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:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

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

2. Date this sheet was completed/updated:
9 March 2006

3. Country:
UK (Scotland)

4. Name of the Ramsar site:
Loch Lomond

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)**:**
56 03 45 N 04 30 30 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: Glasgow

Loch Lomond lies approximately 25 km north-west of Glasgow.

Administrative region: Argyll and Bute; Stirling; West Dunbartonshire

8. Elevation (average and/or max. & min.) (metres)**:**
Min. 8
Max. 13
Mean 11

9. Area (hectares)**:** 236.9

10. Overview:

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

The site consists of the marshy hinterland around the lower reaches of the River Endrick where it flows into Loch Lomond, and four islands in the loch. The marshy loch shore portion of the site comprises low-lying regularly flooded wetlands, woodland fringes and rough pasture. The site supports several species of nationally scarce plants, and the slow-moving river and lagoons are especially rich in aquatic invertebrates. The area is noted for its wintering waterfowl and supports an internationally important population of Greenland white-fronted geese *Anser albifrons flavirostris*.

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).

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Secretariat comment: The RIS provides information requiring the application of Criterion 4. This needs to be included in the next update.

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 3

The site supports several scarce and one British Red Data Book wetland plants and also three rare species of invertebrates.

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 19/20 for details of noteworthy species

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):

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	acidic, basic, neutral, mud, alluvium, sedimentary
Geomorphology and landscape	lowland, floodplain
Nutrient status	eutrophic, mesotrophic
pH	circumneutral
Salinity	fresh
Soil	mainly mineral
Water permanence	usually permanent

Summary of main climatic features	Annual averages (Paisley, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/paisley.html) Max. daily temperature: 12.6° C Min. daily temperature: 6.1° C Days of air frost: 36.1 Rainfall: 1205.3 mm Hrs. of sunshine: 1239.6

General description of the Physical Features:

Loch Lomond is located across the Highland Boundary Fault. The site consists of the marshy hinterland around the lower reaches of the River Endrick where it flows into the south-east corner of the loch, and a group of four wooded islands in the loch. The marshy loch shore portion of the site comprises low-lying, regularly flooded wetlands, woodland fringes and rough pasture.

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).

Loch Lomond lies on a north – south axis crossing the Highland Boundary Fault, and has a maximum total length of 36.4 km. The surface area is 71.1 km2 – larger than any other standing water in Great Britain. The volume of Loch Lomond is 2.62 km3, the second-greatest in the UK. The maximum depth is 189.9 m (the third-deepest loch in Scotland) but the mean depth is only 37.0 m, because of the influence of the large shallow southern basin, which contains many islands. Loch Lomond's catchment covers 696 km2, and is characterized by a relatively low mean altitude and gentle slopes with a high percentage of arable ground and base-rich rocks. The extent of arable ground and base-rich rocks gives a good indication of the potential natural richness of the waters draining from them.

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16. Hydrological values:

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

Shoreline stabilisation and dissipation of erosive forces

17. Wetland types

Inland wetland

Code	Name	% Area
M	Rivers / streams / creeks: permanent	1.3
Tp	Freshwater marshes / pools: permanent	2.1
Ts	Freshwater marshes / pools: seasonal / intermittent	66.4
Other	Other	30.2

18. General ecological features:

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

There is a range of plant communities on the marshy hinterland south of the River Endrick. The Ring Bog is a tract of floodplain mire consisting mainly of eutrophic-mesotrophic swamp communities, dominated by reed-canary grass *Phalaris arundinacea* with sharp-flowered rush *Juncus acutiflorus*, bladder sedge *Carex vesicaria*, water sedge *C. aquatilis* and common sedge *C. nigra*. At least half of the marshy hinterland is rough pasture used as feeding areas by wintering wildfowl. There are species-

rich areas of grassland cut as hay meadows. The shore zone of the islands, particularly Creinch and Clairinch, is species-rich and supports a good variety of plants including globeflower *Trollius europaeus*, columbine *Aquilegia vulgaris* and goldilocks buttercup *Ranunculus auricomus*.

The site is rich in invertebrates and supports one Red Data Book aquatic species; a rare moth, the bulrush wainscot *Nonagria typhae*, in stands of bulrush *Typha latifolia* on the mainland.

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.

Rumex aquaticus, Lysimachia thyrsiflora, Elatine hydropiper

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

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:

Greenland white-fronted goose, *Anser albifrons flavirostris*, Greenland	242 individuals, representing an average of 1.1% of the GB population (5 year peak mean for 1996/7-2000/01)

Species Information

Nationally important species occurring on the site.

Invertebrates.

Bulrush wainscot moth *Nonagria typhae*

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
Environmental education/ interpretation
Livestock grazing
Non-consumptive recreation
Scientific research
Sport fishing
Sport hunting
Tourism
Transportation/navigation

22. Land tenure/ownership:

Ownership category	On-site	Off-site
Private	+	+
Other	+	

23. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+

Recreation	+	+
Current scientific research	+	+
Commercial forestry		+
Cutting of vegetation (small-scale/subsistence)	+	
Fishing: recreational/sport	+	+
Arable agriculture (unspecified)		+
Livestock watering hole/pond	+	+
Rough or shifting grazing	+	+
Permanent pastoral agriculture	+	+
Hay meadows		+
Hunting: recreational/sport	+	+
Industrial water supply	+	+
Sewage treatment/disposal	+	+
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?
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

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
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	+
National Nature Reserve (NNR)	+	+
Special Protection Area (SPA)	+	

Management agreement	+	+
Site management statement/plan implemented	+	
Special Area of Conservation (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.

Contemporary.
Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Environment.
'The effects of power boats on the aquatic environment of Loch Lomond'. The study aims to investigate adverse effects, if any, of power boat activity on the water quality of Loch Lomond.
Ongoing research based at the University Field Station Rowardennan.
Shore erosion studies.

Fauna.
'Breeding biology of pied flycatchers'. Ongoing research based at the University Field Station Rowardennan including studies on Inchcailloch.

Miscellaneous.
RSPB proposal to reintroduce ospreys to this site.

28. Current conservation education:

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

Loch Lomond Park Authority Rangers provide occasional guided walks. There is a general information leaflet for Inchcailloch.
Scottish Natural Heritage staff give occasional talks to public groups on general conservation projects around Loch Lomond. The summer warden on Inchcailloch acts as an information source for visitors.

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.
Land-based recreation:

Fishing and walking (on both mainland and islands), bird watching.

Wildfowl shooting is permitted under a Nature Reserve Agreement.

Water-based recreation:

Angling from boats, jet-skiing, canoeing, and windsurfing.

30. Jurisdiction:

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

Scottish Executive, Environment and Rural Affairs Department

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.

Scottish Natural Heritage, 2 Anderson Place, Edinburgh, EH6 5NP

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

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Wiggington, M (1999) *British Red Data Books. 1. Vascular plants*. 3rd edn. Joint Nature Conservation Committee, Peterborough

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