

Appendix 9.3 Designated Site Information

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	199808
date site designated as SAC	

2. Site location:

2.1 Site centre location

longitude	latitude
05 54 00 W	54 38 00 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UKB	Northern Ireland	100.00%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

Code	Species name	Population			Site assessment			
		Resident	Migratory		Population	Conservation	Isolation	Global
Breed	Winter	Stage						
A162	<i>Tringa totanus</i>		2466	I	B		C	

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	100.0
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Igneous, Sandstone/mudstone, Sedimentary, Slate/shale

Geomorphology & landscape:

Estuary, Intertidal rock, Intertidal sediments (including sandflat/mudflat), Lagoon

4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (79/409/EEC)

Over winter the area regularly supports:

Tringa totanus

(Eastern Atlantic - wintering)

1.4% of the population

5 year peak mean 1991/1992 - 1995/1996

4.3 Vulnerability

The loss of wildlife habitat around Inner Belfast Lough as a result of land-claim for industry and port development, and the continued use of Belfast Harbour Estate pools and adjacent areas for dumping (involving domestic refuse disposal and hardcore-tipping) could significantly affect the integrity and functioning of the site. Eutrophication of the lough from sewage disposal has been an issue in the past. The effect of recent improvements in sewage treatment on bird populations is not known.

An agreement was reached between Belfast Harbour Commissioners and various conservation groups in 1990, and finalised in early 1995, to safeguard 81 hectares of intertidal mudflats, lagoons and land for wildlife conservation purposes and to undertake appropriate management. RSPB have recently (1998) taken the lead management role for much of the areas included above. Much of this area had previously been earmarked for development and includes key high-tide wader roosts. Under this agreement significant funds were secured from ERDF which has led to many nature conservation initiatives for the general Belfast Harbour Estate including the SPA. These initiatives have included education and interpretation facilities at one of the lagoons within the Lough, creation of tidal inlets, the creation of an area for breeding wetland birds and the capping and contouring of the nearby landfill site to include areas for nature conservation.

An existing Conservation Plan for Belfast Lough is now under review. This review will update existing management prescriptions and refine existing conservation objectives.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

Joint Nature Conservation Committee

Monkstone House

City Road

Peterborough

Cambridgeshire PE1 1JY

UK

Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948

Email: RIS@JNCC.gov.uk

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 05 August 1998

3. Country:

UK (Northern Ireland)

4. Name of the Ramsar site:

Belfast Lough

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in spring/autumn:

Common redshank , *Tringa totanus totanus*, 1897 individuals, representing an average of 1.4% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species with peak counts in spring/autumn:

Black-tailed godwit , *Limosa limosa islandica*, 521 individuals, representing an average of 1.4% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	igneous, sedimentary, sandstone, slate/shale
Geomorphology and landscape	intertidal sediments (including sandflat/mudflat), estuary, lagoon, intertidal rock
Nutrient status	eutrophic
pH	no information
Salinity	brackish / mixosaline
Soil	no information
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Aldergrove, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/aldergrove.html) Max. daily temperature: 12.5° C Min. daily temperature: 5.8° C Days of air frost: 39.1 Rainfall: 862.4 mm Hrs. of sunshine: 1313.7

General description of the Physical Features:

Belfast Lough is a large, open sea lough located on the north-eastern coast of Northern Ireland. The inner part of the lough includes areas of intertidal foreshore, mainly mudflats and

lagoons. In the outer lough the site includes mainly rocky shores with some small sandy bays and beach-head saltmarsh.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Belfast Lough is a large, open sea lough located on the north-eastern coast of Northern Ireland.

The inner part of the lough includes areas of intertidal foreshore, mainly mudflats and lagoons. In the outer lough the site includes mainly rocky shores with some small sandy bays and beach-head saltmarsh.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

No special values known

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	60.2
D	Rocky shores	34.7
J	Coastal brackish / saline lagoons	5.1

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The Ramsar site includes areas of intertidal foreshore, comprising of mudflats and lagoons, and land, both land-claimed and being land-claimed, which form important feeding/roosting sites for significant numbers of wintering waders and wildfowl.

Semi-natural vegetation is confined to a narrow shoreline strip which is fragmented, particularly along the inner reaches of the lough. The sheltered bays and inlets of the south-eastern shore contain pockets of beach-head saltmarsh. Shores with harder rocks support vegetation typical of maritime cliff ledges giving way to maritime grassland. Notable plant species found include spring squill *Scilla verna* and Ray's knotgrass *Polygonum oxyspermum*.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

None reported

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species with peak counts in spring/autumn:

Great cormorant , <i>Phalacrocorax carbo carbo</i> , NW Europe	279 individuals, representing an average of 5.5% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Common eider , <i>Somateria mollissima</i> <i>mollissima</i> , NW Europe	867 individuals, representing an average of 43.3% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Eurasian oystercatcher , <i>Haematopus ostralegus</i> <i>ostralegus</i> , Europe & NW Africa -wintering	4648 individuals, representing an average of 9.2% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Ruff , <i>Philomachus pugnax</i> , Europe/W Africa	3 individuals, representing an average of 15% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter:	
Red-throated diver , <i>Gavia stellata</i> , NW Europe	27 individuals, representing an average of 2.7% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Great crested grebe , <i>Podiceps cristatus</i> <i>cristatus</i> , NW Europe	1550 individuals, representing an average of 44.2% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Common shelduck , <i>Tadorna tadorna</i> , NW Europe	251 individuals, representing an average of 3.5% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Greater scaup , <i>Aythya marila marila</i> , W Europe	340 individuals, representing an average of 11.3% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Common goldeneye , <i>Bucephala clangula</i> <i>clangula</i> , NW & C Europe	184 individuals, representing an average of 1.6% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Red-breasted merganser , <i>Mergus serrator</i> , NW & C Europe	155 individuals, representing an average of 7.7% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Ringed plover , <i>Charadrius hiaticula</i> , Europe/Northwest Africa	133 individuals, representing an average of 1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Red knot , <i>Calidris canutus islandica</i> , W & Southern Africa (wintering)	386 individuals, representing an average of 1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Ruddy turnstone , <i>Arenaria interpres interpres</i> , NE Canada, Greenland/W Europe & NW Africa	385 individuals, representing an average of 1.7% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Mew gull , <i>Larus canus canus</i> , Europe to N Africa	1167 individuals, representing an average of 1.7% of the all-Ireland population (5 year peak mean 1998/9-2002/3)

