28.11.03	1.inside inlet	11.44	8.37	6ppt	
	2.outside inlet			12ppt	
	3.steps at pier			28ppt	
03.12.03	1.inside inlet	14.30	14.14	8ppt	
	2.outside inlet			6ppt	
	3.steps at pier			10ppt	
08.12.03	1.inside inlet	10.10	5.24	6ppt	v. shallow,
	2.outside inlet			8ppt	water frozen
	3.steps at pier			18ppt	
11.12.03	1.inside inlet	11.40	6.57	6ppt	
	2.outside inlet			8ppt	
	3.steps at pier			16ppt	
17.12.03	1.inside inlet	10.30	11.55	6ppt	
	2.outside inlet			7ppt	
	3.steps at pier			28ppt	
22.12.03	1.inside inlet	16.55	17.30	6ppt	Sluice fully
	2.outside inlet			27ppt	closed
	3.steps at pier			29ppt	
23.12.03	1.inside inlet	16.30	17.42	6ppt	
	2.outside inlet			8ppt	
	3.steps at pier			29ppt	
07.01.04	1.inside inlet	10.50	5.37	4ppt	
	2.outside inlet			6ppt	
	3.steps at pier			24ppt	
14.01.04	1.inside inlet	12.00	10.18	4ppt	Sluice fully
	2.outside inlet			30ppt	closed
	3.steps at pier			29ppt	
16.01.04	1.inside inlet	12.27	12.22	6ppt	Sluice fully
	2.outside inlet			20ppt	closed
	3.steps at pier			28ppt	
02.06.04	1.inside inlet	17.35	17.30	12pt	Sluice fully
	2.outside inlet			29ppt	closed

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	3.steps at pier			34ppt	
09.06.04	1.inside inlet	14.10	12.01	9ppt	New sluice
	2.outside inlet			9ppt	partially open
	3.steps at pier			30ppt	
17.06.04	1.inside inlet	18.10	18.40	26ppt	Sluice
	2.outside inlet			32ppt	partially open
	3.steps at pier			33ppt	
28.06.04	1.inside inlet	15.20	15.15	22ppt	Sluice
	2.outside inlet			16ppt	partially open
	3.steps at pier			32ppt	

- 1. Inside the lough, near the entrance to the sea
- 2. Just outside the lough, on the sea side.
- 3. From the nearby pier (should be fully saline).

APPENDIX V: I-WEBS BIRD COUNT DATA

I-WeBS Site: Termon Strand cSAC

Species Name	Season 1999/00	Season 2000/01	Season 2001/02	Season 2002/03	Season 2003/04	
Maghery Lake	Peak	Peak	Peak	Peak	Peak	Mean of Peak
Little Grebe					2	2
Cormorant	1		1		2	1
Grey Heron	1	1	1	1	1	1
Mute Swan	8	8	38	8	22	17
*Whooper Swan				38		38
Shelduck			7		1	4
Wigeon	8		23	8	50	22
Teal	9			6		8
Mallard	9	4	10	6	6	4
Goldeneye	47	8	10	24	19	20
Curlew				2		2
Common Gull					4	4
Herring Gull				2		2

I-Webs: Irish Wetland Bird Survey data: Mean and Peak Monthly Counts 1999 – 2004

^{*}Species listed on Annex I of Birds Directive I

I-WeBS Site: Termon Strand

Species Name	Season 1999/00	Season 2000/01	Season 2001/02	Season 2002/03	Season 2003/04	
Maghery Beaches	Peak	Peak	Peak	Peak	Peak	Mean of Peak
Mallard			1		5	3
Eider					13	13
Oystercatcher			47		60	54
Ringed Plover		1				1
Dunlin			5			5
Redshank			2			2
Common Gull					40	40
Herring Gull					4	4
Great Black-backed Gull					2	2

I-Webs: Irish Wetland Bird Survey data: Mean and Peak Monthly Counts 1999 – 2004

APPENDIX VI: SEABIRD 2000 BIRD COUNT DATA (2005)

Chough records for the Maghery area (Reference numbers relate to BirdWatch Ireland maps).

