



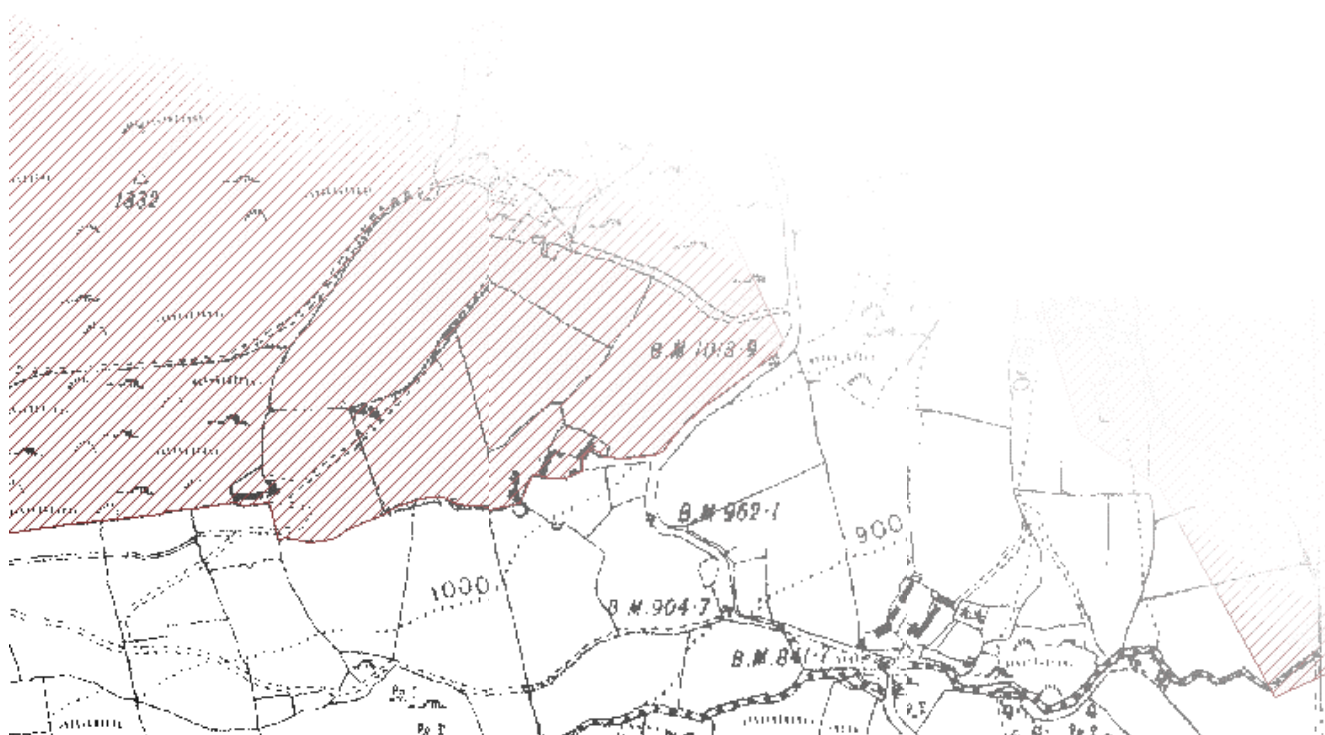
National Parks and Wildlife Conservation Plan for 2005-2010



Sessiagh Lough cSAC

Site Code 0185

Co. Donegal



SUMMARY

Site Description

Sessiagh Lough is a small lowland lake situated on the outskirts of Dunfanaghy, Co. Donegal. Sessiagh Lough was designated as a cSAC because it comprises a habitat listed on Annex I of the EU Habitats directive, i.e. lowland oligotrophic lake, and provides suitable habitat for plant species listed on Annex II of the Habitats Directive. The lake has a stony bottom of metamorphic bedrock and a barren appearance, with only a sparse fringe of emergent vegetation. The cSAC is bounded on its northern, western and eastern sides edge by domestic dwellings, minor roads and agricultural lands used as pasture for sheep, cattle and horses. The southern side of the site contains steep rocky cliffs and a mosaic of wet and dry heath, upland acid grassland, small flushes and blanket bog habitat. Other semi-natural habitats present within the site include patches of scrub woodland, semi-natural broad-leaved woodland and an inflowing stream on the south western side of the site.

The lake contains populations of rare plants and animals. The Slender Naiad, a rare and legally protected aquatic plant, listed on Annex II of the EU Habitats Directive, has been recorded from the site. Arctic Char, a rare freshwater fish listed in the Irish Red Data Book of threatened vertebrates have been recorded in the recent past. Despite its relatively small size, Sessiagh Lough also has an exceptionally high biomass. Brown Trout are abundant and the lake is a very productive, natural Brown Trout nursery. On the small rocky island, breeding pairs of Black-headed Gulls have been recorded. The steep, lichen-covered cliffs to the south of the lough provide nesting sites for Peregrine Falcon, listed on Annex I of the EU Birds Directive, and also for Fulmars.

Land Use

The lake is primarily used for amenity purposes. The northern shore has been developed for anglers: a boat slipway, stiles and fishing huts have been erected. The surrounding area is mainly used for agricultural purposes. Most of the terrestrial habitats on the site are grazed by sheep, cattle and horses. Feral goats and possibly Red Deer also forage on the site, including the areas of inaccessible cliffs.

Main conservation issues

- Water quality
- Development
- Presence of notable species including Slender Naiad and Arctic Char

Main management objectives

- To maintain and, where possible, enhance the ecological value of the annexed habitat - Oligotrophic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation (comprising 36% of the site, or 26ha) - that occurs within the site.
- To maintain, and where possible, increase the ecological value of other semi-natural habitat types: rivers and streams (comprising 1% of the site), lowland wet and dry grassland (8% of the site), semi-natural deciduous woodland (7% of the site), wet and dry heath with upland grassland/scrub/exposed rock (38% of the site) and blanket bog (6% of the site).
- To confirm the presence of the Annex II plant species, Slender Naiad, and maintain any populations located on the site.
- To maintain and increase the populations of other notable species found on the site, such as Peregrine Falcon, Arctic Char and Otter.
- To initiate and maintain effective liaison between NPW and relevant authorities and interested parties (e.g. landowners, the public, local angling associations, Northern Regional Fisheries Board, Donegal County Council) on the management of the site.

Main strategies to achieve objectives

- Maintain and, where possible, improve water quality within Sessiagh Lough, principally reducing nutrient inputs into the lake.
- Initiate and maintain effective liaison between NPW, the Local Authority and other interested parties to achieve the objectives for management of the site, especially in relation to preserving water quality in the lake.
- Maintain and enhance semi-natural habitats within the site by application of REPS and other appropriate land use practices on the site.
- Carry out a survey to determine the population status of Slender Naiad.
- Liaise with Northern Regional Fisheries Board and other relevant organisations to determine the population status of Arctic Char in the lake.
- Regular monitoring by Conservation Ranger of factors such as water quality, bird usage and amenity use around the lakeshore.

ACKNOWLEDGEMENTS

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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 a SAC is the presence of:

HABITATS LISTED IN ANNEX I OF THE E.U. HABITATS DIRECTIVE	
<ul style="list-style-type: none"> Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) (code: 3110) 	Sessiagh Lough is a small example of the Annex I habitat (26 ha). It appears to be quite deep for a small lake, is naturally stratified and moderately productive.
SPECIES LISTED IN ANNEX II OF THE E.U. HABITATS DIRECTIVE	
<ul style="list-style-type: none"> Slender Naiad (<i>Najas flexilis</i>). 	The latest record of Slender Naiad is from a survey in 1989. Its current status within the cSAC, however, is unknown.

General Conservation Objectives

Under Article 6 of the EU Habitats Directive, DEHLG is 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 maintain the Annex II species 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 and Local Government. These activities are listed as “Notifiable Actions” for each habitat (see Appendix VIII). 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 VII.

SITE DESCRIPTION

Location including site boundaries

The site is located in north Co. Donegal, 3 km south-east of Dunfanaghy and 0.5 km inland of Sheephaven Bay and Portnablahy. It used to be situated in a rural area, but a large number of holiday homes have now been built on the main road between the site and the two villages. The northern, eastern and western sides of the site all have permanent dwellings adjacent to the site, while the southern side of the site comprises open heathland, with steep to nearly vertical cliffs and rugged upland terrain.

Grid Ref.:	C 043 362
Latitude:	55 10 16 N
Longitude:	07 56 05 W
Area:	72 ha
Altitude Range:	29 m to 147 m
Townlands:	Knockfaugher, Faugher, Woodhill, Rockhill, Rinnaraw

(Map references are provided in Appendix II).

Site Boundaries

The cSAC is bounded on its northern edge by roads, agricultural fields and houses, and on the south side by nearly vertical rocky cliffs and a mosaic of heath, upland acid grassland, and blanket bog habitats. A significant portion of the south western southern side of the site is defined by an unmarked boundary, which has been further defined by fixing of GPS locations along it, during preparation of this plan. Several small areas of improved and semi-natural dry grassland have been included in the site to provide an adequate buffer zone for the lake. A protective zone behind the cliffs, comprising areas of wet and dry heath and blanket bog, was incorporated into the site to prevent disturbance to nesting habitats for bird species of interest. The lake is very accessible from the several roads passing on the northern and eastern sides of the site.

Legal Status

Ownership

The lake is owned by the Northern Regional Fisheries Board. The lands surrounding the lake are owned by a number of landowners, many of whom live in homes adjacent to the lake.

Designations of the Site

candidate Special Area of Conservation	cSAC IE 0000185
proposed Natural Heritage Area	The site was surveyed as part of the Natural Heritage Areas survey and is proposed as an NHA (site code 185).
Corine Biotope	Site code 80000077
Freshwater Fish Directive	One of 16 lakes designated under the Water Standards for Freshwater Fish Directive (EEC 78/659).

Past Status and Designation of the Site

Area of Scientific Interest (ASI) of Regional Importance – designated for zoological interest on the basis of unusual biomass (fish stocks).

Classified as an ‘Area of National Importance’ by Dept. of Agriculture and Fisheries, Inland Fisheries Board in 1972.

Rights Pertaining To The Site

Fishing	The fishing rights are controlled by the Northern Regional Fisheries and managed locally by the Dunfanaghy Angling Association. The club has approximately 150 members.
Turbary	Unknown but appear to be unused if they exist.

Management Infrastructure

Individuals and Organisations Involved

Landowners	Northern Regional Fisheries Board (lake) Multiple private ownership (land surrounding lake)
National Parks & Wildlife (NPW) of the Department of Environment, Heritage and Local Government (DEHLG)	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 X for further details of NPW regional staff). NPW is also responsible for regulating certain activities, such as issuing shooting licences (see Notifiable Actions, Appendix VI).
Fisheries Board	The Northern Regional Fisheries Board is responsible for overall management and regulation of fish stocks and angling activities in the lake. They also monitor water quality in the lake.
Dunfanaghy Anglers Association	Dunfanaghy Anglers Association has an annual lease agreement with the Northern Regional Fisheries Board to manage the lake, and issues fishing licences to anglers. They also supply boats to NRFB to carry out monthly water quality sampling.
Planning Authorities	Donegal County Council is the relevant planning authority. They are responsible for control of water pollution, dumping and littering. (Their objectives for SACs are outlined below).

Local Authority Policy in relation to the Site

In Donegal County Council draft development plan (1998), Sessiagh Lough and its surrounds are classified as Landscape Category 2, defined as highly scenic areas whose natural character has been modified by man's activities. These are areas where the Councils policy is 'to conserve the scenic landscape, by more specific control of types of development and categories of users. Priority is given to permanent residents, and holiday homes will in general not be permitted.' (A number of specific guidelines in relation to Category 2 developments are also outlined).

Donegal Co. Council states that 'all water sources and uses within its jurisdiction form the basis of an Integrated Water Quality Management Programme, which is being developed by the Council.' This programme will entail:

- Preparation of Water Quality Management Plans for all major catchments.
- Monitoring of discharges into river bays, lakes and Blue Flag beaches.
- Protection of ground water resources through ensuring that all effluent complies with existing and proposed regulations.

Physical Features

Climate

The local climate of County Donegal and Sessiagh Lough in particular, is influenced by its proximity to the coast and surrounding mountainous terrain. In general, the County receives more rainfall, has a greater number of wet days (days with more than 1mm of rain) but less ground frost days, and is prone to more severe gales than the east and midland regions. Wind speeds average 19 knots during December and January. The prevailing wind direction is southerly and westerly, with calms only experienced 0.8% of the time. October and November are the wettest months with average monthly rainfall totals of 118mm and 114mm. Precipitation is lowest in May and June with number of sunshine hours of 6.2 and 5.7 respectively. In 2000, ground frost was only recorded on 43 days in comparison to 98 in the Midlands (Met Eireann, 2000).

Further details of climatic data are listed in Appendix III.

Geology & Geomorphology

Sessiagh Lough is a small (27 ha) lake with a mainly stoney substrate, underlain by metamorphic rocks. The lake is surprisingly deep for its size, and its physical structure is slightly unusual. The significant depths within the lake could be attributed to a geological structure running through the lake, i.e. a northeast-southwest trending fault that effectively creates a trench within it. This structure may create conditions favourable for fish life and may explain the very high biomass in the lake.

Further details on the geology and geomorphology of the site are found in Appendix III.

Hydrology & Water Quality

There are a number of streams flowing into Sessiagh Lough and one principal outflowing stream. The lough is also fed by a number of springs on the south and south west sides. The main inflowing stream occurs on the south western corner of the site, flowing through mainly undisturbed, under grazed woodland and scrub. The lake is naturally stratified, meaning there is a seasonal upwelling and mixing of waters in the lake.

Sessiagh Lough still falls within the standards for oligotrophic lakes. However, the lake's trophic status has fluctuated in recent years and it is becoming more mesotrophic. Recent sampling by NFRB has indicated a decline in water quality, largely due to pollutions such as seepage from

septic tanks. Although some action has been taken to rectify the problem through upgrading of some septic tanks, the lake is still under threat from eutrophication.

For details on water quality see Appendix IV.

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 category also shown. Annex I priority habitats are marked with an asterisk (*). The Gross Habitat map for the site is presented in Map 2. The percentage presented for each habitat type is based on the approximate geographic area of each habitat, as shown in Map 2.

Habitats Found within Sessiagh Lough cSAC

ANNEX I HABITAT TYPE	CORRESPONDING NHA CATEGORY	% AREA
Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) EU Code 3110	Lakes and ponds	36%
	Rivers and streams	1%
	Lowland dry grassland	8% (with wet grassland)
	Lowland wet grassland	Included with dry grassland
	Heath	38%
	Upland grassland on peaty soils	Included with heath
	Blanket bog	6%
	Semi-natural broad-leaved woodland	7%
	Scrub	1%
	Exposed rock	Included with heath
	Improved grassland	3%
	Old walls	< 1%
	Buildings	< 1%
	Commercial forest	< 1%

Annex I Habitat:

Oligotrophic lake (EU Code 3110) (36% of total site area)

The margins of the lake support sparse stands of emergent vegetation, comprising small patches of sedges (*Eleocharis palustris*) with occasional Water Mint (*Mentha aquatica*), Willowherb (*Epilobium sp.*) and Water Horsetail (*Equisetum fluviatile*). Where aquatic vegetation occurs on the stony lake shoreline, it is dominated by Shoreweed (*Littorella uniflora*) with frequent Water Lobelia (*Lobelia dortmanna*) and Bulbous Rush (*Juncus bulbosus*). Occasional Water Crowfoot (*Ranunculus peltatus c.f.*), Quillwort (*Isoetes spp.*), Lesser Water Plantain (*Baldellia ranunculoides*), Water Milfoils (*Myriophyllum alterniflorum*, *M. spicatum*) and Pondweed (*Potamogeton praelongus*) were also noted during field surveys.

