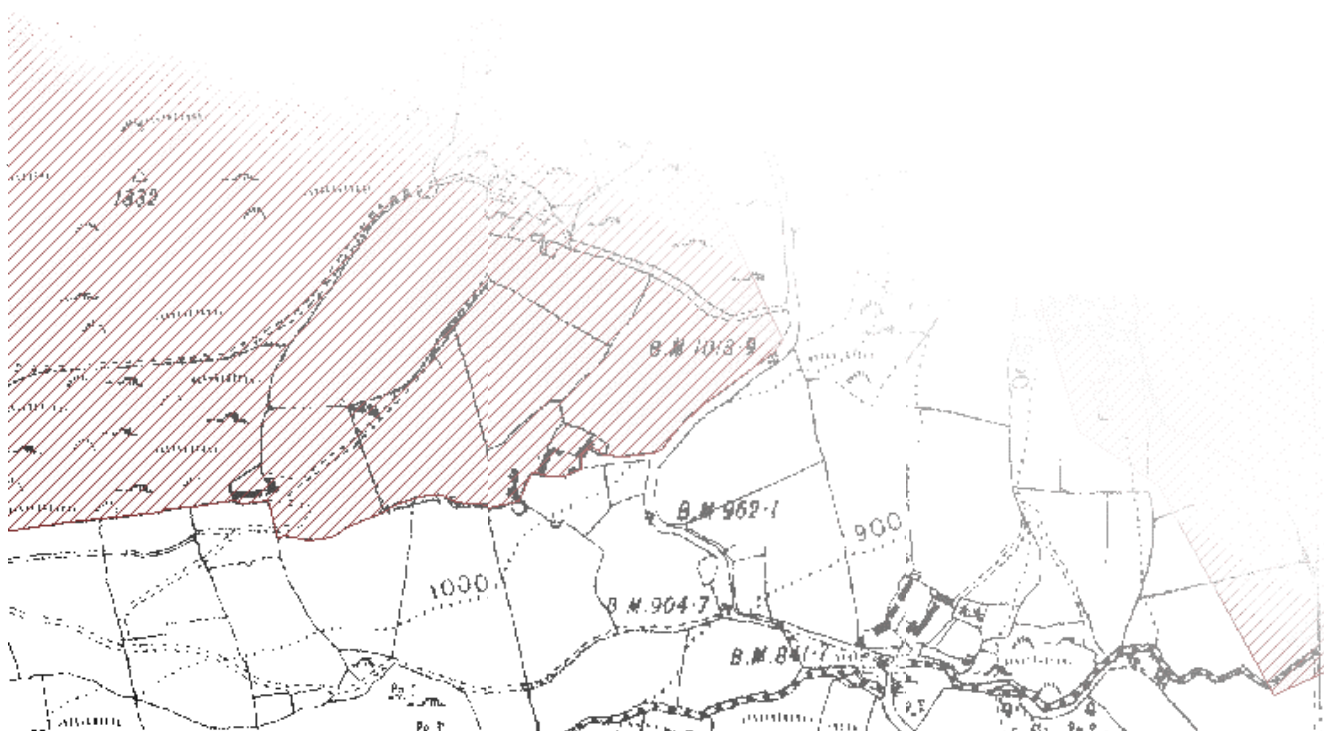




# National Parks and Wildlife Conservation Plan for 2005-2010

## Lough Coy cSAC

Site Code 2117  
Co. Galway





# SUMMARY

## Site Description

Lough Coy Turlough is situated about 1km due west of the village of Peterswell in Co. Galway. The site comprises an oval shaped depression containing a permanent lake with sloping grassy edges and areas of scrub on the rim.

This site has been designated as a cSAC because of the presence of the Turlough which is listed as a Priority Habitat under the E.U. Habitats Directive. Whooper Swans which are listed as Annex I species under the E.U. Birds Directive, roost and feed at this Turlough also.

The underlying bedrock is Carboniferous limestone. This is overlain with a mixture of gleys and alluvial gleys with drift deposits of sand and gravel on top. The turlough is essentially the floodplain for an under ground river. The water enters and leaves the site through a swallow hole to the west of the lake and the waters are nutrient rich in nature which makes this an ideal feeding site for winter wildfowl. During times of high rainfall, the level of the permanent lake rises and floods part of the surrounding grassland and scrub.

The lake makes up the largest area of the priority habitat and when flood waters recede an area of flat mud is exposed that supports several specialist plants such as Mudwort, which is the most dominant along with other species such as Needle spike-rush, Northern yellow-cress and the liverwort *Riccia cavernosa*. Mudwort is a protected species, listed in the Flora (Protection) Order, 1999.

Above the mud is an area of turlough grassland that contains species such as Knotgrass, Redshank and Common Sedge. Above the lake shoreline species found include Hairy Sedge, Creeping Cinquefoil, Reed Canary-grass, Cornmint, and Creeping Buttercup.

Among the boulders especially to the east and south of the lake, is a community supporting species such as Meadowsweet, Common Birds-foot Trefoil, Adder's Tongue and Curled Dock, with both Dog Violet and Fen Violet also occurring.

Small patches of scrub, with Buckthorn present, are found along the outermost areas subject to periodical flooding. Areas of scrub and woodland occur above the flood line. Species found here include Ash, Hazel, Elder, Crab Apple, Blackthorn, and Hawthorn.

Above the level of the floodwaters are areas of unimproved grassland with grasses such as Timothy and Meadow Fescue, with herbs including Creeping Thistle and Autumn Hawks-bit.

## Land Use

The main activity carried out within the site is the grazing of cattle.

Some areas of improved and re-seeded grassland occur.

There are several small gravel pits within the site.

Shooting occurs around the lake shore.

## Main conservation issues

- Flood Relief schemes within the turlough catchment.
- Water Quality.
- Grazing
- Gravel and Sand extraction
- Bird Numbers

## Main management objectives

- To maintain and where possible, enhance the ecological value of the priority habitat, Turlough (78% of the site)
- To maintain and, where possible, increase the population of Annex I bird species; Whooper Swans and other notable bird species using the site.
- To maintain and where possible enhance the ecological value of all other habitats, Lowland dry grassland (8%), Scrub and woodland (9%), Improved grassland (4%), Hedges and stone walls (not mapped).
- To initiate and maintain effective liaison between Dúchas, relevant authorities, landowners, ferry operators and any other interested parties regarding conservation of the site.

## Main strategies to achieve objectives

- To prevent any drainage of the turlough basin.
- To monitor the spreading of fertilisers on the turlough and within 50m of the high flood mark.
- To investigate and establish a suitable grazing regime within the site.
- To control damaging activities.
- To monitor both the habitats and the bird populations within the site.

# ACKNOWLEDGEMENTS

The original draft plan for this site was prepared by Sarah Carroll. Thanks are due to the regional and other NPW staff who contributed to the contents of the plan and to all who participated in public consultation.

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# READER'S GUIDE

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

The **Site description** contains **general information** on the site's boundaries, ownership and organisations involved. It also contains sections on the **physical aspects** of the site such as 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 **Ecological Assessment** assesses the main ecological attributes of the site.

The **Objectives, Strategies and Zoning 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 will be used to achieve the objectives as outlined. In cases where more information is required, general strategies are usually applied. Where sufficient data and knowledge is available, specific management prescriptions are outlined for the timescale of the plan. 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, a list of **notifiable actions** relevant to each habitat within the site, and additional information on the 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 semi-natural 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 Site Designation

The reason for the proposal to designate this site as an SAC is the presence of:

HABITATS LISTED IN ANNEX I OF THE E.U. HABITATS DIRECTIVE	
<ul style="list-style-type: none"> <li>• <b>*Turlough</b> (Habitat Code: 3180)</li> </ul>	<p>This riverine turlough is in excellent ecological condition both from a structural and functional viewpoint.</p> <p>The extreme water fluctuations allow a good zonation of vegetation to develop and provides many niches for specialist plants, particularly at the lower levels. A number of plant species are rare, for example, Mudwort and Fen Violet.</p>

\* indicates priority habitat in Annex I of the Habitats Directive

As part of his responsibility in relation to biodiversity and wildlife under the Wildlife Acts, the Minister's objective is to protect important habitats and species even though they may not appear in the Annexes of the Habitats Directive. This may mean that they are included in SAC conservation plans.

## General Conservation Objectives

Under Article 6 of the EU Habitats Directive, Member States are required to ensure the favourable conservation status of all Annex I habitats and Annex II species within cSACs. By preparing, implementing and reviewing this plan on a five year basis, DEHLG aims to achieve the objectives of the Habitats Directive in relation to this site. The general objectives DEHLG will apply to achieve this are:

- to maintain the Annex I habitat(s) for which the cSAC is selected
- to liaise with the landowners, relevant authorities and interested parties
- to increase the scientific knowledge of the site through further scientific research and development of monitoring programmes

Specific conservation objectives and strategies are outlined in the section, **Objectives, Strategies and Zoning**.

## Implications for landowners and other site users

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

In cases where users 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 an owner, occupier or user of a site wishes to carry out certain activities within the designated area (that are not covered by licence or consent from another statutory body), 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 IV). Local Authorities are obliged to ensure appropriate assessment of the implications of any development permission sought that may have an impact on a designated area.

The designation of the site or any conservation actions can be appealed by landowners or right-owners on a scientific basis. Details of the appeals procedure are also given in Appendix V.

# SITE DESCRIPTION

## Location including site boundaries

**Grid Ref.:** M 490 074  
**Latitude:** W 08 45 30  
**Longitude:** N 53 07 00  
**Area:** 78 ha  
**Altitude Range:** 18 m to 24 m  
**Townlands:** Dromorehill, Loughaunawadda,  
Shanvally Skehanagh

*(Map references are provided in Appendix II).*

### Site Boundaries

This site is situated approximately 1km due west of the village of Peterswell in Co. Galway (see Map No. 1: Location and Boundaries).

### Site Infrastructure

There are two roads that run through the site.

## Legal Status

### Ownership

All land within the site is held in multiple private ownership.

