

## National Parks and Wildlife Service Conservation Plan for 2005-2010



# Ballyness Bay cSAC

Site Code 1090

Co. Donegal



## SUMMARY

#### Introduction

Ballyness Bay cSAC has been designated as a candidate Special Area of Conservation under the EU Habitats Directive. The site is designated due to the presence of fixed dunes with herbaceous vegetation (priority habitat), mud flats and sand flats, estuaries, shifting dunes along the shoreline with *Ammophilia arenaria*, embryonic shifting dunes and humid dune slacks, which are all habitats listed in Annex 1 of the EU Habitats Directive.

#### **Description of Ballyness Bay cSAC**

Ballyness Bay cSAC is located on the north-west coast of Co. Donegal, adjacent to the town of Falcarragh and the village of Gortahork. The site, with an area of 1,236ha, comprises two sand dune systems on the Dooey Peninsula and at Drumnatinny. These enclose a large bay, which at low tide exposes extensive mud flats and sand flats.

The Dooey sand dune system and adjacent bay is very dynamic, with considerable sand movement occurring due to wind and water action. This has led to a varied topography and a succession of dune types. One of the largest unvegetated sand dunes in the country occurs on the Dooey Peninsula and includes the two Annex I habitats, shifting dunes along the coastline and embryonic shifting dunes. Unvegetated dunes also occur across the bay in the Drumnatinny dune system. These are backed on the landward side by vegetated dunes, which are vegetated by Marram Grass. Other species include Red Fescue, Ribwort, Creeping Thistle, Common Ragwort and Thyme. Humid dune slacks occur landward of the fixed dunes on the Drumnatinny dune system. The vegetation of this habitat is characterised by grass species including Creeping Bent and Crested Dog's Tail, and sedge species. The dune slacks provide feeding habitat for Greenland White-fronted Geese and Barnacle Geese, and roosting habitat for other waders and wildfowl in bad weather. Long sandy coastal beaches occur on the seaward side of the two dune systems. Some boulder/shingle beach also occurs at the southern end of the Dooey Peninsula.

An extensive area of mud flats and sand flats occurs within Ballyness Bay. These flats have a rich invertebrate fauna and Lugworm casts cover the surface. There are several small Eelgrass beds. The intertidal areas provide important feeding and roosting habitat for wintering and resident seabirds and waterfowl. Permanent water channels, which flow though the bay, represent the estuarine habitat on the site.

Other habitats within the site include small areas of saltmarsh, lowland dry grassland, heath, scrub, woodland, bedrock shore, lowland wet grassland, drainage ditch, reedbed and exposed rock. These habitats fringe the bay. Several rivers and streams also flow into the site.

The site is used by over-wintering and resident waders and wildfowl, including Red-throated Diver, Great Northern Diver, Whooper Swan, Barnacle Goose, Greenland White-fronted Geese, and Golden Plover which are listed in Annex I of the EU Birds Directive. Other Annex I species recorded in the site include Chough, Sandwich Tern, Little Tern, Peregrine and Merlin. Grey

Plover and Sanderling occur in nationally important numbers. Common Seal and Otter, which are both listed in Annex II of the EU Habitats Directive, use the site. The Irish Hare, which is listed as 'Internationally Important' in the Irish Red Data Book also use the site.

Both dune systems are used for grazing livestock with supplementary feeding stations in some areas. Other grassland areas around the coast are also used for grazing.

Both of the beaches in the site are used for recreational purposes. Beach buggies and quad bikes are driven across the dunes. The Dooey dunes in particular are used for camping. Sea angling and sailing occur on a small scale in the Bay with servicing piers at Magheraroarty and at Ballyness. Some littering occurs on the dunes and beaches. A football pitch has been developed at the Magheraroarty end of the Dooey dunes.

A well worn track runs the length of the Dooey Peninsula. It is used for access to livestock, as well as by recreational users. Other tracks intersect to allow traffic access to the dunes.

Licensed fishing for salmon by draft netting (ring netting) takes place in Ballyness Bay. Lobster potting and crabbing boats also use the pier to land catches. Mussels are also collected from certain areas of Ballyness Bay.

Small scale dumping occurs throughout the site. This includes construction waste, domestic and garden refuse and abandoned cars. Building rubble and soil has also been dumped at locations adjacent to the site. Small scale sand removal occurs sporadically from both dune/beach systems.

Part of the Ballyness Bay cSAC (the Dooey Peninsula) has been selected as a demonstration site to test approaches to integrated participatory coastal management as part of an EU-LIFE supported initiative involving seven Donegal beach and dune systems. This has lead to the production of a report in association with University of Ulster, Coleraine.

#### Main conservation objectives

- To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status; fixed sand dunes with herbaceous vegetation (15% of the site), mud flats and sand flats/estuaries (60%), shifting dunes along the coast line with *Ammophilia arenaria*/embryonic shifting dunes (4%) and humid dune slacks (1%)
- To maintain other habitats at favourable conservation status, sandy coastal beach (13%), saltmarsh (1%), boulder/shingle beach (1%), lowland dry grassland (1%), heath (1%), woodland (1%), bedrock shore (1%), scrub (<1%), lowland wet grassland (<1%), rivers and streams (<1%), drainage ditch (<1%), reedbed (<1%) and exposed rock (<1%)
- To maintain the populations of notable species on the site at favourable conservation status, Chough, over-wintering birds and marine mammals
- To establish effective liaison and co-operation with landowners, legal users and relevant authorities

#### Main management issues

- Dumping
- Erosion
- Grazing and supplementary feeding
- Reclamation
- Recreation
- · Sewage disposal

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#### Main strategies to achieve objectives

- Implement sustainable grazing practises
- Regulate access to the Dooey Peninsula by recreational users
- Increase control of other damaging activities including supplementary feeding, dumping and littering
- Monitor potential damaging activities to all the habitats and the status of notable plant and animal species
- Liaise with various organisations and groups regarding the management of the site

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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 Description** 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.

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 Ballyness Bay cSAC

HABITATS LISTED IN ANNEX I OF THE EU HABITATS DIRECTIVE	CONSERVATION VALUE
*Fixed coastal dunes with herbaceous vegetation (Grey dunes) (EU Habitat Code 2130)	This site is important as it contains excellent examples of the Annex I priority habitat, fixed coastal dunes, which form parts of two dynamic dune systems.
Mudflats and sandflats not covered by seawater at low tide (EU Habitat Code 1140)	This site contains a substantial area of intertidal habitat in Ballyness Bay that is a particularly important feeding ground for wintering waterfowl, including several species listed in Annex I of the EU Birds Directive.
Estuaries (EU Habitat 1130)	This habitat occurs in association with the other intertidal mudflats and sandflats.
Shifting dunes along the shoreline with Ammophila arenaria (White Dunes) (EU Habitat Code 2120)	This habitat is an important component of the two dune systems and includes one of the largest unvegetated sand dunes in the country.
Embryonic shifting dunes (EU Habitat Code 2110)	This habitat is also an important component of the two dune systems.
Humid dune slacks (EU Habitat Code 2190)	This habitat is an important component of one dune system and provides feeding habitat for geese species that frequent the site and roosting sites for wintering waterfowl during bad weather.

<sup>\*</sup> Indicates priority habitat in Annex I of the Habitats Directive

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## 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**

Ballyness Bay cSAC is located in north-west Donegal adjacent to Gortahork and Falcarragh. The site covers a coastal area that includes Ballyness Bay (see Map 1). At low tide extensive intertidal flats are exposed. The outer parts of the bay are marked by extensive sand dune and coastal beach systems at Dooey Peninsula and Drumnatinny. The site also includes small portions of terrestrial habitats that fringe the bay.

**Grid Ref.:** B 91 32

**Latitude:** N 55°09'00" **Longitude:** W 08°08'00"

**Area:** 1236 ha

**Altitude Range:** 0 m to 34 m

Townlands: Errarooey More, Magheraroarty (ed Gortahork), Drumnatinny, Ballyconnell,

Ballyness, Killult, Glebe (ed Cross Roads), Derryconor, Ards Beg, Ards More

and Gortahork (ed Gortahork)



Photo of the site with Drumnatinny dunes in the foreground and the Dooey Peninsula in the background (photo by NPWS staff)

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#### **Site Boundaries**

The seaward boundary of the site follows the low tide mark. The landward boundaries generally follow fence-lines and other features that separate improved agricultural land from the semi-natural habitats within the cSAC.

#### Site Infrastructure

Piers occur at Magheraroarty and Ballyness that are used for servicing sailing and sea angling boats. The former pier is also used by the Tory Island ferry. A fishing platform is located at the mouth of the Tullaghobegly River. A football pitch occurs on the Dooey dunes. A track runs along the Dooey Peninsula, which is used for access to livestock, as well as by recreational users.

## **Legal Status**

#### **Ownership**

Most of the terrestrial part of the site is held in multiple private ownership, apart from State owned foreshore. The Dooey sand dune system is in commonage, with 16 shareholders. There is also an area of commonage in the Drumnatinny dune system. The commonage covers about 30% of the site (see Map 2 for details).

#### **Designations of the Site**

candidate Special
Area of Conservation

Sitecode IE0001090

Published on 1st March 1997

proposed Natural Heritage Area Sitecode 1090

Unpublished

**Shellfish Production** 

Area

Ballyness Bay is designated as a Shellfish Production Area for oysters

(CEC, 1991 & McGarrigale et al., 2002).

#### **Rights Pertaining to the Site**

Fishing rights Licensed fishing for salmon by draft netting (ring netting) takes place in

Ballyness Bay. Fishing from a platform at the mouth of the Tullaghobegly River is by permit only from Cloughaneely Angling

Association.

**Rights of way**There is a right of way across the Dooey Peninsula.

**Rights of commonage** About 30 shareholders have commonage rights on the Dooey sand dune

system with a second small area of commonage on the Drumnatinny dune system. The shareholders of the commonage on Dooey have the right to collect seaweed from Ballyness Bay and cut Marram Grass from the

dunes.

## **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 they are 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.

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.

The Marine Institute

The statutory duties of the Marine Institute include weekly biotoxin monitoring of shellfish for human consumption, chemical monitoring of fish and shellfish in twenty three major shellfish growing areas, sea lice monitoring on marine fish farms and benthic monitoring.

