
Information Sheet on Ramsar Wetlands

(RIS) – 2009-2012 version

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:

September 2013

3. Country:

the Netherlands

4. Name of the Ramsar site:

Lauwersmeer

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

This RIS is for:

- 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:

Compared to the former RIS the site now also qualifies for Criterion 5 (site regularly supports more than 20,000 wintering water birds).

7. Map of site:

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:

Ramsar site Lauwersmeer has also been designated as the European Natura 2000-site Lauwersmeer. For this RIS-version, the new Ramsar site boundary has therefore been adjusted to the Natura 2000-boundary.

The road and parking places in the north have been excluded or exclavated from the Ramsar site.

In total this new boundary resulted in a decrease of -28,6 ha.

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

53°22'N - 06°13'E

9. General location:

Provinces of Groningen and Friesland in the municipalities of De Marne to the east (population 10.336 per 1-1-2013), Dongeradeel to the west (population 24.221 per 1-1-2013), Kollumerland en Nieuwkruisland to the Southwest (population 12.829 per 1-1-2013) and Zuidhorn to the Southeast (population 18.681 per 1-1-2012). Source: CBS, Netherlands Statistics).

10. Elevation: (min & max)

NAP -13 / -2 m

11. Area:

5754,5 ha

12. General overview of the site:

A dammed estuary, formerly part of the Waddenzee (closed off in 1969), which has become freshwater, though the estuary structure remains.

The terrestrial part is characterised by marsh, reed beds and grassland which through natural succession develops towards scrub and forest locally. Arable land and scattered farms are also available. The area is especially important for many water bird species.

13. Ramsar Criteria:

1 • 2 • 3 • 4 • 5 • 6 • 7 8 • 9

14. Justification for the application of each Criterion listed in 13 above:

The Ramsar site Lauwersmeer has been designated under Natura 2000 as well. Natura 2000 is the centerpiece of EU nature & biodiversity policy. It is an EU-wide network of nature protection areas which aims to assure the long-term survival of Europe's most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive, and also incorporates Special Protection Areas (SPAs) designated under the Birds Directive. Natura 2000 applies to SACs and SPAs which are divided into biogeographical regions. The Ramsar site Lauwersmeer applies to a SPA and the justification for the application of each Ramsar criterion below, greatly refers to its designation as a SPA.

Justification criterion 2

The table below shows Annex I species (BD) for which the site has been designated as a SPA, as well as their current status on the National Red List. Some other threatened species of the HD and National Red Lists have also been added to the table.

Species of Annex I of the European Bird Directive for which the site has been designated as a SPA, as well as species of Annex IV, V (HD) and some threatened species of the National Red Lists (- = Not Applicable). Year of adoption of the National Red List in parentheses.

Species	Species code	HD Annex	BD Annex	National RL Category
Vascular plant species				(2004)
Grass-of-parnassus <i>Parnassia palustris</i>	-	-	-	VU
Marsh Helleborine <i>Epipactus palustris</i>	-	-	-	VU
Early Marsh-orchid <i>Dactylorhiza incarnate</i>	-	-	-	VU
Musk Orchid <i>Herminium monorchis</i>	-	-	-	CR
Variiegated Horsetail <i>Equisetum variegatum</i>	-	-	-	EN
Mammals				(2009)
¹ Otter <i>Lutra lutra</i>	H1355	II, IV	-	CR
¹ Pine Marten <i>Martes martes</i>	-	V	-	VU
Non-breeding birds				
Eurasian Spoonbill <i>Platalea leucorodia</i>	A034	-	I	-
Bewick`s Swan <i>Cygnus bewickii</i>	A037	-	I	-
Whooper Swan <i>Cygnus cygnus</i>	A038	-	I	-
Lesser White-fronted Goose <i>Anser erythropus</i>	A042	-	I	-
Barnacle Goose <i>Branta leucopsis</i>	A045	-	I	-
Smew <i>Mergus albellu</i>	A068	-	I	-
² White-tailed Sea Eagle <i>Haliaeetus albicilla</i>	A075	-	I	-
Avocet <i>Recurvirostra avosetta</i>	A132	-	I	-
Eurasian Golden Plover <i>Pluvialis apricaria</i>	A140	-	I	-

¹ In summer 2013 a male and female Otter and a Pine Marten were recorded by trap camera. The site has however not been designated as a SAC for these species.

² After centuries of absence from the Netherlands, the Lauwersmeer is the second site in the Netherlands (behind the Oostvaardersplassen), where the White-tailed Sea Eagle *Haliaeetus albicilla* managed to breed again. The first successful breeding couple was observed in 2011, and the species breeds at the site since then. The site has however only been designated as a SPA for non-breeding Sea Eagles.