Species Information

None reported

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

- Aesthetic
- Environmental education/ interpretation
- Non-consumptive recreation

Tourism
Transportation/navigation

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	
Local authority, municipality etc.	+	
National/Crown Estate	+	
Other	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Fishing: commercial	+	
Gathering of shellfish	+	
Bait collection	+	
Industrial water supply	+	
Industry		+
Sewage treatment/disposal	+	
Harbour/port		+
Transport route		+
Urban development		+
Non-urbanised settlements		+

26. Factors (past, present or potential) adversely affecting the site’s ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.
2. Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
No factors reported	NA				

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Is the site subject to adverse ecological change? NO

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
Special Protection Area (SPA)	+	
Management agreement	+	
Site management statement/plan implemented	+	

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Fauna.

Numbers of migratory birds and wildfowl and waders are monitored annually as part of the national Irish Wetland Birds Survey (I-WEBS) organised by the IWC Birdwatch Ireland, the National Parks and Wildlife Service (Ireland) and the Wildfowl and Wetlands Trust.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

The Royal Society for the Protection of Birds presence on the site is centred around a brackish lagoon with well developed educational facilities including observation hides and a large observation room and a warden for the site.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

None reported

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Department of the Environment (Northern Ireland), Environment and Heritage Service,
Commonwealth House, Castle Street, Belfast, Northern Ireland, BT1 1GU

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Department of the Environment (Northern Ireland), Environment and Heritage Service,
Commonwealth House, Castle Street, Belfast, Northern Ireland, BT1 1GU

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Site-relevant references

Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP, Davidson, NC & Buck, AL (eds.) (1997) *Coasts and seas of the United Kingdom. Region 17. Northern Ireland*. Joint Nature Conservation Committee, Peterborough. (Coastal Directories Series.)

Buck, AL & Donaghy, A (eds.) (1996) *An inventory of UK estuaries. Volume 7. Northern Ireland*. Joint Nature Conservation Committee, Peterborough

Cranswick, PA, Waters, RJ, Musgrove, AJ & Pollitt, MS (1997) *The Wetland Bird Survey 1995–96: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge

Crowe, O (2005) *Ireland's wetlands and their waterbirds: status and distribution*. BirdWatch Ireland, Newcastle, Co. Wicklow

Musgrove, AJ, Langston, RHW, Baker, H & Ward, RM (eds.) (2003) *Estuarine waterbirds at low tide. The WeBS Low Tide Counts 1992–93 to 1998–99*. WSG/BTO/WWT/RSPB/JNCC, Thetford (International Wader Studies, No. 16)

Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge.
www.wwt.org.uk/publications/default.asp?PubID=14

Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.)
www.jncc.gov.uk/UKSPA/default.htm

Way, LS, Grice, P, MacKay, A, Galbraith, CA, Stroud, DA & Pienkowski, MW (1993) *Ireland's Internationally Important Bird Sites: a review of sites for the EC Special Protection Area network*. Joint Nature Conservation Committee, Peterborough, for Department of the Environment (Northern Ireland), Belfast, and Irish Wildlife Service, Dublin

Weighell, AJ, Donnelly, AP & Calder, K (eds.) (2000) *Directory of the Celtic coasts and seas*. Joint Nature Conservation Committee, Peterborough

Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**

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NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	199604
date site designated as SAC	

2. Site location:

2.1 Site centre location

longitude	latitude
06 24 34 W	54 34 11 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UKB	Northern Ireland	100.00%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

Code	Species name	Population			Site assessment			
		Resident	Migratory		Population	Conservation	Isolation	Global
Breed	Winter	Stage						
A059	<i>Aythya ferina</i>		26341 I		A		C	
A061	<i>Aythya fuligula</i>		22372 I		A		C	
A067	<i>Bucephala clangula</i>		10776 I		A		C	
A037	<i>Cygnus columbianus bewickii</i>		136 I		B		B	
A038	<i>Cygnus cygnus</i>		1031 I		B		C	
A193	<i>Sterna hirundo</i>	185 P			B		C	

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	95.0
Bogs. Marshes. Water fringed vegetation. Fens	2.2
Heath. Scrub. Maquis and garrigue. Phygrana	2.4
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	0.4
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Basalt, Clay, Igneous, Peat, Sand

Geomorphology & landscape:

Floodplain, Island, Lowland

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC)

During the breeding season the area regularly supports:

Sterna hirundo

(Northern/Eastern Europe - breeding)

6% of the all-Ireland breeding population
Count, as at 1995

Over winter the area regularly supports:

<i>Cygnus columbianus bewickii</i> (Western Siberia/North-eastern & North-western Europe)	5.4% of the all-Ireland population 5 year peak mean 1991/92-1995/96
<i>Cygnus cygnus</i> (Iceland/UK/Ireland)	10% of the all-Ireland population 5 year peak mean 1991/92-1995/96

