
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:

Haringvliet

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:

In 2006 the island Tiengemeten (1050 ha), only real island in the South west of the Netherlands, has been converted from agricultural area into wet nature which has an open connection with the water of the Haringvliet. Besides that some nature development areas in the north have been added to the site. Altogether the average peak number decreased (criterion 5) though the number of species meeting the 1%-threshold increased with six, compared to the previous RIS.

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 Haringvliet has been designated as the European Natura 2000-site Haringvliet. For this RIS-version, the Ramsar site boundary has therefore been adjusted to the (proposed) Natura 2000-boundary. Nature development area at the mouth of the Spui river in the north and west of the town of Hellevoetsluis are now included within the Ramsar site. In total this new boundary resulted in an increase of +152,1 ha.

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

51°46'N - 04°15'E

9. General location:

Province of Zuid-Holland, ca. 25 km south-west of Rotterdam (population 616.294 per 1-1-2013; source: CBS, Netherlands Statistics).

10. Elevation: (min & max)

Approx. -39 / -1 m NAP.

11. Area:

10.879,7 ha

12. General overview of the site:

The Haringvliet and the adjoining Hollands Diep and De Biesbosch, is one of the former estuaries of the Rhine/ Maas delta, closed from the sea in 1970. The landscape is characterized by grasslands, reed land, sandbanks and mudflats near open water. Some former banks have grown to extensive areas (Ventjagersplaten and Slijkplaat). The island Tiengemeten is characterized by reed land, salt marshes, brackish grassland and scrub. The site is especially important for water birds.

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 Haringvliet has been designated under Natura 2000 as well. Natura 2000 is the centrepiece 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 Haringvliet applies to both and the justification for the application of each Ramsar criterion below, greatly refers to its designation as a SAC and SPA.

Justification criterion 2

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

*Species of Annex II of the European Habitat Directive (HD) and Annex I of the European Bird Directive for which the site has been designated as a SAC and SPA respectively, 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 marked with an * are priority species.*

Species(group)	Species code	HD Annex	BD Annex	National RL category
Vascular plants				(2004)
Parsley water-dropwort <i>Oenanthe lachenalii</i>	-	-	-	VU
Triangular club-rush <i>Schoenoplectus triquetus</i>	-	-	-	EN
Mosses				(2004)
<i>Drepanocladus sendtneri</i>	-	-	-	CR
<i>Fissidens adianthoides</i>	-	-	-	VU
Mushrooms				(2004)
<i>Tricholoma fulvum</i>	-	-	-	VU
Mammals				(2009)
*Root vole <i>Microtus oeconomus arenicola</i>	H1340	II, IV	-	VU
Non-breeding birds				
Eurasian spoonbill <i>Platalea leucorodia</i> ,	A034	-	I	-
Bewick's swan <i>Cygnus bewickii</i>	A037	-	I	-
Barnacle goose <i>Branta leucopsis</i>	A045	-	I	-
Osprey <i>Pandion haliaetus</i>	A094	-	I	-
Peregrine falcon <i>Falco peregrinus</i>	A103	-	I	-
Avocet <i>Recurvirostra avosetta</i>	A132	-	I	-
Eurasian golden-plover <i>Pluvialis apricaria</i>	A140	-	I	-
Breeding birds				(2004)
Western marsh-harrier <i>Circus aeruginosus</i>	A081	-	I	LC
Avocet <i>Recurvirostra avosetta</i>	A132	-	I	LC
Kentish plover <i>Charadrius alexandrinus</i>	A138	-	I	EN
Mediterranean gull <i>Larus melanocephalus</i>	A176	-	I	LC
Sandwich tern <i>Sterna sandvicensis</i>	A191	-	I	EN
Common tern <i>Sterna hirundo</i>	A193	-	I	VU
Little tern <i>Sterna albifrons</i>	A195	-	I	VU
Bluethroat <i>Luscinia svecica</i>	A272	-	I	LC