The Central Fisheries Board The Central Fisheries Board is the statutory body is responsible for the co-ordination and support of the seven regional fisheries boards. Its responsibilities also include the control of commercial salmon licensing.

Northern Regional Fisheries Board

The Northern 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.

An Bord Iascaigh Mhara (BIM) BIM is the executive agency charged with the development of the fishing and aquaculture industries in Ireland.

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**

It is stated in the Donegal County Development Plan (2003) that:

"It is EU policy that any developments undertaken within an NHA are compatible with the environment, if they are not compatible they will not be afforded EU Grant Aid. The proposed

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Natural Heritage Areas reflect the rich and diverse heritage resource which survives in the County. The Council views them in a positive rather than 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."

The area of Ballyness Bay cSAC is given a landscape character of 3 ("areas of highest quality landscape in the county, with characteristics of wilderness, and few if any manmade structures") in the County Development Plan (2000), which means that it is the Council's policy "to preserve the amenities of the highest quality scenic landscapes in the county and only very limited further development will be considered in these areas".

Part of the Ballyness Bay cSAC (the Dooey Peninsula) has been selected as a demonstration site to test approaches to integrated participatory coastal management as part of an EU-LIFE supported initiative involving seven Donegal beach and dune systems. This has lead to the production of a report in association with University of Ulster, Coleraine (Donegal County Council, 2001).

## **Physical Features**

#### **Climate**

The closest synoptic weather station to the site is at Malin Head and the 30 year (1961-1990) average data from this station are displayed in Appendix III. This station receives a mean annual rainfall of about 1060 mm. The mean daily air temperature at this station is 9.2 °C, ranging from a mean low of 5.2 °C in February to 14.0 °C in August. Mean monthly wind speeds range between 13.2 - 19.0 knots. There is an annual average of 25 days with sleet or snow recorded.

#### Geology & Geomorphology

Some rock outcrops as bedrock along the shore. The main underlying rock is pelite (a metamorphosed siltstone/mudstone). Pelitic schists are also associated with this area.

The dunes, which dominate the site, have been formed from material derived from moraines and fluvo-glacial deposits of the last glaciation. These have subsequently been shaped by Atlantic waves and wind.

#### Soils & Soil Processes

Most of the soils throughout the site are derived from sandy material. Occasionally, peaty podzols are found along the coast of inner Ballyness Bay.

#### **Hydrology & Water Quality**

The Tullaghobegly River enters Ballyness Bay just west of Falcarragh. The Glenna River enters Ballyness Bay at Gortahork and the Owenawillin and Owentully Rivers flow into Binanea Strand, Ballyness Bay. The Ray River flows through the Falcarragh dunes and enters the sea.

The EPA and Donegal County Council have monitored the water quality of the Tullaghobegly River, Glenna River, Owenawillin River and Ray River at various locations upstream of the cSAC. Some of these locations are very close to the cSAC boundary (within 500 m). The most recent testing indicates that the water quality of the Owenawillin River is rated as slightly polluted and the water quality of the Tullaghobegly River, Glenna River, and Ray River is rated as unpolluted (see Appendix IV for more details).

The beach at Drumnatinny is also compliant with the EC bathing water regulations (McGarrigale *et al.*, 2002).

## **Biological Features**

#### **Habitats and Vegetation**

**Note:** Throughout the conservation plan, habitats are named and described under two different systems: the Annex I habitat(s) are as listed in the EU Habitats Interpretation Manual Version 15/2(1999), while all other habitats are as listed according to the NPWS NHA classification system.

The following table lists the habitats within the site. The Annex I habitats of the Habitats Directive for which the site was selected are listed, with the relevant NHA habitats category also shown. Annex I priority habitats are marked with an asterisk (\*). The Indicative Habitat map for the site is presented in Map 3. The percentage area presented for each habitat type is based on the approximate geographic area of each habitat, as shown in Map 3.

#### Habitats Found within Ballyness Bay cSAC

ANNEX I HABITAT TYPE	HABITAT CATEGORY	% AREA	
*Fixed dunes with herbaceous vegetation (grey dunes) (EU Code 2130)	Sand dunes	15%	
Mudflats and sandflats not covered by seawater at low tide (EU Code 1140)	Mud flats and sand flats	56%	
Estuaries (EU Code 1130)	Tidal rivers and estuarine channels	4%	
Shifting dunes along the coast line with Ammophilia arenaria (white dunes) (EU Code 2120)/ Embryonic shifting dunes (EU Code 2110)	Sand dunes	4%	
Humid dune slacks (EU Code 2190)	Sand dunes	1%	
-	Sandy coastal beach	13%	
-	Saltmarsh	1%	
-	Boulder/Shingle beach	1%	
-	Lowland dry grassland	1%	
-	Heath	1%	
-	Dry broad-leaved, semi-natural woodland	1%	
-	Bedrock shore	1	
-	Scrub	<1%	
-	Lowland wet grassland	<1%	
	Rivers and streams	<1%	
	Drainage ditch	<1% (not mapped)	
	Reedbed	<1% (not mapped)	
	Exposed rock	<1% (not mapped)	
	Buildings	<1% (not mapped)	

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#### **Annex I Habitats:**

Fixed coastal dunes with herbaceous vegetation (2130) (15% of total site area or 185ha) The site is dominated by the large sand dune system of the Dooey Peninsula. This system is extremely dynamic, with substantial sand movement, both by wind and water action.

Fixed coastal dunes occur along the length of the Dooey Peninsula. They are surrounded by mobile dunes on the seaward side and other habitats such as saltmarsh and sand flat on the Ballyness Bay side. The typical plant species of the fixed dunes include Marram Grass (*Ammophila arenaria*), Red Fescue (*Festuca rubra*), Ribwort (*Plantago lanceolata*), Creeping Thistle (*Cirsium arvense*), Common Ragwort (*Senecio jacobaea*), Thyme (*Thymus drucei*) and the mosses, *Tortula ruralis* and *Homalothecium* sp.

There are also fixed dunes across the Bay, at Drumnatinny. The vegetation is similar to that described above. These dunes have been fenced.

Mudflats and sandflats not covered by water at low tide (1140) and Estuaries (1130) (60% of total site area or 742ha)

Most of Ballyness Bay is exposed at low tide, leaving extensive sand flats. Lugworm (*Arenicola marina*) casts are abundant and the flats are important for foraging waders. These sand flats are generally unvegetated, but green algae (*Enteromorpha* sp.) and wracks (*Fucus* spp.) occasionally occur. Several small Eelgrass (*Zostera* sp.) beds also occur in the northern part of Ballyness Bay.

Permanent water channels occur where the rivers (described below) enter and flow through the Bay. These represent the estuarine habitat.

The intertidal areas provide important feeding and roosting habitat for wintering and resident seabirds and waterfowl.

Mobile dunes (including shifting dunes along the shoreline (2110) and embryonic shifting dunes (2120) (4% of total site area or 49ha) There are considerable areas of mobile dunes in the Dooey system. This includes one of the largest un-vegetated sand dunes in the country. Constant movement of sand prevents the establishment of vegetation. This dune, known locally as 'Big Dune', is currently eroding at a considerable rate.

The seaward side of the dunes form steep un-vegetated sand cliffs. Behind these, the patchy vegetation is dominated by Marram Grass. Other species include Red Fescue, Colt's-foot (*Tussilago farfara*) and Red Clover (*Trifolium repens*). The mobile dunes at Drumnatinny are also dominated by Marram Grass.

Humid dune slacks (2190) (1% of total site area or 12ha)

An area of wet dune slack lies adjacent to the dry grassland described below. The dominant grass species here are Creeping Bent (*Agrostis stolonifera*) and Crested Dog's-tail (*Cynosurus cristatus*). Sedge species (*Carex* spp.) and Silverweed (*Potentilla anserina*) are also common. Part of this area floods in winter.

The dune slacks provide feeding habitat for Greenland White-fronted Geese and Barnacle Geese and roosting habitat for other waders and wildfowl during bad weather.

#### Other Habitats:

Sandy coastal beach

Both of the dune systems within the site have long sandy beaches at their seaward sides. Sand is constantly being removed and deposited along the beaches, thus forming part of the dynamic sediment fluxes of the Bay.

#### Saltmarsh

There are several patches of saltmarsh around the shores of Ballyness Bay. Typical species found are Red Fescue, Creeping Bent, Jointed Rush (*Juncus articulatus*), Mud Rush (*J. gerardii*), Sea rush (*J. maritimus*) and Thrift (*Armeria maritima*). Other species which occasionally occur are Long-bracted Sedge (*Carex extensa*), Sea-arrow Grass (*Triglochin maritima*), Buck's-horn Plantain (*Plantago coronopus*), Sea Plantain (*P. maritima*), Scurvygrass (*Cochlearia offinalis*) and Common Salt-marsh Grass (*Puccinellia maritima*). Fucoid species are usually present on the lower, wetter saltmarsh areas.

#### **Boulder/shingle beach**

An area of boulder beach occurs at the western edge of the site, adjacent to Magheraroarty Pier. Wrack species, such as Spiral Wrack (*Fucus spiralis*) and *F. ceranoides* are abundant. This beach grades into shingle on the upper shore. Considerable amounts of shingle have also been deposited along the shore to the east of the pier.

Other small areas of shingle occur in mosaic with other habitats, such as sandy beach and sand flat.

## Lowland dry grassland

A small area of dry machair type grassland occurs on gently sloping ground behind the dunes at Drumnatinny. The main species occurring are Red Fescue, Daisy (*Bellis perennis*), Mouse-ear Hawkweed (*Hieracium pilosella*), Thyme, Primrose (*Primula vulgaris*) and Thrift (*Armeria maritima*).

Small areas of dry grassland also occur at either end of the site. At Magheraroarty, the small fields contain species such as Crested Dog'stail, Creeping Bent, Carnation Sedge (*Carex panicea*), Common Knapweed (*Centaurea nigra*), Eyebright (*Euphrasia* sp.), Yellow-rattle (*Rhinanthus minor*) and the moss, *Hylocomium splendens*. Common Gorse (*Ulex europaeus*) also occurs here.

The dry grassland at the eastern end of the site occurs on the slope above Pollguill. The sward is dominated by Red Fescue and includes Creeping Bent, Ribwort, Daisy and Creeping Buttercup (*Ranunculus repens*). Marram Grass and Thrift occur on the lower slopes, close to the shore.