ARTICLE 4.2 QUALIFICATION (79/409/EEC)	
Over winter the area regularly supports:	
<i>Aythya ferina</i> (North-western/North-eastern Europe)	7.5% of the population 5 year peak mean 1991/92-1995/96
<i>Aythya fuligula</i> (North-western Europe)	2.2% of the population 5 year peak mean 1991/92-1995/96
<i>Bucephala clangula</i> (North-western/Central Europe)	3.6% of the population 5 year peak mean 1991/92-1995/96
ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS	
Over winter the area regularly supports:	
99262 waterfowl (5 year peak mean 01/04/1998)	
Including:	
<i>Cygnus columbianus bewickii</i> , <i>Cygnus cygnus</i> , <i>Aythya ferina</i> , <i>Aythya fuligula</i> , <i>Bucephala clangula</i> .	

4.3 Vulnerability

The Lough drains some 40% of Northern Ireland and has been subject to severe eutrophication as a result of increased nutrient inputs from agricultural run-off and general domestic sewage from catchment housing and other developments.

Historically, increased eutrophication may have enhanced wildfowl populations but the effect of eutrophication on such populations is little understood although it may have had a positive impact on wintering diving duck.

Although some species e.g. swans, use improved fields, recent changes in agricultural land-use i.e. agricultural intensification (land improvements/high grazing levels) and, in some cases, insufficient grazing and tree/scrub management resulting in vegetation succession, may adversely affect feeding/roosting areas for overwintering and breeding waterfowl.

Introduction of/invasion by non-native species such as Roach and potentially Zebra Mussels could have a deleterious effect on some species e.g. diving duck, but may be beneficial to others e.g. Great-crested Grebe. Sand dredging is widespread throughout the Lough but the impact is largely unknown.

An existing Conservation Plan for Lough Neagh and Lough Beg is currently under review. This review will up-date existing management prescriptions and refine existing conservation objectives.

A total of 15 management agreements (NNR/ASSI) mainly for agricultural issues, are established on the site. Phosphate stripping at appropriate STW has begun to address the issue of eutrophication. Other measures such as agric-improvement schemes and Water Quality Management Plans to further address this issue are being considered.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK01 (NNR)	3.0
UK04 (SSSI/ASSI)	100.0

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 05 January 1976

3. Country:

UK (Northern Ireland)

4. Name of the Ramsar site:

Lough Neagh and Lough Beg

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* ☐;
- ii) **an electronic format** (e.g. a JPEG or ArcView image) *Yes*
- iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* ☐;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

54 34 11 N 06 24 34 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Belfast

Lough Neagh is situated in the centre of Northern Ireland. It is the largest freshwater lake in the United Kingdom, covering an area of 383 square km, with a longest length of 30.5 km and narrowest width of 12.1 km across the middle.

Administrative region: Antrim; Armagh; Ballymena; Cookstown; Craigavon; Down; Dungannon; Lisburn; Londonderry; Magherafelt; Tyrone

10. Elevation (average and/or max. & min.) (metres): **11. Area** (hectares): 50165.84

Min.	0
Max.	20
Mean	0

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Lough Neagh is situated in the centre of Northern Ireland. It is the largest freshwater lake in the United Kingdom covering an area of 383 km² with a longest length of 30.5 km and narrowest width of 12.1 km across the middle. The lake is very shallow for its size, with a mean depth of 8.9 metres. At its deepest point it extends down to 34 metres. The 125 km shoreline is mostly exposed with wave-beaten rocks and stones but there are also some sheltered, sandy bays with better-developed marginal vegetation including some reedbeds.

This site also contains a smaller lake, Lough Beg (1,125 ha) to the north, as well as a small satellite lake, Portmore Lough (286 ha) which is situated to the east of Lough Neagh. Lough Beg (meaning 'little lough') is essentially a widening of the Lower Bann River just downstream from where it leaves Lough Neagh. Lough Beg is very shallow, with a mean depth of 1-2 metres and a surface area of km². About 200 hectares of the west shore is unimproved wet grassland that is largely inundated with floodwater each winter.

Rivers flowing into Lough Neagh drain about 43% of Northern Ireland, plus part of County Monaghan in the Republic of Ireland.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1, 2, 3, 4, 5, 6

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 1

A particularly good representative example of natural or near-natural wetlands, common to more than one biogeographic region. The site is the largest freshwater lake in the United Kingdom. Lough Neagh a relatively shallow body of water supporting beds of submerged aquatic vegetation fringed by associated species-rich damp grassland, reedbeds, islands, fens, marginal swampy woodland and pasture. Other interesting vegetation types include those associated with pockets of cut-over bog, basalt rock outcrops and boulders, and the mobile sandy shore.

Ramsar criterion 2

Supports an appreciable assemblage of rare, vulnerable or endangered species or sub-species of plant or animal or an appreciable number of individuals of any one of these species. The site supports over 40 rare or local vascular plants which have been recorded for the site since 1970; the most notable are eight-stamened waterwort *Elatine hydropiper*, marsh pea *Lathyrus palustris*, Irish lady's tresses *Spiranthes romanzoffiana*, alder buckthorn *Frangula alnus*, narrow small-reed *Calamagrostis stricta* and holy grass *Hierochloe odorata*. The Lough and its margin are also home to a large number of rare or local invertebrates, including two aquatic and two terrestrial molluscs, a freshwater shrimp *Mysis relicta*, eight beetles, five hoverflies, seven moths and two butterflies. Of the rare beetles recorded two, *Stenus palposus* and *Dyschirius obscurus*, have their only known Irish location around the Lough. The Lough also supports twelve species of dragonfly.