Slender Naiad was first recorded within Sessiagh Lough in 1981 (J. Ryan) and has since been recorded from the northwest side of the lake in 1989 (Stewart and Preston, 1989). The following species were also recorded as occurring in the lake: Charophytes (*Nitella flexilis var. flexilis*), Water Milfoils, Water Starwort (*Callitriche hermaphrodita*), and a variety of Pondweeds (*Potamogeton berchtoldii*, *P. crispus*, *P. lucens*, *P. perfoliatus*, *P. pusillus*, *P. x nitens*) and Horned Pondweed (*Zannichellia palustris*).

Other Habitats

Rivers and streams

The main outflowing channel occurs on the eastern side of the lake. A number of small rivulets flow into the lake on its southern side, particularly during periods of high rainfall. Several small springs were also noted on the southern and western side of the lough. The primary, permanent inflowing stream occurs on the southwest side of the lake, flowing down a fairly steep gradient through an area of woodland, scrub and wet grassland. This stream is the main spawning ground for Brown Trout. The upper part of the stream's catchment flows through an area of wet heath (see Heath section, below), breaking into several different small channels which often appear to disappear into underground channels and small swallowholes.

Lowland dry grassland (mapped with wet grassland)

Dry grassland occurs adjacent to the lakeshore on the northern and eastern sides of the lake and is mainly used as sheep pasture. Species noted include Crested Dog's Tail (*Cynosurus cristatus*), Common Bent Grass (*Agrostis capillaris c.f.*), Knapweed (*Centaurea nigra*), Fescue (*Festuca spp.*) and Yorkshire Fog (*Holcus lanatus*).

Lowland wet grassland (mapped with dry grassland)

Wet grassland occurs along the margins of the lakeshore within the seasonally flooded zone, and in other areas within the site that are poorly drained or influenced by small springs. It is commonly used as pasture for sheep and cattle. Common species include Jointed Rush (*Juncus articulatus*), Soft Rush (*J. effusus*), Silverweed (*Potentilla anserina*), Meadowsweet (*Filipendula ulmaria*), Creeping Soft-grass (*Holcus mollis*), Self-Heal (*Prunella vulgaris*), and Devil's-bit Scabious (*Succisa pratensis*). Small sedge (*Carex spp.*)-rich flushes are frequent and occur in association with mosses: (*Pseudoscleropodium purum*, *Rhytidiadelphus squarrosus*, *Climacium dendroides*). Orchids (*Dactylorhiza sp.*) were noted in lightly grazed areas.

Heath (includes wet and dry heath and flushes)

On the southern side of the site, the predominant habitat comprises a mosaic of dry and wet heath, with patches of upland grassland, scrub and exposed rock (see Habitats Table above and Map 2). The area is lightly grazed by cattle (approximately 8 cattle were grazing the southern shore area during field work for this study). Dry heath, typified by Heather (*Calluna vulgaris*), Purple Moor-grass (*Molinia caerulea*), and Sedges (*Carex binervis*) and Field Woodrush (*Luzula campestris*) dominates the area of steep cliffs on the southern and south eastern side. Adjacent to the lakeshore, the vegetation was heavily grazed by sheep and cattle, and the cover of heather had been reduced, though now such overgrazing has ceased and the vegetation should recover.

On the top of the cliffs overlooking the lake and in areas inaccessible to cattle, a tall canopy of Heather has developed with a deep bryophyte understorey comprising mosses and frequent lichens (*Cladonia portentosa*). On the south western side of the site, the heath mosaic comprises dry heath on thin mineral soil and rocky ledges, with patches of wet heath occurring in wet plateaus and flushed areas between rocky cliffs. Wet heath habitats are typified by Cross-Leaved Heath (*Erica tetralix*), with Heather, Bog Asphodel (*Narthecium ossifragum*), Bog Rosemary (*Andromeda polifolia*), and mosses (*Sphagnum subnitens*, *Breutelia chrysocoma*) frequently forming low hummocks. Localised patches of Black Bog-rush (*Schoenus nigricans*) and Jointed Rush were noted in these areas. Most of the vegetation occurs on peaty soils that are less than 0.5m deep; however, some of the plant communities present could be described as wet heath/transitional with blanket bog.

Occasional small iron-rich flushes occur within wet heath vegetation, supporting the growth of abundant mosses (*Sphagnum sp.*), locally frequent Orchid sp. (*Dactylorhiza spp.*), and Pondweeds (*Potamogeton spp.*). Greater Butterwort (*Pinguicula vulgaris*) and Marsh Pennywort (*Hydrocotyle vulgaris*) were frequent in these areas.

Upland grassland on peaty soil (mapped with Heath)

Patches of acid grassland occur within the heath mosaic, mainly within plateau areas among the rocky cliffs and on thin mineral soils at the top of the cliffs on southern part of the site. A tall sward of Bent (*Agrostis sp.*) and Fescue grassland occurs with Heather and Purple Moor-grass and occasional swards of Mat-grass (*Nardus stricta*). Bryophytes (*Sphagnum sp.*, *Mnium sp.*) and lichens (*Usnea sp.*) are common. Patches of Eared Willow (*Salix aurita*) are locally frequent. Grazing appears to be light or absent, apart from occasional Red Deer (*Cervus elaphus*), in the upland areas. Lower slopes are grazed by cattle and horses (as per densities outlined in the Heath Section). Several pockets of grassland within the heath mosaic have now been improved in this area by reseedling.

Blanket bog

Small areas of blanket bog occur on the south eastern and south west sides of the site. Species include Heather, Purple Moor-grass, Hare's-tail Cottongrass (*Eriophorum vaginatum*), Black Bog Rush, Deer-grass (*Scirpus cespitosus*) and Bog Myrtle (*Myrica gale*) with a deep bryophyte understorey comprising moss hummocks (*Sphagnum spp.*, *Breutelia chrysocoma*). Flushed channels within the blanket peat are colonised by Rushes (*Juncus articulatus*, *J. acutiflorus*) and Bottle Sedge (*Carex rostrata*). A small number of Rhododendron (*Rhododendron ponticum*) seedlings are spreading into this area. Apart from light cattle grazing, the habitat is largely undisturbed and does not appear to have been used for peat harvesting.

**Semi-natural,
broadleaved
deciduous woodland**

On the south western side of the site, patches of semi-natural deciduous woodland are developing along the margins of the inflowing stream, extending from the lakeshore up the steep cliff slopes. The dominant species in the canopy are Birch (*Betula spp.*) and Willow (*Salix spp.*), species indicative of wet woodland. However, species indicative of drier soil conditions, such as Hazel (*Corylus avellana*), Rowan (*Sorbus aucuparia*), Ash (*Fraxinus excelsior*), Holly (*Ilex aquifolium*), Blackthorn (*Prunus spinosa*), and Hawthorn (*Crataegus monogyna*) are locally abundant on drier slopes and areas further away from the stream. The woodland is lightly grazed by horses (6 were noted in this area in February, 2002), cattle and presumably feral goats (4 noted during November, 2001). There is a mixed age structure within the woodland, with Hazel saplings being particularly abundant.

The understorey comprises Bramble (*Rubus fruticosus agg.*) with patches of Bracken in more open areas. Ground flora species include Wood-sorrel (*Oxalis acetosella*), Bluebell (*Hyacinthoides non-scriptus*), Honeysuckle (*Lonicera periclymenum*), Wood Rush (*Luzula sylvatica*), Bush Vetch (*Vicia sepium*), Burnet Rose (*Rosa pimpinellifolia*), Primrose (*Primula vulgaris*), Yorkshire Fog, Cocksfoot (*Dactylis glomerata*), Sanicle (*Sanicula europaea*) and the moss *Thuidium tamariscinum*. The fern community is well developed in places with such species as Male-fern (*Dryopteris filix-mas*) and Hart's-tongue (*Phyllitis scolopendrium*) present.

Fringes of wet deciduous woodland comprising Willow and Downy Birch (*Betula pubescens*) are frequent along edges of the lakeshore, particularly on the north western side.

Scrub

Scrub growth comprising Birch, Hawthorn, Blackthorn, Bramble and Dog Rose (*Rosa canina*) occurs within the heath mosaic and in accessible areas such as on steep cliffs. A large area of Gorse (*Ulex europaeus*) and Bramble scrub occurs adjacent to dry grassland on the north eastern side of the lake.

**Exposed rock (not
mapped)**

The southern side of the lake is bounded by a series of steeply sloping to vertical rock cliffs and rocky ledges. Many of the cliffs are covered in Ivy (*Hedera helix*) with some scrub growth, mainly Birch, Ash, and Holly.

Improved grassland

There is a small field seeded with Barley (*Hordeum sp.*) and Perennial Rye-grass (*Lolium perenne*). In the summer of 2001, two fields of dry grassland on the western side of the lake were agriculturally improved by reseedling and fertilisation.

**Commercial forest
(not mapped)**

A small plateau area on a cliff top on the southeast part of the site has been planted with Sitka Spruce (*Picea sitchensis*). The plantation is not thriving and has been overgrown with Bracken and Wood Rush.

**Buildings (not
mapped)**

Two derelict pump houses for water abstraction occur on the northern side of the lake.

**Old walls (not
mapped)**

Dry stone walls transect many areas of the site. A small crannóg occurs on the western side of the lake.

Notable Flora:

Lower Plants

The moss *Bryum dunense* was recorded from near Sessiagh Lough (J. A. Paton, 1969).

Higher Plants

Slender Naiad is known to occur on the north western side of the lake (Ryan, 1981; Preston & Stewart, 1989)¹. This species is listed under Annex II and Annex IV of the EU Habitats Directive, and is protected under the Flora Protection Order (1999). The species is considered vulnerable in a European context.

Several of the aquatic species recorded from the site, such as Horned Pondweed are common near the coast and in brackish water, but rare inland. Other species of note which are rather rare or occur more frequently in the northern half of the country include: Water Starwort (*Callitriche hermaphroditica*) and the Pondweeds (*Potamogeton lucens*, *P. x. nitens*, *P. praelongus*, *P. pusillus*).

Fauna:

Fish

Arctic Char (*Salvelinus alpinus*), an arctic-alpine glacial relict species, has been recorded from within the lake since 1930 (Whilde, 1993). However, its current status is unknown. Arctic Char are listed as vulnerable in the Irish Red Data Book. They require cool, oligotrophic waters and are particularly sensitive to pollution. The stony substrate and water quality of Sessiagh Lough provided ideal conditions for the species when it was first recorded. However, there is only incidental evidence that the species still occurs in the lake (unconfirmed rod catch of two char in 1999, J. Curran, pers.comm, 2002).

Sessiagh Lough also supports a substantial population of Brown Trout (*Salmo trutta*) and is one of the best Brown Trout nurseries in the region. Growth rate studies of trout since 1965 indicate that the lake has remained very stable over the past thirty years (Whelan, 1996). The small inflowing stream on the south western side of the site, which is surrounded by broad-leaved woodland and scrub, is the main spawning area for the trout.

Other fish species known to occur in the lake include Eels (*Anguilla anguilla*) and Sea Trout (*Salmo trutta*).

Birds

Sessiagh Lough was rated as of Regional/Local Importance for birds in Co. Donegal (Sheppard, 1993). It is used by small numbers (<30 individuals) of waterfowl, including Pochard (*Aythya ferina*) and Tufted Duck (*Aythya fuligula*), Mallard (*Anas platyrhynchos*) and Goldeneye (*Bucephala clangula*). Mallard are recorded to have bred on a very small island (crannóg) in the lake (P. Vaughan, pers. comm, 2002). In general, the bird usage of the lough is not well documented.

Annex I species (listed in Birds Directive (79/409/EEC):

Peregrine Falcon (*Falco peregrinus*), also an internationally important Red Data Book species - One pair breeds on this site, however, the nesting site is not used every year (Norris, pers. comm., 1995). The site is not an ideal breeding site as the cliffs are exposed to northerly winds and provide

¹ Grid Reference : C040 360

poor shelter. However, the area around the cliffs is very inaccessible and largely undisturbed by humans and livestock (with the exception of goats).

Other Species of Note:

- Fulmar (*Fulmarus glacialis*) – The vertical cliffs on the south side of the lake provide nesting sites for small numbers of Fulmar - 6 pairs recorded in 1970; 8 pairs in 1978 (Whilde, 1978). The population appears to be stable. However, the location of the site, 0.5 km from the sea may not be ideal for Fulmar, as they usually prefer to nest on coastal cliffs.
- Black-headed Gulls. (*Larus ridibundus*) - A large colony of gulls breeds on the crannog on Sessiagh Lough. The population has increased substantially since records began in 1982 from 15 pairs (Lloyd, 1982), to 75 pairs in 1977, and 103 pairs in 1992 (Whilde, 1984).
- Small numbers of Common Gull (*Larus canus*) have also been recorded (Lloyd, 1982).
- Pochard (*Aythya ferina*) – overwintering; pass between Sessiagh and New Lough, west of Dunfanaghy. Maximum count of approximately 30 individuals (D. McNamara, *pers.comm.*, 2002).

Common Tern (*Sterno hirundo*) – Common Terns have been breeding on the small island (crannóg) on Sessiagh Lough since 1832 (Thompson, 1851). In 1947, the population included 15 individuals (Kennedy, *et al*, 1954). However, the population has steadily declined in recent decades to 3 pairs in 1984 and 2 in 1992 (Whilde, 1984), and it appears that in recent years they no longer breed on site (D. McNamara, *pers. comm.*, 2002).

(see Appendix V for further details)

Mammals

- Otter (*Lutra lutra*) an Annex II species, listed as internationally important in the Irish Red Data Book. Otter spraints and tracks have been noted around the lake (P. Vaughan, *pers. comm.*, 2002).
- Mink (*Mustela vison*) are present in the vicinity of the site.
- Red Deer were noted in semi-natural woodland adjacent to blanket bog on the south boundary of the site (outside the site), during survey work for this plan. Tracks were seen on the south western side of the site in undisturbed blanket bog.

Cultural Features

Land use and impacts on the site

Agriculture

The terrestrial habitats within the site (comprising 74% of the cSAC) are primarily used as pasture for sheep and cattle. During the preparation period for this plan there were approximately 12-15 dry stock cattle on the southern side of the lake, and approximately 40 sheep grazing improved and semi-natural dry grassland on the western and eastern sides of the lake. 6 ponies were grazing on the wet grassland, woodland and heath habitats adjacent to the lake on southwest side. Supplementary feeding of cattle takes place on the southern side of the lake. There is a small muddy access road adjacent to the lake. Small areas within the site are occasionally used for cultivation of arable crops.

Angling	Sessiagh Lough is a very popular location for anglers. Brown Trout is the primary species of interest. It is managed by the Dunfanaghy Anglers Association (DAA), in conjunction with the Northern Regional Fisheries Board (NRFB). The club currently hosts over 150 members. The DAA have erected signs in prominent areas around the lake stating that only fly fishing is allowed. A slipway is situated on the northwest corner of the lake. Stiles have been constructed on the northern side of the lake to facilitate anglers. The DAA have plans to upgrade car parking and angling facilities, and to make the lake accessible to people with wheelchairs.
Caravans	A small number of caravans are parked within an area of unimproved grassland on the western side of the site. They are mainly used in the summer.
Afforestation	A small area on the top of a rock cliff on the southern side of the site has been planted with conifers. The trees do not appear to have grown well and are less than 2m in height.
Dumping	A small amount of dumping – of old cars, and agricultural waste (old manure) - occurs within the site boundaries, close to the lakeshore.
Other amenity use	The lake is occasionally used for windsurfing.