Heath

Some patches of coastal heath occur along the coast, to the west of Binanea Strand. The vegetation is dominated by Ling Heather (*Calluna vulgaris*), Cross-leaved Heath (*Erica tetralix*) and Bell Heather (*Erica cinerea*). Bryophyte cover is usually abundant, including species such as Silver-haired Moss (*Racomitrium lanuginosum*), *Hylocomium splendens*, *Calliergon cuspidatum* and *Dicranum scoparium*. Juniper (*Juniperus communis*) is occasional.

Scrub

An area of scrub is present on the eastern shore of Binanea Strand. The dominant species are Willow (*Salix* sp.) and Hazel (*Corylus avellana*). Understorey species include Ivy (*Hedera helix*), Foxglove (*Digitalis purpurea*), Bramble (*Rubus fruticosa*), Bracken (*Pteridium aquilinum*), Ling Heather and mosses such as *Rhytidiadelphus triquetrus*.

**Bedrock shore** 

Small sections of rocky shore occur along the inner shores of Ballyness Bay. Abundant seaweed cover includes *Pelvetia canaliculata*, *Fucus* spp., *Ascophyllum nodosum* and *Enteromorpha* sp. Marine invertebrates present include Mussels (*Mytilus edulis*), Limpets (*Patella vulgaris*), Whelk (*Nucella lapillus*) and Winkles (*Littorina saxatilis*, *L. littorea* and *L. littoralis*).

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## Lowland wet grassland

Several wet, rushy fields occur south of Ards Point and around Glebe. Typical species include Meadow-sweet (*Filipendula ulmaria*), Purple Loosestrife (*Lythrum salicaria*), Yarrow (*Achillea millefolium*), Selfheal (*Prunella vulgaris*), Creeping Buttercup and Sedges. Yellow Flag (*Iris pseudacorus*) often occurs in the wetter areas.

#### Broad-leaved, seminatural woodland

A small area of Hazel-dominated woodland occurs to the east of Ards More.

#### Rivers and streams

The Tullaghobegly River enters the sea just west of Falcarragh. The final section of the river runs through a gorge that is vegetated with ferns, such as Male Fern (*Dryopteris* sp.), Common Polypody (*Polypodium vulgare*), Spleenwort (*Asplenium* sp.) and Hart's Tongue (*Asplenium scolopendrium*). Other species include Lesser Celandine (*Ranunculus ficaria*), Primrose and Opposite-leaved Golden-saxifrage (*Chryosplenium oppositifolium*). Aquatic species include Sweet-floating Grass (*Glyceria* sp.) and Brooklime (*Veronica beccabunga*).

The Ray River flows through the Falcarragh dunes. The river is slow flowing and contains much emergent vegetation, such as Common Reed (*Phragmites australis*), Rush (*Juncus* sp.), Bottle Sedge (*Carex rostrata*) and Cyperus Sedge (*Carex pseudocyperus*). Aquatic vegetation includes Marsh Marigold (*Caltha palustris*) and Fool's Watercress (*Apium nodiflorum*).

The Glenna River enters the sea at Gortahork and the Owenawillin and Owentully Rivers flow into Binanea Strand.

#### **Drainage ditch**

Some field boundaries at Drumnatinny follow drainage ditches. They contain abundant aquatic vegetation, including species such as Brooklime, Fool's Watercress, Watercress (*Nasturtium officinale*), Broad-leaved Pondweed (*Potamogeton natans*) and Stoneworts (*Chara* spp.).

#### Reedbed

A small reedbed, dominated by Common Reed, occurs adjacent to wet grassland, south of Ards Point.

#### **Exposed rock**

Inland cliffs, up to eight metres high, occur to the east of Ards Point. They are well vegetated with Blackthorn (*Prunus spinosa*), Popular (*Populus* sp.), Hazel, Honeysuckle (*Lonicera periclymenum*), Ivy, Primrose, Heather and Bramble.

#### **Buildings**

A ruined castle occurs in the site, to the west of Falcarragh, near Bellina Bridge.

#### Fauna:

#### Invertebrates

The BIOMAR survey included two sites within the cSAC. The sand flat/mud flat fauna present within Ballyness Bay and the beach fauna at Drumnatinny Strand are typical of these habitats (Appendix V).

#### **Fish**

Salmon (*Salmo salar*) are present in the Tullaghobegly River. This species is listed in Annex II of the Habitats Directive and in the Irish Red Data Book as 'Internationally Important' (Whilde, 1993). Sea Trout (*Salmo trutta*) are also found in rivers within the site.

#### **Amphibians**

The Common Frog (*Rana temporaria*), a species listed in Annex V of the EU Habitats Directive and listed as 'Internationally Important' (Whilde, 1993), is breeding within water bodies on the site.

#### **Birds**

Ballyness Bay sand flats are important for wintering wildfowl and waders as well as some seabird species with a number of species reaching regionally important numbers.

Table listing notable bird species recorded using Ballyness Bay cSAC. Waterfowl and seabirds have been counted yearly for the Irish Wetlands Bird Survey (I-WeBS) (Appendix VI). The presence of a species on the Annex I list of the EU Birds Directive and in the Irish Red Data Book (Whilde, 1993) is also noted. The mean peak count indicates the average of seven seasonal peaks between 1994-2001.

Species	Birds Directive	Red Data Book	I-WeBS count	Mean peak count
Seabirds and waterfowl				
Red-throated Diver (Gavia stellata)	*	rare		<1
Great Northern Diver (Gavia immer)	*			<1
Whooper Swan (Cygnus cygnus)	*	internationally important	*	3
Barnacle Goose (Branta leucopsis)	*	internationally important	*	34
Greenland White-fronted Geese (Anser albifrons flavirostris)	*	internationally important		
Chough (Pyrrhocorax pyrhocorax)	*	internationally important		
Golden Plover (Pluvialis apricaria)	*	vulnerable	*	330
Sandwich Tern (Sterna sandvicensis)	*			
Little Tern (Sterna albifrons)	*			
Light-bellied Brent Goose (Branta bernicla hrota)		internationally important	*	137
Common Scoter (Melanitta nigra)		endangered	*	<1
Greenshank (Tringa nebularia)		rare	*	11
Pintail (Anas acuta)		rare	*	<1
Cormorant (Phalacrocorax carbo)			*	10
Shag (Phalacrocorax aristotelis)				
Grey Heron (Ardea cinerea)			*	3
Shelduck (Tadorna tadorna)			*	6
Wigeon (Anas penelope)			*	96
Teal (Anas crecca)				<1
Mallard (Anas platyrhynchus)			*	55
Eider (Somateria mollissima)			*	5
Red-Breasted Merganser (Mergus serrator)			*	17
Oystercatcher (Haematopus ostralegus)			*	127
Ringed Plover (Charadrius hiaticula)			*	155
Grey Plover (Pluvialis squatarola)			*	10
Lapwing (Vanellus vanellus)			*	66
Sanderling (Calidris alba)			*	86
Dunlin (Calidris alpina)			*	213
Bar-tailed Godwit (Limosa lapponica)			*	9

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Species	Birds Directive	Red Data Book	I-WeBS count	Mean peak count
Curlew (Numenius arquata)			*	97
Redshank (Tringa totanus)			*	21
Turnstone (Arenaria interpres)			*	15
Black-headed Gull (Larus ridibundus)			*	40
Common Gull (Larus canus)			*	78
Herring Gull (Larus argentatus)			*	45
Great Black-backed Gull (Larus marinus)			*	8
Little Grebe (Tachybaptus ruficollis)			*	1
Mute Swan (Cygnus olor)				3
Other species				
Peregrine (Falco peregrinus)	*	internationally important		
Merlin (Falco columbarius)	*	rare		
Buzzard (Buteo buteo)				
Kestrel (Falco tinnunculus)				

Grey Plover and Sanderling occur in nationally important numbers (population > 1% of the national population).

Up to 60 Greenland White-fronted Geese were counted on the edge of the site at Drumnatinny during the spring of 1998. This area of dune slack is adjacent to farmland, which is regularly used by foraging geese. Chough use short grassland habitats within the site for feeding and fifteen birds were recorded flocking in 2003. Sandwich Tern and Little Tern were recorded using Drumnatinny Beach and adjacent marine zone during the BIOMAR survey.

Large numbers of Lapwing have been recorded as breeding on the dune slacks at Drumatinny (up to 30-50 breeding pairs). A pair of Buzzards nest in the area and use the site.



Dunlin (Calidris alpina)

#### **Mammals**

Up to 12 Common Seal (*Phoca vitulina*) regularly haul out on the sand banks opposite Ballyness Pier. A Porpoise (*Phocoena phocoena*) carcass was seen on the beach near Keadew during a site visit (27.4.98). Otter (*Lutra lutra*) have been recorded on some of the streams running through the site. All of these species are listed in Annex II of the EU Habitats Directive. Otter is also listed in the Irish Red Data Book (Whilde, 1993) as 'Internationally Important'.

Irish Hare (*Lepus timidus hibernicus*), a species listed in Annex V of the EU Habitats Directive, is found within the site. Irish Hare is also listed as 'Internationally Important' in the Irish Red Data Book (Whilde, 1993). Rabbits (*Oryctolagus cuniculus*) are widespread on the Dooey Peninsula. Foxes (*Vulpes vulpes*) are also present within the site.

#### **Land Use**

#### Land use on the site

#### Grazing

Both dune systems are used for grazing livestock. The Dooey dunes are used to graze 30-50 sheep. Small numbers (<10) of cattle are also sometimes grazed here. Some parts are closely grazed, but the Commonage Framework Planning Project, (which assessed grazing), only recorded one small overgrazed area. There is a dilapidated corrugated iron holding/feeding pen near the northern end of the Peninsula.

Drumatinny dunes have both cattle and sheep grazing on them. Due to fencing, grazing densities are variable. At least two areas are used as feeding stations in the winter. Localised overgrazing is occurring, particularly on the Drumatinny dunes and ring-feeders are still used (2003).

#### Recreation/Tourism

Visitors and local people use the two beaches within the site for recreational purposes, mainly in July and August. Some beaches within the bay are less intensively used. The adjacent dunes are also affected by recreational use. In particular, the Dooey dunes are used for camping and there are numerous camp fire locations along the peninsula, particularly at the Magheraroarty end. Touring caravans also use the peninsula. Beach buggies and quad bikes are also driven across these dunes.