Data	Reference	Observer	Date	Number	Behaviour	Habitat	Patch	Notes
3rd Party	1	O'Toole	January 22, 2000	2	feeding	na	na	Maghery Strand, Crohy Head
3rd Party	2	O'Toole	January 24, 2000	6	feeding	na	na	Maghery Strand, Crohy
3rd Party	3	O'Toole	February 15, 2001	2	fly	na	na	over Maghery Lough, Crohy
3rd Party	4	Magee	April 06, 2001	6	na	na	na	Maghery Lough, Crohy
3rd Party	5	Magee	September 08, 2001	10	na	na	na	Maghery Lough
3rd Party	6	Magee	November 05, 2002	8	na	na	na	Maghery dunes
Transect	7	Gray	October 08, 2004	2	feeding	semi-improved pasture	short sward	Sandy: fixed dune/semi-improved pasture - behind Maghery Starnd
Transect	8	Trewby	December 13, 2004	2	feeding	semi-improved pasture	short sward	Terman, Maghery
Transect	9	Thomas	September 8, 2004	4	loaf	na	na	In grave yard, Maghery
Transect	10	Thomas	January 22, 2005	2	feeding	unimproved pasture	short sward	Maghery
Transect	11	Trewby	April 06, 2005	8	feeding	strand line	sand/seaweed	Maghery Strand, movement between dunes + pasture to south
Transect	12	Cummins	June 08, 2005	2	feeding	fixed dune	medium sward	Fed for 10 min -> south along Maghery to feed in dunes
Off-Trans.	13	Trewby	August 27, 2004	2	feeding	maritime turf	short sward	Maghery, North of Strand (Terman)
Off-Trans.	14	Gray	February 10, 2005	13	loaf	cliff	rock	East side of Maghery Strand. Poss. Feed above cliff.

NOTES for Appendix VI: Seabird 2000 Bird Count Data (Birdwatch Ireland, 2005).

There are no suitable breeding cliffs within the area (B7109 & B7209), however 6 pairs nest along the sea cliffs running south-east from Crohy Head to B730060. Observations from August 2004 to July 2005 suggest that these breeding birds remain in the locality of Maghery, Crohy Head, Crohy Village and Falchorrib out of the breeding season and periodically come together to form a small flock (10 to 13 birds). This flock and its constituent pairs forage extensively over the area and flights as far as the dune system at Dooey have been recorded. To date no communal roost has been located in the area and only pairs roosting within breeding territories has been recorded.

The dune system at Maghery Strand and the adjacent dune pasture to the west would appear to be important to pairs breeding in the vicinity during the build up to the breeding season (early April) and over the autumn and winter months. The records suggest that the area is not heavy utilised during the height of the breeding season (mid-April to mid-June).

In terms of regional significance, the dune system spreading north from Maghery is yet to record the attraction of the larger autumn and winter flocks observed at the Sheskinemore, Dooey, Donegal Airport, Maghergallon and Lunnigh dune systems.

APPENDIX VII: NOTIFIABLE ACTIONS

The notifiable actions relating to the habitats that occur within the site are listed below:

- 1.2 Mudflats and sandflats, sandy coastal beaches, shingle beaches, boulder beaches, bedrock shores, marine caves
- 1.4 Sand dunes and machair
- 1.5 Brackish lakes, lagoons
- 2.2 Dry lowland grasslands
- 2.3 Wet lowland grasslands

HABITAT TYPE 1.2

MUDFLATS AND SANDFLATS, SANDY COASTAL BEACHES, SHINGLE BEACHES, BOULDER BEACHES, BEDROCK SHORES, MARINE CAVES

Under STATUTORY INSTRUMENT 94 of 1997, made under the EUROPEAN COMMUNITIES ACT 1972 and in accordance with the obligations inherent in the COUNCIL DIRECTIVE 92/43/EEC of 21 May 1992 (the Habitats Directive) on the conservation of the natural habitats and species of wild fauna and flora, all persons must obtain the written consent, (in circumstances prescribed at section A and B below) of the Minister for The Environment, Heritage and Local Government before performing any of the operations on, or affecting, the following habitats where they occur on lands / waters within the candidate Special Area of Conservation.