### Designations of the Site

<b>candidate Special Area of Conservation</b>	Site Code IE0002172
<b>Special Protection Area</b>	Site Code 2117

# Management Infrastructure

## Individuals and Organisations Involved

<b>Landowners</b>	Landowners manage the site, mainly by grazing livestock
<b>National Parks &amp; Wildlife (NPW) of the Department of Environment, Heritage and Local Government (DEHLG)</b>	NPW is responsible for maintaining the nature conservation value of the site. The site is patrolled by local Conservation Rangers, with input from other staff as necessary (see Appendix IX for further details of NPW regional staff).
<b>Planning Authority</b>	Galway County Council is responsible for infrastructural planning and development.

## Local Authority Policy in relation to the Site

In the draft Development Plan for the county (Galway County Council 1996) the site is classed as being in a zone of high vulnerability for major aquifers but the County Council has placed no designations or planning restrictions on the site.

# Physical Features

## Climate

30 year mean data for the period 1961-1990 recorded at Shannon Airport Meteorological Station (Grid reference: R379603; Altitude: 6 m), which is situated approximately 30 miles south west of the site is given in Appendix III. The mean daily temperature for this period was 13.5 degrees Celsius and the mean annual rainfall was 926.8 mm, with an annual average of 160 days with 1mm more of rain recorded. The prevailing wind is westerly.

## Geology & Geomorphology

Lough Coy is a small permanent lake that occupies an oval shaped depression with regular sloping sides. It is situated in a low-lying plain bounded by the Burren Plateau in the west and the Slieve Aughty Mountains to the east.

The underlying bedrock consists of Visean Carboniferous limestone that is visible as outcrops along the northern boundary and also as scattered boulders on the eastern shore of the lake.

The site contains considerable depths of drift deposits of sand and gravel, especially in the north and these are overlain by a gleyed redzina-like soil and alluvial gleys. The alluvial gleys are overlain by mud on the lakeshore.

## Hydrology & Water Quality

The lake is a permanent waterbody, but in a dry summer it can shrink to half its normal area and to a depth of only 60 cm. The topographical catchment area of the turlough is very small and is believed to be the overflow of nearby Blackrock (Peterswell) turlough and the underground river, possibly the Owenshree, which feeds it.

The water enters and leaves the lake via a large swallow hole in the north west, located just above the permanent water level. An artificial channel appears to have been dug here connecting the

swallow hole to the lake. The fluctuation in water levels is extreme in the winter months but even in a wet summer the water level may rise rapidly overnight after heavy rain, and subside again just as quickly. Winter levels generally persist from October to the end of February depending on rainfall in that season.

At times of very high water levels some water overflows southwards through a rough channel, to join with a small permanent flow outside the site.

See the Gort flooding study for further information on the hydrology, geology and geomorphology of the site (Jennings, O Donovan and Partners, Southern Water McDowells Ltd (1997).

## 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, while all other habitats are as listed according to the NPW NHA classification system.

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

#### Habitats Found within Lough Coy cSAC

ANNEX I HABITAT TYPE	CORRESPONDING HABITAT CATEGORY	% AREA
Turloughs*	Turlough (mapped as permanent water, flat mud, turlough grassland, streams/ditches & flooded scrub)	42%
	Lowland dry grassland	2%
	Improved grassland	45%
	Scrub/Woodland	10%
	Hedge (not mapped)	-
	Old walls(not mapped)	-

## Annex I Habitat:

### **Turlough (42% of total site area)**

Lough Coy is a turlough with a large throughput of water. It is basically the flood plain of an underground river and is eutrophic in nature. The Lough Coy basin consists of an oval shaped depression, the sides of which are sloped at about 4-8 degrees except at the northern end where a small inland cliff forms the boundary of the site. Lough Coy floods and empties through a swallow hole in the west slope of the basin which is situated above the site floor and therefore slightly beyond summer maximum water levels. The swallow hole to the south of the site has been excavated, and there is a linear wetland drainage channel draining to the south. There are two separate areas of turlough within the Lough Coy cSAC. One is Lough Coy itself, and the small section of turlough draining into Lough Coy. The other is the Ballylee section which drains into a swallow hole at the very south of the site. In high winter flood, the two sections become one water body.

The following sub-habitats are all found within the turlough area and can be considered part of the priority habitat. The vegetation communities within the turlough have been mapped out by Goodwillie: see Map No. 4 Vegetation communities.

### **\*Permanent Water (9%)**

A permanent lake, Lough Coy, is present in the northern part of the site. Although this may shrink to half its area and only 60 cm deep in a dry summer, it never completely dries out. There does not appear to be any submerged or emergent aquatic plants present in the lake, which is probably due to the high fluctuation in water levels, especially in the winter months.

### **\*Flat mud (8%)**

In the summer months when water levels drop, an extensive area of flat mud is exposed around the shoreline of the lake. The mud cracks into polygonal shapes and this provides a habitat for a variety of specialised plants such as Mudwort (*Limosella aquatica*), which is the dominant species, along with other species such as Needle Spike-rush (*Eleocharis acicularis*), Northern yellow-cress (*Rorippa islandica*) and the liverwort *Riccia cavernosa*.

### **\*Turlough Grassland (24%)**

At the shoreline of the lake itself and in some other areas which flood, some of the above-mentioned species are found along with Knotgrass (*Polygonum aviculare*) with some Redshank (*Polygonum persicaria*) and Common Sedge (*Carex nigra*) depending on the level of trampling that the vegetation is subject to from livestock. Above the lake shoreline species found include Common Sedge, Hairy Sedge (*Carex hirta*), Creeping Cinquefoil (*Potentilla reptans*), Reed Canary-grass, (*Phalaris arundinacea*), Corn Mint (*Mentha arvensis*), and Creeping Buttercup (*Ranunculus repens*), with a little Annual Meadow-grass (*Poa annua*).

Among the rocky boulders especially to the east and south of the lake is a community with species such as Meadowsweet (*Filipendula ulmaria*), Common Birds-foot Trefoil (*Lotus corniculatus*), Adder's Tongue (*Ophioglossum vulgatum*) and Curled Dock (*Rumex crispus*), with both Dog Violet (*Viola canina*) and Fen Violet (*Viola persicifolia*) also found here. Many of the limestone boulders on the upper slopes are covered with the moss (*Cinclidotus fontinaloides*).



**\*Scrub (flooded)  
(<1%)**

Towards the outer edges of the flood area in some places are small patches of scrub that are periodically flooded. Species found here include Buckthorn (*Rhamnus carthartica*) and Blackthorn (*Prunus spinosa*) with a little Hawthorn (*Crataegus monogyna*).

**\*Streams/ditches  
(<1%)**

On the western shore of the lake is a swallowhole with species such as Water pepper (*Polygonum hydropiper*), while the channel leading to the lake and the springs on the eastern shore contain Fool's watercress (*Apium nodiflorum*).

## Other Habitats

**Lowland dry  
grassland (2%)**

Above the level of the floodwaters are areas of dry grassland with grasses such as Timothy (*Phleum pratense*), Meadow Fescue (*Festuca pratense*) and Tall Fescue (*Festuca arundinacea*) and herbs such as Meadow Buttercup (*Ranunculus acris*), Creeping Thistle (*Cirsium arvense*) and Autumn Hawks-bit (*Leontodon autumnalis*).

**Improved/Semi-  
improved grassland  
(45%)**

Much of the area above the turlough basin is grassland that has been fertilised and in parts reseeded. The most common species here is Perennial Rye-grass (*Lolium perenne*) with White Clover (*Trifolium repens*) and Daisy (*Bellis perennis*).

**Scrub and  
Woodland (10%)**

Along the northern boundary of the site in the cliff and rocky area, above the swallow hole and along other margins of the site, particularly at the southern end, are areas of scrub and woodland. Species present include Hawthorn and Blackthorn with occasional Crab Apple (*Malus sylvestris*), Elder (*Sambucus nigra*), Hazel (*Corylus avellana*) and Ash (*Fraxinus excelsior*) also occurring. There is also some Dog Rose (*Rosa canina*) and Sweet-briar (*Rosa rubiginosa*) in the northern area. The ground flora is absent in most areas of the scrub due to grazing by cattle but some Ground Ivy (*Glechoma hederacea*) and Cleavers (*Galium aparine*) are present in patches. In the south east of the site the scrub is encroaching on the grassland and there is a lot of Bramble (*Rubus fruticosus* agg.) present.

**Hedges/Walls (not  
mapped)**

Many of the hedges within the site contain old stone walls as well. The main hedge species are Hawthorn and Blackthorn. The stone walls in the flooded areas support moss species.

## Notable Flora:

There are three plant species listed as Rare in the Red Data Book recorded at this site, as follows:

- Mudwort- Found in small pools or wet mud at lake margins. Very localised, and found only in the western half of the country. This species is protected under the Flora (Protection) Order, 1999.
- Fen violet- Occurs locally on grassland subject to flooding in the west of the country.
- Northern Yellowcress- Associated with mainly with turloughs, scattered sites from east Mayo to Kilkenny.

## Fauna:

### Invertebrates

The following invertebrate species have been found in the Lough Coy cSAC, and were chosen (O'Connor (2001) and Good (1997)) as indicators of the high conservation value of this turlough.

Species	Number recorded
Carabidae	
Blethsia multipunctata	4
Pelophila borealis	3
Bembidion doris	1
Staphylinidae	
Atheta basicornis	1
Calodera nigrita	14
Oxypoda lentula	1
Philonthus furcifer	11
Sepedophilus pedicularius	3
Stenus carbnarius	6
Carpelimus subtilicornis	4

### Birds

Lough Coy is surveyed regularly by both Birdwatch Ireland (BWI) volunteers and the local Conservation Ranger, as part of the Irish Wetland Bird Survey (IWeBS) every winter. It is one of the sub-sites in the 'Lough Coy-Blackrock-Bullaunagh-Ballylee' complex. The local Conservation Ranger carries out regular counts and has figures starting from the winter of 2000/2001.

Lough Coy is especially important within this as it contains a safe roosting area in the form of permanent water all year round. Lough Coy provides a feeding and roosting site for regionally important numbers (up to 72 have been recorded) of Whooper Swan, a species listed in Annex I of the Birds Directive, as well a number of other species.

The following table shows the mean and peak for counts carried out during the winters of 1995/96, 1996/97 and 1997/98.