Sea angling and sailing occur on a small scale in Ballyness Bay. The piers adjacent to the site at Magheraroarty and at Ballyness, and a small pier within the site north of Gortahork, are used to facilitate such activities. Some motorboats also use Magheraroarty Pier. There is also a fishing platform at the mouth of the Tullaghobegly River. Fishing here is by permit only from Cloughaneely Angling Association.

A football pitch was developed at the Magheraroarty end of the Dooey dunes in 1997. An area of approximately 0.75 ha was flattened, re-seeded and surrounded by sheep fencing. This was abandoned for a period of time but the County Council now want to restore this football pitch, reseeding bare areas and fencing off the pitch.

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#### **Dumping/Littering**

Some littering occurs on the dunes and beaches, some of which is generated by recreational users and some is washed in by the sea.

Small scale dumping occurs throughout the site. This includes construction waste, domestic and garden refuse and abandoned cars.

The local parish council organised a clean up of the area recently and removed abandoned cars. Local people organise one big clean each year before the summer season. However dumping is still occurring and new abandoned cars have appeared.

#### **Dredging**

The channel beside the pier at Magheraroarty has been deepened and the spoil has been dumped on adjacent land.

#### Removal of beach Material

Small-scale sand removal occurs sporadically from both dune/beach systems.

#### **Seaweed harvesting**

There are stone racks for drying sea rods (kelp stalks) on the eastern side of Dooey Peninsula. The share holders of the commonage on Dooey have the right to collect seaweed from Ballyness Bay.

## Fishing/Shellfish harvesting

Licensed fishing for salmon by draft (ring netting) takes place in the Bay. There are currently two boats operating from Ballyness Pier. Two lobster potting and crabbing boats also use the pier to land catches.

Magheraroarty Pier is also used by crab/lobster fishermen and some whitefish are also landed, but this pier is too exposed to be used during winter months.

Two old oyster trestles occur on either side of the island at Kilult. They are unused.

Mussels are collected from certain areas of Ballyness Bay. Commercial mussel collection is not carried out.

## Marram Grass harvesting

Marram Grass is harvested during the winter from Dooey on a small scale. The commonage owners have cutting rights here.

Tracks/access

A well worn track runs the length of the Dooey Peninsula. It is used for access to livestock, as well as by recreational users. Access to the Peninsula itself is across a narrow neck of land at Keadew. Tracks have been worn across the saltmarsh here. Traffic also crosses the sand flats to reach the sand dunes.



Drumnatinny dune system showing damage from overgrazing and ringfeeders (photo by NPWS staff).

#### Land use adjacent to the site

Forestry Large areas adjacent to the site contain mature commercial coniferous

forest plantations.

Agriculture The grasslands adjacent to the site are used for livestock (sheep and

cattle) grazing. Hay is also harvested in places. A number of small plots

are used for potato cultivation.

Recreation/Tourism The pier at Magheraroarty is used by the ferry taking visitors to Tory

Island. It is also used by boats travelling to Inishbofin. The pier at Ballyness is also used for recreational purposes. There is a carpark adjacent to the eastern end of the site, which is used by visitors to the

beach at Falcarragh.

**Conservation** The Corncrake (*Crex crex*) has been recorded adjacent to the cSAC in recent years. At some locations adjacent to the site, meadow grassland is

recent years. At some locations adjacent to the site, meadow grassland is managed for Corncrake as part of the Falcarragh to Meenlaragh Important Bird Area (IBA) for Concrakes. An annual mean of 13

Corncrakes has been recorded in this IBA from 1993-2001.

**Fishing** Small fishing boats land catches at Magheraroarty Pier.

**Residential** The town of Falcarragh and the village of Gortahork are both adjacent to

the site. There are also houses as well as pressure for additional development around Magheraroarty and other locations around the coast.

Dumping Building rubble and soil has been dumped near Bedlam Bridge

(Gortahork), just outside the site.

#### **Recorded Monuments and Other Features**

Several recorded Monuments are found within the cSAC. These are listed below.

MONUMENT NO.	DESCRIPTION	NAT. GRID	TOWNLAND
DL 015-019	Holy Well	B 9601 3536	Earrarooey North
DL 015-020	Promontory Fort	B 9606 3544	Earrarooey North
DL 024-002	Cashel	B 9007 3219	On Boyles Island (not in a townland)
DL 024-003	Graveyard	B 9175 3252	Glebe
DL 024-004	Castle	B 9237 3214	Ballyness
DL 024-008	Burial Ground	B 9127 3056	Ards More

# CONSERVATION VALUE OF BALLYNESS BAY CSAC

Ballyness Bay cSAC supports several habitats listed in Annex I of the EU Habitats Directive, fixed dunes with herbaceous vegetation (grey dunes) (a priority habitat), shifting dunes along the coast line with *Ammophilia arenaria* (white dunes), embryonic shifting dunes, humid dune slacks, mud flats and sand flats and estuaries as part of a complex coastal ecosystem.

This site contains an excellent example of the priority habitat fixed dunes with herbaceous vegetation along the Dooey Peninsula and at Drumnatinny. This site represents between 2-15% of the total area of this habitat designated in Ireland. The fixed dunes are surrounded by mobile dunes including shifting dunes along the coast line with *Ammophilia arenaria* (white dunes) and embryonic shifting dunes, on the seaward side. This includes one of the largest unvegetated sand dunes in the country. This site is a good example of these habitats and represents < 2% of the total area of these habitats designated in Ireland. The sand dunes are subject to substantial recreational pressure from activities such as use of ATV vehicles and camping, which have aided the creation of several tracks. Both dune systems are grazed by cattle, sheep and rabbits, but the grazing pressure is most intense at Drumnatinny. Some localised sand removal occurs. The mobile dunes are also subject to significant natural erosion, perhaps exacerbated by human related activities.

The humid dune slack is located landward of the fixed dune habitat at Drumnatinny. This site is a good example of this habitat and represents > 2% of the total area of this habitat designated in Ireland. Part of this area floods in the winter and also provides grazing habitat for Barnacle Geese and Greenland White-fronted Geese and roosting habitat for wintering waders and wildfowl during bad weather. The dune slack is also subject to grazing pressure from cattle and sheep.

The intertidal areas including mud flats and sand flats, and estuaries represent a good example of these habitats and have an excellent conservation status. The estuary habitat represent < 2% of this habitat designated while the mud flats and sand flats habitat represents between 2-15% of the habitat designated in Ireland. The intertidal areas of Ballyness Bay have a rich macro-invertebrate fauna and support several Eelgrass beds. It also provides important feeding and roosting habitat for many of the waterfowl species.

This site supports a diverse avian fauna including resident and wintering seabirds, waterfowl and other species. Species listed on the Annex 1 EU Birds Directive include Red Throated Diver, Great Northern Diver, Whooper Swan, Barnacle Goose, Golden Plover, Greenland White-fronted Geese, Chough, Peregrine, Merlin, Sandwich Tern and Little Tern. This site also supports Salmon, Common Seal and Otter, which are listed in Annex II of the Habitats Directive. Grey Plover and Sanderling also occur in nationally important numbers.

## **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.

Objective 1:	To maintain	the Annex I h	abitats f	or which	the the	cSAC h	as bee	n selected at
	favourable	conservation	status;	fixed	sand	dunes	with	herbaceous

vegetation (15% of the site), mud flats and sand flats/estuaries (60%), shifting dunes along the coast line with *Ammophilia arenaria*/embryonic

shifting dunes (4%) and humid dune slacks (1%).

**Objective 2:** To maintain other habitats at favourable conservation status, sandy

coastal beach (13%), saltmarsh (1%), boulder/shingle beach (1%), lowland dry grassland (1%), heath (1%), woodland (1%), bedrock shore (1%), scrub (<1%), lowland wet grassland (<1%), rivers and streams (<1%), drainage ditch (<1%), reedbed (<1%) and exposed rock (<1%).

**Objective 3:** To maintain the populations of notable species on the site at favourable

conservation status, Chough, over-wintering birds and marine mammals.

Objective 4: To establish effective liaison and co-operation with landowners, legal

users and relevant authorities.

## **Management Issues**

While many activities in or adjacent to the site have the potential to cause deterioration/disturbance, it is important to determine the significance of such activities relative to the conservation objectives at a particular site. To that end, all known potential environmental effects of the sites principal activities (in alphabetical order) have been listed and the biological and chemical impacts that may cause change to the biological communities present have been described.

- Corncrake conservation
- Dumping
- Erosion
- Grazing
- Lack of information for the public
- Reclamation
- Recreation
- Sewage disposal
- Supplementary feeding

#### Concrake conservation

At some locations adjacent to the site, meadow grassland is managed for Corncrake as part of the Falcarragh to Meenlaragh Important Bird Area (IBA) for Corncrakes. Birdwatch Ireland has proposed several areas of meadow grassland at Magheraroarty, Lower Killult, Ardbeg and Ardmore adjacent to the cSAC for inclusion within the cSAC.

#### **Dumping**

Littering occurs on the dunes and beaches. Dumping is still occurring elsewhere in the site with abandoned cars and construction waste a particular problem. There is no regular beach cleaning on the Dooey Peninsula.

Dumping adjacent to the site may be polluting habitats within the site.

#### **Erosion**

The dynamic nature of the Ballyness system leads to high rates of sand accretion and erosion, both on the dunes and around the Bay. Thus, even small modifications (natural or artificial) to part of the system may cause considerable changes in other areas.

Erosion of the Dooey dune system is still occurring. This is exacerbated by the use of Quad bikes etc. Erosion of both the seaward and bay sides of the Dooey Peninsula neck has created fears that it may breach in the future. This erosion is likely to be exacerbated by traffic-induced damage. In 1999 some gravel from the west side of Magheraroarty Pier was used to nourish the gravel ridge on the west beach (near the neck of the peninsula).

A well worn track runs the length of the Dooey Peninsula. It is used for access to livestock, as well as by recreational users. Tracks have been worn across the saltmarsh at Keadew. Erosion is also occurring on the Drumnatinny dune system.

#### **Grazing**

Both dune systems are used for grazing livestock. Overgrazing is occurring on the Drumnatinny dune system (2003) with some areas being stocked all year round. The commonage areas were included in the Commonage Framework Planning Project (Commonage Plan (CP) DG20). In order to maintain the ecological value of the sand dune habitats and other habitats, grazing intensity must be kept below the level that causes excessive damage to vegetation.