Please note that where a landowner has a current approved plan under the Rural Environmental Protection Scheme or any scheme which the Minister considers to be equivalent s/he need only notify the Minister of activities not covered in the plan.

SECTION A

Please note that the activities listed in *Section A overleaf* are required to be notified to the Minister for The Environment, Heritage and Local Government and should not be undertaken before consent.

SECTION B

Please note that the activities listed in *Section B* overleaf may, and in most cases do, require a license or consent from another statutory authority (e.g. the local planning authority, the Minister for the Marine and Natural Resources, or the Minister for Agriculture and Food).

If so, these notifiable actions do not apply.

However, if such activities are not regulated by another statutory authority, the said activities are required to be notified to the Minister for The Environment, Heritage and Local Government.

HABITAT TYPE 1.2

MUDFLATS AND SANDFLATS, SANDY COASTAL BEACHES, SHINGLE BEACHES, BOULDER BEACHES, BEDROCK SHORES, MARINE CAVES

Section A

THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT

operation of commercial recreation activities (e.g. sailing schools, diving tours, jet ski hire, dolphin watching tours)

introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area

collection of species for aquaria

collection of biological samples or organised educational activities where they occur on bedrock shores or boulder beaches

driving vehicles over the area, except over rights of way or over access to licensed aquaculture facilities

digging, ploughing or otherwise disturbing the substrate

alteration of the banks, bed or flow of watercourses any other activity of which notice may be given by the Minister from time to time

Section B

(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)

use of anti-fouling paints containing organic tin commercial harvesting of sea urchins, winkles, or other marine invertebrates.

removal of soil, mud, gravel, sand or minerals use of pesticides or antibiotics

operation or extension of aquaculture facilities

dumping or disposal of wastes

fishing by any type of nets

fishing by pots for lobster, crab, whelk, shrimp and other species

dredging whether for fishing or for other purposes use of hydraulic or suction systems for removing any species or sediments

placement of any structures or devices on the soil or bed of the sea seaward of high water mark

use of the soil or bed of the sea for any activity cutting or harvesting growing algae (seaweeds)

In a very limited number of cases it may be necessary for the Minister for The Environment, Heritage and Local Government to restrict existing activities. In these cases compensation will be payable for actual losses arising out of any such restriction. In the event of restrictions being imposed by the Minister for The Environment, Heritage and Local Government, an appropriate appeals procedure will be put in place.

HABITAT TYPE 1.4

SAND DUNES OR MACHAIR

Under STATUTORY INSTRUMENT 94 of 1997, made under the EUROPEAN COMMUNITIES ACT 1972 and in accordance with the obligations inherent in the COUNCIL DIRECTIVE 92/43/EEC of 21 May 1992 (the Habitats Directive) on the conservation of the natural habitats and species of wild fauna and flora, all persons must obtain the written consent, (in circumstances prescribed at section A and B below) of the Minister for The Environment, Heritage and Local Government before performing any of the operations on, or affecting, the following habitats where they occur on lands / waters within the candidate Special Area of Conservation.

Please note that where a landowner has a current approved plan under the Rural Environmental Protection Scheme or any scheme which the Minister considers to be equivalent s/he need only notify the Minister of activities not covered in the plan.

SECTION A

Please note that the activities listed in *Section A overleaf* are required to be notified to the Minister for The Environment, Heritage and Local Government and should not be undertaken before consent.

SECTION B

Please note that the activities listed in *Section B* overleaf may, and in most cases do, require a license or consent from another statutory authority (e.g. the local planning authority, the Minister for the Marine and Natural Resources, or the Minister for Agriculture and Food).