Species		Mean	Peak
Whooper Swan	<i>Cygnus cygnus</i>	6	72
Mute Swan	<i>Cygnus olor</i>	0	6
Little Grebe	<i>Tachybaptus ruficollis</i>	0	2
Great-crested Grebe	<i>Podiceps cristatus</i>	0	2
Red-breasted Merganser	<i>Mergus serrator</i>	0	1
Mallard	<i>Anas platyrhynchos</i>	15	132
Pochard	<i>Aythya ferina</i>	12	45
Wigeon	<i>Anas penelope</i>	109	285
Teal	<i>Anas crecca</i>	39	283
Tufted Duck	<i>Aythya fuligula</i>	15	93
Shelduck	<i>Tadorna tadorna</i>	0	2
Curlew	<i>Numenius phaeopus</i>	24	112
Dunlin	<i>Caladris alpina</i>	10	120
Lapwing	<i>Vanellus vanellus</i>	58	300
Redshank	<i>Tringa totanus</i>	0	3
Black-headed Gull	<i>Larus ridibundus</i>	2	16

## Mammals

Badger (*Meles meles*), a species listed in the Irish Red Data Book as Internationally Important, use the site as foraging grounds. Fox (*Vulpes vulpes*) also hunt in the site.

# Cultural Features

## Land use and impacts on the site

### Grazing

The main agricultural use on the site is the grazing of cattle and some horses. There is no information available on the stocking rates on the turlough. In many areas the stock have access to grazing here from fields adjoining the site as no fences or field boundaries separate the turlough from surrounding fields. The turlough wetlands to the south are grazed only in drier years.

### Re-seeding/ Fertilisation

Some of the grassland areas above the flood level of the turlough are fertilised, and in some cases, reseeded has also taken place. These fields are used to make silage.

### Boundary Removal

Many of the field boundaries marked on the map have been removed or modified, especially some of the site boundary walls.

### Sand/Gravel extraction

There are three small gravel pits within the site, one in the west just above the area of the swallow hole and one in the north. Two of these flood when water levels rise in the winter. Consent has been given for the extraction of gravel in the pit above the turlough.

### Shooting

The presence of shotgun cartridges along the lakeshore indicate that there is a certain level of shooting on the site.

**Infrastructure** Pipes for the Peterswell Group Water Scheme have been laid along the road at the southern boundary of the site.

## Land use adjacent to the site

**Agriculture** Agriculture adjacent to the site is very similar to that happening within the site. Most of the surrounding land is receiving both organic and inorganic fertilisers and many fields have been re-seeded also.

**Boundary removal** Many of the adjacent fields have been enlarged by removing field boundaries.

**Flood Relief Measures** Six flood relief measures are currently being considered by a steering committee appointed by the Office of Public Works (OPW), including representatives from Dúchas, OPW, Galway CO. Council, Irish Farmers Association (IFA) and local groups. One, the Kilchreest area flood relief measure, could have an impact on the site.

## Past human use

There are no archaeological sites listed in the Monuments Record for this site.

There is no information available on past stocking rates or grazing regimes for the turlough, but it can be assumed that the area was extensively grazed by livestock.

There is a drainage feature present in the southern block of the turlough which is present on the 6 inch map which indicates that agriculture has been intensive in this area for over 100 years.

## Other Features

Although the site does not have any landscape designations in the County Development Plan, it is an area of natural beauty enhanced in winter with the extended area of lake and presence of wintering wildfowl.

# ECOLOGICAL ASSESSMENT

**Note:** The following is an assessment of the ecological features of the site. It is largely based on information given in the explanatory notes which accompany the Natura 2000 form (compiled in 1996). Additional information, obtained since these notes were written may also have been used to make the assessment.

## **Turlough**

This 'riverine' turlough is in excellent ecological condition both from a structural and functional viewpoint. Water movements, which depend on the flows in the tributaries of the 'Coole' River, are entirely natural and though there is an old channel from the floor of the lake to the swallow hole it has no real affect.

The extreme water fluctuations allow a good zonation of vegetation to develop and provides many niches for specialists plants, particularly at the lower levels. A number of plant species are rare, for example, Mudwort and Fen Violet.

## **Whooper Swan**

The maximum count for this species is 78, although larger numbers are probably sometimes present, making it a regionally important site. The wet grassy areas that remain un-flooded or are covered by shallow water are used on occasions by feeding Swans. The open water provides a safe roosting site. It is one of a number of sites in the area (known collectively as the Lough Coy-Blackrock-Bullaunagh-Ballylee complex) that is used by a nationally important population of Swans.

# OBJECTIVES, STRATEGIES AND ZONING

## Conservation Objectives

The nature conservation objectives for this site are:

- |                     |   |
|---------------------|---|
| <b>Objective 1:</b> | To maintain and where possible, enhance the ecological value of the priority habitat , Turlough (42% of the site)   |
| <b>Objective 2:</b> | To maintain and where possible enhance the ecological value of all other habitats, Lowland dry grassland (2%), Scrub and woodland (10%), Improved/semi-improved grassland (45%), Hedges and stonewalls (<1%). |
| <b>Objective 3:</b> | To maintain, and where possible, increase the population of Annexed bird species Whooper Swan and other notable bird species using the site.  |
| <b>Objective 4:</b> | To initiate and maintain effective liaison with landowners, Local Authority and other interested parties.   |

## Management Issues

**Note:** The main issues that may impact on the conservation of the site are outlined below. The constraints that these may pose and the management potential for the site are discussed.

- **Grazing pressure**
- **Nutrient enrichment**
- **Gravel and sand extraction**
- **South Galway Flood relief scheme**

### Grazing

Cattle gain access to the site from fields outside the site through areas of the scrub and this has encouraged browsing of the scrub and poaching of the ground underneath resulting in a lack of ground flora. Cattle grazing the lakeshore can cause poaching and in mid-summer, when water levels are low they poach trails across the mud to drink at the waters edge. This is generally not a problem and is not known to have occurred at this site.

A full assessment of the grazing regimes within the turlough basin is required in order to ascertain optimum levels of grazing for the site. Farming, in particular grazing practices, is essential in maintaining the conservation value of this habitat type.

## **Nutrient enrichment**

Some of the edges of the site and most of the land within 50m of the high water mark are receiving fertilisers that could lead to nutrient enrichment of the turlough. Many of the former boundaries between the site and surrounding fields have been removed. This makes it difficult to control the amount of stock that might be grazing the site at any one time and increases the risk of overgrazing, especially in warm weather, as stock will tend to linger in the vicinity of the water.

The catchment area of the turlough includes improved and intensively farmed land and run-off and pollution may also occur through the flow of water into the turlough from the swallow hole.

## **Gravel and sand extraction**

Gravel and sand has been extracted from areas that are within the flood zone of the turlough and this activity will cause localised damage to vegetation. However, no gravel extraction appears to have taken place within the turlough recently, as the areas of the pits are grassed over for the most part, with the exception of the pit at the north above the turlough, for which permission has been given.

## **South Galway Flood relief scheme**

Works that may be carried out as part of the South Galway Flood Relief Scheme, particularly the Kilchreest Area Flood Relief Measure, may alter the flow of ground water in the catchment area and therefore affect the hydrology of the turlough itself.

Any flood relief measures which may be carried out in the turlough's catchment area will be subject to an Environmental Impact Assessment, including a full assessment of the impact on the flora and fauna of Lough Coy.

# **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
- enforcement of Regulations under the Habitats/Birds Directives and the Wildlife Act.
- enforcement of other relevant legislation such as the Water Framework Directive

## Establish a monitoring regime

The monitoring regime for the site will comprise:

### Water quality monitoring

Water quality is monitored at regular intervals by Galway Co. Council. NPW staff liaise with the Council, and will collate and review this information on a regular basis. NPW will also liaise with relevant bodies (n.b. the EPA and local authority) in relation to compliance with the EU Water Framework. In particular:

- To establish reference conditions necessary for monitoring the status of the qualifying habitat.
- To ensure that the sampling regime is adequate to detect changes in the conservation status of the designated area.

NPW will liaise with the local authority and other relevant agencies in ensuring that the full ecological importance and sensitivity of the site is taken into account during the production of the River Basin District Management plan. In addition, NPW will liaise with the Local Authorities in ensuring that sewerage disposal systems for all new (and existing) dwellings within the catchment area are of appropriate standards.

### Scientific monitoring

Monitoring of the favourable conservation status of the turlough will be done by, or on behalf of, the staff of the Monitoring Section of the NPW or staff working to NPW in accordance with the procedures laid down by that section. The work, if any, to be done on this site in that respect will be prescribed by that section.

### Site surveillance

Patrolling of the site by the Conservation Ranger, with special attention to the turlough 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 are listed in Appendix IV of this plan. Permission from the Minister is required before these actions may be carried out within the designated area. For example drainage and scrub removal are notifiable actions for turloughs



## Specific Strategies

### Objective 1.

To maintain and where possible, enhance the ecological value of the priority habitat , Turlough (42% of the site)

#### Strategies:

- |  |  |
|--|--|
| <b>1.1. Maintain suitable grazing regimes</b>      | The current grazing regime will be assessed (stocking levels, and species/breeds used, period of grazing etc.) and the traditional grazing practices investigated, as the latter should be practiced in the long run. The grazing period is naturally regulated by the flooding regime, and the current grazing practices are not thought to be problematic.   |
| <b>1.2 Prevent potentially damaging activities</b> | As already outlined under general strategies, potentially damaging activities such as drainage, fertilisation or re-seeding, the removal of sand and gravel, and the control of scrub, are notifiable actions under the SAC regulations. In addition, no drainage works should be carried out and the existing springs and channel should not be modified or interfered with, without prior consultation with NPW. NPW will continue to sit on the steering committee for Flood Relief in the area to ensure any measures are fully assessed for impact on the turlough. |
| <b>1.3 Monitor nutrient levels</b>                 | NPW will carry out soil sampling using standard Teagasc protocol to determine nutrient levels within the site. This will be accompanied by standard vegetation surveys. Liaison with landowners will occur beforehand.   |

### Objective 2.

To maintain and where possible enhance the ecological value of all other habitats, Lowland dry grassland (2%), Scrub and woodland (10%), Improved/semi-improved grassland (45%), Hedges and stone walls (<1%).