Land use adjacent to the site

Agriculture	Agriculture is the dominant land use on the southern and western sides of the site. Farm holdings are generally of small size (<50ha) and sheep and cattle rearing is the predominant activity adjacent to the site. A large slatted shed has been recently constructed on the northwest side of the lake adjacent to the site. Drainage pipes lead from this building to the lake.
Residential development	On the north western and eastern sides of the site, a number of permanent residences, holiday homes and B&Bs have been built in the immediate vicinity of the site. These homes use septic tanks with percolation area close to the lake.
Tourism and amenity use	The Dunfanaghy region is a popular holiday resort town and draws a large number of visitors in the summer. The beaches, fishing lakes and golf courses nearby are the main focus for recreational activities.

Past human use

The outflowing stream from Sessiagh Lough formerly fed into two flax mills, in the vicinity of PortnaBlagh. These mills are now defunct. Sessiagh Lodge was formerly used as a hunting lodge, presumably for shooting wildfowl on the lake, but it is no longer in use. The gate lodge is now derelict. Hand cutting of peat is likely to have occurred in the areas of blanket bog in the southern part of the site. Some grassland habitat on the south side of the site has been sown with cereal crops, such as Barley on an occasional basis.

Recorded Monuments and Other Features

Sessiagh Lough lies within close proximity to the sprawling rural town of Dunfanaghy. The natural landscape value of the site has been diminished by housing development on its northern and western sides, and its attractiveness to wildlife has somewhat been reduced by amenity use and residential development. On the southern side of the site, a large area of relatively undisturbed heath and blanket bog occurs. This part of the site has retained more of a natural character, and is

relatively undisturbed by agricultural and amenity use. There are commanding views of Horn Head and the Donegal coast from the top of the cliffs on the south side.

Recorded Monuments of County Donegal 1995. (Office of Public Works).

MONUMENT NO.	NAT. GRID	TOWNLAND	CLASSIFICATION
DG016-021	20414/43616	Woodhill	Crannóg

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 1995). Additional information, obtained since these notes were written may also have been used to make the assessment.

Evaluation of Annex I Habitat

Sessiagh Lough is a small example of an annexed habitat (26ha) that supports Slender Naiad and Arctic Char. Water quality within the lake has declined during the 1990s, principally due to septic tanks effluent and agricultural run-off. The lake is now more accurately classified as oligo-mesotrophic. Its water chemistry is slightly enigmatic as the lake occurs within a predominantly acidic substrate, but it appears to be alkaline (naturally base-rich) water. It also appears to be quite deep for a small lake, and is naturally stratified. The lake is moderately productive and supports a natural Brown Trout nursery. When first surveyed as part of a national survey of inland waters in 1972 it was described as having an exceptionally high biomass, i.e. supporting a high number of fish (Dept. of Agriculture and Fisheries, 1972).

A number of annexed habitats, such as blanket bog, wet heath and *Nardus* grassland, occur on the site, but cover only small areas and are not of sufficient ecological interest to be considered for qualifying status as annexed habitats within the site.

Evaluation of Annex II Species

Slender Naiad, an Annex II species, is known to occur on the site; the latest record is from a survey in 1989. However, its current status is unknown and recent deterioration in water quality and rapid fluctuations in the lake's trophic status may be impacting negatively on the population. Although an annual, Slender Naiad can survive in the same location for long periods of time if conditions are stable (Preston, pers. comm, 1995). The species is sensitive to disturbance and vulnerable to water pollution.

Site Evaluation

Fragility - Terrestrial habitats within the site are fairly robust, but water quality in the lake is very vulnerable to eutrophication. The fauna and flora of the lake, particularly the populations of Slender Naiad and Arctic Char, are vulnerable to deterioration in water quality and may already be in decline as a result of algal blooms and a continued decline in the lakes trophic status.

Rarity – Red Data Book fish species, Arctic Char, have become extinct in a number of Irish locations in the past few decades, and lakes supporting viable populations are rare. Oligotrophic lakes are becoming increasingly rare in a national context.

Naturalness - All but one side of site has been modified by human activities. Natural regeneration of deciduous woodland on the side will increase the ecological diversity of the site and potential habitat for wildlife. On the southern side, the site has quite a natural character, with relatively few

landowners and a low level of disturbance from amenity pressure or residential/industrial development.

Typicality – The habitat within the site contain typical botanical communities. The depth of lake is slightly unusual in relation to its small size.

Size – The small size of the lake (26 ha) makes it more vulnerable to pollution. Lack of marginal habitats on three sides makes it hard to control of potentially polluting activities. The conservation potential of the site would be greatly increased if the size of the site was expanded slightly to include a wider protective zone.

Diversity – There is a good diversity of upland habitats within a relatively small area. Undulating topography provides good diversity of sub-habitats within heath vegetation. The site hosts a good variety of semi-natural habitats within a relatively small area. Underlying bedrock within the site may be contributing to the diversity of acidic and base-rich communities.

Stability and Instability - Water quality in lake has been in decline for past five years and is probably now unstable. Maintenance of water levels and the oligotrophic status of the lakes are the most critical factors in the conserving of the stability of the cSAC. As a habitat for fish species, the lake ecosystem is a delicately balanced system with limited spawning areas and limited marginal productive area (Whelan, 1996). The lake's plant, bird, fish, invertebrate fauna and flora will be directly affected by continued decline water quality.

Potential value - The conservation value could be enhanced by improvement and maintenance of water quality. At present, this factor threatens the overall value of the site.

OBJECTIVES, STRATEGIES AND ZONING

Conservation Objectives

The nature conservation objectives for this site are:

- Objective 1:** To maintain, and where possible, enhance the ecological value of the annexed habitat - Oligotrophic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation (comprising 36 % of the site or 26ha) that occurs within the site.
- Objective 2:** To maintain, and where possible, increase the ecological value of other semi-natural habitat types: rivers and streams (comprising 1% of the site), lowland wet and dry grassland (8% of the site), semi-natural deciduous woodland (7% of the site), wet and dry heath with upland grassland/scrub/exposed rock (38% of the site), and blanket bog (6% of the site).
- Objective 3:** To confirm the presence of Annex II plant species, Slender Naiad, and maintain any populations located on the site.
- Objective 4:** To maintain and where possible, increase the populations of other notable species that are found on the site, such as Peregrine Falcon, Arctic Char and Otter.
- Objective 5:** To initiate and maintain effective liaison between NPW and relevant authorities and interested parties (e.g. landowners, the public, local angling associations, Northern Regional Fisheries Board, Donegal Co. Council) on the management of the site.

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.

- **Water quality**
- **Agricultural usage and development**
- **Grazing**
- **Afforestation**
- **Residential development**
- **Disturbance to bird species**
- **Scientific knowledge of the site**
- **Site boundaries**
- **Angling and amenity use**

Water quality

Factors affecting water quality pose the most serious threat to the site.

Physical character of the lake – Due to its small size, Sessiagh Lough is very vulnerable to eutrophication. This factor is compounded by the fact that the lake is the lowest topographical feature in the local area and adjacent lands slope down into the lake. The lake acts as trap for sediments and nutrient inputs. Sessiagh is also a naturally stratified lake.

Agricultural inputs – creation of improved grassland and intensification of farming practices on the western side of the lake involves regular application of fertilisers. Run-off from these fields has added to nutrient enrichment in the lake, although this is likely to occur on a seasonal basis.

Adjacent land use – overgrazing in some parts of the site has led to loss of vegetative cover near the lakeshore. In periods of high rainfall, these areas will erode, leading to greater run-off into the lake and siltation. Run-off from agricultural buildings and lands adjacent to the site is also a potential source of nutrient input to the lake.

Inadequate sewage disposal - seepage from septic tanks and inputs of other domestic effluents from dwellings adjacent to the lake, is occurring and is likely to be the main source of persistent (rather than episodic) nutrient enrichment.

Sessiagh Lough has become prone to algal blooms in the past five years and appears to be tending towards more mesotrophic conditions. The main causes are presumed to be agricultural run-off from the surrounding farmland, and seepage from adjacent septic tanks.

Slender Naiad, Arctic Char and other fish stocks are vulnerable to influx of organic and inorganic nutrients, i.e. from sewerage disposal or fertiliser application in the catchment area (DoAF, 1972). Native fish stocks in the lake, particularly populations of Arctic Char, are vulnerable to water pollution.

While the present conservation potential of the site is threatened by water pollution, the sources of pollution and factors impinging on water quality in the site have been identified and are now starting to be addressed. There is a strong desire by several groups with a vested interest in the site to see that water quality is improved. Due to the small size of the lake and limited number of adjacent landowners (at present), it should be possible to control the nutrient inputs into the lake, once the management objectives are achieved.

Furthermore, under the obligations of the Water Framework Directive (WFD), 2000, the Local Authority is required to maintain the oligotrophic status of the lake. Strategies to achieve this are likely to include:

- Reduction/limiting the influx of point and non-point source pollutants into the lake from farm and domestic wastes, such as fertilisers, septic tank and farm effluents.
- Ensuring installation of any new septic tanks and farm waste storage/treatment facilities conform to the highest environmental standards.
- Monitoring of any inputs within the wider catchment areas that may have a detrimental effect on water quality of the site.
- Maintaining adequate water levels within the lakes, through control of abstraction and drainage.

Agricultural usage and development

The heath, dry and wet grassland and lakeshore (and to a lesser degree, blanket bog) habitats are vulnerable to agricultural intensification, particularly land reclamation, reseeding and fertilisation. Two fields within the cSAC were reseeded in 2000 and other small areas within the site have been fertilised in the recent past. Supplementary feeding also occurs along the southern part of the lakeshore.

With the exception of areas of improved grassland on the western and southern side of the site, the site is not used for intensive agricultural purposes and habitats within the site are relatively undisturbed. Supplementary feeding within the site has been scaled down in the recent past. Once damaged areas adjacent to the lakeshore are restored (see Objectives, Strategy and Zoning Section, Strategy 2.2), the site should require little management intervention apart from monitoring.

The traditional method of farming in this area is to use small areas within pasture lands for sowing of grains such as barley and wheat. This type of land use has occurred to a small degree within heath habitat on the southern side of the lake. Continued land use practices of this type would not necessarily be in conflict with conservation objectives for the site, as long as they are implemented according to recommended REPS prescriptions, and do not involve removal of natural vegetation and inappropriate fertiliser application.

Grazing

Overgrazing has damaged limited areas of heath and wet grassland, adjacent to the lakeshore. On the southeast side of the lake, an area of heath habitat has been degraded by poaching and overgrazing by cattle. Bare soil comprises up to 25% of total surface area in some places adjacent to the lakeshore. This damage possibly occurred as a result of holding livestock in a limited area, during the foot and mouth crisis (during 2001 summer season).

On the south western side of the lake, an area of wet grassland adjacent to the lake has been used for supplementary feeding of horses (noted during the winter of 2001/2), and the vegetative cover has been severely degraded. Some scrub clearance and damage to the stream bed have also occurred. The presence of a small number of feral goats (approximately 5) and Red Deer will be a limiting factor in natural regeneration of the woodland and scrub habitat.

Overgrazing in the catchment area may lead to degradation of terrestrial habitats, erosion on steep slopes and increased siltation as well as nutrient enrichment in the lake.

Stock densities appear to be at sustainable levels, except in small areas on the south western and south eastern sides of the lake. Overall, overgrazing should not be a significant threat to the site, as many of the landowners with livestock are within REPS.

Afforestation

A small area of heath habitat has been planted with conifers, which have not thrived. Further development of forestry with the lake's catchment area could result in loss/damage to terrestrial

habitats and siltation of the lake (during planting and clearfelling). As the site is underlain by primarily acidic bedrock, coniferous afforestation could also lead to acidification and further deterioration in water quality.

Residential development

Recent development of new dwellings adjacent to the site have resulted in clearance of natural lakeshore vegetation, small scale infilling of lakeshore habitat, and increased the level of septic tank effluent into the lake. The impact of further residential development on wildlife species, particularly in relation to disturbance of birds is unknown.

Seepage from septic tanks in dwellings adjacent to the site is one of the main possible vectors for nutrient enrichment and water pollution within the site. Further development of new houses adjacent to the lake and within the catchment area is a direct threat to water quality, unless new houses are connected to the town sewerage system.

The provision of sewerage treatment facilities for new developments adjacent to the site lies within the remit of the Local Authority. NPW has outlined its policies in relation to installation and upgrading of sewage treatment facilities to achieve good water quality (see Strategies Section).

Disturbance to bird species

The loss of Common Tern from the site is probably a result of predation from Mink. Competition for space with Black-headed Gulls that also breed on the island in the lake, and increased amenity use may also be factors in their declining use of the site (no breeding pairs since 1992).

Scientific knowledge of the site

The present status of Slender Naiad and Arctic Char is unknown.

A survey of the aquatic vegetation and fish stocks is needed to confirm the continued presence of Slender Naiad and Char.

Bird and wildlife usage data is needed to confirm the continued presence of Otter, Peregrine Falcon and other notable species. Regular patrolling of the site by the Conservation Ranger or a local site warden would establish wildlife usage of the site. A survey of Peregrine Falcons is due to start in 2002.

A comprehensive survey of the aquatic vegetation of the lake would also help to determine the impact of water pollution.

Site boundaries

At present, the site boundaries in several areas are less than 50m from the lakeshore, and therefore too close to provide an adequate protective zone from current threats, e.g. water pollution, land reclamation, application of fertilisers, and further residential development, particularly on the north western side.

The southern side of the site does not include the headwaters of the inflowing stream or the upper reaches of the lake catchment. The south western and middle section of southern boundary of the site are defined by an arbitrary boundary that cuts across the top of Knocknafeagher, effectively transecting intact habitats of ecological interest, i.e. heath mosaic, upland grassland and blanket bog.

The area of wet and dry heath, steep cliffs and blanket bog on the southern part of the site includes parts of the main inflowing stream into the lake, and provides a good buffer zone for the lake as well as providing nesting habitats for bird species of interest. This area is the most undisturbed part of the site, and includes habitat of ecological interest. During the preparation for this plan, parts of

this boundary were assessed and GPS points were obtained along it to determine a line that is easier to monitor.

There are a number of areas on northern and western side of the site where existing boundaries of the site are closer to the lake than the standard NPW policy of 50m. The outline of a 'Threat Source – D Zone' for water quality (see Zoning Section) will provide a control mechanism over threats to water pollution in these areas, e.g. septic tank effluent from existing and planned new homes.

Angling and amenity use

Fishing activities within the lake are well managed by the local angling club and the numbers of anglers on the lake are strictly controlled. Fly fishing is the only method of angling allowed on the lake, and only boats owned by D.A.A. are allowed to be launched on the lake. Introduction of species that would be a threat to Char (such as coarse fish species) has not occurred. There is open access to the lake and it is highly visible. Therefore, monitoring of most parts of the site is easy, and potentially damaging activities can be spotted readily. Apart from windsurfing, no other known recreational activities are currently being carried out within the site.

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

1. NPW will liaise with the relevant agencies e.g. EPA, local authorities, Fisheries Boards, to ensure compliance with the EU Water Framework Directive and other legislation relating to water quality. NPW will recommend that this site be included in the Register of Protected Areas for the River Basin District. In the context of the River Basin Management Plan, it will be necessary for the appropriate authorities to define water quality requirements for the site by 2006. To meet these requirements, the competent authorities will have to ensure that the sampling regime of the oligotrophic lake is adequate to achieve an acceptable level of confidence and precision required for the monitoring of the above habitat(s) within the designated area. (Water quality is currently monitored by the local authorities). At a minimum, the NPW Conservation Ranger will report any known pollution incidents to the appropriate authorities, as part of normal site surveillance.