If so, these notifiable actions do not apply.

However, if such activities are not regulated by another statutory authority, the said activities are required to be notified to the Minister for The Environment, Heritage and Local Government.

HABITAT TYPE 1.4

SAND DUNES OR MACHAIR

Section A

THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT

causing erosion by any means (e.g. driving vehicles, riding horses etc.)

grazing of livestock above a sustainable density (as defined in approved farm plans)

grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung

supplementary feeding of stock (e.g. with hay, silage, concentrates, roots etc.)

cropping or removal of plants

reclamation, infilling, ploughing or land drainage reseeding, planting of trees or any other species

application of fertiliser, lime or organic materials

dumping, burning or storing any materials

use of any pesticide or herbicide

alteration of the banks, bed or flow of watercourses

operation of commercial recreation facilities (e.g. pony trekking)

introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area

any other activity of which notice may be given by the Minister from time to time

Section B

(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)

construction of fences or embankments removal of soil, mud, gravel, sand or minerals construction of buildings or sewerage facilities construction of roads or car parks or access routes developing leisure facilities including golf courses, sports pitches, caravan or camping facilities

In a very limited number of cases it may be necessary for the Minister for The Environment, Heritage and Local Government to restrict <u>existing</u> activities. In these cases compensation will be payable for actual losses arising out of any such restriction. In the event of restrictions being imposed by the Minister for The Environment, Heritage and Local Government, an appropriate appeals procedure will be put in place.

HABITAT TYPE 1.5

BRACKISH LAKES, LAGOONS

Under STATUTORY INSTRUMENT 94 of 1997, made under the EUROPEAN COMMUNITIES ACT 1972 and in accordance with the obligations inherent in the COUNCIL DIRECTIVE 92/43/EEC of 21 May 1992 (the Habitats Directive) on the conservation of the natural habitats and species of wild fauna and flora, all persons must obtain the written consent, (in circumstances prescribed at section A and B below) of the Minister for The Environment, Heritage and Local Government before performing any of the operations on, or affecting, the following habitats where they occur on lands / waters within the candidate Special Area of Conservation.

Please note that where a landowner has a current approved plan under the Rural Environmental Protection Scheme or any scheme which the Minister considers to be equivalent s/he need only notify the Minister of activities not covered in the plan.

SECTION A

Please note that the activities listed in *Section A overleaf* are required to be notified to the Minister for The Environment, Heritage and Local Government and should not be undertaken before consent.

SECTION B

Please note that the activities listed in *Section B* overleaf may, and in most cases do, require a license or consent from another statutory authority (e.g. the local planning authority, the Minister for the Marine and Natural Resources, or the Minister for Agriculture and Food).

If so, these notifiable actions do not apply.

However, if such activities are not regulated by another statutory authority, the said activities are required to be notified to the Minister for The Environment, Heritage and Local Government.

HABITAT TYPE 1.5

BRACKISH LAKES, LAGOONS

Section A

THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT

undermining or altering the structure of any shingle barrier or other barrier between the lake and the sea

blocking or altering the flow of water into or out of the lake

restocking with fish

grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung within 50m of the lake

reclamation, infilling, ploughing or land drainage within 50m of the lake

application of fertiliser, lime or organic materials within 50m of the lake

reseeding, planting of trees or any other species within 50m of the lake

operation of commercial recreation facilities (e.g. sailing schools, jet ski hire)

introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area

any other activity of which notice may be given by the Minister from time to time

appeals procedure will be put in place.