#### Strategies:

- |   |  |
|---|--|
| <b>2.1. Maintain suitable grazing /mowing regimes</b> | As with the turlough, grazing regimes in areas outside the turlough basin will also be investigated (see strategy 1.1). Mowing may also occur.<br><br>Browsing of scrub by stock may continue and should be encouraged in the areas in the southeast of the site where it is encroaching onto grassland. However, the woodland areas within the site should be monitored and, if possible some areas should be fenced off from stock to encourage the growth of ground flora. NPW will encourage appropriate fencing of woodland/scrub through the REPS or DEHLG farm plans. |
| <b>2.2. Control fertilisation/ re-seeding</b>         | Fertilisation within 50m of the normal flood level of the turlough and above may continue at current levels. NPW will only intervene if such applications are increased and cause significant damage. No grassland should be re-seeded within this area.   |
| <b>2.3. Prevent woodland clearance</b>                | Fertilisation within 50m of the normal flood level of the turlough may continue at current levels. NPW will only intervene if such applications are increased and cause significant damage. No grassland should be seeded within this area.  |

### Objective 3.

To maintain, and where possible, increase the population of Annexed bird species Whooper Swan and other notable bird species using the site

#### Strategies:

- 3.1. Maintain habitat** The strategies listed above that are designed to protect the habitats within the site will also safeguard the feeding and roosting grounds of Whooper Swan and other over-wintering species. Regular winter counts will be undertaken by the local Conservation Ranger (see general strategies). The primary objective is to improve water quality but birds feeding on site may decrease on site as a result. NPW will take steps to ensure that other factors within their control do not negatively impact on the birds using this site.

### Objective 4.

To initiate and maintain effective liaison with landowners, Local Authority and other interested parties.

#### Strategies:

- 4.1. Liaise with interested parties** NPW will strive to initiate and maintain effective liaison with landowners (particularly through the Liaison Committee), relevant authorities and interested parties on achieving the objectives for conservation of the site.
- 4.2. Monitor development applications** NPW will continue to monitor applications, including current applications, for planning permission and licenses for lands within and adjacent to the site. Appropriate bodies will be notified if developments are thought to conflict with conservation objectives.
- 4.3. Liaise with REPS planners** REPS planners are required to consult with NPW staff when they are developing plans for land within the site.
- 4.4. Liaise with OPW** NPW will maintain liaison with the Office of Public Works and the South Galway Flood Alleviation Steering Committee in relation to matters arising from the South Galway Flood Study.

# Zoning

**Note:** Zoning is the division of a nature conservation site and neighbouring lands into a number of sub-units. There are four types of zones identified (not necessarily all occurring within a site): A, B and C within the site and D outside the site but impacting on it. The relevant strategies are listed for each site.

## Zone A: A Natural Zone

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

### **1A: NON-INTERVENTION AREAS**

#### **1A1: Permanent water, ditches & streams**

These aquatic habitats and the bird populations using them will be monitored (as per general strategies) and potentially damaging activities will be controlled through notifiable actions (strategy 1.2).

### **2A: MAINTENANCE AREAS WITH LIMITED INTERVENTION**

#### **2A1: Flat mud, turlough grassland, flooded scrub, scrub and woodland.**

Most of the above habitats will be managed by grazing at an appropriate level (1.1, 2.1) and by controlling fertilisation and other potentially damaging activities (1.2). No woodland areas should be cleared (2.3).

#### **2A2: Grassland outside the turlough basin**

Current levels of fertilisation can continue (2.2), subject to results of soil sampling (1.4). Appropriate levels of grazing also apply (2.1)

## Zone C: Intensive use Zone

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

### **C1: Road**

Alterations to the roads running through the site should not be undertaken without prior consultation with NPW

### **C2: Sand pit**

The sand pit is currently unused at present, though consent is outstanding for sand and gravel removal. It should not be re-opened without prior consultation with NPW.

# APPENDIX I: GLOSSARY

**ACIDIC** - When applied to soils, refers to soils which are of a low pH i.e. below 7. The term is often used in relation to the plant communities that an acid soil may support e.g. acidic grassland.

**ALGAE** - Simple plants that are not differentiated into roots, stems and leaves and have no true vascular system. They can be microscopic, or very large and are capable of photosynthesis. They can be found in most habitats but the majority occurs in freshwater or marine environments.

**ALKALINE** - When applied to soils it refers to soils of a calcareous nature and of a high pH, i.e. above 7. The term is often used to describe plant communities associated with such soils e.g. Alkaline Fens.

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

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

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

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

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

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

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

**ANNUALS** - Plants which complete their lifecycle in one year, germinating in Autumn or spring, flowering fruiting and dying by the following Autumn.

**AQUIFER** –A body of permeable rock that is capable of storing significant volumes of water, that is underlain by impermeable material and through which groundwater moves.

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

**BASEFLOW** – The flow of water in a river or stream derived from groundwater or through-flow into the surface watercourse.

**BASIN** - A depressed area of the Earth's surface, in which sediments accumulate.

**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.

**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.

**BRYOPHYTES** - A group of simple non-vascular spore-bearing green plants comprising the mosses, liverworts and hornworts.

**CALCAREOUS** - Made of or containing calcium carbonate (CaCO<sub>3</sub>) and therefore alkaline. limestone for example

**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.

**CENSUS** - An official periodic count of a population.

**CLINTS** - Regular blocks of limestone pavement with loose flags separated by a network of vertical fissures known as grykes.

**COLEOPTERA** - Beetles.

**CORINE** - An information and mapping system, developed within the context of the Commission of the European Communities biotope project, which is used as a tool for the description of sites of importance for nature conservation in Europe. It catalogues recognisable communities of flora and fauna. The primary objective of this catalogue is to identify all major communities whose presence contributes to the conservation significance of a site. Included in this list of communities are interesting but rare natural or near-natural communities as well as the more widespread semi-natural ones.

**DEHLG** - Department of Environment, Heritage and Local Government

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

**DIVERSITY** - see biodiversity.

**DRAINAGE DITCHES** - An NPW habitat classification which refers to water channel systems with moving or stagnant water bodies, artificial in origin. Most ditches are cleared cyclically, although this category also includes ditches that are overgrown with wetland plants.

**DRY, BROAD-LEAVED SEMI-NATURAL WOODLAND** – An NPW habitat classification which refers to woodland which reaches a height more than 5 m in most places. If the cover of exotic trees within a block is more than 10%, the woodland should be classified as mixed woodland. Also see wet broad-leaved semi-natural woodland.

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

**ENCROACHMENT** - The invasion of a species (usually plants) into areas previously uncolonised. This term is often used when an undesirable species advances at the expense of a desirable species or habitat.

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

**EPA** – Environmental Protection Agency

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

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

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

**EVAPOTRANSPIRATION** - Water loss to the atmosphere from soil (evaporation) and vegetation (transpiration). The potential evapotranspiration may be calculated from physical features of the environment such as wind speed and temperature. The actual evapotranspiration will commonly fall below the potential depending on the availability of water from precipitation and soil storage.

**EXOTIC SPECIES** - Are those species which are considered to be non native.

**EXPOSED ROCK** – An NPW habitat classification describing bedrock surfaces, including inland cliffs and crags. These may support a variety of different plants on soil accumulations, but greater than 50% of the rock surface is without vascular plant cover.

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

**FAUNA** - Animal life.

**FAVOURABLE CONSERVATION STATUS** - The conservation status of a natural habitat will be taken as “favourable” when: its natural range and areas it covers within that range are stable or increasing, and the specific structure and functions which are necessary for its long term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable.

**FLORA** - plant life.

**FLORA PROTECTION ORDER** - under the 1976 Wildlife Act, particular plants can be protected under a Flora Protection Order. Under such an order it becomes an offence to cut, uproot or damage these plants unless under licence from the Minister. The same order prohibits damage to the habitats of these species.

**FORMATION** – A geological term for a body of rocks having easily recognised boundaries that can be traced in the field, and large enough to be represented on a geological map as a practical and convenient unit for mapping and description.

**FRESHWATER MARSHES** – An NPW habitat classification are intermediate between swamps and wet grassland, and often occupy a zone between these habitats. They may have some prominent tall swamp species, but are not overwhelmingly dominated by them. They are distinguished from fens and flushes by a lower calcium status and are usually richer in nutrients. This habitat is characterised by a species-rich mixture of Sedges, small Grasses Reeds and other Reed like Grasses, wetland Herbs, as well as other Herbs and Grasses more typical of dryer ground.

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

**GLACIOFLUVIAL** - Deposits laid down by glacial meltwater.

**GRYKES** - A term used for describing limestone pavement. The term gryke is used to refer to the vertical fissures which form a network separating loose flags of limestone blocks known as clints. The grykes provide a cold humid microclimate where shade tolerant vascular plants occur.

**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.

**HYDROCHEMICAL MONITORING** - Observing the chemical composition of water over a period of time usually carried out for detailed studies of raised bogs.

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

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

**IMPEDED DRAINAGE** - A limited through flow of water.

**IMPERMEABLE** - Does not allow the passage of water.

**IMPROVED GRASSLAND** – An NPW habitat classification describing species poor grassland, distinctive by its even appearance and bright colour, usually heavily fertilised and re-seeded with fast growing grasses.

**INVERTEBRATES** - Animals without backbones.

**KARSTIC LANDSCAPE** – A landscape formed by a combination of glacial activity and the continual dissolving of limestone bedrock by water. Rainwater drains rapidly away through the permeable limestone and most of the rivers are underground.

**LAKES AND PONDS** - An NPW habitat classification describing enclosed bodies of fresh water, or semi-enclosed bays of larger bodies of fresh water. Only the open water body itself is included, so areas of standing with tall emergent vegetation are not included here but should be assigned to reedbeds and other swamps.

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

**LIAISON COMMITTEE** - This is a special group set up to discuss the contents of a conservation management plan and the implementation of the plan. The committee will include representation of landowners, right-holders and other interest groups. It shall be the function of the committee to advise NPW 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 NPW.

**LICHENS** – An organism that consists of a fungus growing in close association (symbiosis) with an alga.

**LIMESTONE** - Sedimentary rock composed predominantly of calcium carbonate, often containing fossils.

**LIMESTONE PAVEMENT** - An NPW habitat classification describing level or gently sloping exposures of limestone which are usually fissured along natural rock joints and may be shattered, with much loose rock present. Often there is very little soil associated with the pavement and a wide variety of plants grow precariously in the fissures, as is normally the case in the classic pavements of the Burren, Co. Clare. There may, however, be much interstitial soil obscuring the fissures, which can support a limestone grassland flora.

