

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 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 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
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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n-9291 Tromsø
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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

April 2011

3. Country:

Norway

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.

Evenes wetland system: Tennvatn

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:

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.

The boundary is the same as for the existing Tennvatn Nature Reserve

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.

68°31' N, 16°41' 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 Ramsar site is located in Skånland municipality in Troms County – the nearest town being Harstad situated 30 km northwest from Tennvatn. Harstad has a population of approximately 23.000 inhabitants.

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

123 m.a.s.l

11. Area: (in hectares)

63 ha (40 ha freshwater)

12. General overview of the site:

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

This site must be seen in context with Myrvatn. The site must also be considered in connection with Nautå, Kjerkvatnet and Sommervatnet in Nordland county (see RIS for these areas). The sites belong to catchment and water systems that have much the same characteristics. The wetland system is considered to be one of the only remaining naturally nutrient rich systems in the northernmost part of the world, and is therefore of international importance both botanically and limnologically. Tennvatn is one of 12 lakes in the Kvitfors/Tårstad watercourse (area 82 km²). The lake is separated in three basins.

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
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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).

Criterion 1: This sub site is a part of a diverse and productive wetlands system which is both representative and unique for the region. *Chara*- lakes are rare in Norway, and Tennvatn represents one of the northernmost of these lakes in Norway. These naturally nutrient rich systems are highly threatened by eutrophication (see also point 20 to 22).

Criterion 2: The site supports vulnerable plants, birds and invertebrates (see point 20-22).

Criterion 3: The site belongs to a wetland system with high biological diversity of both nationally common species of waterfowl and waders, as well as many rare and/or threatened bird species. The diversity of species is amongst the highest in the county, and some of the species are close to their northernmost expansion (see also 20-22).

Criterion 4:

Tennvatn is an important site for staging, grazing, breeding and moulting for many common water birds in the region. See point 22 for details.

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:

Middle boreal vegetation zone, slightly oceanic section (Mb – O1)¹.
Arctic region².

b) biogeographic regionalisation scheme (include reference citation):

1. Zonal division showing the variation in vegetation from south to north and from the lowlands to the mountains, and sectional graduation showing the variation between the coast and inland (In: Moen, A. 1998. Nasjonalatlas for Norge; vegetasjon. Statens kartverk, Hønefoss).

2. Biogeographical Regions of Europe, European Environment Agency, 2005.

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.

Geology	The bedrock consists of feldspar and marble.
Geomorphology	The lake is separated in three basins.
Substrate / soil type	Alkaline- eutrophic with calcium precipitation. The southern basin is less nutritious than the other. Oxygen deficit may occur during growth period. Completely to partly overgrown by water plants in the summer.
Water depth / fluctuations	The NE basin is very shallow (depth 3 m) and is separated from the NW basin by a bank and a small island. This basin is warmed up during summer. The NW basin is also shallow (depth 10m). The flow through in Tennvatn is very low
Climate	The climate is northern costal with relatively warm and short summers and long but relatively mild winters. The annual precipitation varies from between 1000 – 1500 mm in the higher parts of the catchment and 900- 1100 mm at sea level. In average there are between 200 -220 days with precipitation per year. The summer is wet and the winter is mild.

17. Physical features of the catchment area:

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

Tennvatn is one of 12 lakes in the Kvitfors/Tårstad watercourse (area 82 km²). This is a small watercourse in a low land undulating terrain dominated by birch forests, some agricultural land and built-up areas. There are great waterfalls in the upper part of the watercourse, whereas the lower part is characterised by calm rivers, small riffles and pools.

The bedrock is for the most part rich in calcium carbonate and there are large areas of marble, and most of the bedrock is alloktone layers. The sediments in the area are mostly from the kambro-silurian age, but in the lower areas there are younger marine deposits. The entire area is characterized as “rich in calcium-carbonate” with Ca-concentrations > 4 mg/l.

18. Hydrological values:

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

The mires represent an important carbon reservoir. The water system delivers drinking water to app. 3000 persons. The installations are located outside the Ramsar site (upstream).

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 • O • 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, Xf

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.

Tennvatn is part of a rich productive wetland system with a rich and diverse freshwater flora and fauna.

