

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 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

2. Date this sheet was completed/updated:

March 2012

3. Country:

NORWAY

4. Name of the Ramsar site:

Nordre Øyeren
(International No. 307, National No. 4)

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
- i) 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:

Cessation of hay cutting, grazing and woodcutting resumed in a period of overgrowing in the delta, with the result that a number of plant and bird species disappeared or declined in numbers. Measures to reverse this trend are now being implemented together with local landowners. A huge flood in 1995 together with high summer water levels resulted in a decline in many vegetational elements. Amongst others *Potamogeton perfoliatus* is being replaced by *Sparganium angustifolium* and *S. emersum*.

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 border of the Ramsar site is the same as the border of Nordre Øyeren Nature Reserve

8. Geographical coordinates (latitude/longitude):

59 53' N 11 09' E

9. General location:

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

Nordre Øyeren is situated at the northern end of the lake Øyeren, about 20 km east of the centre of Oslo. The reserve itself is situated within the municipalities of Enebakk, Fet and Rælingen in the county of Akershus.

10. Elevation: (average and/or max. & min.)
101 m.a.s.l.

11. Area: (in hectares)
6256 ha

12. General overview of the site:

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

Nordre Øyeren is northern Europe's largest inland delta, formed by the three rivers Glomma, Nitelva and Leira. Nitelva and Leira meet at the area known as Svellet and then flow towards where the delta of Norway's largest river, Glomma, flows into Øyeren. During spring floods the rivers deposit large amounts of gravel, sand, silt and clay. The delta is built up of 3 km³ loose material, mainly deposits from the last ice age. The delta platform is 10 km long, in other words a third of Øyeren's length. The amount of land in the delta is constantly changing. It has grown fourfold in the last hundred years, and is formed like a long "bird-foot" delta. With the current water regulations the water levels fluctuate 3-4 metres during a year. Large variations in water levels and the influence of the rivers create varying natural conditions. This is one of the main reasons for the areas species diversity and the large populations of birds, fish, benthic organisms and plants. Early in spring, when water levels are lowest, large areas of mudbank are exposed, where migrant birds have good access to food. The areas main function for birdlife is as a staging and feeding site during migration. The reserve is also considered internationally important as a staging area, and in particular ducks and waders use Øyeren both during spring and autumn migration. For several species the totals for Øyeren are higher than any other site in Norway. Øyeren is also important as a wintering site, and has Norway's largest numbers of whooper swan. A total of 260 species are recorded in the reserve, of which 133 species associated with wetlands, among these 11 species breed regularly (the most common being mallard), as well as several passerines, especially reed bunting. Several pairs of osprey nest around the reserve and use the area to hunt. The area is also important for the general biodiversity and Øyeren is Norway's most species rich lake, also as far as fish are concerned. The aquatic plant communities and damp meadow community dominate the delta area, Varying natural condition make Øyeren one of northern Europe's most species-rich lakes as far as water plants are concerned. The mud banks and shallow waters have an species-rich fauna of invertebrates and the fertile vegetation also provides good conditions for several mammals.

In 1992 an additional nature reserve was established in the north of Øyeren, adjacent to Nordre Øyeren Nature Reserve. This area, Sørumsneset Nature Reserve, a 1 km² area in the municipalities of Skedsmo and Fet, where the two rivers Leira and Nitelva meet. This area is not included in the Ramsar site.

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).

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).