Rabbits are widespread on

#### Lack of information for the public

There is a lack of public information about the designation of the site and its ecological importance.

#### Reclamation

An area on Dooey Peninsula has been flattened and re-seeded for use as a football pitch. This football pitch was abandoned for a period but the County Council now want to restore the pitch by reseeding bare patches and fencing off the area.

#### Recreation

Both of the beaches in the site are used for recreational purposes. The adjacent dunes are also affected by recreational use. Access to and along the Dooey Peninsula and the Drumnatinny dune system has led to well worn tracks and wheel ruts developing along the dunes. Off road vehicles are regularly driven across the Dooey sand dunes exacerbating the erosion of these dunes. There are numerous camp fire sites with stone rings and some littering associated with recreational usage in the dunes.

During low spring tides, traffic can cross from the tip of Dooey to Inishbofin, a small island to the north-west of the site.

Some (un-intentional) disturbance is caused to over-wintering birds by users of the site.

#### Sewage disposal

Untreated sewage from Gortahork and Falcarragh flows into Ballyness Bay.

#### Supplementary feeding

There are feeding stations for cattle and sheep on dune grassland near Drumnatinny. This has led to damage from trampling and over-grazing.

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## **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 DEHLG 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 (Appendix IX)
- enforcement of Regulations under the Habitats/Birds Directives and the Wildlife Acts.

#### Establish a monitoring regime

The monitoring regime for the site will comprise:

Scientific monitoring Monitoring of the conservation status of the qualifying interests 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 Ballyness Bay 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

grazing levels and dumping 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, causing erosion by driving vehicles and reseeding of sand dunes are both notifiable actions.

## **Specific Strategies**

#### Objective 1.

To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status; fixed sand dunes with herbaceous vegetation (15% of the site), mud flats and sand flats/estuaries (60%), shifting dunes along the coast line with Ammophilia arenaria/embryonic shifting dunes (4%) and humid dune slacks (1%).

#### Strategies:

1.1. Manage grazing on commonages

The impacts of grazing on commonage areas of the site have been assessed by the Commonage Framework Planning Project (Commonage Plan (CP) DG20). This plan recommends de-stocking rates in areas that have been damaged by over-grazing. These rates will be incorporated into REPS plans and/or farm plans produced by DEHLG for each farm and must be achieved within an agreed timescale from the beginning of the REPS/farm planning period.

No farmer's stock will be reduced to less than 25 ewes. If the CP specifies a de-stocking level of less than 10%, then no de-stocking is required. If the CP specifies a de-stocking of more than 10%, then destocking should occur as indicated. The relevant CP (i.e. DG20) recommends de-stocking levels of between 0.36 – 34.5%. The individual CP should be consulted for further details.

The zoning map (Map 4) reflects the findings of the CP assessments, and these are specified in the prescriptions for each individual zone.

On commonages in six western counties, a stock reduction of 30% was implemented in December 1998 for farmers not already in REPS. This is taken into account when applying Commonage Framework Plans.

Manage grazing on private land

For non-commonage land, NPWS will seek to ensure that sustainable grazing levels are established/maintained via REPS and DEHLG farm plans, using a similar methodology applied to commonage areas (see Strategy 1.1).

1.3. **Regulate access** to Dooev **Peninsula** 

NPWS will seek to ensure that vehicular access to the Dooey Peninsula is regulated and reduced in liaison with the County Council, the Coastal Management research project, landowners and local managers. The construction of a gate at the neck of the peninsula should be considered.

Further recreational development and intensive tourism will be prevented on the dune systems. This includes the construction of car parks, access routes and camping sites. Liaison with Donegal County Council is required in relation to the management of recreational use.

**Monitor Rabbit** grazing

NPWS will monitor Rabbit grazing within the dune systems. However, it is not envisaged that Rabbit populations will reach unsustainable levels during the duration of this plan.

1.5. of, and treat, sewage discharge

Evaluate impact NPWS will seek to ensure that the impact of sewage discharge into the site from Gortahork and Falcarragh into Ballyness Bay is evaluated and appropriate treatment facilities provided. Liaison with Donegal County Council is necessary here.

1.6. Monitor dumping on site margins

NPWS will monitor any dumping of material such as hardcore that occurs on the margins of the site, to ensure that it is not damaging the site itself.

1.7. Maintain mudflats, sandflats and estuary habitats

No intervention is necessary to manage these habitats. Refer to the notifiable actions for such areas.

#### Objective 2.

To maintain other habitats at favourable conservation status, sandy coastal beach (13%), saltmarsh (1%), boulder/shingle beach (1%), lowland dry grassland (1%), heath (1%), woodland (1%), bedrock shore (1%), scrub (<1%), lowland wet grassland (<1%), rivers and streams (<1%), drainage ditch (<1%), reedbed (<1%) and exposed rock (<1%).

#### Strategies:

2.1. Manage grazing on commonages

See strategy 1.1.

2.2. Manage grazing on private land

See strategy 1.2.

2.3. Control supplementary feeding

NPWS will seek to ensure that supplementary feeding will not occur above current levels and will be reduced if possible. Supplementary feeding is a notifiable action (see Appendix VII).

2.4. Regulate access to Dooey Peninsula

See strategy 1.3.

2.5. Monitor Rabbit grazing

See strategy 1.4.

2.6. Maintain beach, saltmarsh, shingle, scrub, woodland, reedbed and drainage ditch

No intervention is necessary to manage these habitats. Refer to the notifiable actions for such areas.

2.7. Maintain rivers and streams

No intervention is necessary to manage streams that run through the site or on the boundaries. Refer to the notifiable actions for such areas. Modification of the streams that border the site should not be carried out without consultation with NPWS.

2.8. Prevent further dumping

NPWS will seek to ensure that further dumping is prevented. 'No dumping' signs should be erected in consultation with Donegal Council.

2.9. Evaluate and treat sewage discharge

See strategy 1.5.

2.10 Monitor dumping on site margins See strategy 1.6.

#### **Objective 3.**

To maintain the populations of notable species on the site at favourable conservation status, Chough, over-wintering birds and marine mammals.

#### **Strategies:**

3.1. Maintain the status of other notable species

Strategies that safeguard the breeding and feeding sites of Annex I bird species and Annex II species will contribute to maintenance of their populations using the site. Disturbance to over-wintering birds should be kept to a minimum.

**3.2.** Maintain the status of the Chough

Chough need short sward grassland or heath as foraging areas. This should be maintained by cattle or cattle and sheep grazing (as cattle dung hosts many more invertebrate species which form the food base of the Chough).

Very strong, broad-spectrum anti-parasitic drugs such as Ivermectin, are excreted in the dung of grazing livestock. Such pesticide residues can reduce the numbers and variety of dung associated fauna, therefore their use should be avoided on stock which will graze the site within one week of treatment.

#### **Objective 4.**

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

#### **Strategies:**

4.1. 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.

4.2. Liaise with REPS planners

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): 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: Mudflats and sandflats, mobile dunes (both shifting dunes along the shoreline and embryonic shifting dunes), sandy coastal beach, saltmarsh, boulder/shingle beach, scrub, woodland, reedbed, lowland wet grassland, rivers and streams and drainage ditch

Strategies 1.1-1.7, 2.5-2.10, 3.1, 4.1 and the general strategies apply.

- 2A: MAINTENANCE AREAS WITH LIMITED MANAGEMENT INTERVENTION
- 2A1: Fixed coastal dunes with herbaceous vegetation, mobile dunes (both shifting and embryonic), saltmarsh, boulder/shingle beach and humid dune slacks in commonage (agricultural units DG20g, DG20n, DG20ri, DG20si, DG20ti and DG20vi.

These areas have been identified in the Commonage Framework Plan as being undamaged (category U), see Strategy 1.1. No de-stocking is required. See relevant CP (DG20) for more details.

Strategies 1.3, 1.4, 1.6, 2.1, 2.3, 2.4, 2.5, 2.8, 2.10, 3.1, 3.2, 4.1 and the general monitoring strategies also 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: Fixed coastal dunes with herbaceous vegetation, mobile dunes (both shifting and embryonic), (Agricultural unit DG20ui)

This area has been identified in the CP as being moderately overgrazed and requires stock reductions (see Strategy 1.1). See relevant CP (DG20) for full details.

Strategies 1.3, 1.4, 2.1, 2.3, 2.5, 3.1-3.2, 4.1 and the general monitoring strategies also apply.

B2: Fixed coastal dunes with herbaceous vegetation, mobile dunes (both shifting and embryonic), humid dune slacks, lowland dry grassland, lowland wet grassland and heath in private ownership

Grazing assessments are required for these privately owned lands (see Strategies 1.2 & 2.2).

Strategies 1.4, 1.6, 2.3, 2.5, 2.8, 2.10, 3.1-3.2, 4.1, 4.2 and the general monitoring strategies also apply.

B3: Boulder/shingle beach, saltmarsh, lowland wet grassland and the track on Dooey Peninsula (neck)

Strategies 1.3, 2.4 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: Track

The track that runs along the Dooey peninsula should not be modified without prior consultation with NPWS. Strategies 1.3, 2.4 and 4.1 apply.

#### C2: Football pitch

Further development should not occur around the football pitch without prior consultation with NPWS. Strategy 4.1 applies.

#### C3: Dune areas managed by feeding stations

Ring feeders in the dunes have caused damage through trampling and nutrient enrichment. These feeders should be removed from their current locations and the areas should be allowed to re-vegetate. Strategy 2.3 applies.

#### **Zone D: Impact Zone**

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

#### D1: Sewage pipes

Un-treated sewage from Gortahork and Falcarragh enters Ballyness Bay. Strategies 1.5, 2.9 and 4.1 apply.