Caspian Tern <i>Sterna caspia</i>	A190	-	I	-
Breeding birds				(2004)
Bittern <i>Botaurus stellaris</i>	A021	-	I	EN
Western Marsh Harrier <i>Circus aeruginosus</i>	A081	-	I	LC
Montagu`s Harrier <i>Circus pygargus</i>	A084	-	I	CR
Spotted Crake <i>Porzana porzana</i>	A119	-	I	VU
Avocet <i>Recurvirostra avosetta</i>	A132	-	I	LC
Ruff <i>Philomachus pugnax</i>	A151	-	I	CR
Arctic Tern <i>Sterna paradisaea</i>	A194	-	I	LC
Short-eared Owl <i>Asio flammeus</i>	A222	-	I	CR
Bluethroat <i>Luscinia svecica</i>	A272	-	I	LC

Justification criterion 3

The Lauwersmeer is designated as a Natura 2000 site (SPA under the Bird Directive) and can therefore be considered important for maintaining the biodiversity of the Atlantic biogeographic region. Besides the species mentioned under criterion 2, the site has also been designated as a SPA for a number of bird species that are not on annex I of the BD. See the table below.

Bird species (not on Annex I of the BD) for which the site has been designated as a SPA as well as their status on the National Red List (2004).

Species	BD Species code	National RL Category
Non-breeding birds		
Great Crested Grebe <i>Podiceps cristatus</i>	A005	-
Great Cormorant <i>Phalacrocorax carbo</i>	A017	-
White-fronted Goose <i>Anser albifrons</i>	A041	-
Greylag Goose <i>Anser anser</i>	A043	-
Common Shelduck <i>Tadorna tadorna</i>	A048	-
Eurasian Wigeon <i>Anas [Mareca] penelope</i>	A050	-
Gadwall <i>Anas strepera</i>	A051	-
Common Teal <i>Anas crecca</i>	A052	-
Mallard <i>Anas platyrhynchos</i>	A053	-
Northern Pintail <i>Anas acuta</i>	A054	-
Northern Shoveler <i>Anas chipeata</i>	A056	-
Common Pochard <i>Aythya ferina</i>	A059	-
Tufted Duck <i>Aythya fuligula</i>	A061	-
Common Goldeneye <i>Bucephala clangula</i>	A067	-
Common Coot <i>Fulica atra</i>	A125	-
Common Ringed Plover <i>Charadrius hiaticula</i>	A137	-
Black-tailed Godwit <i>Limosa limosa</i>	A156	-
Eurasian Curlew <i>Numenius arquata</i>	A160	-
Spotted Redshank <i>Tringa erythropus</i>	A161	-
Breeding birds		(2004)
Whinchat <i>Saxicola rubetra</i>	A275	EN
Savi's Warbler <i>Locustella luscinioides</i>	A292	LC
Sedge Warbler <i>Acrocephalus schoenobaenus</i>	A295	LC

Justification criterion 4

The site is of particular importance for many breeding and non-breeding bird species (see criterion 2, 3 and 6), of which several species gather in high numbers and relatively small areas during wintering and/or migration periods like ducks, geese and swans or breeding periods like breeding colonies of Avocet *Recurvirostra avosetta* and Arctic Tern *Sterna paradisaea*.

Justification criterion 5:

The site regularly supports more than 20,000 wintering water birds: the average peak number was 37.946 for the period 2005/2006-2009/2010, which is more than the average peak number of 26.550 for the period 1999/2000-2003/2004. (source: Sovon, Dutch Centre for Field Ornithology).

Justification criterion 6:

Species meeting the 1% threshold (WPE-4, Wetlands International 2006; source: Sovon, Dutch Centre for Field Ornithology). (NB = nonbreeding, BR = breeding period 2006-2010).

Species (UK)	Species	NB / BR	Biographical population	1% threshold	Average number of birds between 2006-2010	% at site
Pintail	<i>Anas acuta</i>	NB	NW-Europe	600	2451	4.1
Shoveler	<i>Anas clypeata</i>	NB	NW-/ Central-Europe	400	1349	3.4
Gadwall	<i>Anas strepera</i>	NB	NW-Europe	600	5715	9.5
White-fronted Goose	<i>Anser albifrons</i>	NB		10000	24970	2.5
Greylag Goose ¹	<i>Anser anser</i>	NB	NW-Europe/ SW-Europe	5000	33173	6.6
Greylag Goose ²	<i>Anser anser</i>	NB	NW-Europe/ SW-Europe	5000	9037	1.8
Barnacle Goose ¹	<i>Branta leucopsis</i>	NB	Russia/ Netherlands	4200	68667	16.3
Barnacle Goose ²	<i>Branta leucopsis</i>	NB	Russia/ Netherlands	4200	15250	3.6
Bewick's Swan ¹	<i>Cygnus columbianus</i>	NB	W-Siberia/NW-Europe	200	452	2.3
Bewick's Swan ²	<i>Cygnus columbianus</i>	NB	W-Siberia/NW-Europe	200	676	3.4
Black-tailed Godwit	<i>Limosa limosa</i>	NB	W-Europe/W-Africa	1700	2371	1.4
Spotted Redshank	<i>Tringa erythropus</i>	NB	Europe/ W-Africa	900	1199	1.3
Eurasian Spoonbill	<i>Platalea leucorodia</i>	NB	East Atlantic	110	383	3.5
¹ Roosting						
² Foraging						