Section B

(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)

any activity which might pollute the lake cutting or harvesting growing algae (seaweeds) removal of soil, mud, gravel, sand or minerals dumping or disposal of wastes

use of anti-fouling paints containing organic tin operation or extension of aquaculture facilities fishing by any type of nets

fishing by pots for lobster, crab, whelk, shrimp and other species

dredging whether for fishing or for other purposes use of hydraulic or suction systems for removing fish or sediments

placement of any structures or devices on the soil or bed of the sea seaward of high water mark use of the soil or bed of the sea for any activity

In a very limited number of cases it may be necessary for the Minister for The Environment, Heritage and Local Government to restrict existing activities. In these cases compensation will be payable for actual losses arising out of any such restriction. In the event of restrictions being imposed by the Minister for The Environment, Heritage and Local Government, an appropriate

HABITAT TYPE 2.2

DRY LOWLAND GRASSLANDS

Under STATUTORY INSTRUMENT 94 of 1997, made under the EUROPEAN COMMUNITIES ACT 1972 and in accordance with the obligations inherent in the COUNCIL DIRECTIVE 92/43/EEC of 21 May 1992 (the Habitats Directive) on the conservation of the natural habitats and species of wild fauna and flora, all persons must obtain the written consent, (in circumstances prescribed at section A and B below) of the Minister for The Environment, Heritage and Local Government before performing any of the operations on, or affecting, the following habitats where they occur on lands / waters within the candidate Special Area of Conservation.

Please note that where a landowner has a current approved plan under the Rural Environmental Protection Scheme or any scheme which the Minister considers to be equivalent s/he need only notify the Minister of activities not covered in the plan.

SECTION A

Please note that the activities listed in *Section A overleaf* are required to be notified to the Minister for The Environment, Heritage and Local Government and should not be undertaken before consent.

SECTION B

Please note that the activities listed in *Section B* overleaf may, and in most cases do, require a Minister for the Marine and Natural license or consent from another statutory authority (e.g. the local planning authority, the Resources, or the Minister for Agriculture and Food).

If so, these notifiable actions do not apply.

However, if such activities are not regulated by another statutory authority, the said activities are required to be notified to the Minister for The Environment, Heritage and Local Government.

HABITAT TYPE 2.2

DRY LOWLAND GRASSLANDS

Section A

THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT

grazing of livestock above a sustainable density (as defined in approved farm plans)/grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung

changing of traditional use from hay meadow (to either grazing or silage making), or from grazing to silage cutting

adding lime/adding fertiliser of any sort to areas not previously fertilised/ applying fertiliser which would increase the level of nitrogen in the soil/applying fertiliser which would increase the level of phosphorous in the soil/ applying phosphorous to soils which already have in excess of the REPS index 2 levels mowing grass before the 30th June (Note; if you have been notified that your lands hold breeding corncrakes, or certain rare meadows, special provisions will apply)

burning of vegetation /ploughing or cultivation of lands which have not been so managed for the last 20 years

reclamation, infilling, or land drainage/ reseeding, planting of trees or any other species use of any pesticide or herbicide

dumping, burning or storing any materials

alteration of the banks, bed or low of watercourses

operation of commercial recreation facilities (e.g. pony trekking)/introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area

any other activity of which notice may be given by the Minister from time to time

Section B

(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)

developing leisure facilities including golf courses, sports pitches, caravan or camping facilities.

removal of soil, mud, gravel, sand or minerals

developing roads or car parks

construction of fences, buildings or

embankments

afforestation

In a very limited number of cases it may be necessary for the Minister for The Environment, Heritage and Local Government to restrict <u>existing</u> activities. In these cases compensation will be payable for actual losses arising out of any such restriction. In the event of restrictions being imposed by the Minister for The Environment, Heritage and Local Government, an appropriate appeals procedure will be put in place.

HABITAT TYPE 2.3

WET LOWLAND GRASSLANDS

Under STATUTORY INSTRUMENT 94 of 1997, made under the EUROPEAN COMMUNITIES ACT 1972 and in accordance with the obligations inherent in the COUNCIL DIRECTIVE 92/43/EEC of 21 May 1992 (the Habitats Directive) on the conservation of the natural habitats and species of wild fauna and flora, all persons must obtain the written consent, (in circumstances prescribed at section A and B below) of the Minister for The Environment, Heritage and Local Government before performing any of the operations on, or affecting, the following habitats where they occur on lands / waters within the candidate Special Area of Conservation.