#### **D2:** Dumping sites

Strategies 1.6, 2.8, 2.10 and 4.1 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.	Manage grazing on commonages	Implement sustainable grazing on the site in accordance with the Commonage Framework Plan.	NPWS/ Grazing rights holders/ DAF			
1.2.	Manage grazing on private land	Grazing assessments required.	NPWS/ Landowners/ DAF			
1.3.	Regulate access to Dooey Peninsula	Vehicular access to the Dooey Peninsula should be regulated and reduced.	NPWS/ Donegal Co. Co.			
1.4.	Monitor Rabbit grazing	Rabbit grazing should be monitored within the dune systems.	NPWS			
1.5.	Evaluate impact of, and treat, sewage discharge	Monitor sewage discharge into Ballyness Bay.	NPWS			
1.6.	Monitor dumping on site margins	Monitor dumping.	NPWS			
1.7.	Maintain mudflats, sandflats and estuary habitats	No intervention. Enforce notifiable actions.	NPWS			
2.1.	Manage grazing on commonages	See strategy 1.1.	-			
2.2.	Manage grazing on private land	See strategy 1.2.	-			
2.3.	Control supplementary feeding	Supplementary feeding is a notifiable action.	NPWS/ Landowners			
2.4.	Regulate access to Dooey Peninsula	See strategy 1.3.	-			
2.5.	Monitor Rabbit grazing	See strategy 1.4.	-			<u> </u>
2.6.	Maintain beach, saltmarsh, shingle, scrub, woodland, reedbed and drainage ditch	No intervention. Enforce notifiable actions.	NPWS			
2.7.	Maintain rivers and streams	No intervention. Enforce notifiable actions.	NPWS			
2.8.	Prevent further dumping	Prevent further dumping by erecting 'No dumping' signs.	NPWS/ Donegal Co. Co.			
2.9.	Evaluate and treat sewage discharge	Monitor sewage discharge into Ballyness Bay.	Donegal Co. Co.			
2.10	Monitor dumping on site margins	See strategy 1.6.	-			

#### TABLE Summary of Specific Strategies CONTINUED.....

	Strategy	Action required	Who to implement	When/Duration/ Frequency	Estimated Total Cost	Additional Resources needed
3.1.	Maintain the status of other notable species	Implement general and specific strategies.	NPWS			
3.2.	Maintain the status of the Chough	Monitor sward grassland and prevent disturbance.	NPWS			
4.1.	Liaise with interested parties	Initiate and maintain effective liaison with relevant parties.	NPWS			
4.2.	Liaise with REPS planners	REPS planners are required to consult with NPWS staff if developing plans for land within the site.	REPS planners			

# APPENDIX I: GLOSSARY

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.

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 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.

AVIFAUNA - Birds

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.

BIOMAR - An EU Life funded project which: a) surveyed marine and maritime habitats in Ireland, b) developed a marine biotope classification system and c) demonstrated the use of remote surveying techniques and compiled an inventory of maritime protected areas.

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.

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.

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.

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.

DEHLG - Department of Environment, Heritage and Local Government

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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.

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

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

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.

FIXED DUNES WITH HERBACEOUS VEGETATION - A priority habitat listed in Annex I of the EU Habitats Directive. These are static dunes, stabilised and colonised by more or less closed perennial grasslands and abundant carpets of lichens and mosses.

FLORA - plant life.

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

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.

HEATH – An NPWS habitat classification comprises vegetation on relatively dry acidic mineral or peat soil usually dominated by Ericaceous shrubs, which include *Calluna vulgaris* (Heather), all Heathers (*Erica* spp.), *Vaccinium myrtillus* (Bilberry), *Empetrum nigrum* (Crowberry), *Arctostaphylos uva-ursea* (Bearberry), *Daboecia cantabrica* (St Dabioc's Heath), or dwarf, cushion forming *Ulex* spp. These shrubs must form a minimum cover of 25% to fall into the heath category. This habitat is frequently found in mosaic with other upland habitats.

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

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

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.

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.

MACHAIR - A priority habitat listed in Annex I of the EU Habitats Directive. Machairs are coastal grassy plains with damp, shelly/sandy soil. They occur from Galway Bay to Malin Head, and are maintained by livestock grazing. They are nearly level but close enough to the water table that

small undulations lead to a mosaic of wet and dry areas. Due to the absence of plant species that bind the soils of sand dunes, the soil surface is quite unstable and may be disturbed in winter gales.

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.

MARINE - Found in, or relating to the sea.

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.

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.

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.

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.

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.

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 pubic access; education and training for farmers in types of farming compatible with the requirements of environmental protection and upkeep of the countryside.

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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."

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).

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).

VERY RARE - an ecological term 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. Very Rare applies to 1-2, 10 km squares in this context.

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

O.S. 6 inch (1: 10,560) map: DL 014, 015, 024, 025

#### **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

#### **Photographic Coverage:**

Aerial photo No. 2169/2170, Flight Line 10/11. Date: 1995. 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	feh	mar	apr	may	iun	jul	aug	sen	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 (%)		1	I.				I.			I.			
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)			I							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

Source: Met Eireann

# APPENDIX IV: WATER QUALITY

Results of EPA monitoring of water quality at sites on some rivers located within the cSAC are shown below (taken from the website www.epa.ie, river quality section).

Results of EPA biological monitoring of water quality in various rivers

River	River Code	Station	Location	Q Value	Rating
Owenawillin	38O10	0200	Bridge at Rocky Stone	3-4 (2000)	Slightly polluted
Glenna	38G01	0200	Bridge east of Bedlam	4 (2000)	Unpolluted
Tullaghobegley	38T01	0400	Bellina Bridge	4 (2000)	Unpolluted
Ray	88R01	2000	Bridge near Carrowcann Upper	4 (2000)	Unpolluted

### Results of County Council chemical testing of water quality in various rivers. Locations are the same as the previous table.

River	Parameter	Parameter Units	Min.	Median	Max.	No. of Samples
	B.O.D	mg/l O²	0.2	0.9	1.9	6
	Dissolved Oxygen	mg/l O²	9.2	10.8	10.9	6
	Dissolved Oxygen	% Saturation	85	96	103	6
	Ortho-Phosphate	mg/l P	0	0.01	0.04	3
Glenna River	Oxidised Nitrogen	mg/l N	0	0.2	0.3	5
	pН	pН	6.9	7.1	7.5	6
	Temperature	°C	4.8	11.3	18.9	6
	Total Ammonia	mg/l N	0.01	0.03	0.05	5
	Un-Ionised Ammonia	mg/l NH³	0	0	0	5

River	Parameter Parameter Units		Min.	Median	Max.	No. of Samples
	B.O.D	mg/l O²	0.2	0.8	2.2	8
	Dissolved Oxygen	mg/l O <sup>2</sup>	9.3	10.7	11.8	10
	Dissolved Oxygen	% Saturation	84	97	105	10
	Ortho-Phosphate	mg/l P	0	0	0.04	9
Tullaghobegly	Oxidised Nitrogen	mg/l N	0.1	0.2	1.1	10
	pН	pН	7	7.1	7.3	10
	Temperature	°C	4.7	12.6	17.8	10
	Total Ammonia	mg/l N	0.01	0.02	0.12	6
	Un-Ionised Ammonia	mg/l NH³	0	0	0	6

## Results of County Council chemical testing of water quality in various rivers. Locations are the same as the previous table (contd).

River	River Parameter Par		Min.	Median	Max.	No. of Samples
	B.O.D	mg/l O <sup>2</sup>	0.2	0.7	2.4	10
	Dissolved Oxygen	mg/l O <sup>2</sup>	9.2	10.6	11.6	10
	Dissolved Oxygen	% Saturation	83	96	104	10
	Ortho-Phosphate Oxidised Nitrogen	mg/l P	0	0	0	5
Ray		mg/l N	0	0.1	0.5	9
	pН	pН	7	7.1	7.4	10
	Temperature	°C	4.6	12.6	17.8	10
	Total Ammonia	mg/l N	0.01	0.03	0.05	5
	Un-Ionised Ammonia	mg/l NH³	0	0	0	5

# APPENDIX V: DETAILED INFORMATION ON INVERTEBRATES

#### **Invertebrates**

The BIOMAR survey included two sites within the cSAC. The sand flat fauna in Ballyness Bay and beach fauna at Drumnatinny Strand are typical of these habitats.

The Ray River Strand (Grid ref B945350) (Drumnatinny Strand) is described as a very long (3 km) fine sandy beach facing north, with a very complex beach profile including swash bars and runnels. The sampling transect was located about 400 paces west of where the track from the car park opens onto the beach. The upper shore was dominated by Talitrids, the mid shore was dominated by a fauna of polychaete worms and the lower shore was dominated by burrowing amphipods and polychaetes. This strand was described as moderately exposed.

#### Invertebrate fauna found at Ray Strand during BIOMAR sampling

Location	Species	Abundance
Upper shore	Talitrus saltator	present
	Talochestia deshayesii	present
Mid shore	Scolelepis squamata	present
	Eurydice pulchra	present
	Crangon crangon	present
Lower shore	Scolelepis squamata	present
	Crangon crangon	frequent
	Anaglis tenuis	frequent
	Ammodytes	common
	Eurydice pulchra	present

The sand flat on the eastern side of Ballyness Bay, north of Ballyness Pier was also sampled (Grid ref. B922336). This site was described as very sheltered. This area is described as an extensive intertidal sand flat with dense Lugworm (*Arenicola marina*) populations. Gobies and Sand Eels occurred in the channel and *Crangon crangon* was very abundant at the waters edge. The fauna of the drift line/saltmarsh was dominated by Talitrid amphipods. The mid shore sand flat had a rich

fauna dominated by Polychaetes and Lugworms and including Cockles (*Cerastoderma edule*). The lower shore was gently sloping with rippled fine muddy sand and the fauna was dominated by Lugworms, Polychaetes, Sand Eels and *Crangon crangon*.

