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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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:

Designated: 27 March 2000

3. Country:

UK (Scotland)

4. Name of the Ramsar site:

Inner Clyde Estuary

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):

55 56 50 N 04 38 00 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.

The estuary is located on the west coast of central Scotland.

Administrative region: Argyll and Bute; Inverclyde; Renfrewshire; West Dunbartonshire

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 1824.92

Min. -1
Max. 3
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.

The Inner Clyde Ramsar site is recognised as a single ecological unit. It is a long, narrow, heavily industrialised estuary on the west coast of Scotland, extending 20 km westward from Newshot Island to the northern edge of Ardmore Bay adjacent to modified shore line at Craigendoran. On the southern shore the site extends westwards from Newshot Island to Newark Castle. Almost the entire Inner Clyde Ramsar site (94.6%) consists of tidal mudflat with a shoreline of unmanaged semi-natural coastal vegetation. Saltmarsh is also present, accounting for 3.6% of the total shoreline area.

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).

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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 6 – species/populations occurring at levels of international

importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:

Common redshank , *Tringa totanus totanus*, 2099 individuals, representing an average of 1.8% of the GB 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.

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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

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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, mud, clay
Geomorphology and landscape	subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), enclosed coast (including embayment), estuary
Nutrient status	eutrophic
pH	no information
Salinity	brackish / mixosaline
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:

Although the Clyde Estuary is heavily industrialised along much of its length, upstream of Gourock Bay and Helensburgh there are very extensive intertidal sand- and mud-flats. These have an abundant invertebrate fauna, the species composition of which has been changing consequent to recent improvements in the quality of water within the estuary.

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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).

The Clyde catchment extends mainly in the Southern Uplands, but it also includes areas in central Scotland with the River Kelvin and River Leven sub-catchments. The total catchment is nearly 3900 km2 at Greenock with a number of large tributaries (Kelvin, Cart, Leven) joining the Clyde downstream of Glasgow city centre.
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18. 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, Sediment trapping, Maintenance of water quality (removal of nutrients)

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	96.4
H	Salt marshes	3.6

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.

Site dominated by intertidal mudflats with small areas of saltmarsh.

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 , *Phalacrocorax carbo carbo*, NW Europe	405 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3)
Common eider , *Somateria mollissima mollissima*, NW Europe	1060 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Slavonian grebe , *Podiceps auritus*, Northwest Europe	20 individuals, representing an average of 2.7% of the GB population (5 year peak mean 1998/9-2002/3)
Common goldeneye , *Bucephala clangula clangula*, NW & C Europe	317 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian oystercatcher , *Haematopus ostralegus ostralegus*, Europe & NW Africa -wintering	3292 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , *Tringa nebularia*, Europe/W Africa	11 individuals, representing an average of 1.8% of the GB 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.

Sport fishing
Sport hunting
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	+	+
Public/communal		+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Recreation	+	+
Fishing: recreational/sport	+	+
Gathering of shellfish		+
Bait collection	+	+
Hunting: recreational/sport	+	
Industry		+
Sewage treatment/disposal	+	
Harbour/port	+	+
Transport route	+	+
Urban development		+

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)	+	
Land owned by a non-governmental organisation for nature conservation	+	+

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.

Annual WeBS counts allows the monitoring of all bird populations within the Inner Clyde.
· Research contracts to examine various aspects of ornithological or estuarine interest are arranged as required.

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.

Education/Information disseminated through SNH/RSPB/SWT/BTO publications.

31. Current recreation and tourism:

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

Recreational activities are limited to sport fishing (including bait-digging) and the use of light sailing craft.

32. 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

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.

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

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

Allen, JA, Barnett, PRO, Boyd, JM, Kirkwood, RC, Mackay, DW & Smyth, JC (eds.) (1986) *The environment of the estuary and Firth of Clyde. Proceedings of the Royal Society of Edinburgh. Series B: Biological Sciences*, **90**

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Firth, CR & Collins, PEF (2002) Coastal processes and management of Scottish estuaries. VI. The Firth of Clyde. *Scottish Natural Heritage Review*, No. **108**

Halliday, JB (1978) *The feeding distribution of birds on the Clyde estuary tidal flats 1976–77*. (Contractor: Paisley College of Technology, Department of Biology). Unpublished report to Nature Conservancy Council, South-West (Scotland) Region (Internal Report, No. NC 192 F)

McLusky, DS (ed.) (1997) *The estuaries of central Scotland. A volume based on a local meeting of the Estuarine and Coastal Sciences Association, Edinburgh, UK, April 1995*. *Coastal Zone Topics: Process, Ecology & Management*, **3**

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Perkins, EJ (ed.) (1981) *Biological indicators of water quality in the Firth of Clyde*. Nature Conservancy Council, Balloch (Internal Report, No. **)

Ramsay, DL & Brampton, AH (2000) Coastal cells in Scotland: Cell 6 – Mull of Kintyre to the Mull of Galloway. *Scottish Natural Heritage Research Survey and Monitoring Report*, No. **148**

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

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