Ramsar criterion 3

This site is of special value for maintaining the genetic and ecological diversity of a region because of the quality and peculiarities of its flora and fauna. The site regularly supports substantial numbers of individuals from particular groups of waterfowl which are indicative of wetland values, productivity and diversity. In addition, this site is of special value for maintaining the genetic and ecological diversity of Northern Ireland because of the quality and peculiarities of its flora and fauna. A large number of plants and animal species are confined or almost confined to this area within Northern Ireland.

Ramsar criterion 4

This site is of special value as the habitat of plants or animals at a critical stage of their biological cycles. The site supports an important assemblage of breeding birds including the following species with which occur in nationally important numbers: great crested grebe *Podiceps cristatus*, gadwall *Anas strepera*, pochard *Aythya ferina*, tufted duck *Aythya fuligula*, snipe *Gallinago gallinago* and redshank *Tringa totanus*. Other important breeding wetland species include shelduck *Tadorna tadorna*, teal *Anas crecca*, shoveler *Anas clypeata*, lapwing *Vanellus vanellus* and curlew *Numenius arquata*.

Ramsar criterion 7

The site supports a population of pollan *Coregonus autumnalis*, one of the few locations in Ireland and one of the two known locations in the UK (the other is Lower Lough Erne). It is one of the most important species in Ireland in terms of faunal biodiversity since it occurs nowhere else in Europe,

and the Irish populations are all well outside the typical range – the Arctic Ocean drainages of Siberia, Alaska and north-western Canada, where it is known as the Arctic cisco.

Ramsar criterion 5

Assemblages of international importance:

Species with peak counts in winter:

86639 waterfowl (5 year peak mean 1998/99-2002/2003)

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in spring/autumn:

Tundra swan , <i>Cygnus columbianus bewickii</i> , NW Europe	26 individuals, representing an average of 0.1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
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Species with peak counts in winter:

Whooper swan , <i>Cygnus cygnus</i> , Iceland/UK/Ireland	1523 individuals, representing an average of 7.2% of the population (5 year peak mean 1998/9-2002/3)
Common pochard , <i>Aythya ferina</i> , NE & NW Europe	20279 individuals, representing an average of 5.7% of the population (5 year peak mean 1998/9-2002/3)
Tufted duck , <i>Aythya fuligula</i> , NW Europe	17807 individuals, representing an average of 1.4% of the population (5 year peak mean 1998/9-2002/3)
Greater scaup , <i>Aythya marila marila</i> , W Europe	3377 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)
Common goldeneye , <i>Bucephala clangula clangula</i> , NW & C Europe	6645 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species with peak counts in spring/autumn:

Great cormorant , <i>Phalacrocorax carbo carbo</i> , NW Europe	1628 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3)
Mute swan , <i>Cygnus olor</i> , Britain	1874 individuals, representing an average of 4.9% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

See Sections 21/22 for details of noteworthy species

Details of bird species occurring at levels of National importance are given in Section 22

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	sand, clay, peat, basalt
Geomorphology and landscape	lowland, floodplain
Nutrient status	highly eutrophic
pH	no information
Salinity	fresh
Soil	no information
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Aldergrove, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/aldergrove.html) Max. daily temperature: 12.5° C Min. daily temperature: 5.8° C Days of air frost: 39.1 Rainfall: 862.4 mm Hrs. of sunshine: 1313.7

General description of the Physical Features:

Lough Neagh is the largest freshwater lake in the UK, covering an area of 383 sq. km. The lough is very shallow for its size with a mean depth of 8.9 m (at deepest only 34 m). The 125 km shoreline is mostly exposed with wave-beaten rocks and stones but there are also some sheltered, sandy bays with better-developed marginal vegetation including some reedbeds. The smaller Lough Beg (covering 1,125 ha) to the north is essentially a widening of the Lower Bann River downstream of its exit from Lough Neagh, and is very shallow, with a mean depth of 1-2 m. About 200 ha of the west shore is unintensified wet grassland that is largely inundated with floodwater each winter.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Lough Neagh is situated in the centre of Northern Ireland. It is the largest freshwater lake in the British Isles and is very shallow for its size.

Six major rivers flow into the Lough while the Lower Bann River provides the exit, carrying water from the north end of the Lough at Toome to the sea on the north coast of Northern Ireland.

The rivers flowing into Lough Neagh drain about 43% of Northern Ireland, plus part of County Monaghan in the Republic of Ireland. There is no incursion of seawater into Lough Neagh.

Lough Beg and Portmore Lough are two smaller lakes associated with Lough Neagh. Lough Beg (1,125 ha) lies to the north of Lough Neagh at the start of the Lower Bann River and Portmore Lough (286 ha) flows into the south-east of Lough Neagh.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Flood water storage / desynchronisation of flood peaks

19. Wetland types:

Inland wetland

Code	Name	% Area
O	Freshwater lakes: permanent	77.6
Other	Other	16
U	Peatlands (including peat bogs swamps, fens)	4
W	Shrub-dominated wetlands	2.1
Xp	Forested peatland	0.3

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Most of the shoreline and shallow margin of the Lough is exposed to wave action and has a rocky or sandy character. The submerged and floating aquatic vegetation is confirmed to sheltered bays and inlets and includes very extensive stands of fennel-leaved pondweed *Potamogeton pectinatus* and slender-leaved pondweed *P. filiformis* intermixed with smaller quantities of additional species.