NPW will also liaise with the relevant agencies:

- To discuss how the present un-satisfactory situation relating to water quality may be improved.

2. NPW will request that the local authority (*Donegal County Council*) ensures that appropriate treatment facilities are provided and maintained for all waste/sewage produced within the Impact Zone around Sessiagh Lough (see Zoning Section and Map 4). This must include an element of phosphorus reduction. Appropriate treatment facilities are those which conform to current guidelines for design and construction of waste/sewage treatment units (EPA, 1999 and 2000).

3. In areas where existing waste/sewage treatments systems are inappropriate or do not function properly, NPW will seek to have the local authority (*Donegal County Council*) carry out an assessment of such systems to determine the appropriate type of systems needed and have existing systems upgraded. (The local authority is responsible for ensuring all treatment systems comply with legislation relating to water quality).

Scientific monitoring

Monitoring of the favourable conservation status of the oligotrophic lake 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 oligotrophic lake 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 VI of this plan. Permission from the Minister is required before these actions may be carried out within the designated area. For example

- Grazing of livestock above a sustainable density (as defined in approved farm plans) within 50m of the lake.
- Adding lime within 50m of the lake.

Specific Strategies

Objective 1.

To maintain, and where possible, enhance the ecological value of the annexed habitat - Oligotrophic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation (comprising 36 % of the site)

Strategies:

- | | |
|---|---|
| 1.1. Maintain and enhance water quality | NPW will liaise with relevant bodies (particularly the EPA, Donegal County Council, and Northern Regional Fisheries Board) in relation to water quality monitoring, compliance with the EU Water Framework and to ensure appropriate waste/sewage facilities around Sessiagh Lough.

See General Strategies: Water Quality Monitoring |
| 1.2. Raise awareness of water quality issues | NPW will encourage greater awareness of water quality issues amongst local landowners, mainly through raising public awareness and supporting the application of REPS requirements for cSACs, e.g. correct application of fertilisers, storage of farmyard waste. |

Objective 2.

To maintain, and where possible, increase the ecological value of other semi-natural habitat types: rivers and streams (comprising 1% of the site), lowland wet and dry grassland (8% of the site), semi-natural deciduous woodland (7% of the site), wet and dry heath with upland grassland/scrub/exposed rock (38% of the site), and blanket bog (6% of the site).

Strategies:

- | | |
|---|--|
| 2.1. Enforce notifiable actions | NPW will maintain the condition of these habitats primarily through the use of Notifiable Actions (see Appendix VI). In habitats, where grazing is not carried out, NPW will apply a policy of non-intervention. |
| 2.2. Control damaging activities | NPW will liaise with landowners to ensure that supplementary feeding ceases within the site. On the south west and south east corner of the lake, lakeshore, adjacent grassland, scrub and the stream bed have been degraded by scrub clearance, supplementary feeding and overgrazing during the winter of 2001/2. These areas should be restored. NPW will monitor these areas to ensure the impacted areas regenerate successfully. |

- | | |
|--|---|
| 2.3. Non - intervention | A policy of non-intervention should be applied to the areas of semi-natural broadleaved woodland and scrub that occur adjacent to the inflowing stream. Light grazing of cattle and horses can continue. (Scrub clearance, tree felling, and land reclamation will be prevented through the use of notifiable actions). Where appropriate, NPW will encourage landowners to apply for the Native Woodland Scheme. |
| 2.4. Prevent further afforestation. | Conifers can be harvested from the site, but the existing (small) areas of forestry should not be replanted. Further afforestation in the lake's catchment area is not compatible with conservation objectives for the site. |

Objective 3.

To confirm the presence of Annex II plant species, Slender Naiad, and maintain any populations located on the site.

Strategies:

- | | |
|---|---|
| 3.1. Survey Slender Naiad population | NPW will carry out a survey to determine the extent and status viability of the Slender Naiad population. |
|---|---|

Objective 4.

To maintain and increase the populations of other notable species that are found on the site, such as Peregrine Falcon, Arctic Char and Otter.

Strategies:

- | | |
|---|--|
| 4.1. Survey populations of notable species. | The site is included in the current NPW Peregrine Falcon survey and the population will be monitored by NPW. (Strategies outlined in Objective 2 – habitat maintenance, will also help to protect notable species, such as Otter on the site). |
| 4.2 Monitor over-wintering bird populations | NPW will monitor trends in over-wintering bird populations (counts are carried out as part of the Irish Wetland Bird Survey (I-WeBS)). |
| 4.3 Determine status of Arctic Char population | NPW will liaise with relevant agencies, e.g. the Central and Northern Regional Fisheries Boards, to determine the presence and status of the lake's Arctic Char population. Once relevant data is made available, Dúchas will draw up specific management prescriptions for conservation of Char, where necessary. |
| 4.4 Conserve natural fish stocks | In conjunction with relevant authorities and the D.A.A., NPW will support efforts necessary to conserve natural fish stocks in the lake and to preserve semi-natural habitats within the site. |

Objective 5.

To initiate and maintain effective liaison between NPW and relevant authorities and interested parties (e.g. landowners, the public, local angling associations, Northern Regional Fisheries Board, Donegal Co. Council) on the management of the site.

Strategies:

- | | |
|--|--|
| 5.1. 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. |
| 5.2. 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. |
| 5.3. Liaise with REPS planners | REPS planners are required to consult with NPW staff when they are developing plans for land within the site. |

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: Natural Zone

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

2A: MAINTENANCE AREAS WITH LIMITED INTERVENTION

2A1: Freshwater lake

Review available water quality sampling data. Monitor potential sources of water pollution. Liaise with appropriate authorities and local angling group to address the causes of any water pollution and devise solutions to address any problems where necessary.

Strategies outlined in Objective 1 as well as 2.1, 2.2, 3.1 and Objective 5 will apply.

2A2: Semi-natural deciduous woodland, heath mosaic, blanket bog, streams, dry ad wet grassland and scrub

Monitor current grazing regime. Note impact of grazing in more heavily grazed areas adjacent to the lakeshore.

Strategies outlined in Objective 2- Maintain Habitats, will apply

Zone C: Intensive use Zone

Areas of low conservation value, managed for objectives other than nature conservation, but which are an important part of a nature conservation site (e.g. infrastructure).

C1: Improved grassland

No fertilisation within 50m of the lake, as per Notifiable Actions.

Strategies : 2.1, 2.2, and 5.3 will apply

C2: Amenities for Boating and Angling

A small slipway has been developed in the lake on the northwest side of the lake to allow access for boats. No modification to aquatic or terrestrial habitats can occur within the site prior consultation with NPW.

Strategies : 2.1 and those for Objective 5 will apply

Zone D: Impact Zone

Areas outside the site, which may have an impact on the site.

D1: Sewage Treatment for residential houses and agricultural buildings

Septic tanks systems, drains and surface run-off from farm sheds need to be controlled to ensure that any effluent does not enter the lake without adequate treatment.

All strategies outlined in Objective 1, as well as Objective 5 will apply..

Summary of Specific Strategies

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

	Strategy	Action required	Who to implement	When/Duration/Frequency	Estimated Total Cost	Additional Resources needed
1.1	Maintain and enhance water quality	Monitoring of water quality, enforcement of the Water Framework Directive and ensure adequate waste/sewage facilities.	NPW, EPA, NRFB, Donegal Co.Co.			
1.2	Raise awareness of water quality issues	Encourage greater awareness of water quality issues amongst local landowners	NPW			
2.1	Enforce notifiable actions	Enforce notifiable actions	NPW and landowners			
2.2	Control damaging activities	Liaison with landowners to cease supplementary feeding and scrub clearance	NPW and landowners			
2.3	Non-intervention	Non-intervention applied to areas of semi-natural broadleaved woodland and scrub.	NPW and landowners			
2.4	Prevent further afforestation	Harvest existing areas of plantation. No replanting or further afforestation	Landowners			
3.1	Survey Slender Naiad population	Survey Slender Naiad population	NPW			
4.1	Survey populations of notable species	Survey and monitoring of Peregrine populations	NPW			
4.2	Monitor over-wintering bird populations	Monitor trends in over-wintering bird populations	NPW and I-WeBS			
4.3	Determine status of Artic Char populations	Survey to determine presence and status of the Artic Char population in the lake	NPW, NRFB			
4.4	Conserve natural fish stocks	Conserve natural fish stocks in the lake	NPW, NFRB, DAA			
5.1	Liaise with interested parties	Initiate and maintain effective liaison with interested parties	NPW and Liaison Committee			
5.2	Monitor development applications	Monitor applications for planning permissions	NPW			
5.3	Liaise with REPS planners	REPS planners are obliged to consult with NPW staff when drawing up plans for land within the site	NPW and REPS planners			

APPENDIX I:

GLOSSARY

ABIOTIC FACTORS – Non-living factors such as geology and climate.

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

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.

ACIDIFICATION - The detrimental effect of acid rain on soils and freshwater.

AFFORESTATION - The planting of trees (usually conifers) over an area of previously unplanted ground.

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.

ALTITUDE - Vertical height above sea level.

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

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

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

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

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

ANNEX 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.

ANTHROPOGENIC - Produced or caused by humans.

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

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

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.

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

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

ATYPICAL - Not typical/uncommon.

BASE POOR SOILS - Soils that only slowly release the dissolved chemicals or minerals contained within them.

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.

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

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

BLANKET BOG - An NPW habitat classification which refers to bogs which carpet the landscape, following the underlying topography. They can cover extensive areas along the west coast and on uplands throughout the country.

CARR - Shrub or woodland communities growing in waterlogged ground.

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.

COARSE FISH - Freshwater fish other than Salmon or Trout.

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

COMMERCIAL FOREST - An NPW habitat classification which applies to plantations of coniferous trees, primarily Sitka Spruce, Lodgepole Pine, Douglas Fir, Japanese Larch and Norway Spruce. More than 90% of the canopy is formed by coniferous trees, although there may be broad-leaved trees, especially Birch present along the plantation edges.

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

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

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

COPPICING - The process of cutting trees or bushes close to the ground to allow new shoots to grow from the stump, on a rotational basis.

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.

CORRIE - A circular hollow on a hillside formed by glacial scouring.

CUTOVER BOG – An NPW habitat classification that describes areas of bog which have been previously cut, although not down to the marl layer or bedrock. Cut-over areas are normally a mosaic of cut areas, face banks, pools, drainage ditches, uncut areas of peat, scrub, grassland etc.

DEHLG - Department of Environment, Heritage and Local Government

DENSE BRACKEN – An NPW habitat classification which refers to areas with 75% cover of Bracken (*Pteridium aquilinum*), a single branched fern with a characteristic small and bright green foliage dying to rich reds and russets in the Autumn.

DESICCATION - Drying out.

DETRITAL - Derived from reworking other material.

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.

DoCMNR – Department of Communications, Marine and Natural Resources

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.

ECOTOPE - The abiotic environment or habitat of a particular biotic system.

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.).

EVALUATION - A considered or measured assessment of available information leading to a ranking or valuing.

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.

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.

FENS AND FLUSHES - An NPW habitat classification. Fens are peatlands fed by calcium rich water, either from groundwater or from inflowing surface water. Flushes are wet areas maintained by the seepage of water down slopes of various gradient, and are usually local features. Both are characterised by an abundance of small Sedge forming species-rich mosaics with other species. Orchid species are particularly noticeable in fens and Butterworts are more typical of flushes.

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.

FRAGILITY - Refers to how robust a site/habitat/species is.

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.

FRY - Fish which are less than 1 year old.

GAME FISH - Salmonoid fish, i.e. Trout and Salmon.

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.

HABITAT - Refers to the environment defined by specific abiotic and biotic factors, in which a species lives at any stage of its biological cycle. In general terms it is a species home. In the

Habitats Directive this term is used more loosely to mean plant communities and areas to be given protection.

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

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

HERBACEOUS - Seed plants with non-woody green stems.

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.

IUCN – World Conservation Union

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.

LEPIDOPTERA - Moths and butterflies.

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.

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

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

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.

MORAINE - A mass of debris carried by glaciers and forming ridges and mounds when deposited.

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, Heritage 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.

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

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

NGOs - Non- Governmental Organisations.

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

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

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

NPW - National Parks and Wildlife

NRFB - Northern Region Fisheries Board.

OLIGO – Prefix denoting few or little

OLIGOTROPHIC - Applied to waters that are relatively low in nutrients, as in lakes which are low in dissolved minerals and which can only support limited plant growth.

OPEN SEASON – A specified period of time when a specified quarry species may be hunted.

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.

PLATEAU - A wide, mainly level area of elevated land.

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.

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

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

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

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.

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.

SCREE - An NPW habitat classification which refers to unconsolidated rocky or stony material on a hillside.

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.

SLATE - metamorphic rock possessing a well-developed planar cleavage such that it splits into thin slabs or "slates".

SMOLT - at a particular stage of their development, young Salmon and Sea Trout migrate to the sea, at which stage they are known as smolts.

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.

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).

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

TERRAIN - A piece of ground which is usually described by its physical character, i.e. rocky terrain.

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

TILL - Unconsolidated, unsorted glacial deposits.

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).

TURBARY – Refers to the right to harvest turf.

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

UPLAND GRASSLAND ON PEATY SOIL - An NPW habitat classification describing species poor grassland which develops over, dark, acidic, peaty soils, normally at altitudes which exceed 100m. Common acidic upland grassland types in Ireland include those dominated by *Nardus stricta* (Mat grass), the narrow leaved *Agrostis* spp. (Bent grasses) and *Molinia caerulea* (Purple Moor Grass).

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: Sheet 1
- O.S. Discovery (1:50,000) map: Sheet 2
- O.S. 6 inch (1: 10,560) map: Donegal 16 (1903 version)

Data Bases :

- NHA database, NPW, Department of Environment and Local Government, 7 Ely Place, Dublin 2.
- Natura 2000 database, NPW, Department of Environment and Local Government, 7 Ely Place, Dublin 2.
- I-WeBs Database, BirdWatch Ireland, Rutledge House, 8 Longford Place, Monkstown, Co.Dublin

Photographic Coverage:

- Department of Environment and Local Government, HQ Ely Place,
- Aerial photos:.O.S. 2157 (11/5/2000), taken at 6576m. BKS 94 20 207 (12/6/94), scale 1:20,000

Relevant Legislation:

- S.I. No. 94/1997: European Communities (Natural Habitats) Regulations, 1997.
- Local Government (Planning and Development) Regulations, 2000.
- S.I. No. 94/1999 Flora (Protection) Order, 1999.
- Water Standards for Freshwater Fish Directive (EEC 78/659).
- Water Framework Directive

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APPENDIX III: PHYSICAL PROCESSES AFFECTING THE SITE

Climate

The local climate of County Donegal and Sessiagh Lough in particular, is influenced by its proximity to the coast and surrounding mountainous terrain. In general, the County receives more rainfall, has a greater number of wet days (days with more than 1mm of rain) but less ground frost days, and is prone to more severe gales than the east and midland regions. Wind speeds average 19 knots during December and January. The prevailing wind direction is southerly and westerly, with calms only experienced 0.8% of the time. October and November are the wettest months with average monthly rainfall totasl of 118mm and 114mm. Precipitation is lowest in May and June with number of sunshine hours of 6.2 and 5.7 respectively. In 2000, ground frost was only recorded on 43 days in comparison to 98 in the Midlands (Met Eireann, 2000).

