

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties

Note: It is important that you read the accompanying Explanatory Note and Guidelines document before completing this form.

1. **Date this sheet was completed/updated:**

July 18th, 2002

2. **Country:**

NORWAY

3. **Name of wetland:**

DOKKADELTA

4. **Geographical coordinates:**

60° 48'N - 10° 8'E

5. **Elevation:** (average and/or maximum and minimum)

ca 134 m.a.s.l.

6. **Area:** (in hectares)

366 (ca. 3,6km²)

7. **Overview:** (general summary, in two or three sentences, of the wetland's principal characteristics)

Second largest inland delta in southern Norway (after Nordre Øyeren Ramsar site - the largest inland delta in Scandinavia). Delta where the rivers Etna and Dokka flows into the lake Randsfjorden. Typical floodland with shifting water levels and shifting formations of dry land.

8. **Wetland Type:** (please circle the applicable codes for wetland types as listed in Annex I of the Explanatory Note and Guidelines document)

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	Wx	Xf	Xp	Y	Zg	Zk(b)		
human-made:	1	2	3	4	5	6	7	8	9	Zk(c)	

Please now rank these wetland types by listing them from the most to the least dominant: L, M, O

9. **Ramsar Criteria:** (please circle the applicable criteria; see point 12 below)

1 **2** **3** 4 5 6 7 8

Please specify the most significant criterion applicable to this site: 1

10. **Map of site included? YES**

(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits.)

11. **Name and address of the compiler of this form:**

Senior Adviser Øystein Størkersen, Directorate for Nature Management, N-7485 Trondheim, Norway.

Tel. 47-7358 0737, fax 47-7358 0500, e-mail: oystein.storkersen@dirnat.no

Please provide additional information on each of the following categories by attaching extra pages (please limit extra pages to no more than 10):

12. **Justification of the criteria selected under point 9, on previous page.** (Please refer to Annex II in the *Explanatory Note and Guidelines* document).

1. Permanent inland freshwater delta where the rivers Etna and Dokka meets the lake Randsfjorden. At the estuary numerous islets and shallow waters are created. Shrubs cover parts of the islets and alder/shrubs forms gallery forests. A large part of the lake Randsfjorden is included in the site.
 2. The flora is characteristic for wet meadows and aquatic areas and contain some regionally rare species like *Hammarbya paludosa*. Numerous birds use the area (mainly as a migratory stop-over site), some on national or international red lists, like Hen Harrier *Circus cyaneus*, Broad-billed Sandpiper *Limicola falcinellus* and Great Snipe *Gallinago media*.
 3. This kind of unspoilt estuary has become more rare due to different technical use of such areas. As such it is important to conserve the remaining examples and thereby preserving regional biodiversity. The area has an important function as a staging area for migratory bird species as one of the largest and most important sites in the interior of Southern Norway.
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13. **General location:** (include the nearest large town and its administrative region)

Oppland county, Nordre Land and Søndre Land municipalities, nearest village of Gjøvik lies to the east (distance 10 km), with population of 30.000.

14. **Physical features:** (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

On low waters one may discern between an outer submersed delta platform and an inner more complex delta-area. Shallow waters characterise the area (0,5-3m), which may be dry land parts of the year. Innumerable shallow bays with swamp vegetation occur. The delta is still active with a process of reforming. Both rivers carries large amounts sedimentation into the delta. The climate is characterized by relatively warm summers and cold winters with relatively low annual precipitation (<1000mm).

The lake Randsfjorden have been regulated with in total 3m level (in 1916 and 1951). This regulation has increased the occurrence of water vegetation upwards with one meter. The river Etna is not regulated, while the river Dokka was regulated for hydropower in 1988.

15. **Hydrological values:** (groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.)

See paragraph 14. Detailed studies have been performed on sedimentation and transport of sediments, and on the hydropower potential of the rivers and lake. The transport of sediments by these large rivers constitutes a decisive element in the build up of the shifting islets etc. in the estuary, as well as supplying nutritious elements providing for the lush vegetation and growth of invertebrate fauna. The estuary thus acts as a sediment trap and for purification of water from excessive nutrition (eg. nitrogen compounds). The large catchment area (several 1000km²) means that the rivers have an important role to play in flood control, as shown by the annual spring flood. However, regulation and drainage in the catchment area have increased the speed of how fast the water from tributaries enters the main rivers, and consequently have increased the risk of larger floods than is natural. One may claim that the remaining wetland systems in the catchment area plays a more vital role today than before.

16. **Ecological features:** (main habitats and vegetation types)

Situated in the boreal region:

- Characterised by floodlands, shrubs and deciduous gallery forests (*Alnus incana* most common).
- Swamp vegetation typically either *Equisetum fluviatile*, *Carex rostrata* or *Carex acuta*.
- Wet meadows characterised by *Calamagrostis canescens*, *Phalaris arundinacea*, *Filipendula ulmaria* and *Lysimachia vulgaris*.
- Overgrowing areas typified with *Salix* spp. (*Salix triandra*/*Salix cinerea*) and at later stages *Prunus padus*/*Alnus incana*-forests.