- Criterion 1. North Europe's largest inland delta, shaped like a long "bird's foot delta" formed by the confluence of three rivers. With the exception of some farming the delta is relatively intact. Large variations in water levels and the influence of the rivers create varying natural conditions.
- Criterion 2. The area is important for several nationally and internationally red-listed bird species, such as Smew *Mergellus albellus* (VU) and Hen Harrier *Circus cyaneus* (VU). Other red-listed species that occur include species such as *Potamogeton pusillus* (EN), *Chara braunii* (EN) and *Nitella mucronata* (VU). The area is important for *Triturus cristatus* (VU). See also point 14 criterion 4 and 8 and point 22. The Norwegian Red List 2010 is used.
- Criterion 3. Large variations in water levels and temperature create varying natural conditions. This is the main reason for the diversity of species and the large populations of birds, fish, benthic organisms and plants. Cold water from the river Glomma dominates the main river course,

whereas the shallow areas with still water have relatively warm water in summer. Early in spring, when water levels are lowest due to extraction, large areas of mudbanks are exposed where migrant birds have good access to food. Nordre Øyeren is perhaps the most important inland staging site for migrant waterbirds in the whole of southern Norway. Together with the Dokkadelta in Randsfjorden, Lågendelta and Åkersvika by lake Mjøsa, Nordre Øyeren is a major element in an important system of inland wetlands; it has the greatest diversity of fish species in Norwegian freshwaters, with 25 of 27 known species found. The vegetation varies a lot from extremely rich in the area around Svellet to the cold shallows dominated by water form rivers. 325 wetland plant species are recorded, of which over 50 are purely aquatic species (submerged for more than half of the growing season).

- Criterion 4. The areas main function for birdlife is as a staging and feeding site during migration. The reserve is also considered internationally important as a staging area, and in particular ducks and waders use Øyeren both during spring and autumn migration. For several species the totals for Øyeren are higher than any other site in Norway. The most numerous wetland birds are: Eurasian Wigeon *Anas Penelope* (max 1996 ind), Common Teal *Anas crecca* (max 7608), Mallard *Anas platyrhynchos* (max 3739), Tufted Duck *Aythya fuligula* (max 341), Golden Eye *Bucephala clangula* (max 293), Goosander *Mergus merganser* (max 970), Great Cormorant *Phalacrocorax carbo* (max 1027), Golden Plover *Pluvialis apricaria* (max 533), Lapwing *Vanellus vanellus* (max 1620), Little Stint *Calidris minuta* (max 385), Dunlin *Calidris alpina* (max 400), Ruff *Philomachus pugnax* (VU) (max 1500-2000), Curlew *Numenius arquata* (max 620), Common Greenshank *Tringa nebularia* (Max 300-350), Black-headed Gull *Chroicocephalus ridibundus* (NT) (max 8000). During migration there is also registered great numbers of different passerines. Maximum numbers for some of the species is: up to 50.000 individuals of Fieldfare *Turdus pilaris*, 10000 Brambling *Fringilla montifringilla* and 8000-12000 Snow Bunting *Plectrophenax nivalis*.

Birds are attracted to the vast shallows and the mudbanks exposed in spring and to a lesser degree also in autumn. Invertebrates occur at densities of up to 144000 individuals/m². Nordre Øyeren therefore plays a major part in the network of staging sites used by migrant birds in southern Norway. Øyeren is also important as a wintering site, and has Norway's largest numbers of whooper swan. A total of 260 species are recorded in the reserve, of which 133 species associated with wetlands, among these 11 species breed regularly (the most common being mallard, Golden Eye *Bucephala clangula*, Goosander *Mergus merganser*), as well as several passerines, especially reed bunting. Several pairs of osprey nest around the reserve and use the area to hunt.

- Criterion 6. Species fulfilling the 1% level are Whooper Swan *Cygnus cygnus* (autumn/winter; up to 1610 individuals (December 1994); N mainland Europe breeding population) Normally we find the highest number late in the autumn (nov-dez). From 1976 to 2008 we find an increasing number of Whopper Swan during spring migration, this trend we also found in the autumn until 1994, after that we find a decreasing number of whopper swan under migration (the 1 % level being 590 ind.). Common Teal *Anas crecca* (Spring/autum; up to 7608 individuals in the period from 1973-1997 (5400 ind 26.4.2008). We find an increasing number using the site both under the spring and autumn migration. The highest numbers occur during spring migration. The 1 % level being 5000 ind.
- Criterion 7. The site has the greatest diversity of fish species in Norwegian freshwaters, with 25 of 27 known species found. See point 22 for more 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:

1. Boreal

2. Boreonemoral vegetation zone, transitional section (Bn-OC). The western side of the area borders the slightly oceanic section (Bn-O1).

b) biogeographic regionalisation scheme (include reference citation):

1. Biogeographical regions of Europe, European Environment Agency, 2005

2. 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).