Rainfall table

MALIN HEAD													
monthly and annual mean and extreme values													
1961-1990													
TEMPERATURE (degrees Celsius)	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	year
<i>mean daily max.</i>	7.6	7.5	8.7	10.3	12.7	15	16.2	16.6	15.3	13	9.8	8.4	11.8
<i>mean daily min.</i>	3.2	2.9	3.7	5	7.1	9.6	11.4	11.4	10.1	8.3	5.2	4.2	6.8
<i>mean</i>	5.4	5.2	6.2	7.6	9.9	12.3	13.8	14	12.7	10.7	7.5	6.3	9.3
<i>absolute max.</i>	13.9	13.8	19	19.5	24.7	25	27	25.3	23.2	19.6	16	15.1	27
<i>absolute min.</i>	-6.2	-6.2	-4.4	-1.8	-0.5	2.6	5.6	5.2	2	1	-2.5	-5.5	-6.2
<i>mean no. of days with air frost</i>	3.4	3.3	1.6	0.4	0	0	0	0	0	0	0.4	1.8	11
<i>mean no. of days with ground frost</i>	9.6	9.8	7.4	4.3	1	0	0	0	0.1	0.3	3.7	6.7	42.9
RELATIVE HUMIDITY (%)													
<i>mean at 0900UTC</i>	83	82	81	79	79	81	84	84	83	83	82	83	82
<i>mean at 1500UTC</i>	80	77	76	76	76	78	80	79	78	78	79	81	78
SUNSHINE (hours)													
<i>mean daily duration</i>	1.2	2.2	3.1	5.1	6.2	5.7	4.3	4.3	3.5	2.4	1.5	0.9	3.4
<i>greatest daily duration</i>	7.5	9.2	11.1	14.1	15.5	16.2	16.1	14.8	11.9	9.4	7.6	6.7	16.2
<i>mean no. of days with no sun</i>	11	7	6	3	2	2	3	3	4	6	8	12	67
RAINFALL (mm)													
<i>mean monthly total</i>	114.4	76.3	85.9	58.4	59.2	64.4	72.4	91.3	102.1	118	114.9	103.2	1060.6
<i>greatest daily total</i>	36.9	24.1	26.3	36.1	29.8	32.5	26.2	41.5	53.5	63.2	56.1	33.5	63.2
<i>mean no. of days with $\geq 0.2\text{mm}$</i>	22	17	21	17	17	18	19	20	21	22	22	23	237
<i>mean no. of days with $\geq 1.0\text{mm}$</i>	19	13	16	12	12	13	13	15	16	18	18	18	182
<i>mean no. of days with $\geq 5.0\text{mm}$</i>	9	6	7	4	4	4	5	6	7	8	8	7	76
WIND (knots)													
<i>mean monthly speed</i>	19	18.4	17.9	15.1	14.2	13.2	13.2	13.2	15.7	17.5	18.3	19	16.3
<i>max. gust</i>	91	86	90	69	71	74	74	67	98	76	76	88	98
<i>max. mean 10-minute speed</i>	64	57	67	47	49	52	55	45	66	57	56	59	67
<i>mean no. of days with gales</i>	11.2	8.6	8	3.4	2.3	1.3	0.8	1.5	3.8	6.7	8.7	9.7	66
WEATHER (mean no. of days with...)													
<i>snow or sleet</i>	6.6	6	4.6	2.4	0.2	0	0	0	0	0.1	1.9	3.9	25.8
<i>snow lying at 0900UTC</i>	0.9	1	0.5	0.1	0	0	0	0	0	0	0	0.8	3.3
<i>hail</i>	8.6	5.8	7.9	4.7	1.9	0.4	0.1	0.1	0.6	3.1	7.9	7.3	48.4
<i>thunder</i>	0.6	0.4	0.4	0.3	0.4	0.8	0.6	0.4	0.4	0.6	0.6	0.6	5.9
<i>fog</i>	0.4	0.5	0.7	1.9	1	2	2.2	1.3	0.6	0.4	0.2	0.4	11.8

Source : Malin Head Meteorological Station, Grid reference : C419586 @ 22 m.

Geology and Geomorphology

Solid Geology

The site is underlain by metamorphic rocks of Pre-Cambrian (Lower Dalradian) age. The bedrock comprises mainly laminated quartzites of the Sessiagh-Clonmass formation (Long and McConnell, 1997). However, on the western side of the lake, the bedrock contains more base-rich units including units of dolomitic marble. Lenses of metadolerite, a base-rich igneous intrusion of Ordovician age, occur on the northern boundary of the site and underlie the blanket bog habitat to the south. The topography of the site including the steep to vertical cliffs on the southern shore of the lake has been influenced by major tectonic movements in the region, and a number of northeast-southwest trending faults occur in the area.

Drift Geology

Glacial till, derived from quartzite, only occurs on the western side of the site and comprises very thin layers of overburden. The lakeshore appears to be underlain by bare rock.

Geomorphology

Sessiagh Lough is a small (27 ha) lake with a mainly stoney substrate. The lake is surprisingly deep for its size, and its physical structure is slightly unusual. Measurements of the lake depth using electronic soundings indicated that the lake is over 30m deep in the southwest corner (J. Curran, pers. comm., 2001). The significant depths within the lake could be attributed to a geological structure running through the lake, i.e. a northeast-southwest trending fault, that effectively creates a trench within it. This structure may create conditions favourable for fishlife and may explain the very high biomass in the lake.

Soils and Soil Processes

Soils within the site are primarily peaty podzols, lithosols and blanket peat derived from granite and sandstones. With the exception of blanket peat, most of the terrestrial habitats have a thin (<0.5m) layer of soils, with bedrock outcropping or close to the surface. No data is available on the nature of the lacustrine sediments.

APPENDIX IV: WATER QUALITY

Sessiagh Lough lies within the Environmental Protection Agency (EPA) Hydrometric Region no. 38, but the lake is not regularly sampled for water quality by the EPA. It is listed by the EPA as a Branded Lake which means it has been designated under the Freshwater Fish Directive (Bowman and Toner, 2000), and is to be sampled by Donegal Co. Council three times a year, at a minimum (once in the spring, and twice between July-October). Since 1999, water quality in the lake has been sampled by the Northern Regional Fisheries Board (NRFB) on a monthly basis (see Map 5 for locations). A number of individual surveys carried out to determine fish stock and growth rates have also provided water quality data (Whelan, 1996).

Water quality sampling data in 1994 indicated the lake was 'gin clear', moderately productive and had alkaline conditions² (pH>7), with abundant charophytes and a good diversity of aquatic macroinvertebrates in the littoral zone (Whelan, 1996). Samples taken by NRFB in April 1997 also indicated high pH (8.24) and high alkalinity (50mg/l Ca CO₃). The historical presence of Slender Naiad and Arctic Char also indicate that water quality was good.

Overall, the water quality data presented indicates that Sessiagh Lough still falls within the accepted standards for oligotrophic lakes. However, the lake's trophic status has fluctuated in recent years. Systematic water quality sampling indicates that the lake has become more mesotrophic since systematic recording began in 1999. Since 1997, a number of algal blooms have occurred, affecting the whole lake area (J. Curran, *pers. comm*, 2001). Samples of plankton taken from the lake indicated that several species of blue green algae (*Anabaena circinalis*, *Ceratium hirundinella*, *Oscillatoria sp.*) were present with algae abundant enough to be clearly visible over parts of the shore (C. Roden, 1999).

Regular water quality monitoring by NRFB has also indicated there was significant water pollution 'events' in the autumn of 2001 (elevated N and P). Sampling results from these periods indicated that the main source of pollution was from the northwest corner of the lake (Sampling site 5, see Map 5). The decline in water quality has been attributed to point pollution such as seepage from septic tanks and also runoff from land drain pipes that flow into the lake. Since these problems were identified, several problematic areas around the lake have been addressed, e.g several septic tanks adjacent to the lake have been upgraded. However, it appears the lake is still under threat from eutrophication, particularly from a number of septic tanks located adjacent to (and possibly below) the water table of the lake.

² The alkalinity of the lake has been attributed to the presence of metadolerites in the bedrock which are high in iron, magnesium and calcium. However, it would appear that the bedrock in much of the lake basin is actually acidic quartzite, therefore the source of base-enrichment is probably from springs or groundwater flowing from areas in contact with metadolerite intrusions.

Water quality data for Sessiagh Lough (provided by the Northern Regional Fisheries Board)

Samples were taken at five sampling points, as shown on Map 5

Key to Abbreviations: P = Phosphorus

M.R.P. = Molybdate Reactive Phosphorus

N = Nitrogen

T.O.N. = Total Organic Nitrogen

n.d. = no data available

Table 1. Average values at Sessiagh Lough during 1999/2000 and 2000/2001

1999/2000	Total P	M.R.P.	Total N	T.O.N.	CHL
Site	mg/l	mg/l	mg/l	mg/l	mg/l
1.00	0.01	0.00	0.17	0.03	9.69
2.00	0.02	0.01	1.90	1.75	
3.00	0.01	0.00	0.15	0.01	
4.00	0.01	0.00	0.26	0.12	
5.00		0.02	0.92	0.60	
Average	0.01	0.01	0.68	0.50	9.69

2000/2001	Total P	M.R.P.	Total N	T.O.N.	CHL
Site	mg/l	mg/l	mg/l	mg/l	mg/l
1.00	0.54	0.00	0.13	0.00	9.38
2.00	0.49	0.00	4.02	3.64	
3.00	0.42	0.00	0.16	0.01	
4.00	0.59	0.00	0.14	0.01	
5.00	0.36	0.00	0.90	0.57	
Average	0.48	0.00	1.07	0.84	

Table 2. Values from sampling site 1 at Sessiagh Lough for 1999/2000 and 2000/2001

Date (1999/2000)	Total P mg/l	M.R.P. mg/l	Total N mg/l	T.O.N. mg/l	CHL mg/l
10-Nov-1999	0.004	0.000	0.108	0.104	8.757
7-Dec-1999	0.004	0.000	0.145	0.020	11.759
10-Jan-2000	0.015	0.000	0.227	0.123	12.176
7-Feb-2000	0.009	0.002	0.212	0.071	20.683
7-Mar-2000	0.007	0.000	0.217	0.000	24.311
17-Apr-2000	0.011	0.007	0.129	0.000	10.800
9-May-2000	n.d.	0.002	0.132	0.000	4.934
13-Jun-2000	n.d.	0.000	0.079	0.000	2.914
10-Jul-2000	n.d.	0.000	0.252	0.000	3.836
9-Aug-2000	n.d.	0.004	0.322	0.000	4.420
13-Sep-2000	n.d.	0.007	0.111	0.000	5.560
8-Oct-2000	n.d.	0.001	0.153	0.000	6.088
Average (over 12 months)	0.008	0.002	0.174	0.027	9.687
2000/2001					
21-Nov-2000	n.d.	0.000	0.141	0.000	15.596
12-Dec-2000	n.d.	0.000	0.182	0.000	15.888
23-Jan-2001	n.d.	0.004	0.126	0.000	13.511
12-Feb-2001	n.d.	0.000	0.149	0.000	21.017
13-Mar-2001	n.d.	0.000	n.d.	0.000	9.841
11-Apr-2001	n.d.	0.000	n.d.	0.000	3.670
16-May-2001	n.d.	0.003	n.d.	0.000	3.795
18-Jun-2001	n.d.	0.000	n.d.	n.d.	3.044
12-Jul-2001	0.642	<0.006	n.d.	<0.049	11.587
14-Aug-2001	0.44	<0.006	n.d.	<0.049	3.128
19-Sep-2001	<0.018	*<0.006	n.d.	<0.07	11.504
23-Oct-2001	n.d.	<0.006	0.128	<0.049	12.677
*ortho = 0.52					
Average (over 12 months)	0.541	0.001	0.134	0.000	9.377

Table 3. Values from sampling point 2 at Sessiagh Lough for 1999/2000 and 2000/2001

Date (1999/2000)	Total P mg/l	M.R.P. mg/l	Total N mg/l	T.O.N. mg/l	CHL mg/l
10-Nov-1999	0.015	0.000	1.600	1.547	
7-Dec-1999	0.026	0.012	1.271	1.114	
10-Jan-2000	0.036	0.018	1.503	1.212	
7-Feb-2000	0.008	0.000	0.145	0.043	
7-Mar-2000	0.012	0.003	1.511	1.412	
17-Apr-2000	0.017	0.010	1.302	1.122	
9-May-2000	n.d.	0.006	1.597	1.618	
13-Jun-2000	n.d.	0.000	1.926	1.829	
10-Jul-2000	n.d.	0.002	3.561	3.064	
9-Aug-2000	n.d.	0.012	2.081	1.864	
13-Sep-2000	dry	dry	dry	dry	
8-Oct-2000	n.d.	0.004	4.407	4.407	
Average	0.019	0.006	1.900	1.748	
(over 12 months)					
2000/2001					
21-Nov-2000	n.d.	0.000	4.018	3.492	
12-Dec-2000	n.d.	0.000	3.602	3.181	
23-Jan-2001	n.d.	0.006	3.692	3.334	
12-Feb-2001	n.d.	0.000	3.565	3.128	
13-Mar-2001	n.d.	0.003	3.475	3.176	
11-Apr-2001	n.d.	0.000	3.365	2.950	
16-May-2001	n.d.	0.000	n.d.	4.868	
18-Jun-2001	dry	dry	dry	dry	
12-Jul-2001	0.568	n.d.	n.d.	n.d.	
14-Aug-2001	0.406	<0.006	n.d.	2.791	
19-Sep-2001	<0.018	*<0.006	n.d.	3.050	
23-Oct-2001	n.d.	<0.006	6.412	6.412	
		*ortho = 0.59			
Average	0.487	0.001	4.018	3.638	
(over 12 months)					

Table 4. Values for sampling site 3 at Sessiagh Lough for 1999/2000 and 2000/2001

Site (1999/2000)	Total P mg/l	M.R.P. mg/l	Total N mg/l	T.O.N. mg/l	CHL mg/l
10-Nov1999	0.002	0.001	0.187	0.097	
7-Dec-1999	0.001	0.000	0.077	0.000	
10-Jan-2000	0.01	0.000	0.098	0.022	
7-Feb-2000	0.007	0.000	0.411	0.000	
7-Mar-2000	0.006	0.002	0.103	0.015	
17-Apr-2000	0.007	0.004	0.117	0.000	
9-May-2000	n.d.	0.002	0.045	0.000	
13-Jun-2000	n.d.	0.000	0.040	0.000	
10-Jul-2000	n.d.	0.000	0.240	0.000	
9-Aug-2000	n.d.	0.002	0.213	0.000	
13-Sep-2000	n.d.	0.004	0.101	0.000	
8-Oct-2000	n.d.	n.d.	n.d.	n.d.	
Average	0.006	0.001	0.148	0.012	
(over 12 months)					
2000/2001					
21-Nov-2000	n.d.	0.000	0.095	0.000	
12-Dec-2000	n.d.	0.001	0.311	0.000	
23-Jan-2001	n.d.	0.003	0.158	0.000	
12-Feb-2001	n.d.	0.000	0.094	0.000	
13-Mar-2001	n.d.	0.000	0.168	0.000	
11-Apr-2001	n.d.	0.000	0.139	0.000	
16-May-2001	n.d.	0.003	n.d.	0.036	
18-Jun-2001	n.d.	0.000	n.d.	0.000	
12-Jul-2001	0.38	n.d.	n.d.	n.d.	
14-Aug-2001	0.466	<0.006	n.d.	<0.049	
19-Sep-2001	<0.018	*<0.006	n.d.	<0.049	
23-Oct-2001	n.d.	<0.006	0.107	<0.049	
		*ortho = 0.176			
Average	0.423	0.001	0.163	0.006	
(over 12 months)					

