

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note 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. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

1. Name and address of the compiler of this form:**Joint Nature Conservation Committee**

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DD MM YY		

Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

Designated: 05 January 1976 / Updated: May 2005

3. Country:**UK (Northern Ireland)**

4. Name of the Ramsar site:**Lough Neagh and Lough Beg**

5. Map of site included:

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

a) hard copy (required for inclusion of site in the Ramsar List): *yes* -or- *no* **b) digital (electronic) format** (optional): *Yes*

6. Geographical coordinates (latitude/longitude):

54 34 11 N

06 24 34 W

7. 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

8. Elevation (average and/or max. & min.) (metres): **9. Area** (hectares): 50165.84

Min. No information available

Max. No information available

Mean No information available

10. Overview:

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.

11. 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

12. Justification for the application of each Criterion listed in 11. 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 *Hierochloa 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 1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
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Species with peak counts in winter:

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)
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)
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)
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)
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)

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)

More 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 Alerts report, which is updated annually. See <http://www.bto.org/survey/webs/webs-alerts-index.htm>.

13. 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

14. 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:

No information available

15. 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.

16. 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

17. Wetland types

Inland wetland

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

18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

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.

19. 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

20. 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)
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)
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)
Species with peak counts in spring/autumn:	
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)
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)
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)
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)
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)
Species with peak counts in winter:	
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 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)
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)

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)
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)
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)
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)

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*

21. Social and 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
 Conservation education
 Current scientific research
 Fisheries production
 Livestock grazing
 Non-consumptive recreation
 Sport fishing
 Sport hunting
 Tourism
 Traditional cultural
 Transportation/navigation

22. Land tenure/ownership:

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

23. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	
Recreation	+	
Research	+	
Fishing: commercial	+	
Fishing: recreational/sport	+	
Rough or shifting grazing	+	
Hunting: recreational/sport	+	
Sewage treatment/disposal	+	

Flood control	+	
Mineral exploration	+	
Domestic water supply	+	
Non-urbanised settlements		+

24. Factors 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 - 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 - 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

25. 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
SSSI / ASSI	+	
NNR	+	
SPA	+	
Land owned by a NGO for nature conservation	+	
Site management statement/plan implemented	+	
SAC	+	

26. Conservation measures proposed but not yet implemented:

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

No information available

27. 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.

28. Current conservation education:

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.

29. 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.

30. 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

31. 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

32. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 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
- 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.
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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
- 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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