**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.

**LOWLAND DRY GRASSLAND** - An NPW habitat classification describing grasslands which normally are below the 100m contour, on well drained soils and characteristically with a fairly complete cover of grasses.

**LOWLAND WET GRASSLAND** - An NPW habitat classification which refers to grasslands which normally below the 100m contour, with a vegetation characteristic of waterlogged soil. This category also includes rushy fields.

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

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

**MARGINAL VEGETATION** - At or near the margin or border, often used to describe the vegetation at the edge of a lake or river.

**MIXED WOODLAND** - An NPW habitat classification that describes woodland that is structurally similar to dry (& wet) broad-leaved semi-natural woodland, i.e. the canopy in most places must achieve a height of 5 m. In mixed woodland however, the cover of exotic species within a block exceeds 10%.

**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.

**MOSAIC** - Used to describe habitats that occur together and cannot easily be mapped separately.

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

**NGOs** - Non- Governmental Organisations.

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

**NO SHOOTING AREAS** - These areas are also referred to as Wildfowl Sanctuaries and are areas that have been excluded from the “Open Season Order” so that game birds can rest and feed undisturbed. Shooting of game birds is not allowed in these areas.

**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.

**NPW** - National Parks and Wildlife

**OLIGO** – Prefix denoting few or little

**OLIGOTROPHIC** - Applied to waters that are relatively low in nutrients, as in lakes which are low

**ORGANISM** - Any living thing.

**OS** – Ordnance Survey

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



**PERENNIAL** - Referring to plants that live for two years at least.

**PERMEABILITY** - The capacity of a rock to transmit fluid.

**pH** - A quantitative expression for the acidity or alkalinity of a solution or soil. The scale ranges from 0-14: pH 7 is neutral, less than 7 is acidic and greater than 7 is alkaline.

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

**PRECIPITATION** - Water moving from the atmosphere to the ground in the form of rain, fog, mist, snow or hail.

**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.

**RECHARGE** - The downward movement of water from the soil to the water table.

**RECLAIMED LAND** - this is applied to lands which have been modified from there natural state by intervention in the form of: a) drainage, b) bulldozed, c)clearance of scrub, d) infilling of wetland, e) ploughed and reseeded.

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

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

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

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

**REEDBEDS AND OTHER SWAMPS** - An NPW habitat classification. This habitat comprises tall, species poor, usually emergent vegetation, often found in a narrow fringe at the edge of open water or occupying more extensive areas in shallow basins which may become dry in Summer. The vegetation is species poor and overwhelmingly dominated by a single species, typically Common Reed (*Phragmites australis*).

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

**REPTILES** - Cold-blooded vertebrates, most of which are terrestrial, having dry horny skin with scales or plates. Most reptiles lay eggs that have a leathery skin, although some are ovoviviparous.

**RIVERS AND STREAMS** - An NPW habitat classification describing linear channels of moving water. These are natural features that distinguish them from ditches and drainage channels.

**RUDERAL VEGETATION** - Refers to plants of waste places usually associated with human disturbance. They are only distinguished from weeds by the definition that weeds are a nuisance to human activities - the ruderal is not necessarily a nuisance.

**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."

**SCARCE** - This is 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. Scarce applies to 11-25, 10 km squares in this context.

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

**SCRUB** – An NPW habitat classification which comprises areas with more than 50% cover of shrubs or small trees. There may be scattered standard trees, but in general the canopy height is 5 m or less. This category does not apply to stands of young trees which will eventually grow to a height of more than 5 m.

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

**SEDIMENTARY** - Formed by the deposition of sediment, i.e. rock particles or chemical precipitate, or pertaining to the process of sedimentation.

**SEMI-IMPROVED GRASSLAND** - An NPW habitat classification which refers to grasslands which have been lightly fertilised but not re-seeded. These grasslands may still support a rich assemblage of grasses and herbs.

**SEVERELY HANDICAPPED AREA** - An EU designation which allows farmers within these areas to avail of extra headage payments and premium payments.

**SHALE** - Fine-grained sedimentary rock, like mudstone but with an irregular parting.

**SHINGLE BEACHES** - An NPW habitat classification which refers to areas above the spring low water mark which are predominantly of sediments coarser than sand, often with a high proportion of shell fragments, but not rocky.

**SLUGGARA** - A term used for swallow holes in some areas.

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

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

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

**STRATIFICATION** - Arrangement in layers: differentiation of horizontal layers in soils.

**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).

**SWALLOW HOLES** - These are holes in a karstic landscape which allow water to drain from the surrounding land when groundwater levels are low, or conversely release water to the surrounding lands when the water table is high. They are often found in association with Turloughs. In some areas they are referred to as Sluggaras.

**SWARD** - Refers to the vegetation cover of low growing plants communities, such as grasslands.

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

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

**TILL** - Unconsolidated, unsorted glacial deposits.

**TOMBOLO** - a sand or gravel bar or barrier that connects an island with the mainland or another island.

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

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

**TROPHIC STATUS** - The nutrient status (i.e. a measure of the availability of nutrients).

**TURLOUGHES** - An NPW habitat classification and a priority habitat listed in Annex I of the Habitat Directive describing temporary lakes in limestone areas which fill and empty through underground passages. Usually filling during the Winter and drying out in the Summer, but often with more rapid fluctuations in response to local rainfall. They are mainly found in counties Clare, Galway and Roscommon. The vegetation of their basins is a mixture of aquatic, terrestrial and especially amphibious plants, usually forming a distinct and characteristic concentric zonation pattern.

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

**VASCULAR** - Consisting of, or containing vessels adapted for the carriage or circulation of fluid, in plants refers to xylem and phloem.

**VERTEBRATES** - Animals with backbones.

**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.

**WEATHERING** - The process by which rocks are broken down and decomposed by the action of wind, rain temperature changes, plants and bacteria. See also chemical and mechanical weathering.

**WETLAND** - An area habitually saturated with water, and which may be partially or wholly covered permanently, occasionally, or periodically by fresh or salt water up to a depth of 6 m, and which includes bogs, fens, marsh, shallow ponds, river estuaries, and intertidal mud flats.

**ZONING** - The division of a nature conservation site (& neighbouring lands) into a number of sub-units. 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: REFERENCES

## Map References:

O.S. 1/2 inch (1:126,720) map:	14
O.S. Discovery (1:50,000) map:	52
O.S. 6 inch (1: 10,560) map:	GA 114

## Data Bases :

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

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

I-WeBs Database, BirdWatch Ireland, Rutledge House, 8 Longford Place, Monkstown, Co.Dublin

## Photographic Coverage:

G.S.I. M429 April 1973

## Relevant Legislation:

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

Local Government (Planning and Development) Regulations, 2000.

## Bibliography:

Campbell, G. (1993). *ASI Boundary Survey*. Unpublished report to the National Parks and Wildlife Service, Dublin.

Curtis T.G.F. and McGough H.N. (1981) *The Irish Red Data Book. 1. Vascular Plants*. The Stationary Office, Dublin.

Coxon, C. (1986). *A study of the Hydrology and Geomorphology of Turloughs*. Unpublished PhD Thesis, Trinity College, Dublin.

E.U. (1996). *Draft Interpretation Manual of European Union Habitats Version EUR 15*. European Commission DGX1.D2, Brussels

Galway County Council (1996) *County Development Plan for the County District of Galway*. Galway County Council.

Goods, J.A. (1997). Soil/ Ectonal Invertebrates. In: *An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway*. Ecology Baseline Study, Volume 1. Unpublished report to the OPW, Dublin. Pp221-249.

- Goods, J.A. 2001. Turlough Pastures as a Habitat for Staphylinidae and Carabidae(Coleoptera) in South-East Galway and north Clar, Ireland. Published by the Bull. Irish Biogeographical Society 25, 74-94.
- Goodwillie, R. (1992). *Turloughs over 10 ha - Vegetation Survey and Evaluation*.
- Heery S., Madden B. (1996) *South Galway Flood Study, Preliminary Report on Wintering Waterfowl in South Galway Area*, Unpublished report for N.P.W.
- Mac Gowran, B. (1985), *Phytosociological and Ecological Studies of Turloughs in the West of Ireland*, Unpublished Ph.D Thesis, University College Galway.
- Jennings,O' Donovan and Partners and Southern Water McDowells Ltd.(1997) *An investigation of the Flooding Problems in the Gort - Ardrahan Area of South Galway*. Unpublished report for OPW.
- Madden, B. and Heery, S. (1999) *Census of Wintering Wetland Birds in South Galway (Gort-Ardrahan Catchment) Winter 1998/99*. Un-published Report to Dúchas, The Heritage Service.
- Praeger, R.L.I. (1932). *The Flora of the Turloughs: A Preliminary Note*. Proceedings of the Royal Irish Academy 41B:37 - 45.
- Reynolds, Julian D.R. (1997) Invertebrate Surveys of S.E. Galway turloughs. In: *An Investigation of the Flooding Problems in the Gort-Ardrahan Area of South Galway*. Ecology Basline Study. Volume II. Unpublished report to the OPW, Dublin. Pp. 126-137.
- Rohan, P.K. (1986) *The Climate of Ireland*. Meteorological Service, Dublin.
- Royal Irish Society (1971) *Geological Atlas of Ireland*. Dublin.
- Sheppard. R. (1993). *Ireland's Wetland Wealth*. Irish Wildbird Conservancy, Dublin.
- Whittow, J.B. (1974). *Geology and Scenery in Ireland*. Penguin Books Ltd., Middlesex, England