Table 5. Values for sampling point 4 at Sessiagh Lough for 1999/2000 and 2000/2001

Date (1999/2000)	Total P mg/l	M.R.P. mg/l	Total N mg/l	T.O.N. mg/l	CHL mg/l
10-Nov-1999	0.006	0.000	0.144	0.119	
7-Dec-1999	0.003	0.000	0.145	0.000	
10-Jan-2000	0.01	0.000	0.245	0.042	
7-Feb-2000	0.022	0.012	1.342	1.269	
7-Mar-2000	0.007	0.002	0.106	0.000	
17-Apr-2000	0.012	0.007	0.132	0.000	
9-May-2000	n.d.	0.003	0.198	0.000	
13-Jun-2000	n.d.	0.000	0.105	0.000	
10-Jul-2000	n.d.	0.000	0.250	0.000	
9-Aug-2000	n.d.	0.000	0.152	0.000	
13-Sep-2000	n.d.	0.003	0.111	0.000	
8-Oct-2000	n.d.	0.000	0.153	0.000	
Average	0.010	0.002	0.257	0.119	
(over 12 months)					
2000/2001					
21-Nov-2000	n.d.	0.000	0.091	0.000	
12-Dec-2000	n.d.	0.000	0.144	0.000	
23-Jan-2001	n.d.	0.003	0.125	0.035	
12-Feb-2001	n.d.	0.000	0.153	0.000	
13-Mar-2001	n.d.	0.000	0.128	0.000	
11-Apr-2001	n.d.	0.000	0.107	0.000	
16-May-2001	n.d.	0.003	n.d.	0.000	
18-Jun-2001	n.d.	0.000	n.d.	0.000	
12-Jul-2001	0.406	n.d.	n.d.	n.d.	
14-Aug-2001	0.776	<0.006	n.d.	<0.049	
19-Sep-2001	<0.018	*<0.006	n.d.	<0.049	
23-Oct-2001	n.d.	<0.006	0.168	<0.049	
		*ortho = 0.74			
Average	0.591	0.001	0.136	0.006	
(over 12 months)					

Table 6. Values for sampling point 5 at Sessiagh Lough for 1999/2000 and 2000/2001

Date (1999/2000)	Total P mg/l	M.R.P. mg/l	Total N mg/l	T.O.N. mg/l	CHL mg/l
10-Nov-1999	n.d.	n.d.	n.d.	n.d.	
7-Dec-1999	n.d.	n.d.	n.d.	n.d.	
10-Jan-2000	n.d.	n.d.	n.d.	n.d.	
7-Feb-2000	n.d.	n.d.	n.d.	n.d.	
7-Mar-2000	n.d.	n.d.	n.d.	n.d.	
17-Apr-2000	n.d.	n.d.	n.d.	n.d.	
9-May-2000	n.d.	n.d.	n.d.	n.d.	
13-Jun-2000	n.d.	n.d.	n.d.	n.d.	
10-Jul-2000	n.d.	n.d.	n.d.	n.d.	
9-Aug-2000	n.d.	0.018	1.402	0.801	
13-Sep-2000	n.d.	0.027	0.667	0.500	
8-Oct-2000	n.d.	0.005	0.677	0.501	
Average		0.017	0.915	0.601	
(over 12 months)					
2000/2001					
21-Nov-2000	n.d.	0.000	1.280	1.060	
12-Dec-2000	n.d.	0.003	1.475	1.286	
23-Jan-2001	n.d.	0.004	1.009	0.878	
12-Feb-2001	n.d.	0.011	1.200	0.993	
13-Mar-2001	n.d.	0.004	0.892	0.729	
11-Apr-2001	n.d.	0.005	0.706	0.604	
16-May-2001	n.d.	0.001	n.d.	0.757	
18-Jun-2001	n.d.	0.004	n.d.	0.083	
12-Jul-2001	0.582	n.d.	n.d.	n.d.	
14-Aug-2001	0.482	0.001	n.d.	0.315	
19-Sep-2001	0.024	*<0.006	n.d.	0.058	
23-Oct-2001	n.d.	<0.006	0.709	0.689	
		*ortho = 0.66			
Average	0.363	0.004	0.903	0.567	
(over 12 months)					

APPENDIX V: BIRD COUNT DATA

Species	Sheppard ¹ (winter)	IWeBS ² (winter)	Whilde ³ (summer)	National Threshold ⁴	International. Threshold
		Peak.	Mean		
Fulmar (<i>Fulmarus glacialis</i>)				16	?
Mute Swan (<i>Cygnus olor</i>)		2	0		100
Pochard (<i>Aythya ferina</i>)	24	8	2		350
Tufted Duck (<i>Aythya fuligula</i>)	34	17	9		300
Black-headed Gull (<i>Larus ridibundus</i>)				206	
Common Tern (<i>Sterna hirundo</i>)				6	?

1 – Mean of peak counts, based on 11 counts over three seasons between 1984 – 1987.

2 – Based on 6 counts between 1998/1999 and 1999/2000 seasons, Irish Wetlands Bird Survey.

3– Maximum number, based on two counts 1977 & 1992, from a report by Whilde, A. 1985.

4 - National Threshold – numbers of each species that represent 1% of the all-Ireland population (Colhoun, 2000); International Threshold – numbers of each species that represent 1% of the International population (Colhoun, 2000)

APPENDIX VI: NOTIFIABLE ACTIONS

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

Habitat type 2.1 Upland grassland, scree and inland cliff

Habitat type 2.2 Dry lowland grasslands

Habitat type 2.3 Wet lowland grasslands

Habitat type 3.1 Blanket bog

Habitat type 3.2 Heath (including Juniper scrub)

Habitat type 5.1 Woodlands

Habitat type 5.2 Scrub

Habitat type 6.1 Rivers or streams

Habitat type 6.2 Lakes, ponds and canals

Habitat type 7.1 Ditches, hedges, cereals and intensive grasslands, walls, buildings, waste ground, bare soil, parkland grassland, bracken, caves or quarries

Habitat type 8.7 Slender Naiad

HABITAT TYPE 2.1

UPLAND GRASSLAND, SCREE, AND INLAND CLIFF

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

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

<u>SECTION A</u>	<u>SECTION B</u>
<p>Please note that the activities listed in Section A overleaf are required to be notified to the Minister for The Environment, Heritage and Local Government and should not be undertaken before consent.</p>	<p>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).</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 2.1

UPLAND GRASSLAND, SCREE, AND INLAND CLIFF

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</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</p> <p>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</p> <p>using fertiliser on slopes over 25 degrees</p> <p>creation of new tracks or paths</p> <p>burning of vegetation</p> <p>reclamation, infilling, ploughing or land drainage</p> <p>reseeding, planting of trees or any other species</p> <p>rock removal/use of any pesticide or herbicide</p> <p>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. 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> <p>commercial turf cutting</p> <p>erecting or operating a wind farm</p>

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

HABITAT TYPE 2.2

DRY LOWLAND GRASSLANDS

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

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

SECTION A

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

SECTION B

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

If so, these notifiable actions do not apply.

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 2.2

DRY LOWLAND GRASSLANDS

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</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, Heritage and Local Government to restrict existing activities. In these cases compensation will be payable for actual losses arising out of any such restriction. In the event of restrictions being imposed by the Minister for The Environment and Local Government, an appropriate appeals procedure will be put in place.

HABITAT TYPE 2.3

WET LOWLAND GRASSLANDS

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

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

SECTION A

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

SECTION B

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

If so, these notifiable actions do not apply.

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

HABITAT TYPE 2.3

WET LOWLAND GRASSLANDS

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</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</p> <p>reclamation, infilling, ploughing 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, Heritage and Local Government to restrict existing activities. In these cases compensation will be payable for actual losses arising out of any such restriction. In the event of restrictions being imposed by the Minister for The Environment and Local Government, an appropriate appeals procedure will be put in place.

HABITAT TYPE 3.1

BLANKET BOG

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

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

SECTION A

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

SECTION B

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

If so, these notifiable actions do not apply.

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

HABITAT TYPE 3.1

BLANKET BOG

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>grazing of livestock above a sustainable density or type of stock (as defined in approved farm plans)</p> <p>grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung</p> <p>supplementary feeding of stock, except as defined in REPS guidelines/ introduction of stock to formerly ungrazed areas</p> <p>adding lime/adding fertiliser of any sort</p> <p>creation of new tracks or paths/burning of vegetation/ reclamation, infilling, ploughing or land drainage</p> <p>reseeding, planting of trees or any other species</p> <p>rock removal/cutting turf except from existing banks; no cutting from intact (uncut) areas</p> <p>commercial peat moss or turf extraction</p> <p>use of any pesticide or herbicide, including sheep dip/ 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. pony trekking)</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> <p>erecting or operating a wind farm</p>

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

HABITAT TYPE 3.2

HEATH (INCLUDING JUNIPER SCRUB)

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

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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).

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HABITAT TYPE 3.2

HEATH (INCLUDING JUNIPER SCRUB)

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>grazing of livestock above a sustainable density or type of stock (as defined in approved farm plans)/grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung</p> <p>supplementary feeding of stock, except as defined in REPS guidelines</p> <p>introduction of stock to formerly ungrazed areas</p> <p>adding lime/ adding fertiliser of any sort</p> <p>Creation of new tracks or paths</p> <p>burning areas of vegetation over 5 ha, or burning any area more often than once every 15 years</p> <p>reclamation, infilling, ploughing or land drainage</p> <p>reseeding, planting of trees or any other species</p> <p>rock removal/cutting turf except from existing banks; no cutting from intact (uncut) areas</p> <p>commercial peat moss or turf extraction</p> <p>use of any pesticide or herbicide, including sheep dip</p> <p>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. pony trekking)</p> <p>introduction (or re-introduction) into the wild of plants or animals of species not currently found in the area/any other activity of which notice may be given by the Minister from time to time</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> <p>erecting or operating a wind farm</p>

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

HABITAT TYPE 5.1

WOODLANDS

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

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SECTION A

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

SECTION B

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

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HABITAT TYPE 5.1

WOODLANDS

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>grazing by livestock</p> <p>adding lime</p> <p>adding fertiliser of any sort</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</p> <p>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. 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 golf courses, sports pitches, caravan or camping facilities.</p> <p>any activity which may cause pollution of the woodland</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>

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

HABITAT TYPE 5.2

SCRUB

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

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SECTION A

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

SECTION B

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

If so, these notifiable actions do not apply.

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

HABITAT TYPE 5.2

SCRUB

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</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>

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

HABITAT TYPE 6.1

RIVERS OR STREAMS

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

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

SECTION A

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

SECTION B

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

If so, these notifiable actions do not apply.

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 6.1

RIVERS OR STREAMS

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>grazing of livestock above a sustainable density (as defined in approved farm plans) within 30m of the river or stream/grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung within 30m of the river or stream</p> <p>supplementary feeding of stock within 30m of the river or stream/adding lime within 30m of the river or stream/adding fertiliser of any sort within 30m of the river or stream</p> <p>extracting water for irrigation or other purposes</p> <p>operation of boat angling or shore angling business/restocking with fish</p> <p>reclamation, infilling, ploughing or land drainage within 30m of the river or stream/ reseeding, planting of trees or any other species within 30m of the river or stream/ removal of trees or any aquatic vegetation within 30m of the river/stream/ use of any pesticide or herbicide in the river or stream or within 30m of the river or stream</p> <p>dumping rubbish or other materials or disposing of any chemicals or wastes in streams/ivers or into water-courses running into them</p> <p>dumping, burning or storing any materials within 30m of the river/stream including the land spreading of used pesticides (e.g. sheep dip)/alteration of the banks, channel, bed or flow of the river or stream</p> <p>harvesting or burning of reed or willow.</p> <p>causing siltation/ 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 golf courses, sports pitches, caravan or camping facilities.</p> <p>any activity which might cause pollution of the river or stream</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>construction or operation of an aquaculture facility.</p> <p>fishing for eels or salmon</p> <p>bank maintenance and grading</p> <p>creation of weirs and dams</p>

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

HABITAT TYPE 6.2

LAKES, PONDS AND CANALS

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

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

SECTION A

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

SECTION B

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

If so, these notifiable actions do not apply.

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

HABITAT TYPE 6.2

LAKES, PONDS AND CANALS

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>grazing of livestock above a sustainable density as defined in approved farm plans) within 50m of the lake, pond or canal</p> <p>grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung</p> <p>supplementary feeding of stock within 50m of the lake, pond or canal</p> <p>adding lime within 50m of the lake, pond or canal /adding fertiliser of any sort within 50m of the lake, pond or canal</p> <p>extracting water for irrigation or other purposes</p> <p>operation of boat angling or shore angling business/ restocking with fish.</p> <p>within 50m of the lake, pond or canal: reclamation, infilling, ploughing or land drainage</p> <p>reseeding, planting of trees or any other species /removal of trees or any aquatic vegetation/use of any pesticide or herbicide in the lake, pond or canal or within 50m of the lake, pond or canal</p> <p>dumping rubbish or other materials or disposing of any chemicals or wastes in streams/rivers or into water-courses running into them.</p> <p>dumping, burning or storing any materials within 50m of the lake pond or canal including the land spreading of used pesticides (e.g. sheep dip).</p> <p>alteration of the banks, channel, bed or flow of the lake, pond or canal or of watercourses running into or out of it</p> <p>harvesting or burning of reed or willow.</p> <p>causing siltation</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 golf courses, sports pitches, caravan or camping facilities.</p> <p>any activity which might cause pollution of the lake, pond or canal</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>construction or operation of an aquaculture Facility.</p> <p>fishing for eels or salmon</p> <p>bank maintenance and grading</p> <p>creation of weirs and dams</p>

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

imposed by the Minister for The Environment and Local Government, an appropriate appeals procedure will be put in place.

HABITAT TYPE 7.1

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

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

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

<u>SECTION A</u>	<u>SECTION B</u>
Please note that the activities listed in Section A overleaf are required to be notified to the Minister for The Environment, Heritage and Local Government and should not be undertaken before consent.	<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, HERITAGE 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, Heritage and Local Government to restrict existing activities. In these cases compensation will be payable for actual losses arising out of any such restriction. In the event of restrictions being imposed by the Minister for The Environment and Local Government, an appropriate appeals procedure will be put in place.

HABITAT TYPE 8.7

SLENDER NAIAD

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

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

SECTION A

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

SECTION B

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

If so, these notifiable actions do not apply.

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

HABITAT TYPE 8.7

SLENDER NAIAD

<u>Section A</u>	<u>Section B</u>
<p>THE MINISTER FOR THE ENVIRONMENT, HERITAGE AND LOCAL GOVERNMENT IS REQUIRED TO BE NOTIFIED IN RELATION TO THE FOLLOWING ACTIVITIES AND SUCH ACTIVITIES SHOULD NOT PROCEED WITHOUT PRIOR CONSENT</p> <p>grazing of livestock above a sustainable density (as defined in approved farm plans) within 50m of the lake, pond or canal</p> <p>grazing by livestock treated within the previous week with a pesticide which leaves persistent residues in the dung supplementary feeding of stock within 50m of the lake, pond or canal</p> <p>adding lime within 50m of the lake, pond or canal</p> <p>adding fertiliser of any sort within 50m of the lake, pond or canal</p> <p>extracting water for irrigation or other purposes</p> <p>operation of boat angling or shore angling business</p> <p>restocking with fish.</p> <p>reclamation, infilling, ploughing or land drainage within 50m of the lake, pond or canal</p> <p>reseeding, planting of trees or any other species within 50m of the lake, pond or canal</p> <p>removal of trees or any aquatic vegetation within 50m of the river/stream.</p> <p>use of any pesticide or herbicide in the lake, pond or canal or within 50m of the lake, pond or canal</p> <p>dumping rubbish or other materials or disposing of any chemicals or wastes in streams/rivers or into water-courses running into them.</p> <p>dumping, burning or storing any materials within 50m of the lake, pond or canal pond or canal including the land spreading of used pesticides (e.g. sheep dip).</p> <p>alteration of the banks, channel, bed or flow of the lake, pond or canal or of watercourses running into or out of it</p> <p>harvesting or burning of reed or willow.</p> <p>causing siltation</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>Construction or operation of an aquaculture facility</p> <p>bank maintenance and grading</p> <p>creation of weirs and dams</p>

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

imposed by the Minister for The Environment and Local Government, an appropriate appeals procedure will be put in place.