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.*

(Capitalized letters shows the species' status on the Norwegian Red List)

Tennvatn has a dense and rich vegetation of aquatic plants. Broad zones with vascular plants, such as Bottle Sedge *Carex rostrata* and Water Horsetail *Equisetum fluviatile*. Of special interest is the dense occurrence of various *Chara* species: *Chara rudis* (EN), *C. contraria* (VU) and *C. globularis*. Several species of Pondweed, some of which have their northernmost distribution here, such as Shetland Pondweed *Potamogeton rutilus* (NT) and *Stuckenia (Potamogeton) vaginata* (VU). Eutrophic vegetation surrounds the lake with *Carex diandra*, *C. cespitosa* (NT) and *Eriophorum latifolium*.

22. Noteworthy fauna:

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., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Tennvatn is an important site for staging, grazing, breeding and moulting for many water birds: Horned Grebe *Podiceps auritus* (9-13 pair) and the Whooper Swan *Cygnus cygnus* are regularly breeding here, and Garganey *Anas querquedula* (EN) and Eurasian Coot *Fulica atra* are observed.

The lake is important for fish species like Atlantic Salmon *Salmo salar*, stationary and anadromous Brown Trout *Salmo trutta* and Arctic Char *Salvelinus alpinus*.

There is a dense population of the Duck leech *Theromyzon maculosum* (DD) which occur other places in Norway. There is also a dense population of the vulnerable Pearl Mussel *Margaritifera margaritifera* (VU).

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:

Annual catches of salmon in the watercourse is approximately 200-400 kg. The water system delivers drinking water to app. 3000 persons.

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?

None known

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:

Private

b) in the surrounding area:

Private

25. Current land (including water) use:

a) within the Ramsar site:

Sports fishing and collection of wild berries in the surrounding area.

b) in the surroundings/catchment:

Agriculture, forestry and grazing by sheep and cattle. Airport and avian activity and activity conducted by the Norwegian air force. Domestic reindeer farming. Outdoor recreation, sports fishing and hunting. Roads for common regional traffic.

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:

Evenes airport is situated upstream from Tennvatn and the watercourse may be contaminated by diffuse runoff of defrost fluid, oil and particles from exhaust. There is also runoff from the surrounding

agricultural areas. The highly productive character of the lake implies the possibility that it may be overgrown.

b) in the surrounding area:

Runoff from the surrounding agricultural areas and airport activity.

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.

Established as Nature Reserve December 8th 1995. The boundaries for the Ramsar site are the same as for Tennvatnet Nature Reserve.

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?:

A draft management plan exists.

d) Describe any other current management practices:

None

28. Conservation measures proposed but not yet implemented:

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

The site is identified as one of the protected areas where it is necessary to get a management plan. A management plan will also include the other protected areas in the vicinity.

29. Current scientific research and facilities:

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

Botanical investigation in progress by Norwegian institute for Water Research

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.

None

31. Current recreation and tourism:

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

Sports fishing.

32. Jurisdiction:

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

Norwegian Directorate for Nature Management (DN), Tungasletta 2, 7485 Trondheim
Ph +47 73580500

Fax +47 73580501

Email: postmottak@dirnat.no

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.

The site is managed by the County Governor of Troms, which is under the instruction of DN. Address: County Governor of Troms, Boks 6105, N-9291 Tromsø, Norway. Phone: +47 77642000. E-mail: postmottak@fmtr.no

34. Bibliographical references:

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

<http://artsobservasjoner.no/fugler/>

Granmo, A., Elven, R. & Edvardsen H. 1985. *Flora, plantegeografi og botaniske verneverdier I Kvitforsvassdraget, Evenes (Nordland) og Skånland (Troms)*. Polarflokken 9 (1): 6-73.

Haugen, T.M.K & Heitmann A. 1998. *Fuglelivet i Sør-Troms*. Fugler i Troms 1: 34-38.

Kålås, J.A., Viken, Å. og Bakken, T. (red.) 2006. *Norske Rødliste 2006 – 2006 Norwegian Red List*. Artsdatabanken, Norway

Langangen, A. 2004. *Alkaline lakes with Charophytes in Norway. III description of lakes in Nordland, Troms and Finnmark counties in Norway*. Blyttia 62: 198-211.

Moen, A. 1998. *National Atlas of Norway: Vegetation*. Norwegian Mapping Authority, Hønefoss

EUs rammedirektiv for vann. *Karakterisering av vannområder I Nord-Norge. Del I, Kvitfors/Tårstadvassdraget og Ofotfjorden*. Rapport fra samarbeid mellom Sweco Grøner, NINA, Akvaplan og KM Miljøutredning.

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