

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: 04 March 1997

3. Country:

UK (Northern Ireland)

4. Name of the Ramsar site:

Upper Lough Erne

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:

The site is a particularly good representative example of a wetland which plays a substantial hydrological, biological and ecological system role in the natural functioning of a major river basin which is located in a trans-border position with the Republic of Ireland.

Ramsar criterion 2

The site supports an appreciable assemblage of rare, vulnerable or endangered species or subspecies of plant and animal. Plant species in published or draft Irish Red Data Books include: fen violet *Viola stagnalis*, Irish lady's tresses *Spiranthes romanzoffiana*, pointed stonewort *Nitella mucronata* and the moss *Fissidens monguillonii*. Vertebrate species in the Irish Vertebrate Red Data Book include whiskered bat *Myotis mystacinus*, shoveler *Anas clypeata*, pochard *Aythya farina* and brook lamprey *Lampetra planeri*. Rare or vulnerable invertebrate species include white-clawed crayfish *Austropotamobius pallipes*, lunar hornet moth, *Sesia bembeciformis*, a pondskater *Limnopus rufoscutellatus*, the water beetles, *Donacia aquatica*, *D. bicolora*, *Gyrinus distinctus*, *G. natator* and *Hydroporus glabriusculus* and the carabid *Lebia cruxminor*.

Ramsar criterion 3

The 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. Furthermore, a large number of plant and animal species are confined or almost confined to this area within Northern Ireland including most of the rare species listed in Criterion 2.

The site regularly supports substantial numbers of individuals from particular groups of waterfowl which are indicative of wetland values, productivity and diversity. Wintering wildfowl species which occur in at least nationally important numbers include great crested grebe *Podiceps cristatus*, cormorant *Phalacrocorax carbo*, whooper swan *Cygnus cygnus*, mute swan *Anser olor*, tufted duck *Aythya fuligula*, wigeon *Anas penelope*, teal *Anas crecca*, goldeneye *Bucephala clangula*, coot *Fulica atra* and mallard *Anas platyrhynchos*.

Ramsar criterion 6

The site regularly supports internationally important numbers of wintering Whooper Swan *Cygnus cygnus*. The birds using the site form the core of a population of birds which use both the site and the extensive improved agricultural grassland surrounding the areas.

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

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:

Whooper swan , <i>Cygnus cygnus</i> , Iceland/UK/Ireland	875 individuals, representing an average of 4.1% of the population (5 year peak mean 1998/9- 2002/3)
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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

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	basic, clay, alluvium, peat, nutrient-rich, limestone
Geomorphology and landscape	lowland, island, floodplain
Nutrient status	eutrophic
pH	alkaline
Salinity	fresh
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Armagh, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/armagh.html) Max. daily temperature: 12.9° C Min. daily temperature: 5.8° C Days of air frost: 40.4 Rainfall: 795.4 mm Hrs. of sunshine: 1191.6

General description of the Physical Features:

Upper Lough Erne is a very large and complex freshwater system within the catchment of the River Erne. A series of flooded drumlins in the course of the River Erne give rise to a complex of islands, bays and many lakes bordered by damp pastures, fens, reedswamp, alder *Alnus glutinosa*-willow *Salix* sp. carr, and oak *Quercus* sp. woodland.

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).

Upper Lough Erne is a very large and complex freshwater system within the catchment of the River Erne. A series of flooded drumlins in the course of the River Erne give rise to a complex of islands, bays and many lakes bordered by damp pastures, fens, reedswamp, alder *Alnus glutinosa*-willow *Salix* sp. carr, and oak *Quercus* sp. woodland.

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:

Inland wetland

Code	Name	% Area
O	Freshwater lakes: permanent	64.9

Other	Other	14.6
Ts	Freshwater marshes / pools: seasonal / intermittent	10.3
Tp	Freshwater marshes / pools: permanent	8.6
U	Peatlands (including peat bogs swamps, fens)	0.9
4	Seasonally flooded agricultural land	0.7

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 extensive nature of the open water and shoreline of this site has resulted in the site containing exceptionally extensive swamp and fen transitions and associated Magnopotamion and Hydrocharition vegetation. The site contains important associated habitats, most notably wet grassland and woodland.