APPENDIX VII: 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 VIII: SUMMARY OF FARMING CONDITIONS UNDER REPS

Conditions for the conservation of blanket bogs, heaths and upland grasslands to be applied under REPS

General Provisions

The conditions for specific habitat types are supplementary to the agri-environmental plan requirements of the general REPS programmes. The conditions for the target areas under Supplementary Measure A apply. Planners may seek a derogation from the Regional Inspector to vary these conditions in individual cases. All REPS plans in respect of NHAs must be approved and signed by the Planning Agency's environmentalist/ecologist.

Detailed Conditions

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

Stocking Density

In all cases an environmentally sustainable plan must be prepared and adhered to for the total area of the farm. Sustainable optimum stocking rates must be set down by the REPS planner following careful assessment of the environmental conservation needs of the lands.

Where the stocking levels set down by the planner require a reduction in stock, this must be achieved within one year of the commencement of the plan.

There can be no increase in stocking levels, no introduction of stock to new areas and no changes in stock type during the period of the REPS plan without the prior approval of DAF.

The maximum number of sheep that may be kept on the farm as a whole must be set down in the REPS plan. The conditions set out for Supplementary Measure A areas must be followed. The following parameters apply:

- Where there is no damage, the current stocking levels are acceptable.
- If the level of damage is moderate, a stocking reduction must be prescribed by the planner at a level related to the damage and sufficient for the vegetation to recover
- If the level of damage is severe, a stocking reduction of between 70 % and 100 % of ewe numbers on the damaged area must be prescribed for a specified period.
- At the review of the REPS plan, the conservation status of the areas will be reviewed. A change in the stocking levels (increase or decrease) may be appropriate depending on progress.

Stocking levels apply to Scottish Blackface sheep or similar medium sized sheep breeds. Stocking levels for cattle or other stock should be at livestock unit applicable rates taking account of DAF conversion rates for the various stock types. The stocking levels recommended in this document are maximum sustainable rates for year round grazing. If shorter periods of grazing are used, the number of animals may be increased, though not necessarily pro rata.

Supplementary Feeding

Supplementary feeding is permitted only on areas where it is currently practised. Locations of feeding points must be specified. To reduce heavy grazing, trampling, poaching and erosion problems, 'feeding points' should be moved every three weeks and sited on ground with least habitat and wildlife value, preferably on grassland well away from stands of heather. Feeding on steep slopes and on peaty soils should be avoided where possible. The total amount of feed used must not be increased.

Use of Fertilisers and Herbicides

Neither organic nor inorganic fertilisers or lime can be applied on bogs, heaths or upland grasslands where they have not been used before. Fertilisers must not be used as a means of regenerating eroded areas. In the case of upland grasslands, fertilisers can only be applied on the basis of the results of a soil test. Where fertilisers are being applied, the initial soil sampling should be relatively intensive, with at least one sample per 2-4 ha. Target soil phosphate levels must not exceed the Index 2 level set out in the REPS specification.

Spraying or broadcast application of herbicides must be avoided. Spot application and wipe-on treatments to eradicate docks, thistles, ragwort and similar noxious weeds may be used. Rhododendron may be removed by cutting and herbicide treatment. Bracken control may be by rolling, cutting and/or by controlled cattle trampling in early summer. In exceptional circumstances, control of bracken by herbicides may be permitted.

Water Pollution

The greatest care should be taken to observe the statutory requirements on water pollution. The hydrology of bogland areas is characterised by extremely nutrient poor surface waters which contain flora and fauna adapted to these conditions. These species would be adversely affected by nutrient enrichment. New sheep dip sites must be listed and located away from streams and flushes to reduce the possibility of water pollution and damage to flora and fauna.

Restricted and Prohibited Practices

- The following practices must not be carried out on blanket bogs, heaths or upland grasslands
- The areas must not be drained, ploughed, cultivated or reseeded.
- There must be no infilling or rock removal.
- Turf cutting on unexploited bogs is not permitted. Turf cutting for domestic use is permitted on existing banks.
- Planting of trees or other crops is not permitted.
- No new tracks or paths can be created.
- Burning is only allowed as a planned management practice.
- Gorse may be controlled by cutting, spot spraying or exceptionally by burning outside of the bird nesting season (March 1st to August 31st).

Complementary Action

(a) Measures to prevent damage by non REPS participants

DAF should take measures to ensure that the environmental benefits achieved in degraded areas under REPS are not negated or diminished by non-participants in the Scheme

(b) Evaluating and Monitoring

Monitoring and evaluating the effects of REPS on blanket bogs, heaths and upland and unimproved grassland is essential in determining the environmental impact of REPS on these habitats so that appropriate modifications can be identified and effected where necessary. The effect of the grazing regime on vegetation and wildlife should be monitored to assess recovery as well as any damage being caused by animals. To this end, DAF and NPWS of DEHLG, in consultation with Teagasc and private planners, will monitor the environmental impact of REPS on these habitats on an ongoing basis. Progress in this regard will be reported to the Consultative Committee on REPS.

(c) Farmer Education /Advice

A REPS promotional campaign will be undertaken as soon as is practicable to inform farmers of the conservation needs of these areas and of the provisions of REPS. This campaign will be undertaken by DAF. Farming and environmental organisations will also be invited to assist in this promotional campaign.

(d) Seminars for Planners

Seminars for REPS planners shall be held to advise on the interpretation of these conditions at ground level.

(e) Demonstration Farms

A number of REPS participant demonstration farms will be set up in selected areas. Research work could also be carried out at these farms to assess the ability/rate of recovery of an area under different stocking conditions.

(f) Quota Rights

Any REPS participant farmer is guaranteed that their quota rights are protected and in the event of a possibility of increasing numbers arising, such farmers would be allowed to do so, subject to the environmental condition of the participant farm.

(g) Scheme Extension

The application of REPS in the target areas will apply for periods of five years renewable for 15 years.

(h) Local Co-ordination

DAF will encourage co-ordination, at local level, of efforts to rejuvenate damaged areas.

APPENDIX IX: NATIONAL PARKS AND WILDLIFE MANAGEMENT STAFF

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Divisional Ecologist

Vacant

National Parks and Wildlife

Department of Environment and Local Government,

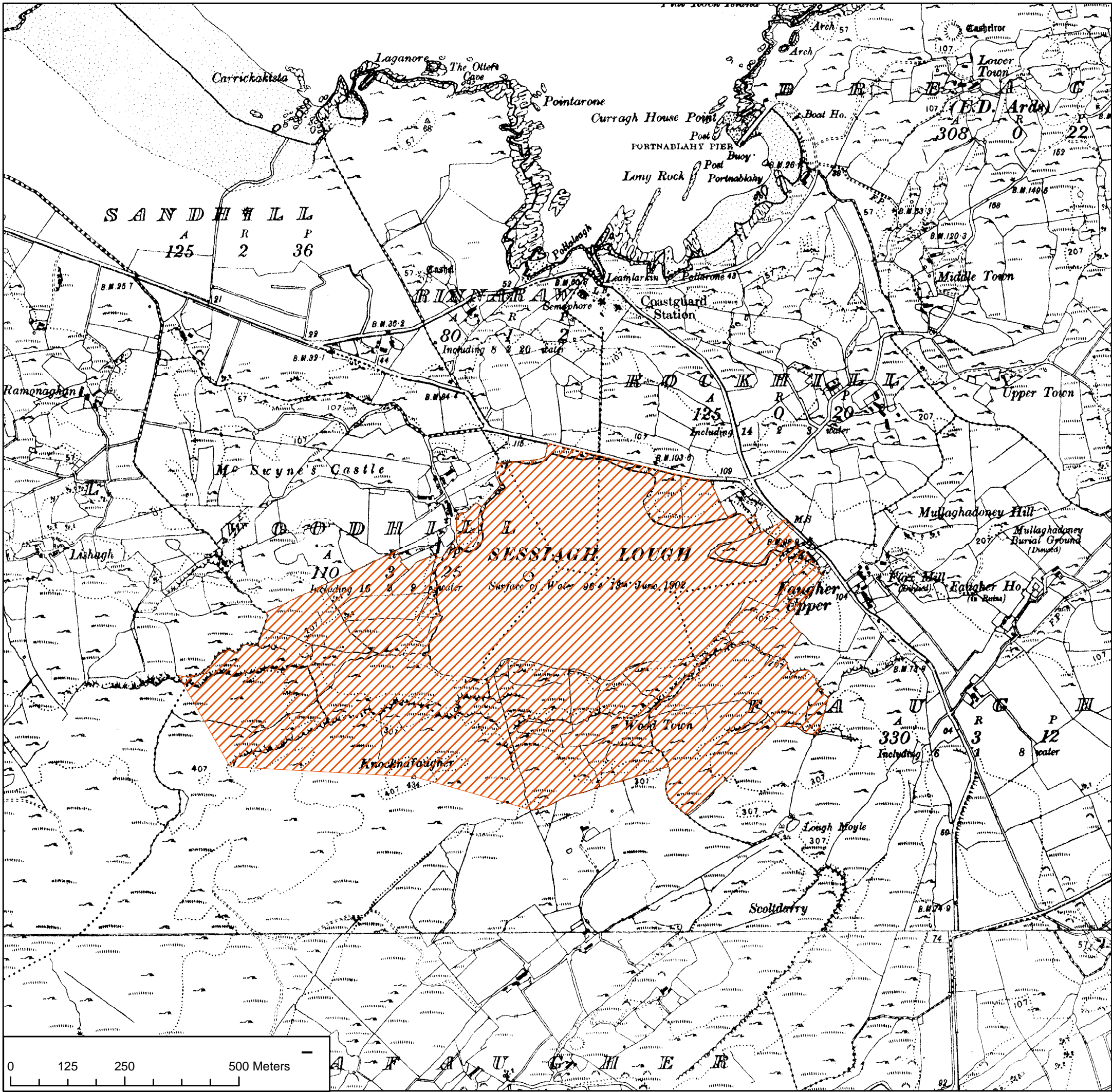
7 Ely Place,

Dublin 2

Phone Lo Call 1890 202021, (01) 8882000

Fax (01) 8883272

www.npws.ie

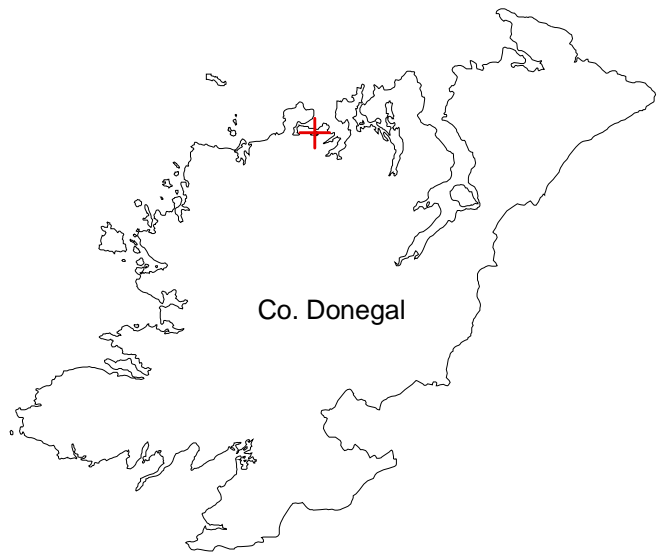
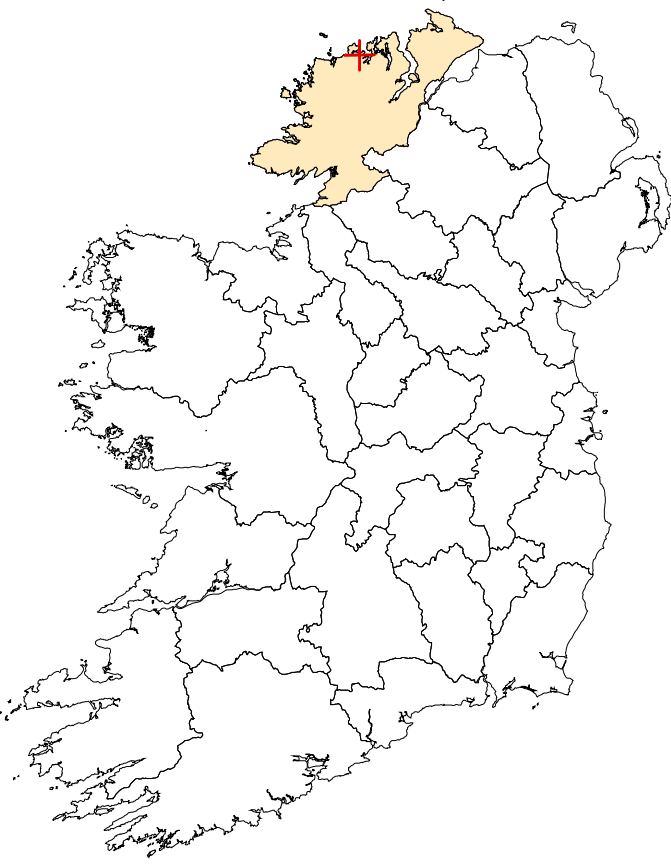


CEANTAR SPEISIALTA CAOMHNATHE
CANDIDATE SPECIAL AREA OF CONSERVATION

SESSIAGH LOUGH 000185
Version 1.00

The mapped boundaries are of an indicative and general nature only.
Boundaries of designated areas are subject to revision.
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Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta.
Féadfar athbheithníthe a déanamh ar theorainneacha na gceantar comharthaíthe.
Macasamhail d'ábhar na Suirbhéaracha Ordonáis le chead ón Rialtas (Ceadúnas Uimh. 5953)