Please note that where a landowner has a current approved plan under the Rural Environmental Protection Scheme or any scheme which the Minister considers to be equivalent s/he need only notify the Minister of activities not covered in the plan.

SECTION A

Please note that the activities listed in *Section A overleaf* are required to be notified to the Minister for The Environment, Heritage and Local Government and should not be undertaken before consent.

SECTION B

Please note that the activities listed in *Section B* overleaf may, and in most cases do, require a license or consent from another statutory authority (e.g. the local planning authority, the Minister for the Marine and Natural Resources, or the Minister for Agriculture and Food).

If so, these notifiable actions do not apply.

However, if such activities are not regulated by another statutory authority, the said activities are required to be notified to the Minister for The Environment, Heritage and Local Government.

HABITAT TYPE 2.3

WET LOWLAND GRASSLANDS

Section A

THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT

grazing of livestock above a sustainable density (as defined in approved farm plans)/grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung

changing of traditional use from hay meadow (to either grazing or silage making), or from grazing to silage cutting

adding lime/adding fertiliser of any sort to areas not previously fertilised/ applying fertiliser which would increase the level of nitrogen in the soil/applying fertiliser which would increase the level of phosphorous in the soil/ applying phosphorous to soils which already have in excess of the REPS index 2 levels mowing grass before the 30th June (Note; if you have been notified that your lands hold breeding corncrakes, or certain rare meadows, special provisions will apply)

burning of vegetation

reclamation, infilling, ploughing or land drainage/ reseeding, planting of trees or any other species use of any pesticide or herbicide

dumping, burning or storing any materials

alteration of the banks, bed or low of watercourses

operation of commercial recreation facilities (e.g. pony trekking)/introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area

any other activity of which notice may be given by the Minister from time to time

Section B

(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)

developing leisure facilities including golf courses, sports pitches, caravan or camping facilities.

removal of soil, mud, gravel, sand or minerals

developing roads or car parks

construction of fences, buildings or

embankments

afforestation

In a very limited number of cases it may be necessary for the Minister for The Environment, Heritage and Local Government to restrict <u>existing</u> activities. In these cases compensation will be payable for actual losses arising out of any such restriction. In the event of restrictions being imposed by the Minister for The Environment, Heritage and Local Government, an appropriate appeals procedure will be put in place.

APPENDIX VIII: COMPENSATION AND APPEALS PROCEDURES

Compensation

The Government is committed, as part of the social partnership process, to the payment of a fair and proper level of compensation to landowners who have lands proposed as part of an SAC or SPA and to other users who have a legal entitlement in the site.

A landowner or user with a legal entitlement may seek compensation for actual losses incurred due to restrictions imposed as a result of designation. Eligible persons should submit to NPWS details of the losses incurred as a result of the inclusion of lands in an SAC/SPA and outlining the basis for the calculations. Documentary evidence of past earnings and the activities that produced these should be included with the claim. Should the applicant be dissatisfied with a compensation offer, the case may be referred to an independent arbitrator who will review the matter and make a final decision.

Where a landowner or user with a legal entitlement is restricted in carrying out an activity on their land or licensed area, the compensation due will exclude any payments that have been attracted under grant schemes.

For farmers, there are two options available for receiving compensation for possible restrictions to their farming practices. Farmers may also receive payments for carrying out actions that enhance a nature conservation area.

Rural Environment Protection Scheme (REPS)

Lands within SACs, SPAs, NHAs or commonages are defined as 'Target Areas' under this scheme. A REPS plan usually covers an entire farm, but a farmer with land in a target area receives a higher payment for that area. Farmers with small areas of land in a designated area can get REPS payments for that part of their farm. In either case, the farmer is subject to certain conditions regarding farming and land use practices, set out in the REPS plan for the farm. REPS is administered by the Department of Agriculture, Food and Forestry.