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	Impressive alluvial deposits (typical delta deposits with more or less fine-grained material out in the delta) and Precambrian rocks, chiefly biotite – muscovite gneiss, a strip of mylonite and a transition to granitic gneiss in the east.
Geomorphology	An elongated "birds foot delta" with an irregular front formed at the confluence of three rivers. Shallow submerged delta platform with irregular surface and gulleys and holes, the inner delta is complex with several currents, areas of sedimentation with tongue-shaped mudbanks with varying vegetation. The delta processes are ongoing and the land area has doubled in the last hundred years.
Substrate/Soil type	The outer delta platform is made up of very fine-grained material (silt and clay), whereas the inner parts have deeper areas of sand and gravel.
Water quality	Water quality in the three rivers is affected by the fact that they flow through areas of marine clay deposits, with problems of erosion during flood periods. In recent years, levels of algae and algal composition in Øyeren have been acceptable, and pollution levels are considered to be little to moderate. The water has a great capacity as a buffer against acidification, and this has helped to hinder the damaging effects of acid rain.
Water depth/ fluctuations	The delta area and associated delta platform make up about one third of the area of Øyeren, and much of this is very shallow (0 – 5 m) during normal summer water levels. Beyond the delta Øyeren has depths of up to 70 m. The water regulation level is 2.4 m (98.94 – 101.34 m a.s.l.). Before regulation of Glomma, variations in water levels were as much as 15 m.
Climate	The area has a slightly continental climate, with relatively warm summers and cold winters with moderate annual precipitation (715 mm).

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).

Øyeren has a catchment area of about 40 000 km² in eastern Norway, and stretches up to the county of Sør-Trøndelag. The catchment area stretches from the boreonemoral vegetation zone, via the southern boreal, middle boreal and northern boreal to the alpine zone. Coniferous woodland covers most of this area, although the northern parts have large areas of upland birch woodland, mires and bare mountains. There are large areas of farmland and settlements along the rivers Glomma (lower reaches), Nitelva and Leira. The catchment area is within the Caledonian thrust-sheet zone, which has resulted in a great geological variation. Moraine material, in places rather thick, covers most of the catchment area, whereas there are alluvial deposits in the valleys, in particular the lower parts. There is much moraine soil and peat associated with areas of mire. The climate in the catchment area is continental.

18. Hydrological values:

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

The transport of sediment from the rivers Glomma, Nitelva and Leira are responsible for the building up of the delta and for the changing mudbanks in the delta. The area functions as a sediment trap and is important for fixing of nutrients (in particular those containing phosphorus and nitrogen).

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.

L, O, M

20. General ecological features:

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

The area lies in the boreonemoral vegetation zone and the aquatic habitats span from shallow hypereutrophic communities in Nitelva, Leira and Svelle to the oligotrophic communities of the cold nutrient-poor waters on mudbanks in the delta of Glomma. Waterplant and damp meadow communities dominate in the delta, whereas there are few communities with large emergent plant species. *Potamogeton perfoliatus* is one of the characteristic water plants, and the area has more than 50 species of solely aquatic plants. Including bog species, the total is 325 species, of which 17 are on the national red list. The damp meadow communities are dominated by sedge bogs and horsetail marshes. Willow/alder woodland grows on many of the islands, and of special interest is the presence of almond willow *Salix triandra*. The alder/bird-cherry woodlands are among the country's finest. There is also some pinewood and birch woodland, and some agriculture on higher ground.

The invertebrate fauna has been well studied. Roundworms, midges and *Oligochaeta* make up more than 95% by density. Other groups such as leeches, freshwater mussels, snails, fleas, mayflies, water beetles, caddis-flies and gnats occur in small numbers.

