

Information Sheet on Ramsar Wetlands (RIS) – 2006-2008 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

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 and guidelines 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

Per-Olof Nystrand, County Administrative Board of Jämtland, SE-831 86 Östersund,
Sweden. Tel. +46 63 14 61 15

2. Date this sheet was completed/updated:

15 November 2008

3. Country:

Sweden

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Lake Ånnsjön (Ånnsjön)

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

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site ; or
b) 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

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
- ii) the boundary has been extended ; or
- iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced**

** **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:

There are no identified changes to the ecological character of the site.

7. Map of site:

Refer to Annex III of the *Explanatory Note 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) a hard copy (required for inclusion of site in the Ramsar List): ;
- ii) an electronic format (e.g. a JPEG or ArcView image) ;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

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.

In the north, the boundary follows the road E14 between the village Ånn and Enafors, and from Enafors to Bunnerviken it follows another (smaller) road. From Bunnerviken to Ånnsviken the boundary follows the shoreline of Ånnsjön. East of the lake the site includes the Ånnsfloarna mires, which are also part of Vålådalen Nature Reserve. In the south, a narrow area along the River Handölan is included in the site.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

63°16'N 012°33'E

9. General location:

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

The Ånnsjön site is situated in the mountainous area of central western Sweden, about 25 km east of the Swedish/Norwegian border, some 105 km west of the town of Östersund, in the county of Jämtland (population 127 726), municipality of Åre (pop. 9 581).

10. Elevation: (in metres: average and/or maximum & minimum)

max.–min. 526–571 metres

11. Area: (in hectares)

11 000 hectares

12. General overview of the site:

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

Lake Ånnsjön is a large, very shallow, oligotrophic, freshwater lake, surrounded by extensive mires. There are inland deltas at the western and northwestern shores of the lake, which are valuable from conservation and educational points of view. The deltas represent a rather rare feature in the county. The mires around the lake are good examples of maritime influenced types and have a diverse flora. The lake itself is notably richer in vascular plants (35 species) than lakes further downstream. Ånnsjön is very important for breeding and migrating wetland birds. The area is also important for wintering raptors.

13. Ramsar Criteria:

Tick the box under 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). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

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).

1. Lake Ånnsjön contains a representative example of natural wetland types in the alpine region, mainly undisturbed from human interventions and hosting nature types of great conservation and educational values.

2. The site holds nationally redlisted bird species included e.g. hen harrier (*Circus cyaneus*)* (VU), decreasing number of ruff (*Philomachus pugnax*) (VU)*, slavian grebe (*Podiceps auritus*)* (VU), three-toed woodpecker (*Picoides tridactylus*)* (VU), great snipe (*Gallinago media*)* (NT), eagle owl (*Bubo bubo*)* (NT), short-eared owl (*Asio flammeus*)* (NT), golden eagle (*Aquila chrysaetos*)* (NT) and red-throated diver (*Gavia stellata*)* (NT). Nationally redlisted mammals that can be found at the site include arctic fox (*Alopex lagopus*)* * (CR), lynx (*Lynx lynx*)* * (VU) and otter (*Lutra lutra*)* * (VU).

* = listed in the EU Birds directive, Annex I, ** = listed in the EU Habitats directive, Annex II

3. The site supports populations of especially bird species important for maintaining the biological diversity of the biogeographic region, primarily large numbers of ducks and

waders. Several raptor species are regularly seen in the area. The great importance to birds is linked to the great variation of wetland types (mires, open water, deltas, and shallow shores).

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:

Alpine

b) biogeographic regionalisation scheme (include reference citation):

European Environment Agency. 2003. Europe's environment: the third assessment, p 231. Environmental assessment report No 10. Luxembourg: Office for Official Publications of the European Communities.

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.

The site is situated in the upper part of the catchment of the Indal river. At the western end, the confluence of two rivers has formed the Handöl Delta. There are also deltas in the northwest (Harå) and southeast (Järpå). Calciferous sediments are transported to the lake. The lower course of the River Handölan has many canyon features including torrent areas and magnificent waterfalls. The climate is influenced by the near mountain range and is characterized by cold winters and fairly rainy summers. A normal temperature in June-July is 16-17 C°, in December-January about minus 10 C°.

17. Physical features of the catchment area:

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

Mountains and deltas, forests, glacial sediments, peatland, fine sand and silt are represented in or near the site. Soap-stone mining is extracted close to the lake. The climate in the catchment area is affected by near-by mountains and have rather cold and windy winters with snow. The summers are fairly cool and rainy.

18. Hydrological values:

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

The site offers several deltas, some of them with very interesting formations. Lake Ånnsjön is very shallow and in the southwest, there are waterfalls and rapids called Handölsforsarna. The mires west of Lake Ånnsjön are part of the Mire Protection Plan of Sweden.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • Q • P • Q • R • Sp • Ss • Tp • Ts • U • Va • Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

O, L, M, U, W

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 site includes the several Natura 2000-habitats:

3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*

3210 Fennoscandian natural rivers

3220 Alpine rivers and the herbaceous vegetation along their banks

7130 Blanket bogs

7140 Transition mires and quaking bogs

7310 Aapa mires

The mire is a mixture of bog and fen. The vegetation in the bog consists of e.g. heather (*Calluna vulgaris*), dwarf birch (*Betula nana*) and *Sphagnum fuscum*. Structure elements like strings, tussocks hollows and pools are found in the bog. In the fen, vegetation is dominated by sedge-species (*Carex spp.*). Some parts of the fen are rich, with species like slender sedge (*Carex lasiocarpa*, purple moor-grass (*Molinia caerulea*), *Campylium stellatum* and *Tomenthypnum nitens*. Generally in the site, the vegetation is under oceanic influence.