NPWS Farm Plan Scheme

Where a farmer chooses not to participate in REPS, and NPWS seeks to change the farm operation in some way or to restrict a particular activity, NPWS will pay for preparation of a farm plan. This scheme also applies to land within SACs, SPAs, NHAs and commonages.

An NPWS farm plan will normally be confined just to the designated land and will address the conservation requirements, as well as any costs arising. Payment may also be made for work carried out that enhances the nature conservation value of the designated area. The farmer will have a substantial input into the plan.

A list of trained and approved farm planners is available for farmers to choose from. For further information, contact NPWS.

Appeals Procedure

Objection or appeal can be made against the inclusion of a piece of land in a cSAC or SPA. A person can only make objections if they have a legal interest in the site (i.e. an owner or legal user). They must be made on scientific grounds, e.g. a landowner would show that the relevant habitats/species/geological features were not present in such a condition as to warrant designation. Appeals can also be made for the inclusion of lands. Appeals should be accompanied by a map of the area of concern and be as informative as possible. There are two stages to the appeals process:

Internal Appeals are initially dealt with by regional staff. If necessary, they may refer the case to other NPWS staff. If there is no agreement following the internal appeal, the case becomes an external appeal.

The option of an **External Appeal** is available only where an internal appeal is unsuccessful. If so, the appellant may have the case referred to an Appeals Advisory Board, which is independent of NPWS. A grant to defray the cost of an expert scientific report is available to the appellant. The Board is comprised of equal representation of landowners/users and conservationists, with an independent chairperson. The Board makes a recommendation on each appeal to the Minister who then decides on the outcome of the appeal.

APPENDIX IX: FARMING CONDITIONS UNDER REPS

Conditions for the conservation of Sand Dunes & Machair areas to be applied under REPS

General Provisions

The conditions set out in this document are supplementary to the farming conditions for the general REP Scheme for REPS. The conditions for the target areas under Supplementary measure A apply. Planners may seek derogation from the Regional inspector to vary these conditions in individual cases. All REPS plans in respect of NHAs must be approved and signed by the Planning Agency's environmentalist/ecologist.

Detailed Conditions

The conditions applicable to Supplementary Measure A apply; the guidelines set out below are complementary to these conditions.

Description

Sand Dunes and Machairs are coastal habitats consisting of hills and hollows in which unique communities of plants and animals are found in response to the very demanding nature of the dry, windy and salty environment.

Machairs are flat, level plains over lime-rich sands which have evolved in response to a unique interaction between wind, high rainfall and historical land use. They are found only in western Ireland and Scotland.

Farming Conditions Recommended for these Areas:

The primary recommendation is to avoid farming practices that cause environmental damage and all the following recommendations are designed to meet that objective. If a practice is environmentally damaging it must be stopped or modified, but the following are general guidelines and may be superseded by specific recommendations for individual farms. The NPWS of DEHLG or the local Agriculture, Environment and Structures (AES) Division office of DAF should be contacted if the situation on-farm warrants an exception to the general rules.

Grazing Regime

The conditions for Supplementary Measure A areas apply. It should be noted that on sand dunes and machairs, the objective is to maintain extensive agricultural practices, and to prevent a further increase in stock numbers. Cattle stock must be kept at the level the land can support- see also the section on Supplementary Feeding.

Cattle grazing should continue in line with traditional practices. The land should normally be grazed only in winter. However, in areas where summer grazing has traditionally (i.e. over the previous 10 years) been practised, this can continue, provided, of course, that stock levels at all times do not exceed what the land can bear on a sustainable basis. Grazing on young and fore-dune areas should be avoided.

Where conditions warrant, grazing levels must not exceed 1 Livestock Unit (LU) per hectare on a year round average and must never exceed 2 LU at any one time. This change would enable 2 LUs to be overwintered on the sand dune/machair system provided it is deemed to be sustainable by the planner.