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.

Viola stagnalis, *Spiranthes romanzoffiana*.

Lower Plants.

Nitella mucronata, *Fissidens monguillonii*.

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 , *Larus ridibundus*, N & C Europe 1527 apparently occupied nests, representing an average of 2.8% of the all-Ireland population (Seabird 2000 Census)

Species with peak counts in winter:

Little grebe , *Tachybaptus ruficollis ruficollis*, Europe to E Urals, NW Africa 89 individuals, representing an average of 1.7% of the all-Ireland population (5 year peak mean 1998/9-2002/3)

Great crested grebe , *Podiceps cristatus cristatus*, NW Europe 160 individuals, representing an average of 4.5% of the all-Ireland population (5 year peak mean 1998/9-2002/3)

Great cormorant , *Phalacrocorax carbo carbo*, NW Europe 135 individuals, representing an average of 2.7% of the all-Ireland population (5 year peak mean 1998/9-2002/3)

Eurasian teal , <i>Anas crecca</i> , NW Europe	857 individuals, representing an average of 1.3% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Mallard , <i>Anas platyrhynchos platyrhynchos</i> , NW Europe	523 individuals, representing an average of 1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Common pochard , <i>Aythya ferina</i> , NE & NW Europe	451 individuals, representing an average of 1.1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Tufted duck , <i>Aythya fuligula</i> , NW Europe	839 individuals, representing an average of 2% of the all-Ireland population (5 year peak mean 1998/9-2002/3)
Common coot , <i>Fulica atra atra</i> , NW Europe	1043 individuals, representing an average of 4.1% of the all-Ireland population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Mammals.

Lutra lutra, *Myotis mystacinus*

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
- Aquatic vegetation (e.g. reeds, willows, seaweed)
- Archaeological/historical site
- 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.	+	
National/Crown Estate	+	
Private	+	+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Tourism	+	
Recreation	+	
Current scientific research	+	
Fishing: recreational/sport	+	
Grazing (unspecified)	+	
Hunting: recreational/sport	+	

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		+	+	+
Introduction/invasion of non-native animal species	2		+	+	+
Pollution – agricultural fertilisers	2	Pollution/fertilisers, land runoff from surrounding intensively managed agricultural land.	+	+	+

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
 Eutrophication - Eutrophication is a threat to all the lakes which comprise the site. The problem is being addressed

through a cross-border water quality management strategy. For smaller satellite loughs ASSI and Environmentally Sensitive Area management agreements will also continue to offer some control of nutrient enrichment from agriculture and also offer the potential for creating additional habitat for whooper swans *Cygnus cygnus*. Water quality will be subject to regular monitoring. No further conservation measures are currently proposed. Water Catchment Management Plan will be developed under the Water Framework Directive.

Introduction/invasion of non-native animal species - Introduction/invasion of exotic animal species: Undertaking studies on effects of non-native zebra mussel *Dreissena polymorpha* on lough ecology. Enhanced water clarity possibly due to zebra mussels, resulting in extensive aquatic macrophyte growth. Published strategy for containment of zebra mussels to existing areas. Monitoring programme undertaken and selective clearance of aquatic macrophytes in progress.

Pollution – agricultural fertilisers - Pollution from fertilisers is a threat to all the lakes which comprise the site. The problem is being addressed through a cross-border water quality management strategy. For smaller satellite loughs ASSI and Environmentally Sensitive Area management agreements will also continue to offer some control of nutrient enrichment from agriculture and also offer the potential for creating additional habitat for whooper swans *Cygnus cygnus*. Water quality will be subject to regular monitoring. Water Catchment Management Plan will be developed under 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	+	
Management agreement	+	
Site management statement/plan implemented	+	
Environmentally Sensitive Area (ESA)	+	+
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.

None reported

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.

None reported

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

- 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
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- Rosell, RS (1997) The status of pollan *Coregonus autumnalis* Thompson in Lough Erne, Northern Ireland. In: *Biology and the Environment: Proceedings of the Royal Irish Academy*, 97B(2), 163-171
- Stewart, NF (2004) *Important stonewort areas. An assessment of the best areas for stoneworts in the United Kingdom*. Plantlife International, Salisbury
- 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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