# APPENDIX III: CLIMATE DATA

<b>SHANNON AIRPORT</b> monthly and annual mean and extreme values 1961-1990													
<b>TEMPERATURE</b> (degrees Celsius)	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	year
mean daily max.	8.2	8.5	10.5	12.7	15.3	17.9	19.4	19.2	17.2	14.2	10.4	8.9	13.5
mean daily min.	2.6	2.7	3.6	4.8	7.3	10.1	12	11.7	10.1	8	4.5	3.6	6.8
mean	5.4	5.6	7	8.8	11.3	14	15.7	15.5	13.6	11.1	7.5	6.3	10.1
absolute max.	14	14.8	20.2	22.2	25.6	31.6	30.6	28.7	25.5	21.8	18.2	15.2	31.6
absolute min.	-11.2	-9.8	-7.8	-4.1	-0.9	1.5	5.2	2.9	1.3	-1.4	-6.1	-8.3	-11.2
mean no. of days with air frost	6.5	5.4	3.2	1.6	0	0	0	0	0	0.3	3.5	5	25.4
mean no. of days with ground frost	13.2	11	9.5	8.2	2.5	0.4	0	0	0.6	2.7	9.6	11	68.6
<b>RELATIVE HUMIDITY (%)</b>													
mean at 0900UTC	88	87	85	81	77	79	81	83	85	88	88	89	84
mean at 1500UTC	82	75	70	65	64	67	68	69	71	77	81	84	73
<b>SUNSHINE (hours)</b>													
mean daily duration	1.58	2.34	3.34	4.93	5.77	5.13	4.59	4.44	3.69	2.65	1.93	1.42	3.48
greatest daily duration	7.8	9.5	11.6	13.6	15.3	15.8	15.7	14.8	11.6	9.9	8.8	7.1	15.8
mean no. of days with no sun	10	7	5	3	2	2	2	2	3	6	8	11	62
<b>RAINFALL (mm)</b>													
mean monthly total	97.2	72.1	71.8	55.5	60.1	62.4	57.1	82.3	81.8	92.4	94.7	99.6	926.8
greatest daily total	29	33.5	28.5	29.6	27	29.7	42.5	35.9	35.5	33	33	50.4	50.4
mean no. of days with $\geq 0.2\text{mm}$	20	16	19	16	17	16	15	18	18	20	19	20	214
mean no. of days with $\geq 1.0\text{mm}$	16	12	14	11	13	11	10	13	13	15	15	16	160
mean no. of days with $\geq 5.0\text{mm}$	7	5	5	4	4	4	4	5	6	6	7	7	66
<b>WIND (knots)</b>													
mean monthly speed	10.9	11.1	11	9.5	9.5	8.9	8.7	8.6	9.6	10	9.6	10.5	9.8
max. gust	82	80	65	62	61	57	52	55	93	84	64	81	93
max. mean 10-minute speed	55	53	44	41	39	42	33	39	60	57	45	51	60
mean no. of days with gales	2.1	1.2	1.4	0.5	0.5	0.1	0	0.1	0.6	0.9	1	1.5	9.8
<b>WEATHER (mean no. of days with...)</b>													
snow or sleet	3.4	3.2	1.8	0.6	0.1	0	0	0	0	0.1	0.3	1.5	10.9
snow lying at 0900UTC	0.8	0.7	0.1	0	0	0	0	0	0	0	0.1	0.3	2
hail	3.7	3.1	4.3	2.5	1.7	0.2	0.1	0.2	0.3	1.1	1.8	2.7	21.7
thunder	0.9	0.5	0.4	0.3	0.4	0.8	0.8	0.5	0.4	0.4	0.4	0.4	6.3
fog	4.1	2	1.8	2.2	1.7	1.8	1.7	3.1	3	3.3	3.4	3.6	31.8

# APPENDIX IV: NOTIFIABLE ACTIONS

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

- Notifiable Action 2.2
- Notifiable Action 2.5
- Notifiable Action 5.2
- Notifiable Action 7.1

## 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 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.

<b><u>SECTION A</u></b>	<b><u>SECTION B</u></b>
<p>Please note that the activities listed in <i>Section A overleaf</i> are required to be notified to the Minister for The Environment and Local Government and should not be undertaken before consent.</p>	<p>Please note that the activities listed in <i>Section B overleaf</i> 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).</p> <p>If so, these notifiable actions do not apply.</p> <p>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 and Local Government.</p>



## HABITAT TYPE 2.2

### DRY LOWLAND GRASSLANDS

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>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</p> <p>changing of traditional use from hay meadow (to either grazing or silage making), or from grazing to silage cutting</p> <p>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 (<i>Note; if you have been notified that your lands hold breeding corncrakes, or certain rare meadows, special provisions will apply</i>)</p> <p>burning of vegetation /ploughing or cultivation of lands which have not been so managed for the last 20 years</p> <p>reclamation, infilling, or land drainage/ reseeding, planting of trees or any other species use of any pesticide or herbicide</p> <p>dumping, burning or storing any materials</p> <p>alteration of the banks, bed or low of watercourses</p> <p>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</p> <p>any other activity of which notice may be given by the Minister from time to time</p>	<p>(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)</p> <p>developing leisure facilities including golf courses, sports pitches, caravan or camping facilities.</p> <p>removal of soil, mud, gravel, sand or minerals</p> <p>developing roads or car parks</p> <p>construction of fences, buildings or embankments</p> <p>afforestation</p>

In a very limited number of cases it may be necessary for the Minister for The Environment 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 and Local Government, an appropriate appeals procedure will be put in place.

## HABITAT TYPE 2.5

### TURLOUGHS

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 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.

<p><b><u>SECTION A</u></b></p> <p>Please note that the activities listed in <i>Section A overleaf</i> are required to be notified to the Minister for The Environment and Local Government and should not be undertaken before consent.</p>	<p><b><u>SECTION B</u></b></p> <p>Please note that the activities listed in <i>Section B overleaf</i> 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).</p> <p>If so, these notifiable actions do not apply.</p> <p>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 and Local Government.</p>
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## HABITAT TYPE 2.5

### TURLOUGHS

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>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</p> <p>changing of traditional use from hay meadow (to either grazing or silage making), or from grazing to silage cutting/adding lime within 50m of the normal high flood level of the turlough</p> <p>adding fertiliser of any sort within 50m of the normal high flood level of the turlough</p> <p>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)</p> <p>supplementary feeding of stock/operation of boat angling or shore angling business/ restocking with fish.</p> <p>reclamation, infilling, ploughing or land drainage within 50m of the normal high flood level of the turlough</p> <p>reseeding, planting of trees or any other species within 50m of the normal high flood level of the turlough</p> <p>use of any pesticide or herbicide within 50m of the normal high flood level of the turlough</p> <p>dumping, burning or storing any materials within 50m of the normal high flood level of the turlough</p> <p>alteration of the banks, bed or flow of watercourses, including the blocking of swallow holes</p> <p>operation of commercial recreation facilities (e.g. sailing schools, jet ski hire)</p> <p>introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area</p> <p>any other activity of which notice may be given by the Minister from time to time</p>	<p>(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)</p> <p>developing leisure facilities including golf courses, sports pitches, caravan or camping facilities.</p> <p>removal of soil, mud, gravel, sand or minerals</p> <p>developing roads or car parks</p> <p>construction of fences, buildings or embankments</p> <p>afforestation</p>

In a very limited number of cases it may be necessary for the Minister for The Environment 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 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 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 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 and Local Government.

## HABITAT TYPE 5.2

### SCRUB

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>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</p> <p>supplementary feeding of stock (as defined in approved farm plans)</p> <p>adding lime /adding fertiliser of any sort</p> <p>reclaiming land covered by scrub; if scrub is cut it must be allowed to regrow</p> <p>reclamation, infilling, ploughing or land drainage</p> <p>reseeding, planting of trees or any other species</p> <p>felling of trees, removal of timber</p> <p>removal of foliage, moss or other materials</p> <p>killing ivy</p> <p>use of any pesticide or herbicide /dumping, burning or storing any Materials</p> <p>alteration of the banks, bed or flow of watercourses</p> <p>operation of commercial recreation facilities (e.g. walking tours)</p> <p>introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area</p> <p>any other activity of which notice may be given by the Minister from time to time</p>	<p>(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)</p> <p>developing leisure facilities including golf courses, sports pitches, caravan or camping facilities.</p> <p>any activity which may cause pollution of the site</p> <p>removal of soil, mud, gravel, sand or minerals</p> <p>developing roads or car parks</p> <p>construction of fences, buildings or embankments</p> <p>felling trees or reafforestation</p>

## 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 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.

<b><u>SECTION A</u></b>	<b><u>SECTION B</u></b>
Please note that the activities listed in Section A overleaf are required to be notified to the Minister for The Environment and Local Government and should not be undertaken before consent.	<p>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).</p> <p>If so, these notifiable actions do not apply.</p> <p>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 and Local Government.</p>

## HABITAT TYPE 7.1

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

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>disturbance of bats</p> <p>operation of commercial recreation facilities (e.g. bird watching tours)</p> <p>introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area</p> <p>any other activity of which notice may be given by the Minister from time to time</p>	<p>(NO REQUIREMENT TO NOTIFY IF ALREADY LICENSED BY ANOTHER MINISTER/BODY)</p> <p>developing leisure facilities including sports pitches, caravan or camping facilities.</p> <p>developing roads or car parks</p> <p>construction of fences, buildings and embankments</p> <p>afforestation</p>

In a very limited number of cases it may be necessary for the Minister for The Environment 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 and Local Government, an appropriate appeals procedure will be put in place.