From a fishery perspective, Øyeren can be divided into two main areas – a northern shallow area with high water temperature which makes up the delta platform, including Svellet and the lower reaches of the rivers Leira and Nitelva; and a basin south of the delta platform with deep, cold water from the river Glomma. The variation is reflected in that 25 fish species have been recorded. Roach *Rutilus rutilus* dominate in the shallow areas, as well as orfe *Lenciscus idus*, perch *Perca fluviatilis*, bream *Abramis brama* and pike *Esox lucius*. The fish fauna in the colder water from Glomma is characterised by fewer warm-loving species.

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.*

Potamogeton perfoliatus is one of the characteristic species in Nordre Øyeren and typically forms ring-shaped colonies of up to 50m in diameter. *Potamogeton perfoliatus* is an important food plant for waterbirds, especially for whooper swan in winter. 17 red-listed species recorded including *Chara braunii* and *Potamogeton pusillus* which live in the shoreline vegetation community and which are both subjected to changing water levels. Characteristic for the mudbanks are the annual vegetation (Nanocyperetalia) with species such as *Elatine sp.*, *Crassula aquatica* and *Potamogeton pusillus*. These species produce large amounts of seed which is important for several bird species.

Among the red listed species are:

EN (Endangered): *Potamogeton pusillus*, *Chara braunii*

VU (Vulnerable): *Salix triandra*, *Chaenotheca phaeocephala*, *Viola persicifolia*, *Lathyrus palustris*

NT (Near Threatened): *Discelium nudum*, *Elatine triandra*, *Persicaria minor*, *Ononis arvensis*

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.*

Fish:

Two of the 25 species of fish in the reserve is considered as threatened, Characteristic fish in shallow bays with clear water include roach *Rutilus rutilus*, orfe *Leuciscus idus*, perch *Perca fluviatilis*, bream *Abramis brama*, and pike *Esox lucius*. Open areas with more turbulent water have a fish community including roach, bream, white bream *Blicca bjoerkna*, bleak *Alburnus alburnus* and occasionally ruff *Acerina cernua* as the dominating species. The fish fauna are influenced by colder water from Glomma are characterised by fewer warm loving species and intsead species including dace *Leuciscus leuciscus* and perch, as well as grayling *Thymallus thymallus*, whitefish *Coregonus lavaretus* and burbot *Lota lota*.

Birds:

Staging site for several nationally rare species such as up to 1610 Whooper Swan *Cygnus cygnus*. Up to 8-9 pairs of osprey use the area to hunt (these nest in the surrounding hillsides). However, it is numbers of more common species that are of particular interest at Nordre Øyeren. In the case of many species, the highest counts at any site in Norway are from Øyeren such as the following count maxima: Common Teal *Anas crecca* 7 608 individuals, Mallard *Anas platyrhynchos* 3 739 individuals, Ruff *Philomachus pugnax* (VU), 1 500-2 000 individuals and Northern Lapwing (NT) *Vanellus vanellus* 1 620 individuals. For more information see point 14 criterion 4.

Invertebrates:

The bethnic fauna is dominated by roundworms, midges and *Oligochaeta*. The *Oligochaeta*-fauna is rich and varied and 41 species (as well as two individuals not identified to species level) have been found. Most of these belong to the families *Tubificidae* and *Naididae*. Several of the species have a limited distribution in Norway, and one species has not been found anywhere else in the country. The crustacean fauna is surprisingly poor, with only 20 known species. This may be a result of the high density of fish, a theory supported by the fact that only small species have been recorded.