#### Invertebrate fauna found in Ballyness Bay during BIOMAR sampling

Location	Species	Abundance				
Drift line/saltmarsh	Orchestia gammerillus	present				
	Talorchestia dishayesii	present				
	Ligia ocenica	present				
Mid shore sand flat	Sigalica mathildue	present				
	Arenicola marina	common				
	Clymenaria clyperata	present				
	Urothae breviconuis	occasional				
	Haustoris arenaruis	frequent				
	Cerastoderma edule	common				
	Angulus tenius	common				
Lower shore	Glycera tridactyla	present				
	Arenicola marina	common				
	Clyminera clypeata	present				
	Haustoris arenaruis	present				
	Crangon crangon	common				
	Angulus tenius	super abundant				
	Ammodytes lobianus	common				
	Nephtys longosetosa	present				

# APPENDIX VI: I-WEBS BIRD COUNT DATA

I-WeBS Site: Ballyness Bay

Season 1994/95		Season 1995/96		Season 1996/97		Season 1997/98		Season 1998/99		Season 1999/2000		Season 2000/01		
2C	2Counts		4Counts		6Counts		7 Counts		ounts	6Counts		5 Counts		7 Seasons counted
Peak	Month	Peak	Month	Peak	Month	Peak	Month	Peak	Month	Peak	Month	Peak	Month	Mean of Peak
		111	Jan					55	Oct			70	Feb	34
		2	Nov	4	Jan			8	Jan	29	Oct	20	Feb	9
6	Jan	47	Nov	150	Jan	22	Mar	56	Oct					40
26	Jan	54	Dec	200	Jan	103	Jan	72	Feb			90	Oct	78
4	Jan			20	Jan	8	Sept			4	Jan	35	Dec	10
73	Feb	85	Nov	60	Feb	102	Jan	85	Oct	201	Sept	74	Feb	97
253	Jan	315	Dec	210	Dec	210	Dec	320	Dec	149	Nov	35	Nov	213
8	Feb	6	Mar	3	Oct	10	Mar	6	Oct	4	Oct			5
174	Jan	500	Nov	210	Oct	450	Oct	380	Oct	530	Nov	66	Feb	330
6	Feb	12	Nov	14	Nov	10	Mar	13	Oct					8
		13	Nov	9	Feb	12	Oct	8	Nov	15	Oct	19	Oct	11
3	Jan	2	Jan	3	Sept	4	Oct	5	Oct	3	Feb	4	Jan	3
13	Feb	6	Mar	27	Jan	10	Jan	6	Dec	10	Jan			10
26	Feb	60	Nov	100	Jan	100	Sept	32	Oct					45
	199 2C Peak 6 26 4 73 253 8 174 6	1994/95  2Counts  Peak Month  6 Jan  26 Jan  4 Jan  73 Feb  253 Jan  8 Feb  174 Jan  6 Feb  3 Jan  13 Feb	1994/95       2Counts     4Counts       Peak     Month     Peak       111     2       6     Jan     47       26     Jan     54       4     Jan       73     Feb     85       253     Jan     315       8     Feb     6       174     Jan     500       6     Feb     12       13     Jan     2       13     Feb     6	1994/95         1995/96         2Counts       4Counts         Peak       Month       Peak       Month         111       Jan       2       Nov         6       Jan       47       Nov         26       Jan       54       Dec         4       Jan       -       -         73       Feb       85       Nov         253       Jan       315       Dec         8       Feb       6       Mar         174       Jan       500       Nov         6       Feb       12       Nov         3       Jan       2       Jan         13       Feb       6       Mar	1994/95         1995/96         199           2Counts         4Counts         6Counts           Peak         Month         Peak         Month         Peak           111         Jan         2         Nov         4           6         Jan         47         Nov         150           26         Jan         54         Dec         200           4         Jan         20         20           73         Feb         85         Nov         60           253         Jan         315         Dec         210           8         Feb         6         Mar         3           174         Jan         500         Nov         210           6         Feb         12         Nov         14           13         Nov         9           3         Jan         2         Jan         3           13         Feb         6         Mar         27	1994/95         1995/96         1996/97           2Counts         4Counts         6Counts           Peak         Month         Peak         Month           Peak         Month         Peak         Month           111         Jan         Jan           6         Jan         47         Nov         150         Jan           26         Jan         54         Dec         200         Jan           4         Jan         20         Jan           73         Feb         85         Nov         60         Feb           253         Jan         315         Dec         210         Dec           8         Feb         6         Mar         3         Oct           174         Jan         500         Nov         210         Oct           6         Feb         12         Nov         14         Nov           13         Nov         9         Feb           3         Jan         2         Jan         3         Sept           13         Feb         6         Mar         27         Jan	1994/95         1995/96         1996/97         199           2Counts         4Counts         6Counts         7Counts           Peak         Month         Peak         Month         Peak         Month         Peak           Month         Peak         Month         Peak         Month         Peak         Month         Peak           111         Jan         2         Nov         4         Jan         22           26         Jan         54         Dec         200         Jan         103           4         Jan         20         Jan         8         8           73         Feb         85         Nov         60         Feb         102           253         Jan         315         Dec         210         Dec         210           8         Feb         6         Mar         3         Oct         10           174         Jan         500         Nov         210         Oct         450           6         Feb         12         Nov         14         Nov         10           13         Nov         9         Feb         12           3         <	1994/95         1995/96         1996/97         1997/98           2Counts         4Counts         6Counts         7Counts           Peak         Month         Peak         Month         Peak         Month           Peak         Month         Peak         Month         Peak         Month           111         Jan         Jan         Jan         Jan           6         Jan         47         Nov         150         Jan         22         Mar           26         Jan         54         Dec         200         Jan         103         Jan           4         Jan         20         Jan         8         Sept           73         Feb         85         Nov         60         Feb         102         Jan           253         Jan         315         Dec         210         Dec         210         Dec           8         Feb         6         Mar         3         Oct         10         Mar           174         Jan         500         Nov         210         Oct         450         Oct           6         Feb         12         Nov         14	1994/95         1995/96         1996/97         1997/98         199           2Counts         4Counts         6Counts         7Counts         5Counts           Peak         Month         Be         Sept         4         Jan         56           20         Jan         3         Joet         Jan         8         Sept         4         Oct         320	1994/95         1995/96         1996/97         1997/98         1998/99           2Counts         4Counts         6Counts         7Counts         5Counts           Peak         Month         Ball         Jan         18         Jan         3         Jan         22         Mar         56         Oct         Peb         103         Jan         72         Feb         Peb         102         Jan <td< td=""><td>1994/95         1995/96         1996/97         1997/98         1998/99         1999/99           2Counts         4Counts         6Counts         7Counts         5Counts         6Counts           Peak         Month         Peak         Jan</td><td>1994/95         1995/96         1996/97         1997/98         1998/99         1999/2000           2Counts         4Counts         6Counts         7Counts         5Counts         6Counts           Peak         Month         Peak         Mort         Peak         Mar</td><td>1994/95         1995/96         1996/97         1997/98         1998/99         1999/2000         200           2Courits         4Courits         6Courits         7Courits         5Courits         6Courits         5Courits           Peak         Month         Jan         29         Oct         20         Dot         &lt;</td><td>  1994/95</td></td<>	1994/95         1995/96         1996/97         1997/98         1998/99         1999/99           2Counts         4Counts         6Counts         7Counts         5Counts         6Counts           Peak         Month         Peak         Jan	1994/95         1995/96         1996/97         1997/98         1998/99         1999/2000           2Counts         4Counts         6Counts         7Counts         5Counts         6Counts           Peak         Month         Peak         Mort         Peak         Mar	1994/95         1995/96         1996/97         1997/98         1998/99         1999/2000         200           2Courits         4Courits         6Courits         7Courits         5Courits         6Courits         5Courits           Peak         Month         Jan         29         Oct         20         Dot         <	1994/95

I-Webs: Irish Wetland Bird Survey data: Mean and Peak Monthly Counts 1994 – 2001

<sup>\*</sup>Species listed on Annex I of Birds Directive I

#### I-WeBS Site: Ballyness Bay (continued......)

Species Name		ason 4/95		son 5/96	Season 1996/97		Season 1997/98		Season 1998/99		Season 1999/2000		Season 2000/01		
	2 Counts		4C	ounts	6C	ounts	7 Counts		5Counts		6Counts		5 Counts		7 Seasons counted
	Peak	Month	Peak	Month	Peak	Month	Peak	Month	Peak	Month	Peak	Month	Peak	Month	Mean of Peak
Lapwing (Vanellus vanellus)	48	Feb	75	Nov	75	Feb	110	Dec	26	Oct	70	Jan	60	Feb	66
Light-bellied Brent Goose (Branta branta hrota)	64	Feb	74	Dec	220	Jan	126	Dec	125	Dec	130	Dec	220	Feb	137
Little Grebe (Tachybaptus ruficollis)							4	Dec					3	Feb	1
Mallard (Anas platyrhynchos)	18	Jan	19	Nov	56	Jan	79	Dec	112	Oct	39	Nov	65	Feb	55
Mute Swan (Cygnus olor)									6	Nov	8	Sept	6	Dec	3
Oystercatcher (Haematopus ostralegus)	95	Feb	145	Dec	160	Nov	110	Oct	132	Oct	147	Dec	102	Feb	127
Pintail (Anas acuta)					2										0
Red-breasted Merganser (Mergus serrator)	8	Jan	21	Nov	10	Feb	35	Nov	12	Oct	25	Oct	6	Nov	17
Redshank (Tringa totanus)			17	Nov	18	Feb	13	Feb	19	Nov	34	Nov	48	Nov	21
Ringed Plover (Charadrius hiaticula)	69	Jan	200	Nov	200	Jan	230	Dec	136	Nov	161	Dec	88	Oct	155
Sanderling (Calidris alba)	40	Jan	200	Nov	56	Nov	74	Dec	87	Nov	85	Dec	60	Dec	86
Shelduck (Tadorna tadorna)					8		6	Mar			5	Jan	23	Feb	6
Teal (Anas crecca)			2										40	Feb	6
Turnstone (Arenaria interpres)	7	Jan	6	Nov	18	Nov	7	Oct	37	Nov	8	Feb	20	Nov	15
Whooper Swan (Cygnus cygnus)*					11	Oct	7	Oct							3
Wigeon (Anas penelope)	32	Feb	44	Nov	74	Jan	128	Dec	84	Oct	174	Oct	136	Oct	96

I-Webs: Irish Wetland Bird Survey data: Mean and Peak Monthly Counts 1994 – 2001 \*Species listed on Annex I of Birds Directive I

# APPENDIX VII: NOTIFIABLE ACTIONS

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

- Notifiable Action 1.1 Open marine waters, inlets and bays, tidal rivers and estuarine channels
- Notifiable Action 1.2 Mud flats and sand flats, sandy coastal beaches, shingle beaches, boulder beaches, bedrock shores
- Notifiable Action 1.3 Saltmarshes
- Notifiable Action 1.4 Sand dunes or machair
- Notifiable Action 2.2 Dry lowland grasslands
- Notifiable Action 2.3 Wet lowland grasslands
- Notifiable Action 3.2 Heath
- Notifiable Action 5.1 Woodlands
- Notifiable Action 5.2 Scrub
- Notifiable Action 6.1 Rivers or streams
- Notifiable Action 6.3 Marshes and reedbed
- Notifiable Action 7.1 Ditches, hedges, cereals and intensive grasslands, walls, buildings, waste ground, bare soil, parkland grassland, bracken, caves, or quarries
- Notifiable Action 8.2 Grey seal, common seal, bottle-nosed dolphin, harbour porpoise
- Notifiable Action 8.3 River lamprey, sea lamprey, brook lamprey, salmon, twaite shad, whiteclawed crayfish, fresh water pearl mussel

#### **HABITAT TYPE 1.1**

## OPEN MARINE WATERS, INLETS AND BAYS, TIDAL RIVERS AND ESTUARINE CHANNELS, MARINE CAVES, REEFS, SUBMERGED SAND BANKS

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.