- Aquatic vegetation includes large areas with *Callitriche cophocarpa*.
- In total 243 vascular plants have been described.
- An interesting feature is the previous use of the swamp vegetation and wet meadows by scything for animal fodder. A management plan have been developed to re-start this use of the area to improve the situation for plant species adapted to extensive use. Some traditional hay-houses have been restored.

17. **Noteworthy flora:** (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc.)

Detailed studies of the flora exists, and show some species of international interest, eg. *Hammarbya paludosa*.

18. **Noteworthy fauna:** (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)

Birds:

Common species: In particular waders and ducks are numerous, particularly during staging periods awaiting the thaw in the adjacent mountain breeding areas. Mainly this has a regional character, including function as a staging are for species like Crane *Grus grus* 50-100, a few hundred of mallard, *Anas crecca*, *Anas Penelope*, *Mergus merganser*, *Bucephala clangula* and *Aythya fuligula* as the most important duck species. The most common waders are *Tringa totanus*, *Tringa glareola*, *Tringa nebularia*, *Tringa ochropus*, *Calidris alpina*, *Philomachus pugnax*, *Gallinago gallinago* and *Numenius arquata*. A few hundred geese occur annually *Anser anser*, *Anser fabalis* and *Anser brachyrhynchus*. High numbers of passerine occurs, i.a. high breeding densities of *Carpodacus erythrinus* and *Acrocephalus scirpaceus*. 20 different waterbirds breed in the area. During the fall migration flocks of waders also dominate (500-1000), including common Arctic species like *Pluvialis squatarola* and *Calidris minuta*. Flocks of 100-200 *Cygnus cygnus* occur prior to freeze over.

Rare or threatened species: Low numbers of staging *Gallinago media* and *Limicola falcinellus* occur, while *Pandion haliaetus* is a regular feature of the area (breeding outside the protected site).

19. **Social and cultural values:** (e.g., fisheries production, forestry, religious importance, archaeological site, etc.)

Previously extensively used for fodder collection, a management plan has been set up to re-open this tradition and to conserve species adapted to extensive use (eg. flora and a bird species like *Motacilla flava*), see paragraph 17.

20. **Land tenure/ownership of:** (a) site Private (b) surrounding area Private

21. **Current land use:** (a) site No particular use (b) surroundings/catchment

The lake have been regulated for electricity production, however apparently without or little impact on the protected area. The protected area (designated Ramsar site) are not being used for any commercial activity and have little or no impact from external use.

22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects: (a) at the site: (b) around the site:

Today relatively low impact from hydropower regulation.

23. Conservation measures taken: (national category and legal status of protected areas - including any boundary changes which have been made: management practices; whether an officially approved management plan exists and whether it has been implemented):
Established as a Nature reserve October 12th 1990.

24. Conservation measures proposed but not yet implemented: (e.g, management plan in preparation; officially proposed as a protected area, etc.)

No management plan have been officially approved.

25. Current scientific research and facilities: (e.g., details of current projects; existence of field station, etc.)

Not known.

26. Current conservation education: (e.g., visitors centre, hides, information booklet, facilities for school visits, etc.)

A bird observation tower have been erected and is being used in relation to an established nature trail. A leaflet have been published and some posters have been erected in the area.

A visitors centre have been proposed and plans for further research in relation to the centre have been raised.

27. Current recreation and tourism: (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)

Birdwatching and sport fishing is the most popular cativities in the area, however, most of the delta is inaccessible.

28. Jurisdiction: (territorial, e.g., state/region and functional, e.g., Dept. of Agriculture/Dept. of Environment etc.)

The Ministry of the Environment.

29. **Management authority:** (name and address of local body directly responsible for managing the wetland)

The site is managed by the County Governor of Oppland county, which is a subsidiary body of the Ministry of the Environment. Adress: County Governor of Oppland, Serviceboks, N-2626 Lillehammer.

30. **Bibliographical references:** (scientific/technical only)

Botany and management plans:

- Bendiksen, E. & Bendiksen, K. 1996. Flora og vegetasjon i Dokkaldeltaet, med forslag til skjøtselstiltak i naturreservatet. Rapport nr. 2:1-55. Fylkesmannen i Oppland, Miljøvernavdelingen. (in Norwegian - botanical description and management proposals).
- Brandrud, T.E., Mjelde, M. & Rørslett, B. 1994. Vannvegetasjonen i Dokkadelta, Randsfjorden. Status og vurdering av konsekvenser av Dokka-reguleringen. NIVA Rapport 0-87171:1-83. (in Norwegian - on the aquatic vegetation and consequences of the hydropower regulation of river Dokka).

Birds:

A number of reports exists, here one overview is mentioned:

- Høitomt, G. 1980. Fugler i Oppland. Dokkadelta - samlerapport. Hujon 3:1-70. NOF avd. Oppland. (in Norwegian - report on the birdlife)

Quaternary:

- Bogen, J. 1988. Etna - Dokkas delta i Randsfjorden. Sedimenttilførsel og sedimentasjon. Norges vassdrags- og energiverk. VHB-notat 17. (in Norwegian - on sedimentation in the delta).