Compared to the period of 1992-98 (previous updated version) the Common Teal *Anas crecca* (NB) does not meet the 1% threshold anymore, while White-fronted Goose *Anser albifrons* (NB), Greylag Goose *Anser anser* (NB), Black-tailed Godwit *Limosa limosa* (NB) and Spotted Redshank *Tringa erythropus* (NB) do.

15. Biogeography

a) biogeographic region:

The Ramsar site belongs to the Atlantic biogeographical region.

b) biogeographic regionalisation scheme (include reference citation):

The bio-geographic regions dataset used, contains the official delineations used in the Habitats Directive (92/43/EEC) and for the EMERALD Network set up under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)

16. Physical features of the site:

The site, which is a former estuary, became a freshwater lake after the building of a dyke in 1969 which disconnected the site from the Wadden Sea. The site plays a crucial role in the hydrology of the region. The excess water from the provinces of Friesland and Groningen is discharged via the Lauwersmeer to the Wadden Sea. When the water level of the Wadden Sea is high the excess water is temporarily stored in the Lauwersmeer. This causes large fluctuations of the water level in the lake. The water quality is, especially in summer, poor because of the inlet of drainage water (from farmland and river Rhine). The average depth of the lake is 2,1 meter.

17. Physical features of the catchment area:

The Lauwersmeer is the delta of three small rivers named Lauwers, Hunze and Ee. These rivers drain the sandy, peat and clay soils from the hinterland of the provinces of Friesland and/or Groningen and Drenthe.

On a broader scale the wetland is part of the catchment area of the river Rhine. The surface area of the catchment is 185.000 km². Geologically and geomorphologically it consists mainly of Quarternary, Paleozoic and Mesozoic sediments and Tertiary mountains. The general soil types are: Alluvial, Brown forest soils and montane soils. The climates according to Köppen are rainy (Cbf) and montane (EH)

18. Hydrological values:

A large part of the superfluous water from the northern part of the country (including polders below sea level) is pumped to the Lauwersmeer from which it is regularly discharged in the Wadden Sea.

Part of this water is from river Rhine which is directed to polders to compensate for water shortage during summer.

19. Wetland Types

a) presence:

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:

O-4-Tp

20. General ecological features:

The present Lauwersmeer area is a former river delta into which the rivers Lauwers, Hunze and Ee discharged. The Wadden Sea tides dominated the area. In 1969 the Lauwer Sea was closed off from the Wadden Sea in order to protect the surrounding land against flooding. Since then the Lauwersmeer area developed into a nature area with rare (wet) dune vegetations and enormous bird diversity. In 2003 the area received the National Park status. The characteristic (saline) nature values of National Park Lauwersmeer are slowly deteriorating. This is due to slow desalination of the former salt marshes, and the human dominated water level management. Grazing by horses and cattle slows down the increase in woodlands.

The area consists of permanent freshwater lakes (32%), permanent freshwater marshes (24%), wet grassland (24%) and crops (13%).

The ecosystem services mainly refer to:

- The sites potential for recreation both on the water and on land.
- The opportunity to store large amounts of fresh water to be drained into the Wadden Sea (this i.r.t. to the potential impacts of climate change).

21. Noteworthy flora:

Main noteworthy flora has been mentioned under 14.

22. Noteworthy fauna:

Eagle Owls are also observed in the Lauwersmeer, but their behaviour indicates that they're habituated to humans and may therefore be 'reintroduced'.

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: See 25. Current land use.

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

24. Land tenure/ownership:

a) within the Ramsar site:

The site is largely owned by Staatsbosbeheer (4501 ha) and Natuurmonumenten (176 ha).

b) in the surrounding area:

Several private owners.

25. Current land (including water) use:

a) within the Ramsar site:

Site: Forestry 1%, Angling 30%, Boating 30%, Tourism and leisure 50%, Residential (scattered) 5%, Motorways and major roads 1%, Farming 10%, Commercial fisheries 30%, Shipping traffic 30%, Conservation and research 95%, Water management 100%.

b) in the surroundings/catchment:

In the immediate surroundings of the site the land-use is dominated by agriculture. On the broader scale of the Rhine-catchment area the general land-use is forestry, pasture farming, arable land (high mountains).