# APPENDIX V: 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 VI: NATIONAL PARKS AND WILDLIFE MANAGEMENT STAFF

## **Conservation Ranger**

Robert Steede  
National Parks and Wildlife Service  
Coole Park  
Gort  
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Department of the Environment, Heritage and Local Government,

7 Ely Place,

Dublin 2

Lo Call 1890 202021, 01-8882000


Fax (01) 888 3272

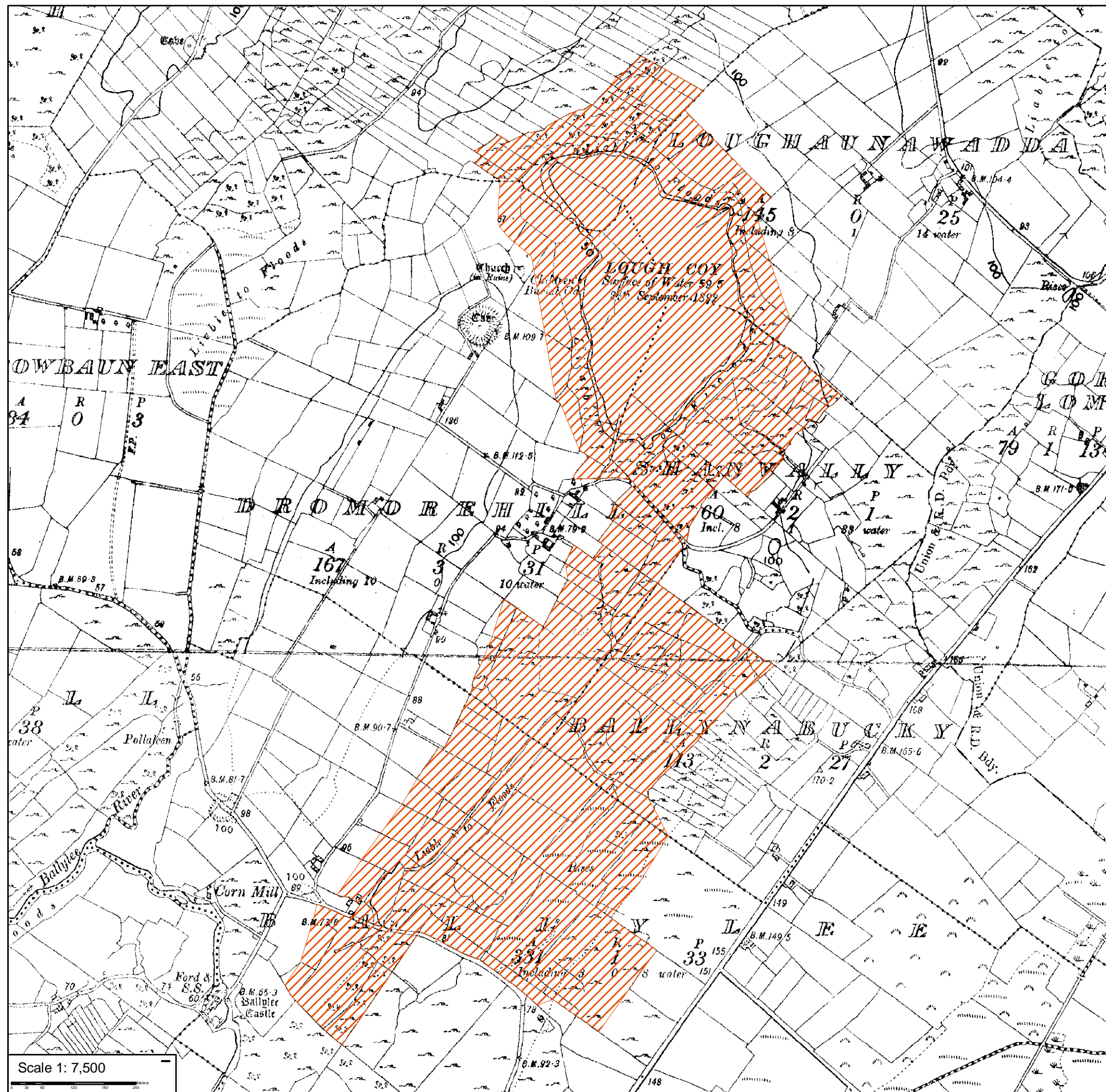
[www.npws.ie](http://www.npws.ie)

Féadtar athruithe a chur ar an gceantair / Sites subject to revision  
(Ni thaispeántar suimh gur de speis géolaíoch amháin iad) / (Sites solely of geological interest not shown)  
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Macasamhail d'ábhar na Suirbhéireachta Ordoínais le cead ón Rialtas (Ceadúnas Uimh 5953)

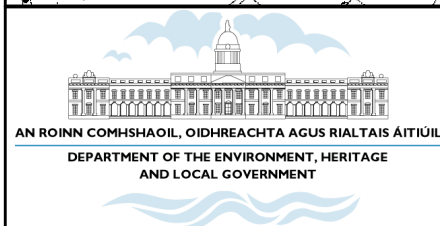
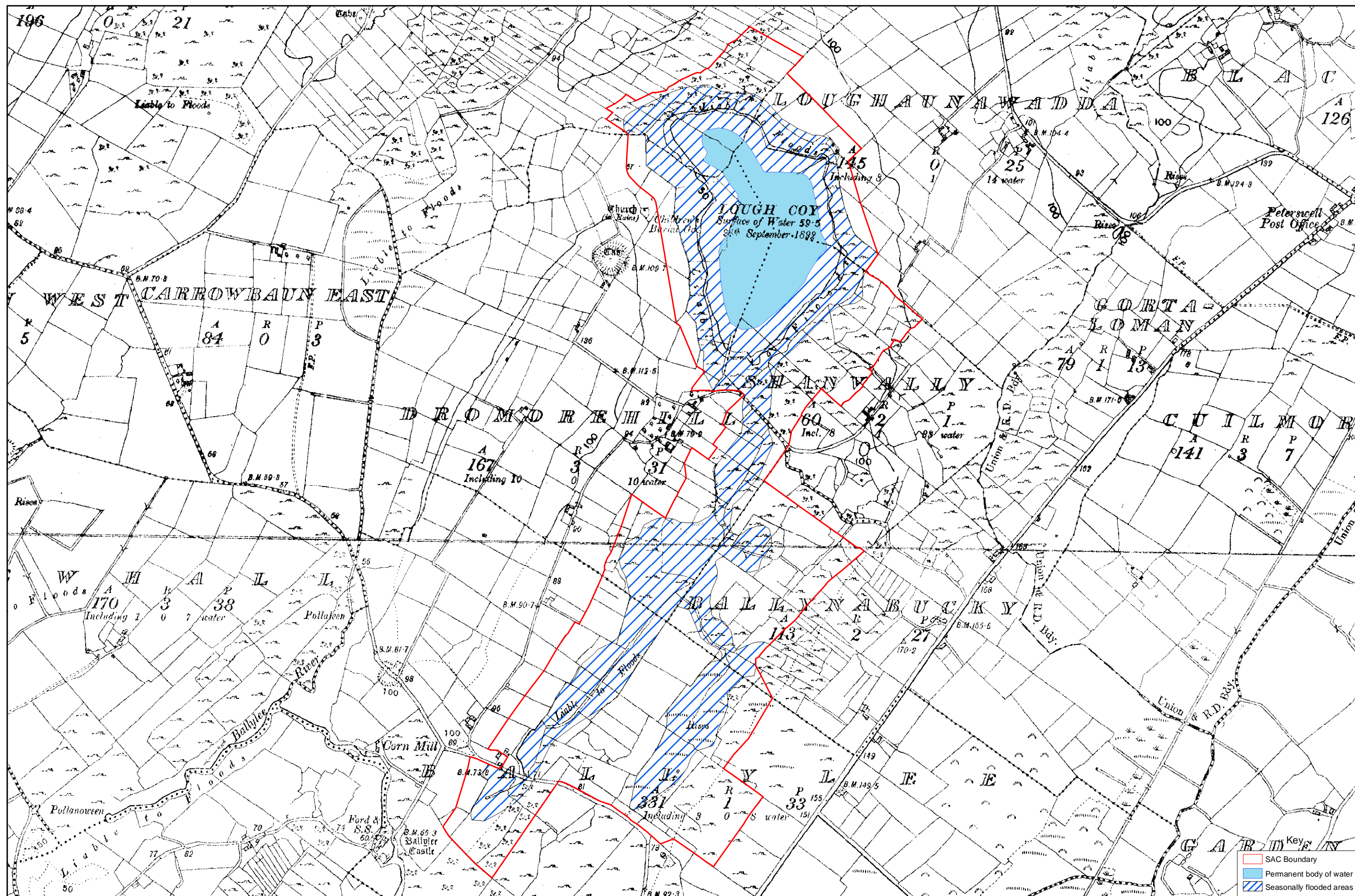
A map of Ireland with its county boundaries outlined in black. The county of Galway is highlighted in a solid orange color. A red cross is positioned within the orange-shaded area, indicating the specific location of the study.

A map of County Galway, Ireland, showing its coastline and internal boundaries. A red cross is placed on the southern coast, indicating the location of the study area. The text 'Co. Galway' is written in the center of the county.


 Department of Environment, Heritage and Local Government  
 An Roinn Comhshaoil, Oidhreacht agus Rialtas Áitiúil  
 Co-financed through 'Life' EU funding  
 Chomh-mhaoinithe trí chiste 'LIFE' an AE



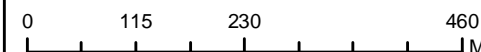




CEANTAR SPEISIALTA CAOMHNATHE  
CANDIDATE SPECIAL AREA OF CONSERVATION

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LOUGH COY  
GA 6" SHEETS 114, 123