Swamp vegetation generally consists of a mosaic of small stands of common spike-rush *Eleocharis palustris*, reedmace *Typha latifolia*, branched bur-reed *Sparganium erectum*, flowering rush *Butomus umbellatus*, bulrush *Scirpus lacustris* and bottle sedge *Carex rostrata*. Locally, large stands of common reed *Phragmites australis* have developed.

The tall fen occurring along the water's edge mostly consists of a thin, generally species-poor band of reed canary-grass *Phalaris arundinacea*, hemlock water dropwort *Oenanthe crocata*, yellow loosestrife *Lysimachia vulgaris* and purple loosestrife *Lythrum salicaria*, but in places there are a number of more uncommon plant species.

Some of the Lough shore is fringed by a fragmented, swampy woodland of alder *Alnus glutinosa* and willow *Salix* spp. related to successive lowerings of water-levels. This woodland is among the best of its type in Northern Ireland. It is extensive and locally contains a diversity of plants including many notable species.

The remainder of the shore is mostly covered by a variety of grassland types ranging from improved and reseeded grassland to species-rich hay meadows, with the most characteristic type being wet marshy grassland with soft rush *Juncus effusus* and brown sedge *Carex disticha* as the most prominent species.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Nationally important species occurring on the site.**Higher Plants.**

Elatine hydropiper, Spiranthes romanzoffiana, Calamagrostis stricta, Hierochloa odorata, Mentha pulegium, Lathyrus palustris, Frangula alnus, Carex elongata

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds**Species currently occurring at levels of national importance:****Species regularly supported during the breeding season:**

Black-headed gull , <i>Larus ridibundus</i> , N & C Europe	3269 apparently occupied nests, representing an average of 6% of the all-Ireland population (Seabird 2000 Census)
Lesser black-backed gull , <i>Larus fuscus graellsii</i> , W Europe/Mediterranean/W Africa	451 apparently occupied nests, representing an average of 8.6% of the all-Ireland population (Seabird 2000 Census)
Common tern , <i>Sterna hirundo hirundo</i> , N & E Europe	93 apparently occupied nests, representing an average of 3% of the all-Ireland population (Seabird 2000 Census)
Species with peak counts in spring/autumn:	
Great crested grebe , <i>Podiceps cristatus cristatus</i> , NW Europe	1227 individuals, representing an average of 35% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Gadwall , <i>Anas strepera strepera</i> , NW Europe	126 individuals, representing an average of 21% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Mallard , <i>Anas platyrhynchos platyrhynchos</i> , NW Europe	5136 individuals, representing an average of 10.2% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Red-breasted merganser , <i>Mergus serrator</i> , NW & C Europe	25 individuals, representing an average of 1.2% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Common coot , <i>Fulica atra atra</i> , NW Europe	5680 individuals, representing an average of 22.7% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Lesser black-backed gull , <i>Larus fuscus graellsii</i> ,	1174 individuals, representing an average of 1.6% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter:	
Little grebe , <i>Tachybaptus ruficollis ruficollis</i> , Europe to E Urals, NW Africa	355 individuals, representing an average of 7.1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Common shelduck , <i>Tadorna tadorna</i> , NW Europe	138 individuals, representing an average of 1.9% of the all-Ireland population (5 year peak mean 1998/9-2002/3)

Eurasian wigeon , <i>Anas penelope</i> , NW Europe	3012 individuals, representing an average of 2.4% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Eurasian teal , <i>Anas crecca</i> , NW Europe	1878 individuals, representing an average of 2.8% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
European golden plover , <i>Pluvialis apricaria apricaria</i> , P. a. altifrons Iceland & Faroes/E Atlantic	8249 individuals, representing an average of 4.1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Northern lapwing , <i>Vanellus vanellus</i> , Europe - breeding	10968 individuals, representing an average of 4.3% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Mew gull , <i>Larus canus canus</i> , Europe to N Africa	765 individuals, representing an average of 1.1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)

Species Information

Assemblage.

During the breeding season the site supports a diverse assemblage of waterfowl, including:

Larus ridibundus, *Podiceps cristatus*, *Anas strepera*, *Tringa totanus*, *Gallinago gallinago*, *Aythya fuligula*, *Aythya ferina*, *Anas clypeata*, *Larus fuscus* and *Larus canus*.

Pollan *Coregonus autumnalis*

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

- Aesthetic
- Environmental education/ interpretation
- Fisheries production
- Livestock grazing
- Non-consumptive recreation
- Scientific research
- Sport fishing
- Sport hunting
- Tourism
- Traditional cultural
- Transportation/navigation

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	
Local authority, municipality etc.	+	
Private	+	
Public/communal	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	
Recreation	+	
Current scientific research	+	
Fishing: commercial	+	
Fishing: recreational/sport	+	
Rough or shifting grazing	+	
Hunting: recreational/sport	+	
Sewage treatment/disposal	+	
Flood control	+	
Mineral exploration (excl. hydrocarbons)	+	
Domestic water supply	+	
Non-urbanised settlements		+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)			
			On-Site	Off-Site	Major Impact?

Eutrophication	2	The Lough drains some 40% of Northern Ireland and has been subject to severe eutrophication as a result of increased nutrient inputs from agricultural run-off and general domestic sewage from catchment housing and other developments.	+		+
Pollution – agricultural fertilisers	2	The Lough drains some 40% of Northern Ireland and has been subject to severe eutrophication as a result of increased nutrient inputs from agricultural run-off and general domestic sewage from catchment housing and other developments.	+		+

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Eutrophication - Phosphate-stripping at appropriate sewage treatment works had begun to address the issue of eutrophication, but the nutrient problem has now been demonstrated to be predominantly due to non-point, agricultural, sources. Water Catchment Management Plan will be developed in context of the Water Framework Directive.