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects: (A = serious threat covering large part of the area; B = moderate threat or local threat; C = minor threat):

a) within the Ramsar site:

- Disturbance to birds (B - military training);
- Extraction industry (mining) (C - gas exploration);
- Natural events (B - natural succession and desalinization after reclamation);
- Recreation/ tourism (B -);
- Selective logging/ cutting (B reed land cutting);
- Other (B - water management);
- Pollution (not Industrial discharge) (A - eutrophication by river Rhine water).

b) in the surrounding area:

- Infrastructure (B, holiday houses and a leisure area near Zoutkamp and Oostmahorn).
- Construction (B - Increase of recreational capacity of harbours in the region).

27. Conservation measures taken:

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

- Special Protection Area (Birds Directive 79/409/EEC, 2000)
- Natura 2000-site
- Lauwersmeer National Park (2003)

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

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

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

The Ramsar site matches 100% with the designation for Natura 2000. The process for the Natura2000 management plan has not started yet.

d) Describe any other current management practices:

Nothing particular

28. Conservation measures proposed but not yet implemented:

Nothing particular.

29. Current scientific research and facilities:

Ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura 2000-habitat types and/or species. SOVON, the Dutch Bird Research Organisation, coordinates for instance a continues national bird monitoring program in which it cooperates with 7000 volunteers, research institutes and organisations in the monitoring of birds throughout the Netherlands (among which the Lauwersmeer).

Substantial research and monitoring is carried out by Rijkswaterstaat from the Ministry of Infrastructure and the Environment. Relevant research is also carried out by the Institute for River Research, which is part of the Institute for Hydrolic Engineering (IHE, www.ihe.nl) in Delft, and focuses mainly on

floodplain research. The Center for Limnology (NIOO-CL, www.nioo.nl) in Nieuwersluis studies plant-bird interactions in several large freshwater lakes as part of general limnological research programs.

The University of Groningen occupies a field station during the field season at the military base Willem Lodewijk van Nassau kazerne, conveniently situated in the Lauwersmeer area. Here all necessary facilities are available.

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

A visitors centre will be constructed. Websites are available among others through the website for National Parks in the Netherlands: www.np-lauwersmeer.nl

31. Current recreation and tourism:

A visitors centre will be constructed. The area offers many opportunities for recreation both on land and on the water. Visitor numbers are not known.

32. Jurisdiction:

Municipalities Zuidhorn, De Marne, Dongeradeel and Kollumerland en Nieuwkruisland.
Functional jurisdiction (conservation purposes): Ministry of Economic Affairs.

33. Management authority:

Main management authorities:

- Staatsbosbeheer, PO Box 1300, 3970 BH Driebergen, the Netherlands, tel. +31 30-6926111.
- Het Groninger Landschap, Rijksstraatweg 333, 9752 CG, Haren, +31 (0)50 313 59 01.
- Rijkswaterstaat Noord-Nederland, Zuidersingel 3, 8911 AV Leeuwarden, P.O. Box 2301, 8901 JH, Leeuwarden, tel. +31 (0)58 234 43 44.

34. Bibliographical references:

The number of scientific/technical references is too extended to list here. For a complete list please surf to the publication lists of the research institutes on the internet. For an arbitrary selection see below:

- BirdLife International, 2004. Birds in Europe, population estimates, trends and conservation status. Cambridge, UK: BirdLife International. (BirdLife Conservation Series No. 12).
- Hornman, M., Hustings, F., Koffijberg, K., Kleefstra, R., Klaassen, O., van Winden, E., SOVON Ganzen- en Zwanenwerkgroep & L. Soldaat, 2012. Watervogels in Nederland 2009/2010. SOVON-rapport 2012/02, Waterdienst-rapport 12.06. SOVON Vogelonderzoek Nederland, Nijmegen.
- Janssen, John, A.M. & Joop, H.J. Schaminée, 2009. Europese Natuur in Nederland. Zee en kust Natura 2000-gebieden. KNNV-Uitgeverij. 296p.
- Ministerie van EL&I, 2009. Besluit Natura 2000-gebied Lauwersmeer.
- Van Roomen M.W.J, Boele A., van der Weide M.J.T., van Winden E.A.J, Zoetebier D. 2000. Belangrijke vogelgebieden in Nederland, 1993-97. Actueel overzicht van Europese vogelwaarden in aangewezen en aan te wijzen speciale beschermingszones en andere belangrijke gebieden. SOVON-informatierapport 2000/01. SOVON Vogelonderzoek Nederland, Beek-Ubbergen.

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