The introduction of sheep into areas where they have not been traditionally grazed should be avoided, but areas which have kept sheep traditionally can retain them, though perhaps at a lower level.

Sustainable Stocking Levels:

In general the provisions of Supplementary Measure A apply. Stocking levels for each farm should be set by the REPS planner or the DEHLG (NPWS) planner in the farm plan. The levels should be set below the level which causes eutrophication, overgrazing or erosion, but still high enough to control the encroachment of coarse vegetation and scrub. Where the stock level set by the planner requires a reduction, this must be achieved within 12 months of the start of the plan. Where the stock level is to increase, this can be spread over the period of the plan, as specified by the planner. The same level will apply for a REPS plan as for an NPWS plan.

The NPWS will prepare a conservation plan to cover all aspects of the SAC in question, including farming. In so far as the farming aspects are concerned, the plan will be prepared in consultation with the DAF in accordance with the terms of these conditions. Where an area conservation plan has been prepared for the SAC in question, this should be used to assist in determining where damage has occurred or is occurring, where damage is moderate, and where damage has not occurred. Official conservation plans, when available, can be obtained from the local office of the NPWS.

Supplementary Feeding

The introduction of supplementary feeding can bring additional nutrients into sand dune and machair areas, and thus bring about a very fundamental change in the vegetation of these areas.

The use of silage and other feed can facilitate excessive stocking levels and may lead to pollution of groundwater. Consequently, the use of any supplementary feeds in areas where it has not been customary over the last ten years may be allowed only in consultation with DAF and DEHLG. Round baled silage can be stored in these areas. Loose silage can only be stored where an approved effluent collection system is in place, and the effluent removed from the machair/sand dune.

No supplementary feeding can take place on young and fore-dune areas.

In machair and grey dune areas where supplementary feed has been used over the last 10 years, it may be continued, provided that:

- The number of LUs fed does not increase;
- The species of stock fed does not change
- The total amount of feed equivalent does not increase;
- The amount of feed does not exceed 3.5 tonnes of silage or 0.75 tonnes of hay per LU;
- No meals and concentrates are fed

However, in exceptional circumstances, such as in unusually severe weather conditions (i.e. when there are heavy snowfalls or floods), and with the agreement of DEHLG, feeding will be permitted. Weanling cattle may be fed small quantities of concentrates.

Cultivation, Reseeding & Pesticides:

Ploughing, harrowing or any other forms of cultivation must be avoided since this will destabilise the dune structure. Small traditional tillage plots on machairs may be retained.

The bringing in of any seeds to these areas will disturb the vegetative balance on which the dune depends and must be avoided. The feeding of hay should only be from round feeders.

The fixed dune parts of sand dune systems are essentially areas with low levels of plant nutrients in the soil and this has contributed to the development of their distinctive flora. These are also areas most used for grazing. However, the spreading of organic (slurry, farmyard manure), or inorganic fertilisers must not take place as the flora in these areas would be damaged.

On machairs, where fertiliser has not been applied in the past, none can be applied now. However, where low levels of phosphorus have traditionally been applied on machairs, this may continue, provided that the soil Phosphorus levels do not increase above their present levels or in any event do not exceed Soil Index 2.

Pesticides & Herbicides

All spraying or broadcast application of herbicides must be avoided, but spot application and wipe on treatment to eradicate docks, thistles and similar noxious weeds can be used.

Animal Treatments

Worm doses may be used normally, but animals which have been given pesticides the residues of which persist in the dung must be kept of the dune for a least a week after treatment.

Dumping & Infilling

The dumping of domestic or industrial refuse, farm wastes, rubble, rock, or any similar materials which could disturb the natural environment by bringing in unsuitable nutrients or unsuitable soils and seeds must be avoided.

APPENDIX X: NATIONAL PARKS AND WILDLIFE SERVICE MANAGEMENT STAFF

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