In the peat of Klockamyren, there are two layers of pine trunks in the steep slope near the lake. These layers are approximately 4600 and 6100 years old, respectively, indicating that the area was forested at that time.

The mixture of open and shallow waters, strings, tussocks and hollows creates many different habitats suitable for many bird species. From educational point of view, the different structural elements in the mires are important.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, 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.*

The morphological character of the site constitutes a significant value of the site. The bogs have poor spring vegetation and noteworthy species are rare. But *Racomitrium lanuginosum* should be noted as a species which indicate the maritime influence on the mire vegetation. The fen is rich in character with brown mosses and sedge. Noteworthy moss species include *Paludella squarrosa*, *Tomenthypnum nitens* and *Cinclidium stygium* which all grow in rich fens. *Eriophorum latifolium* and *Carex dioica* are other species worth mentioning.

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.*

In addition to the red-listed species mentioned above (para 14), the following bird species deserve mentioning: Black-throated diver (*Gavia arctica*), widgeon (*Anas penelope*), velvet scoter (*Melanitta fusca*), common scoter (*M. nigra*), long-tailed duck (*Clangula hyemalis*) arctic tern (*Sterna paradisaea*), greenshank (*Tringa glubularia*), wood sandpiper (*Tringa glareola*), golden plover (*Pluvialis apricaria*) and decreasing number of dunlin (*Calidris alpina*). More than 15 wader species occur regularly.

23. Social and cultural values:

a) 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:

Ånnsjön is a popular bird watching site. In addition to the bird station, there are a number of bird watching towers at the lake. The east part of the site is archaeologically interesting, with some rock carvings and stoneage dwellings. In part of the area there are forestry operations.

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?

If Yes, tick the box and 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:

a) within the Ramsar site:

Some 25 percent of the area is state-owned, the remainder of the site is privately owned.

b) in the surrounding area:

South of the site the area is state-owned but in other directions land is mainly privately owned.

25. Current land (including water) use:

a) within the Ramsar site:

The lake is used for fishing and general recreation, as well as for nature observation and bird watching mainly in the bird protection area. Canoes can be hired at the lake.

b) in the surroundings/catchment:

Some of the surrounding areas are used for military exercises. Southwest of the site there is an area with a quarry and abandoned copper mines. The mines were in use in a few years around

1730 - 40 and started again for a few years in the middle of 1800. The surrounding mountains are mainly used for recreation and reindeer husbandry.

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

a) within the Ramsar site:

There are areas inside the site where forestry operates, although it can not be regarded a threat to the site's ecological character.

b) in the surrounding area:

Forestry operating is the main activity in the surrounding area. Stone mining is an extensive industry in the surrounding area. None of these activities threatens the ecological character of the Ramsar site.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

The Ännsjön site is listed as being of national importance for nature conservation, and part of the site has been designated as an EU Special Protection Area (SPA). The site includes two bird sanctuaries where public access is restricted during parts of the year. The sanctuaries were established in 1976 but has since been expanded to include a total area of 2 309 ha. Part of the site, 1 035 ha or 9 percent, is included in a nature reserve:

- Vålådalen Nature Reserve – total area 117 500 ha, thereof 116 000 ha on land. Protected since 1988 and in mixed ownership between state and private owners. An officially approved management plan exists. The area is managed by the County Administrative Board of Jämtland.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

For all three objects mentioned below management plans according to EU habitat directive articles have been developed and adopted. The mires in the west part of the site includes in Mire Protection Plan of Sweden.

d) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

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

The Ramsar site has been included in the Natura 2000 network, divided into three objects:

- SE0720282 Ännsjön (8 960 ha) – SPA, pSCI
- SE0720286 Åreälven (6 493 ha) – pSCI
- SE0720084 Vålådalen (120 436 ha) – SPA, pSCI

29. Current scientific research and facilities:

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

There is a bird ringing station within the site operated by the regional ornithology association (Jämtlands läns ornitologiska förening). A report on birdlife and ringing activities is

published annually. The mires have been surveyed for 19 years and the monitoring of waders and ducks is part of the core activities.

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

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

The station for bird ringing is used during Open House activities when the public is welcome to take part of the activities including bird watching and ringing of birds. There are several good trails and hides for visitors.

31. Current recreation and tourism:

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

The wetland is frequently used for fishing, hunting, bird watching and berry-picking

32. Jurisdiction:

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

County Administrative Board of Jämtland

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.

County Administrative Board of Jämtland, SE-831 86 Östersund, Sweden.

Tel. +46 63 14 61 15

Per-Olof Nystrand, biologist

34. Bibliographical references:

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

European Environment Agency. 2003. Europe's environment: the third assessment, p 231.

Environmental assessment report No 10. Luxembourg: Office for Official Publications of the European Communities.

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