Pollution – agricultural fertilisers - Phosphate-stripping at appropriate sewage treatment works had begun to address the issue of eutrophication, but the nutrient problem has now been demonstrated to be predominantly due to non-point, agricultural, sources. Water Catchment Management Plan will be developed in context of the Water Framework Directive.

Is the site subject to adverse ecological change? YES

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
National Nature Reserve (NNR)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	
Site management statement/plan implemented	+	
Special Area of Conservation (SAC)	+	

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Fauna.

Numbers of migratory birds and wildfowl and waders are monitored annually as part of the national Irish Wetland Birds Survey (I-WEBS) organised by the IWC Birdwatch Ireland, the National Parks and Wildlife Service (Ireland) and the Wildfowl and Wetlands Trust.

Miscellaneous.

The University of Ulster has a freshwater research laboratory on the shores of Lough Neagh.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

The Lough Neagh Discovery Centre is located on the southern shores of Lough Neagh and is run by Craigavon Borough Council. School groups and other incidental visitors are also catered for at the nearby Environment and Heritage Service Warden's office/information centre.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities, Facilities provided and Seasonality.

There is regular use of parts of the site for informal recreation.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Department of the Environment (Northern Ireland), Environment and Heritage Service,
Commonwealth House, Castle Street, Belfast, Northern Ireland, BT1 1GU

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Department of the Environment (Northern Ireland), Environment and Heritage Service,
Commonwealth House, Castle Street, Belfast, Northern Ireland, BT1 1GU

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Site-relevant references

Cranswick, PA, Waters, RJ, Musgrove, AJ & Pollitt, MS (1997) *The Wetland Bird Survey 1995–96: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge

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Smart, M (1989) *Ramsar Advisory Missions: Report No. 10: Lough Neagh / Lough Beg, Northern Ireland, UK (1989)*. Ramsar Convention Bureau, Gland. www.ramsar.org/ram_rpt_10e.htm

Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.)
www.jncc.gov.uk/UKSPA/default.htm

Way, LS, Grice, P, MacKay, A, Galbraith, CA, Stroud, DA & Pienkowski, MW (1993) *Ireland's Internationally Important Bird Sites: a review of sites for the EC Special Protection Area network*. Joint Nature Conservation Committee, Peterborough, for Department of the Environment (Northern Ireland), Belfast, and Irish Wildlife Service, Dublin

Wood, RB & Smith, RV (eds.) (1993) *Lough Neagh: The ecology of a multipurpose water resource*. Kluwer, Dordrecht (Monographiae Biologicae, No. 69)

Wolfe-Murphy, SA, Lawrie, EW, Smith, SJ & Gibson, CE (1993) *Northern Ireland Lakes Survey*. Unpublished report to Northern Ireland Department of Environment, Countryside and Wildlife, Belfast

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NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	200909
date site designated as SAC	

2. Site location:

2.1 Site centre location

longitude	latitude
05 49 00 W	54 41 00 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UKN	NORTHERN IRELAND	100.0%

2.6 Biogeographic region

Alpine
 Atlantic
 Boreal
 Continental
 Macaronesia
 Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

Code	Species name	Population			Site assessment			
		Resident	Migratory		Population	Conservation	Isolation	Global
Breed	Winter	Stage						
A005	<i>Podiceps cristatus</i>		1677	I				

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	100.0
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	
Bogs. Marshes. Water fringed vegetation. Fens	
Heath. Scrub. Maquis and garrigue. Phygrana	
Dry grassland. Steppes	
Humid grassland. Mesophile grassland	
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Scree. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Boulder, Cobble, Gravel, Mud, Sand, Sedimentary

Geomorphology & landscape:

Enclosed coast (including embayment), Sealoch (fjord)

4.2 Quality and importance

ARTICLE 4.2 QUALIFICATION (79/409/EEC)

Over winter the area regularly supports:

Podiceps cristatus

(North-western Europe - wintering)

0.35% of the NW European population

5-year mean 1996/97–2000/01

4.3 Vulnerability

No current or known future activities represent significant actual or potential impacts to the site. Existing Conservation Objectives for Belfast Lough Open Water will be kept under review ensuring appropriate management prescriptions and refining site objectives.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK00 (N/A)	100.0

DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT INNER BELFAST LOUGH,
COUNTIES DOWN AND ANTRIM. ARTICLE 24 OF THE NATURE CONSERVATION AND AMENITY
LANDS (NORTHERN IRELAND) ORDER 1985

The Department of the Environment for Northern Ireland (the Department), having consulted the Committee for Nature Conservation and being satisfied that the area including all land and intertidal foreshores down to low water spring tides either entirely surrounded by a solid black line or surrounded by a solid black line on land and a broken black line over water on the attached map (the area) is of special scientific interest by reason of the fauna and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the "Inner Belfast Lough area of special scientific interest".

The area is of special scientific interest because of its fauna. It includes areas of intertidal mudflats, which when exposed are used as feeding grounds by wildfowl and waders, and when inundated are used by wildfowl.

It also includes lagoons and land, both reclaimed and being reclaimed, which are important roosting localities for wildfowl and waders, and the freshwater ponds of Victoria Park used both for feeding and roosting, primarily by waders.