#### **HABITAT TYPE 1.1**

## OPEN MARINE WATERS, INLETS AND BAYS, TIDAL RIVERS AND ESTUARINE CHANNELS, MARINE CAVES, REEFS, SUBMERGED SAND BANKS

#### **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

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 1.2**

## MUD FLATS AND SAND FLATS, 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.

#### **HABITAT TYPE 1.2**

## MUD FLATS AND SAND FLATS, 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

fishing by any type of nets

dumping or disposal of wastes

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 <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 1.3**

#### **SALTMARSHES**

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.

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.

#### **HABITAT TYPE 1.3**

#### **SALTMARSHES**

#### **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

alteration of the banks, bed or flow of watercourses

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

cropping or removal of plants

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

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

digging or otherwise disturbing the substrate

harvesting shellfish by mechanical means

reclamation, infilling, ploughing or land drainage

reseeding, planting of trees or any other species, use of any pesticide or herbicide

application of fertiliser, lime or organic materials

dumping, burning or storing any materials

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

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)

removal of soil, mud, gravel, sand or minerals construction of fences, buildings, roads, embankments

dumping or disposal of wastes

operation or extension of aquaculture facilities 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 <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 1.4**

#### 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.

#### **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 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 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.

#### **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.

#### **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.

#### **HABITAT TYPE 3.2**

#### **HEATH (INCLUDING JUNIPER SCRUB)**

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.

#### **HABITAT TYPE 3.2**

#### **HEATH (INCLUDING JUNIPER SCRUB)**

#### **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 or type of stock (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, except as defined in REPS guidelines

introduction of stock to formerly unglazed areas adding lime/adding fertiliser of any sort

Creation of new tracks or paths

burning areas of vegetation over 5 ha, or burning any area more often than once every 15 years

reclamation, infilling, ploughing or land drainage

reseeding, planting of trees or any other species

rock removal/cutting turf except from existing banks; no cutting from intact (uncut) areas

commercial peat moss or turf extraction

use of any pesticide or herbicide, including sheep dip

dumping, burning or storing any materials

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)

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

erecting or operating a windfarm

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 5.1**

#### WOODLANDS

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 licence 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.

#### **HABITAT TYPE 5.1**

#### WOODLANDS

#### **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 by livestock

adding lime

adding fertiliser of any sort

reclamation, infilling, ploughing or land drainage

reseeding, planting of trees or any other species

felling of trees, removal of timber

removal of foliage, moss or other materials

killing ivy

use of any pesticide or herbicide

dumping, burning or storing any materials

alteration of the banks, bed or flow of watercourses

operation of commercial recreation facilities (e.g. bird watching tours)

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.

any activity which may cause pollution of the woodland

removal of soil, mud, gravel, sand or minerals

developing roads or car parks

felling trees or reafforestation

construction of fences, buildings or embankments

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 5.2**

#### **SCRUB**

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.

#### **HABITAT TYPE 5.2**

#### **SCRUB**

#### 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

supplementary feeding of stock (as defined in approved farm plans)

adding lime /adding fertiliser of any sort

reclaiming land covered by scrub; if scrub is cut it must be allowed to regrow

reclamation, infilling, ploughing or land drainage

reseeding, planting of trees or any other species felling of trees, removal of timber

removal of foliage, moss or other materials

killing ivy

use of any pesticide or herbicide /dumping, burning or storing any materials

alteration of the banks, bed or flow of watercourses

operation of commercial recreation facilities (e.g. walking tours)

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

any activity which may cause pollution of the site

removal of soil, mud, gravel, sand or minerals

developing roads or car parks

construction of fences, buildings or

embankments

felling trees or reafforestation

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 6.1**

#### RIVERS OR STREAMS

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.

#### **HABITAT TYPE 6.1**

#### RIVERS OR STREAMS

#### 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) within 30m of the river or stream/grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung within 30m of the river or stream

supplementary feeding of stock within 30m of the river or stream/adding lime within 30m of the river or stream/adding fertiliser of any sort within 30m of the river or stream

extracting water for irrigation or other purposes

operation of boat angling or shore angling business/restocking with fish

reclamation, infilling, ploughing or land drainage within 30m of the river or stream/ reseeding, planting of trees or any other species within 30m of the river or stream/ removal of trees or any aquatic vegetation within 30m of the river/stream/use of any pesticide or herbicide in the river or stream or within 30m of the river or stream

dumping rubbish or other materials or disposing of any chemicals or wastes in streams/rivers or into water-courses running into them

dumping, burning or storing any materials within 30m of the river/stream including the land spreading of used pesticides (e.g. sheep dip)./alteration of the banks, channel, bed or flow of the river or stream

harvesting or burning of reed or willow.

causing siltation/operation of commercial recreation facilities (e.g. bird watching tours)

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

any activity which might cause pollution of the river or stream

removal of soil, mud, gravel, sand or minerals

developing roads or car parks

construction of fences, buildings or embankments construction or operation of an aquaculture facility

fishing for eels or salmon

bank maintenance and grading creation of weirs and dams

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 6.3**

# MARSHES AND REEDBEDS

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 6.3**

## MARSHES AND REEDBEDS

### **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) within 50m of the marsh or reedbed

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

supplementary feeding of stock within 50m of the marsh or reedbed

adding lime within 50m of the marsh or reedbed

adding fertiliser of any sort within 50m of the marsh or reedbed

extracting water for irrigation or other purposes

operation of boat angling or shore angling Business restocking with fish.

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

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

removal of trees or any aquatic vegetation within 50m of the marsh or reedbed

use of any pesticide or herbicide in the marsh or reedbed or within 50m of the marsh or reedbed

dumping rubbish or other materials or disposing of any chemicals or wastes in marsh or reedbed or into water-courses Running into them.

dumping, burning or storing any materials within 50m of the marsh or reedbed including the land spreading of used pesticides (e.g. sheep dip).

alteration of the banks, channel, bed or flow of the marsh or reedbed or of watercourses running into or out of it

harvesting or burning of reed or willow

causing siltation

operation of commercial recreation facilities (e.g. bird watching tours)

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.

any activity which might cause pollution of the marsh or reedbed

removal of soil, mud, gravel, sand or minerals

developing roads or car parks

construction of fences, buildings or embankments

construction or operation of an aquaculture facility.

fishing for eels

bank maintenance and grading creation of weirs and dams

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 7.1**

DITCHES, HEDGES, CEREALS AND INTENSIVE GRASSLANDS, WALLS, BUILDINGS, WASTE GROUND, BARE SOIL, PARKLAND GRASSLAND, BRACKEN, CAVES, OR QUARRIES

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 licence 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 7.1**

DITCHES, HEDGES, CEREALS AND INTENSIVE GRASSLANDS, WALLS, BUILDINGS, WASTE GROUND, BARE SOIL, PARKLAND GRASSLAND, BRACKEN, CAVES, OR QUARRIES

## **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

disturbance of bats

operation of commercial recreation facilities (e.g. bird watching tours)

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 sports pitches, caravan or camping facilities

developing roads or car parks

construction of fences, buildings and 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 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 8.2**

# GREY SEAL, COMMON SEAL, BOTTLE-NOSED DOLPHIN, HARBOUR PORPOISE -

(It is an offence under Wildlife Act 1976 to kill, injure or disturb these species)

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 8.2**

# GREY SEAL, COMMON SEAL, BOTTLE-NOSED DOLPHIN, HARBOUR PORPOISE -

### 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 facilities (e.g. sailing schools, jet ski hire).

commercial dolphin or seal watching

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)

use of anti-fouling paints containing organic tin or pesticides or antibiotics.

operation or extension of aquaculture facilities.

dumping or disposal of wastes

fishing by tangle-nets

fishing by drift nets

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

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 8.3**

# RIVER LAMPREY, SEA LAMPREY, BROOK LAMPREY, SALMON, TWAITE SHAD, WHITE-CLAWED CRAYFISH, FRESH WATER PEARL MUSSEL

(It is an offence under Wildlife Act 1976 to kill, injure or disturb these species)

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 8.3**

# RIVER LAMPREY, SEA LAMPREY, BROOK LAMPREY, SALMON, TWAITE SHAD, WHITE-CLAWED CRAYFISH, FRESH WATER PEARL MUSSEL

## **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

fishing for fresh-water pearl mussels

grazing of livestock above a sustainable density (as defined in approved farm plans) within 30m of the river or stream

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

supplementary feeding of stock within 30m of the river or stream/adding lime within 30m of the river or stream adding fertiliser of any sort within 30m of the river or stream extracting water for irrigation or other purposes

operation of boat angling or shore angling business, restocking with fish

reclamation, infilling, ploughing or land drainage within 30m of the river or stream

reseeding, planting of trees or any other species within 30m of the river or stream

removal of trees or any aquatic vegetation within 30m of the river/stream

use of any pesticide or herbicide in the river or stream or within 30m of the river or stream

dumping rubbish or other materials or disposing of any chemicals or wastes in streams/rivers or into watercourses running into them

dumping, burning or storing any materials within 30m of the river/stream including the land spreading of used pesticides (e.g. sheep dip)

alteration of the banks, channel, bed or flow of the river or stream/harvesting or burning of reed or willow./causing siltation

operation of commercial recreation facilities (e.g. bird watching tours)

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)

culture of crayfish

construction or operation of an aquaculture facility

Fishing for eels or salmon

bank maintenance and grading

creation of weirs and dams

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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