Some red-listed species is registered, among them is: *Sympetrum sanguineum* (NT)

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:

The natural waterside meadows and grassy meadows in the delta were formerly cut and grazed. Management in the form of burning, cutting and grazing takes place today in order to recreate these meadows and prevent overgrowing. In cooperation with the local landowners, two birdwatching towers have been erected. Fishing used to be an extra source of income for local farmers. The Fetsund Lense Museum has been established to conserve the old infrastructure connected to floating of timber on Norway's largest river, Glomma and the Nordre Øyeren (part of this river)

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: Mainly private
- (b) in the surrounding area: Mainly private

25. Current land (including water) use:

(a) within the Ramsar site:

Parts of the higher ground in the delta are farmland. Otherwise management such as grazing, cutting and burning occurs. The delta is much used for recreational purposes such as bathing, birdwatching and hobby fishing.

(b) in the surroundings/catchment:

Glomma and Øyeren are regulated for production of hydroelectricity. The reserve is surrounded by farmland, as well as the towns of Fetsund, Lillestrøm and Strømmen.

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:

Cessation of hay cutting, grazing and woodcutting resumed in a period of overgrowing in the delta, with the result that a number of plant and bird species disappeared or declined in numbers. Measures to reverse this trend are now being implemented together with local landowners. A huge flood in 1995 together with high summer water levels resulted in a decline in many vegetational elements. Amongst others *Potamogeton perfoliatus* is being replaced by *Sparganium angustifolium* and *S. emersum*.

There is an ongoing debate about the water management regime in Nordre Øyeren.

Plans have been launched to upgrade the highway (RV22) from 2 to 4 lanes between the city of Lillestrøm and Fetsund in Fet municipality. This includes a stretch of about 600 meters that will cross the north eastern corner of Nordre Øyeren nature reserve.

(b) in the surrounding area:

Regulation of water levels in Glomma and its tributaries the past hundred years has resulted in fluctuations in water levels and also reduced the physical effect from water in the delta. From the late 1960's to the 1980's much of the ravine landscape was cleared and replaced by cornfields. This has resulted in an increase in run-off of eroded soil and nutrient salts, and therefore overgrowing and poorer water clarity. Pesticides have been found in the watercourse in recent years.

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.

Nordre Øyeren was designated as a nature reserve on 5th December 1975. In 1992 the protected area was increased following the designation of the 1 km² Sørumsneset Nature Reserve in the municipalities of Fet and Skedsmo, at the confluence of the rivers Leira and Nitelva. This area is not included in the Ramsar site.

The Ramsar site border is similar the border of Nordre Øyeren nature reserve.

Part of the IBA Nordre Øyeren and Sørumsneset (7504 ha)

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?: YES (but old -1979)

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.

A revised management plan is under development by the management authority.

29. Current scientific research and facilities:

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

In connection with a review of the water regulation regime a number of thorough environmental studies were carried out in Øyeren in the period 1994-2000. The aim of these studies was to provide basic knowledge on natural functions, thus allowing proper management of the reserve, and to highlight how water regulation affected water quality, erosion, sedimentation, aquatic vegetation, benthic organisms, fish and bird life. The regional authority (Akershus fylkeskommune) initiated these studies. An information brochure and several reports have been produced about this project. In connection with an ongoing revision of the new water regulation regime (2005) there are plans to include continual monitoring of the natural elements in the reserve. Øyeren is included as part of a national programme for monitoring of water chemistry and composition of algae by the Norwegian Institute for Water Research (NIVA).

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.

Two bird observation towers, one at Jorholmen and one at Årnestangen, have been erected. Popular walks in the area include to Årnestangen in Rælingen municipality and to Søndre Bjanes and Tuentangen in Fet municipality. An information folder about Nordre Øyeren was produced in 2002. A warden enforces the local bye-laws and guides members of the public. A nature information centre close to Fetsund timber floating museum was opened in 1997. This has a permanent exhibition for children, a temporary art exhibition, and a café.

31. Current recreation and tourism:

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

The area is used for birdwatching, canoeing, fishing and other recreational activities by local residents.

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 Oslo & Akershus, which is under the instruction of DN. Address: County Governor of Oslo & Akershus, Postboks 8111 Dep., 0032 OSLO. Phone +47 22003500. E-mail: postmottak@fmoa.no

34. Bibliographical references:

scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

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