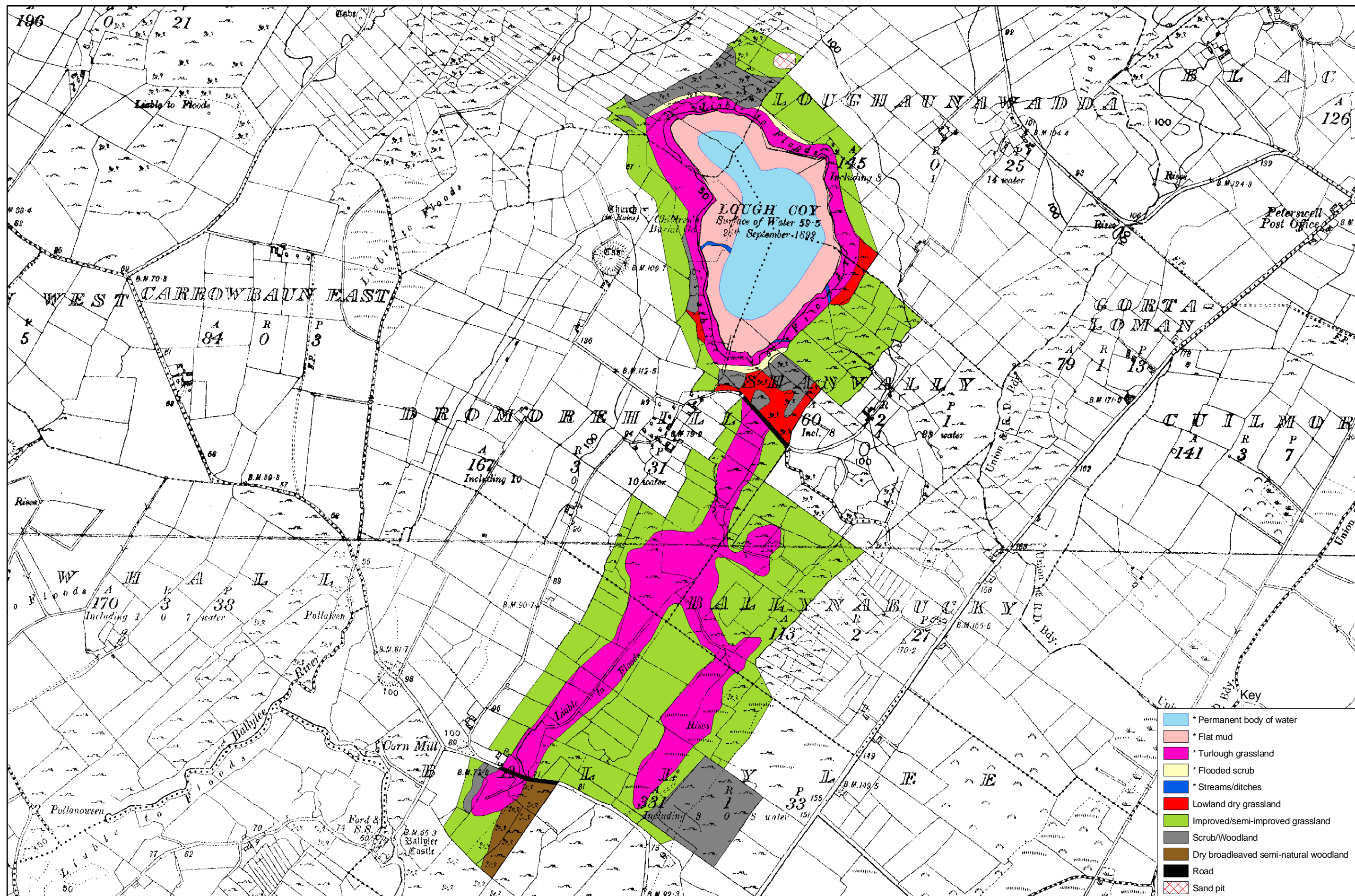
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Map 2  
FLOOD ZONE MAP

Map to be read in conjunction with conservation plan.

SITE CODE  
002117  
Version 1.01

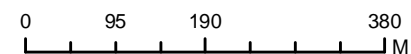




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GA 6" SHEETS 114, 123



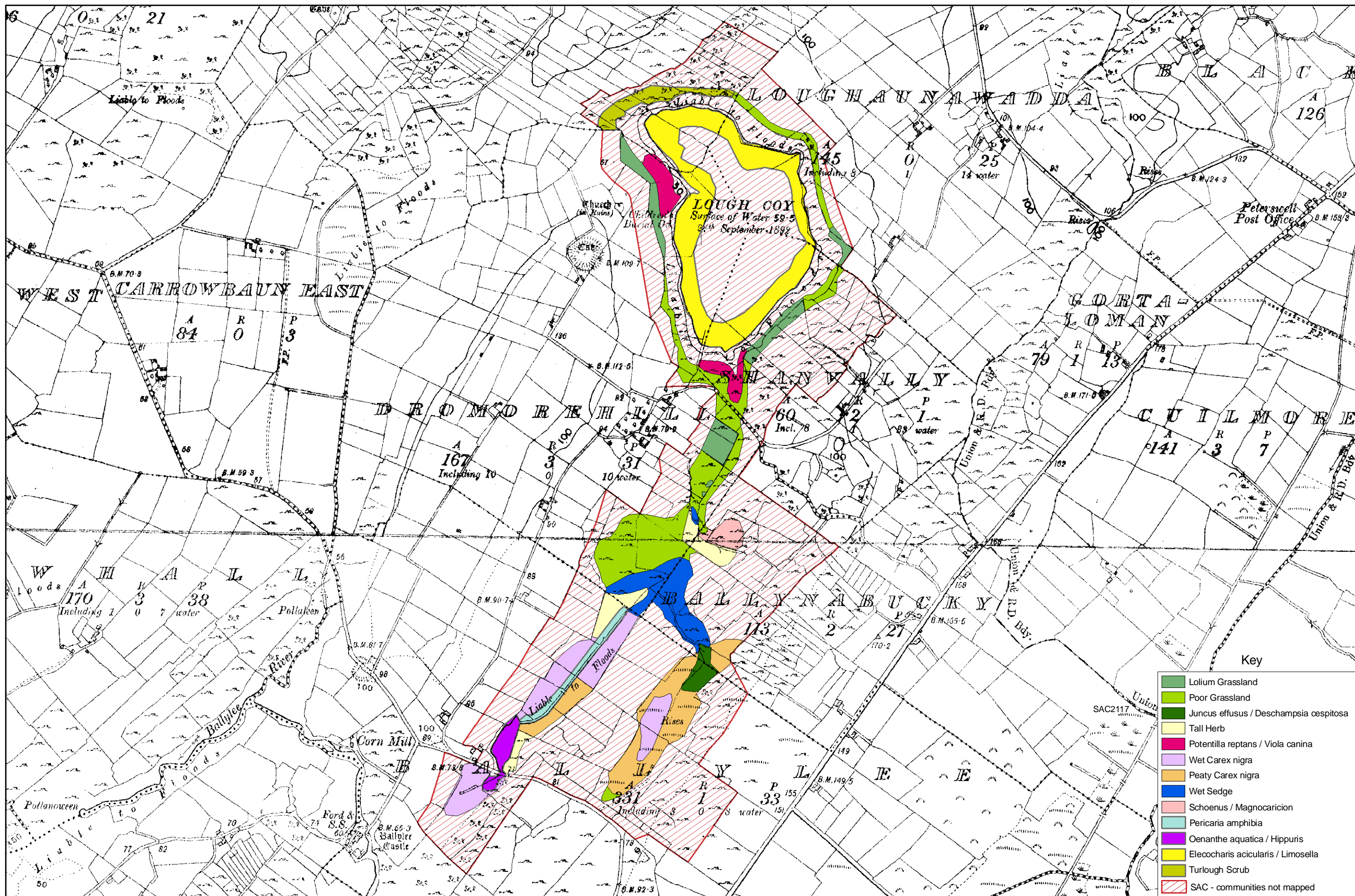
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Map 3  
INDICATIVE HABITAT MAP

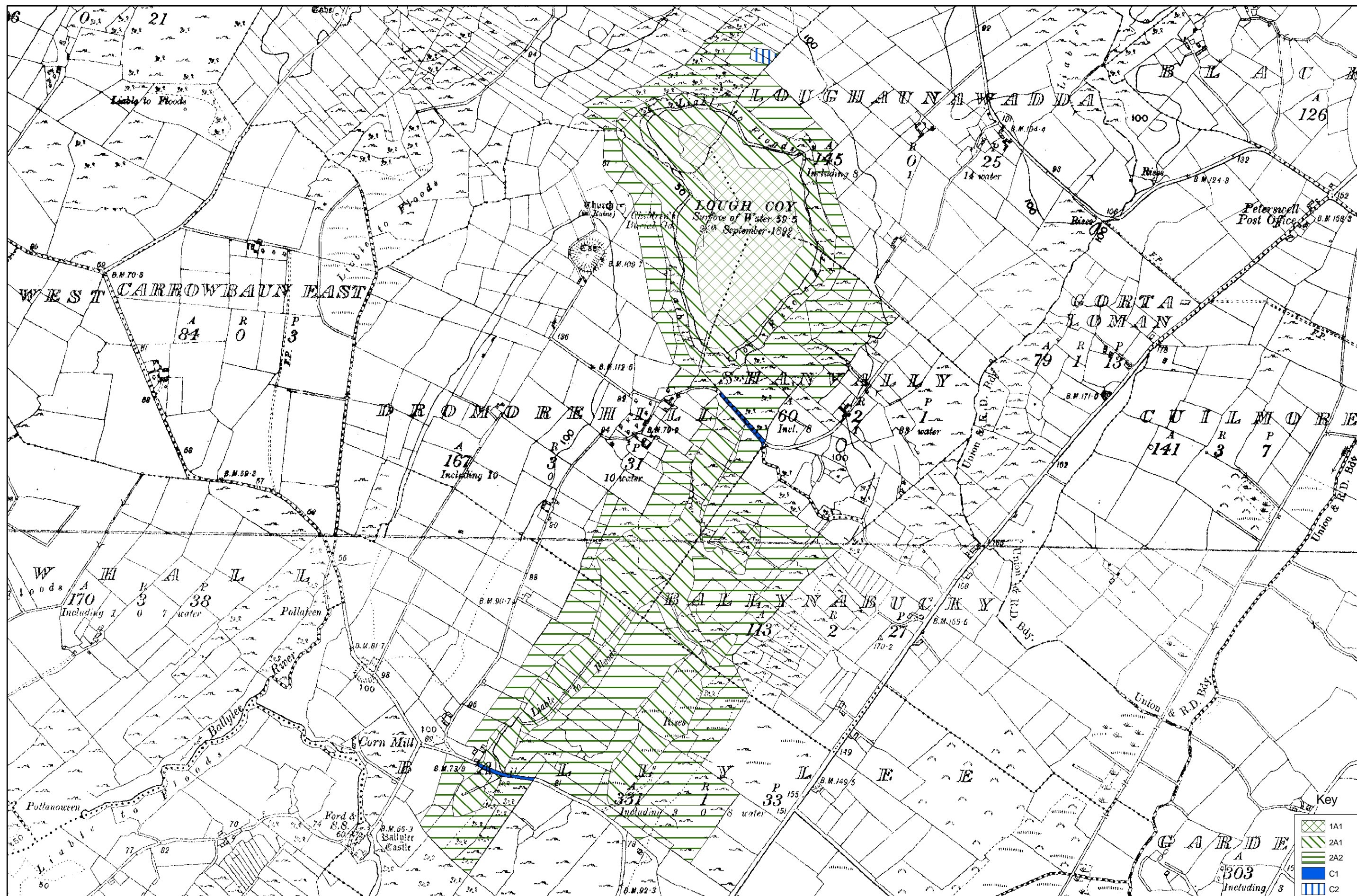
Map to be read in conjunction with conservation plan.

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LOUGH COY  
GA 6" SHEETS 114, 123

0 110 220 440  
M  
Scale 1: 8,000

Map 5  
MANAGEMENT ZOING MAP

Map to be read in conjunction with conservation plan.

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