Despite considerable alteration from the original ecosystem, largely as the result of land reclamation, the area of special scientific interest still retains significant numbers of migrant and over-wintering wildfowl and waders. The intertidal mudflats and roosting lagoons hold major concentrations of Redshank (Tringa totanus) and Oystercatcher (Haematopus ostralegus), with numbers of each being in excess of 1% of the British Isles overwintering population. Of similar proportional significance are the offshore feeding population of Goldeneye (Bucephala clangula) and Scaup (Aythya marila) which feed in the area of special scientific interest at high tide. Several other species of wildfowl - including Mallard (Anas platyrhynchos), Teal (Anas crecca) and Wigeon (Anas penelope) and waders - eg Curlew (Numenius arquata), Dunlin (Calidris alpina), Ringed Plover (Charadrius hiaticula) and Bar-tailed Godwit (Limosa lapponica) are also found in large numbers throughout much of the area of special scientific interest.

SCHEDULE

The following operations and activities appear to the Department to be likely to damage the fauna of the area and require prior notification to and permission from the Department:-

- Changes in the mowing or cutting regime, or cessation of mowing.
- Application of pesticides, herbicides, fungicides or other chemicals deployed to kill, selectively or non-selectively, any form of animal, plant or other living organism.
- Dumping, spreading or discharge of any matter

**DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT INNER BELFAST LOUGH,
COUNTIES DOWN AND ANTRIM. ARTICLE 24 OF THE NATURE CONSERVATION AND AMENITY
LANDS (NORTHERN IRELAND) ORDER 1985**

- Burning of vegetation or waste material.
- The killing or removal of any wild animal. "Animal" includes any mammal, reptile, amphibian, bird, fish or invertebrate, with the exception of birds listed in Schedule II Part 2 of the Wildlife (Northern Ireland) Order 1985, rats, mice and rabbits. (This includes the removal of bait for fishing).
- The destruction, displacement, removal or cutting of any plant, seed or plant remains.
- Drainage, including the use of mole, tile, tunnel or other artificial drains.
- Modification of the structure of water courses (for example, rivers, ditches, drains), including their banks and beds such as by realignment, regrading or dredging.
- Management of aquatic or bank vegetation.
- The alteration of water levels or water tables or utilisation of water (including irrigation, storage or abstraction).
- Infilling of ditches, drains, ponds, pools, marshes or pits.
- The introduction of coastal fishing or fisheries management or sea food or marine life collection including the use of traps or fish cages.
- Reclamation of land from sea, estuary, marsh, lake or river.
- Erection of sea defences or coast protection works including landslip drainage or stabilisation measures.
- Extraction of minerals including shingle, sand, gravel or shells.
- Construction, removal or destruction of roads, tracks, walls, fences, hard-standings, banks, ditches or other earthworks or the laying or removal of pipelines or cables, above or below ground.
- Storage of materials.
- Erection of permanent or temporary structures or the undertaking of building, engineering or other operations, including drilling.
- Alteration or modification of natural or man-made features, clearance of boulders, large stones, loose rock or scree, battering, buttressing or grading of rock faces or cuttings.
- Use of vehicles or craft likely to damage or disturb the wildlife.
- Recreational, educational or research activities likely to damage the wildlife.

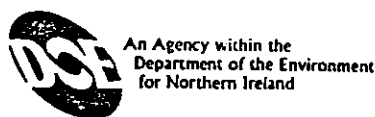
DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT INNER BELFAST LOUGH,
COUNTIES DOWN AND ANTRIM. ARTICLE 24 OF THE NATURE CONSERVATION AND AMENITY
LANDS (NORTHERN IRELAND) ORDER 1985

- Changes in game or waterfowl management or hunting practices.
- Exercising of animals in areas where they are likely to disturb or kill other animals or disturb the wildlife.



Sealed with the Official Seal of
the Department of the Environment for
Northern Ireland on 17 November, 1987

J C L PHILLIPS
Assistant Secretary



DEPARTMENT OF THE ENVIRONMENT FOR NORTHERN IRELAND

DECLARATION OF AREA OF SPECIAL SCIENTIFIC INTEREST AT OUTER BELFAST LOUGH, COUNTIES ANTRIM AND DOWN. ARTICLE 24 OF THE NATURE CONSERVATION AND AMENITY LANDS (NORTHERN IRELAND) ORDER 1985.

The Department of the Environment for Northern Ireland (the Department), having consulted the Council for Nature Conservation and the Countryside and being satisfied that the area delineated and described on the attached map (the area) is of special scientific interest by reason of the flora, fauna and geological features and accordingly needs to be specially protected, hereby declares the area to be an area of special scientific interest to be known as the 'Outer Belfast Lough area of special scientific interest'.

Belfast Lough is a structurally defined feature, possibly marking the continuation of the major Southern Uplands Fault from Scotland into Ireland.

The oldest rocks in the area are Ordovician in age, some 440-460 million years old (M.y.). They are sandstone, shale and mudstone grade sedimentary rocks with a few occurrences of spilite, agglomerate and ash. The outcrop from Horse Rock to Grey Point is of national significance representing a classic association of pillow lava, black mudstone and greywacke. The black mudstones, in particular, contain fossil graptolites. At Grey Point, an unusual infilled erosion channel can be found.

Carboniferous rocks, some 335 - 340 M.y., occur on the shore near Cultra. These have been of considerable interest since the earliest days of Irish geology. Forming the greater part of the Holywood Group, they consist of a series of sandstones and other sedimentary rocks. Many thin evaporite replacement beds are also present in the upper sections. The lower parts are sparse in fossils, mainly plant debris, suggesting a near-shore, shallow water environment. The upper series developed in brackish tidal flats as indicated by desiccation cracks, original evaporites and the presence of algal mounds known as stromatolites. The commonest fossil remains are plant fragments, the bivalve *Modiolus latus*, ostracods, *Serpula* and *Spirorbis* worm tubes and fish fragments.