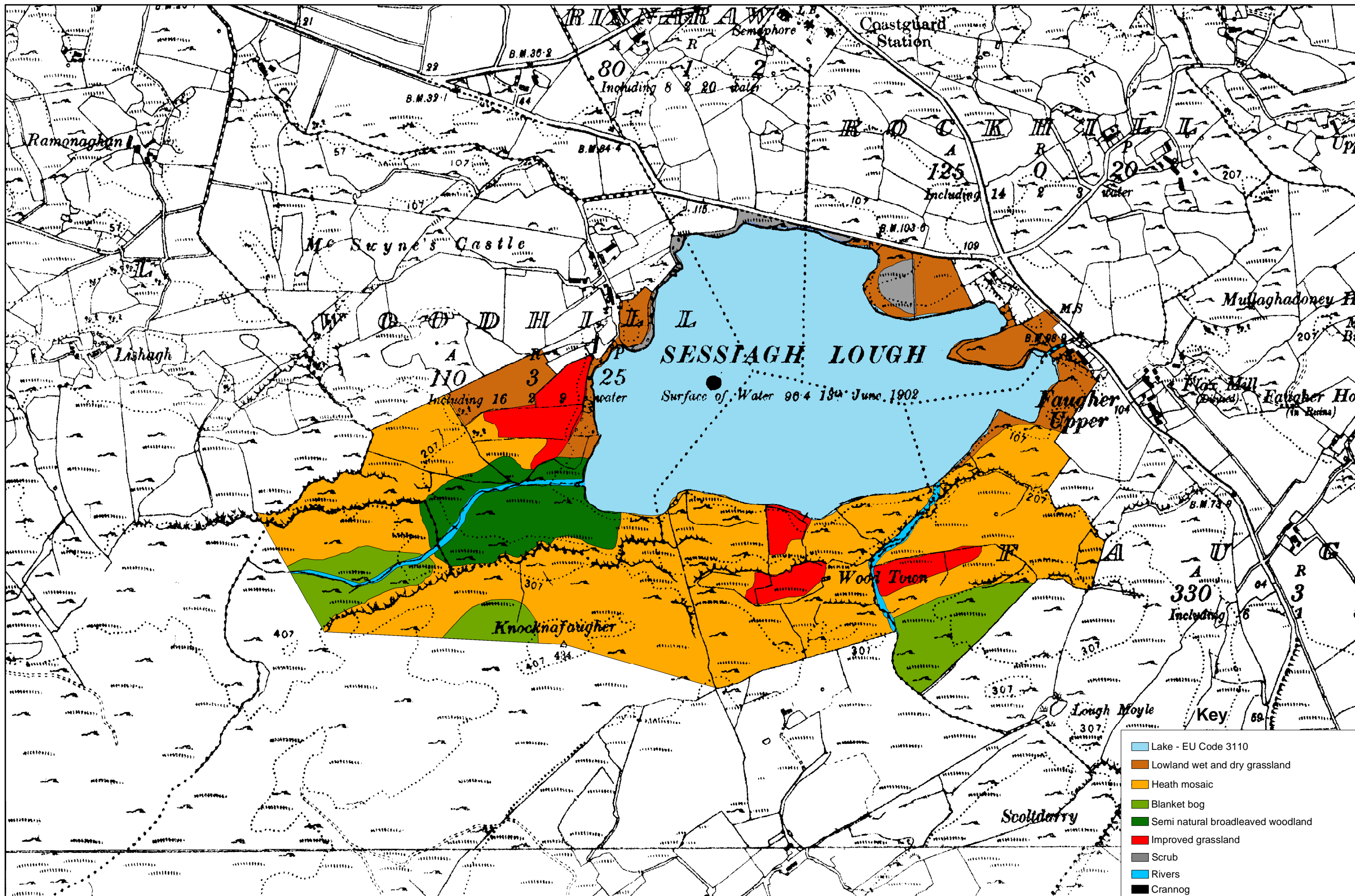


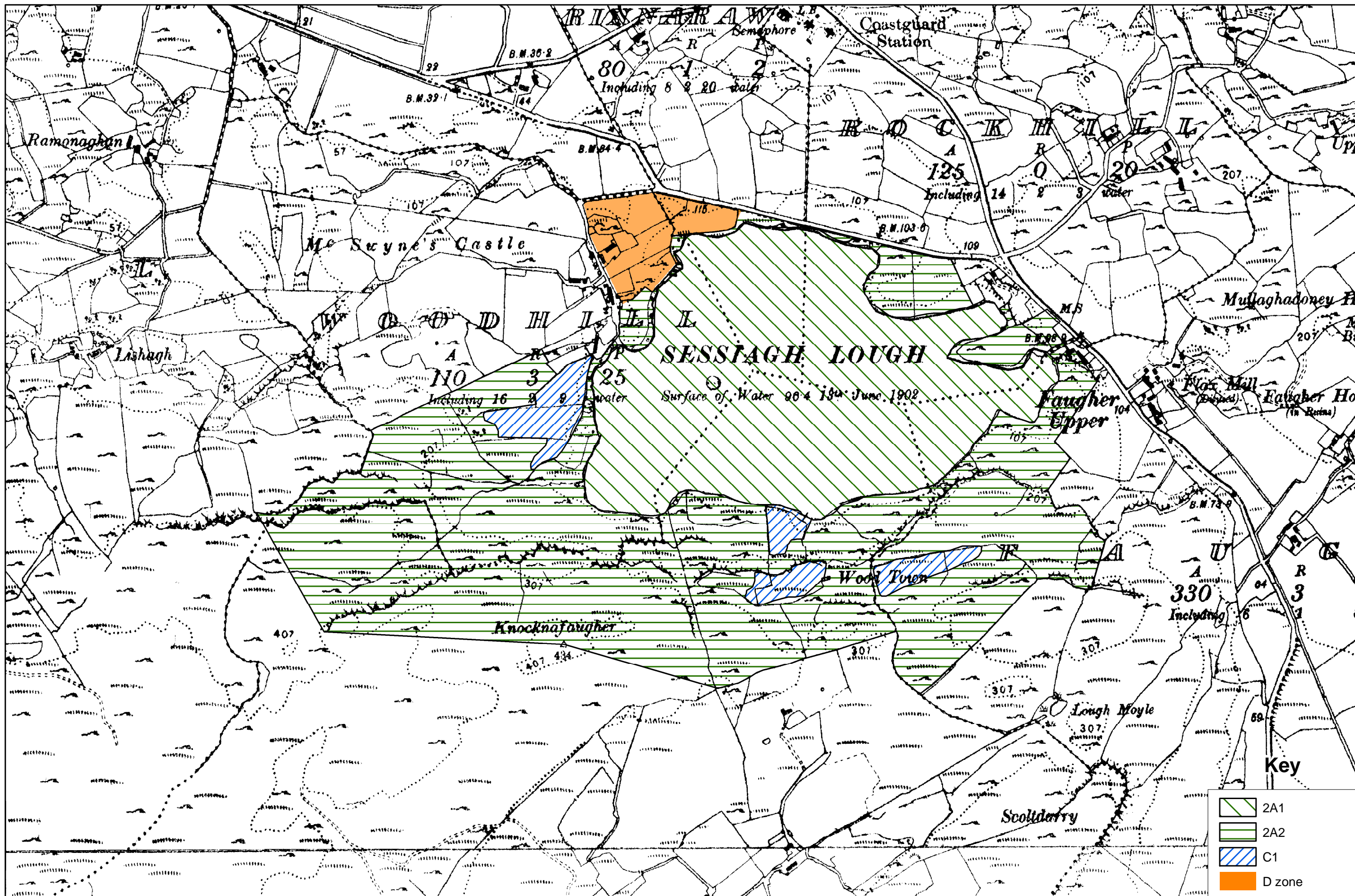
Map 1
LOCATION MAP: SESSIAGH LOUGH cSAC 000185

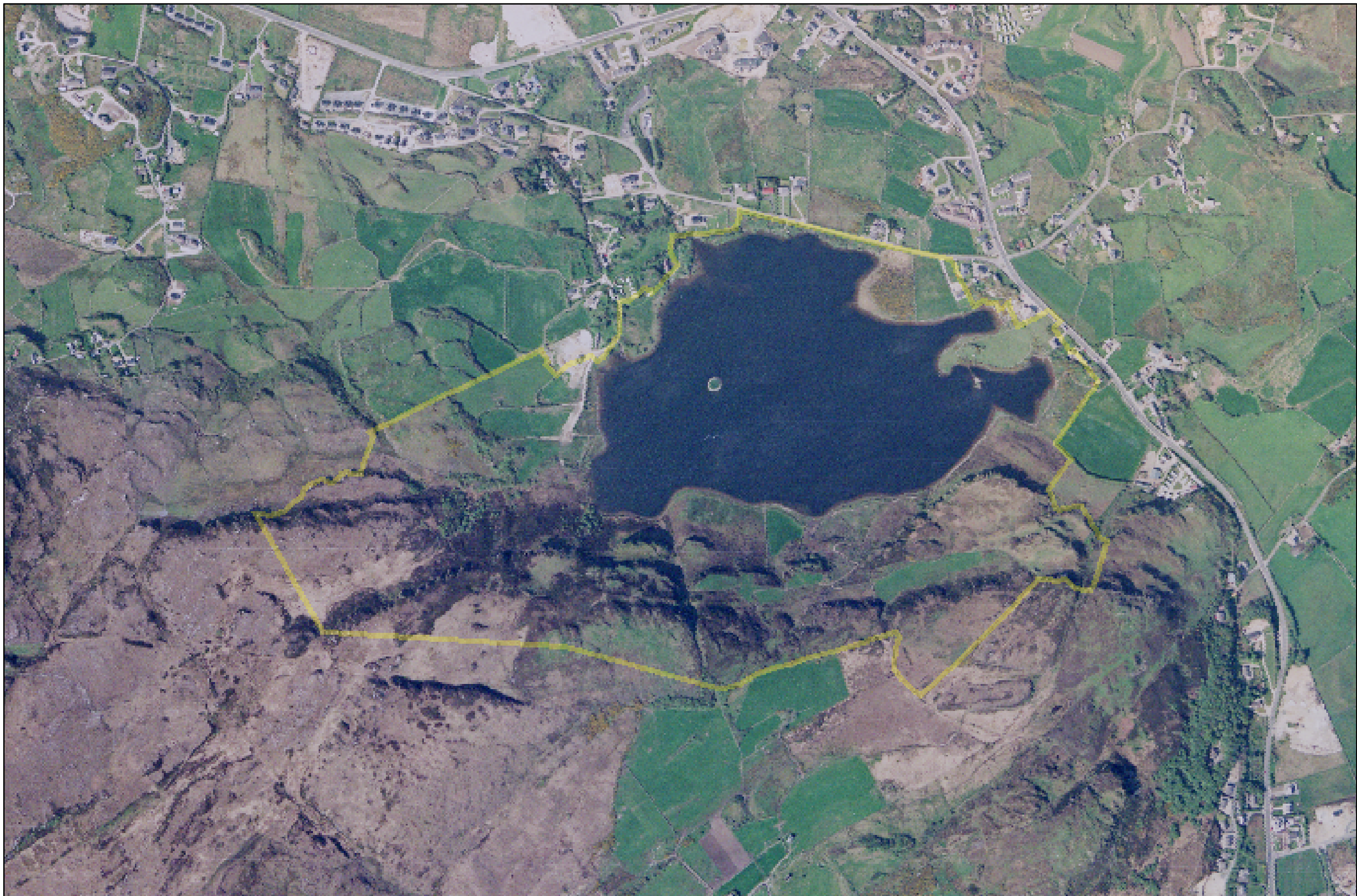


Department of Environment, Heritage and Local Government
An Roinn Comhshaoil, Oidhreacht agus Rialtais Áitiúil

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Chomh-mhaoinithe trí chiste 'LIFE' an AE



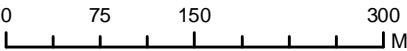




CEANTAR SPEISIALTA CAOMHNAITHE
CANDIDATE SPECIAL AREA OF CONSERVATION

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Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbhreithnithe a déanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéarachta Ordonáis le chead ón Rialtas (Ceadúnas Uimh. 5953)

SESSIAGH LOUGH
6" SHEET 016

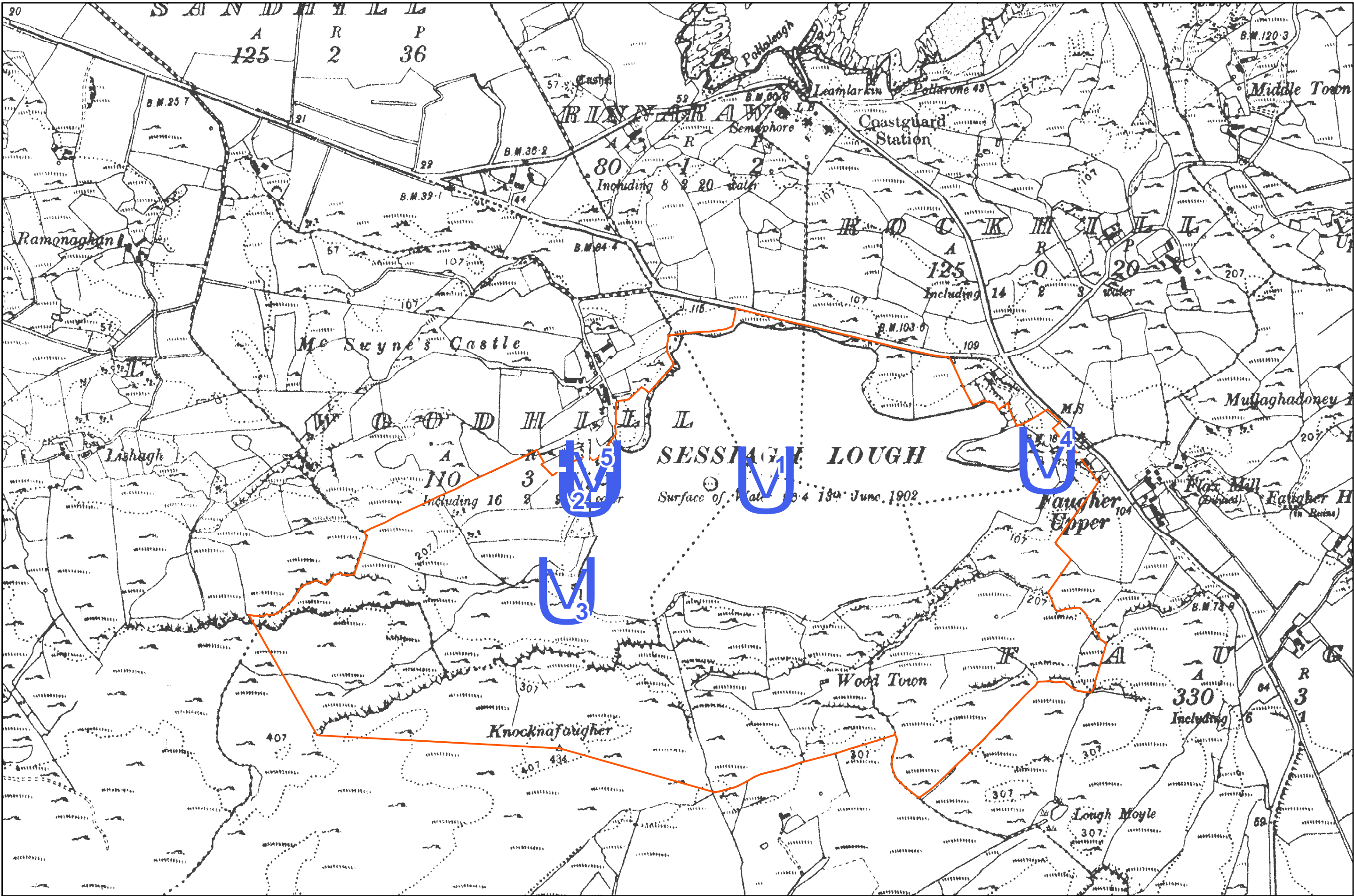


Scale 1: 6,000

Map 4
Aerial Photograph (2000)

Map to be read in conjunction with conservation plan.

— SITE CODE
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Version 1.00



CEANTAR SPEISIALTA CAOMHNAITHE
CANDIDATE SPECIAL AREA OF CONSERVATION

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Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbheithnithe a déanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéarachta Ordonáis le chead ón Rialtas (Ceadúnas Uimh. 5953)

SESSIAGH LOUGH
6" SHEET 016

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Scale 1: 6,000

Map 5
Water quality sampling sites
- Locations 1 to 5 -
Map to be read in conjunction with conservation plan.

SITE CODE
000185
Version 1.00