The faulted block of Permian rocks, some 240 M.y., is the best exposure of material from this period in Ireland. It consists of a breccia, a fragmented rock type, overlain by Magnesian Limestone and Upper Marls. These Upper Permian rocks formed in the ancient Bakevella Sea of which Cultra formed a marginal part. They are fossiliferous, principally with gastropod and bivalve remains, especially *Bakevella binneyi*. The occurrence of the fossil brachiopod

Horridonia horrida was used to determine ages for the Permian rocks of Ireland and western Britain.

Tertiary basaltic and dolerite intrusions are abundant in the Triassic rocks, particularly along the northern shore between Greenisland and Carrickfergus. Massive dykes are evident at Carrickfergus, forming, in part, the foundation of Carrickfergus Castle.

Semi-natural vegetation is now confined to a narrow shoreline strip which is very fragmented, particularly along the inner reaches of the lough. The main concentration of botanical interest is found along the indented rocky shoreline of the south-eastern shore. Here, sheltered bays and inlets contain small pockets of beach-head saltmarsh. Shores with harder rocks support vegetation typical of maritime cliff ledges, generally giving way to maritime grassland and, in a few locations, maritime heath. Although restricted in both area and type, the maritime vegetation contains some notable plants such as Spring Squill Scilla verna and Ray's Knotgrass Polygonum oxyspermum.

Birds from Inner Belfast Lough regularly use Outer Belfast Lough for feeding, and the populations of the two areas are closely linked. However, the area is significant in its own right and holds nationally important numbers of several species of overwintering birds. The flock of Great Crested Grebe Podiceps cristatus has grown in recent years and is now the largest wintering concentration in the British Isles, with over 1000 birds present.

Of the species which are nationally significant, achieving at least 1% of the Irish wintering population, the most numerous is the Oystercatcher Haematopus ostralegus, with over 1500 birds. Although the greatest numbers are found on the extensive beds of Common Mussel Mytilus edulis, the species is widespread on all shore types, as is the Redshank Tringa totanus, with over 300 birds. Other species are more selective in their requirements; Ringed Plover Charadrius hiaticula (regularly exceeding 100 birds) tend to be found on sandy beaches, while Turnstone Arenaria interpres, with a population of over 600, prefer rocky or pebble shores.

Notable wintering populations of Purple Sandpiper Calidris maritima and Eider Somateria mollissima are also supported on the rock shores and open sea respectively.

Seals are a notable feature within the site with a number of significant 'haul-outs' utilised by both Grey Seal Halichoerus grypus and Common Seal Phoca vitulina.

SCHEDULE

The following operations and activities appear to the Department to be likely to damage the flora, fauna and geological interest of the area:

1. Any activity or operation which involves the damage or disturbance by any means of the surface and subsurface of the land, including reclamation and extraction of minerals, including sand, shingle, shell, gravel and peat.
2. The introduction of grazing.
3. The introduction of cutting.

4. The application of manure, slurry or artificial fertiliser.
5. The application of herbicides, fungicides or other chemicals deployed to kill any form of wild plant, other than plants listed as being noxious in the Noxious Weeds (Northern Ireland) Order 1977.
6. The storage or dumping, spreading or discharge of any material not specified under paragraph 5 above.
7. The destruction, displacement, removal or cutting of any plant, seed or plant remains, other than plants listed as noxious in the Noxious Weeds (Northern Ireland) Order 1977.
8. The release into the area of any animal or plant. 'Animal' includes birds, mammals, fish, reptiles, amphibians and invertebrates; 'Plant' includes seed, fruit or spore.
9. Burning.
10. Afforestation and planting.
11. Construction, removal or disturbance of any permanent or temporary structure including building, engineering or other operations.
12. Alteration of natural or man-made features, the clearance of boulders or large stones and grading of rock faces.
13. Sampling of rocks, minerals, fossils or any other material forming a part of the site, undertaken in a manner likely to damage the scientific interest.
14. Operations or activities which would affect wetlands (including marsh, streams and open water), eg
 - (i) change in the methods or frequency of routine drainage maintenance;
 - (ii) modification to the structure of any watercourse;
 - (iii) change in the management of bank-side vegetation.
15. The killing or taking of any animal in a manner likely to affect the continued existence of the species within the area except as provided for under the terms of the Wildlife (Northern Ireland) Order 1985, eg
 - (i) collection of marine organisms such as shellfish;
 - (ii) bait digging in intertidal areas.
16. The following activities undertaken in a manner likely to damage or disturb the wildlife of the area:

- (i) educational activities;
 - (ii) research activities;
 - (iii) recreational activities;
 - (iv) exercising of animals.
17. Changes in game, waterfowl or fisheries management or fishing or hunting practices.
18. Use of vehicles or craft likely to damage or disturb the wildlife of the area.

Sealed with the Official Seal of the
Department of the Environment for
Northern Ireland on 20 November 1996



ROBERT C MARTIN
Chief Executive

FOOTNOTES

- (a) Please note that consent by the Department to any of the operations or activities listed in the Schedule does not constitute planning permission. Where required, planning permission must be applied for in the usual manner to the Department under Part IV of the Planning (Northern Ireland) Order 1991. Operations or activities covered by planning permission are not normally covered in the list of Notifiable Operations.
- (b) Also note that many of the operations and activities listed in the Schedule are capable of being carried out either on a large scale or in a very small way. While it is impossible to define exactly what is "large" and what is "small", the Department would intend to approach each case in a common sense and practical way. It is very unlikely that small scale operations would give rise for concern and if this was the case the Department would normally give consent, particularly if there is a long history of the operation being undertaken in that precise location.

Belfast Lough SPA & Belfast Lough Open Water Proposed SPA