Fish				(2004)
Sea lamprey <i>Petromyzon marinus</i>	H1095	II	-	LC
River lamprey <i>Lampetra fluviatilis</i>	H1099	II, V	-	LC
Allis shad <i>Alosa alosa</i>	H1102	II, V	-	LC
Twaite shad <i>Alosa fallax</i>	H1103	II, V	-	LC
Salmon <i>Salmo salar</i>	H1106	II, V	-	LC
Bitterling <i>Rhodeus sericeus amarus</i>	H1134	II	-	VU
Bullhead <i>Cottus gobio</i>	H1163	II	-	LC
Insects				(2004)
Large carder-bee <i>Bombus muscorum</i>	-	-	-	EN
<i>Bombus veteranus</i>	-	-	-	EN
Molluscs				(2004)
Ramshorn snail <i>Anisus vorticulus</i>	-	-	-	VU
Swollen spire snail <i>Mercuria confusa</i>	-	-	-	CR
Dun sentinel <i>Assiminea grayana</i>	-	-	-	EN
German hairy snail <i>Pseudotrichia rubiginosa</i>	-	-	-	EN

Justification criterion 3

The Haringvliet is designated as a Natura 2000 site (both SAC and SPA) 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 SAC for a range of habitat types (Annex I of HD) and SPA for a number of bird species that are not on Annex I of the BD. See the tables below.

Habitat types (according to interpretation manual of EU-Habitat Directive; * = priority habitat type) for which the site has been designated as a SAC.

Habitat code	Habitat type
H1330A	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)
H3270	Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation.
H6430B	Hydrophilous tall herb fringe communities of plains
H91E0	*Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)

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	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	-
Lesser white-fronted goose <i>Anser erythropus</i>	A042	-
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 chpeata</i> ,	A056	-
Tufted duck <i>Aythya fuligula</i>	A061	-
Greater scaup <i>Aythya marila</i>	A062	-
Common coot <i>Fulica atra</i>	A125	-

Northern lapwing <i>Vanellus vanellus</i>	A142	-
Black-tailed godwit <i>Limosa limosa</i>	A156	-
Eurasian curlew <i>Numenius arquata</i> ,	A160	-
Breeding birds		(2004)
Common ringed plover <i>Charadrius hiaticula</i>	A137	VU
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 and geese or breeding periods like breeding colonies of Common Tern *Sterna hirundo*, Sandwich Tern *Sterna andvicensis*, Little tern *Sterna albifrons*, Avocet *Recurvirostra avosetta* and Mediterranean gull *Larus melanocephalus*.

Justification criterion 5

The site regularly supports more than 20,000 wintering waterbirds: the average peak number was 88,919 for the period 2005/2006-2009/2010, which is however less than the average peak number of 138,948 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
Shoveler	<i>Anas clypeata</i>	NB	NW/ Central Europe	400	738	1.8
Common teal	<i>Anas crecca</i>	NB		5000	5613	1.1
Wigeon	<i>Anas penelope</i>	NB	W. Siberia/ NW-NE. Europe	15000	31085	2.1
Gadwall	<i>Anas strepera</i>	NB	NW-Europe	600	11174	18.6
Greylag goose	<i>Anser anser</i>	NB	NW/ SW- Europe	5000	12851	2.6
Barnacle Goose	<i>Branta leucopsis</i>	NB	Russia/ Netherlands	4200	28922	6.9
Barnacle Goose	<i>Branta leucopsis</i>	BR	Russia/ Netherlands	4200	7050	1.7
Spoonbill	<i>Platalea leucorodia</i>	NB	East Atlantic	110	349	3.2
Avocet	<i>Recurvirostra avosetta</i>	BR	W-Europe/ W-Med (breeding)	730	888	1.2
Common Tern	<i>Sterna hirundo</i>	BR	SW- Europe	1900	3726	2.0
Sandwich tern	<i>Sterna sandvicensis</i>	BR	W-Europe	1700	5976	3.5

Compared to the period of 1992-98 (previous updated version) the following species now also meet the 1% threshold: Shoveler *Anas clypeata* (NB), Common teal *Anas crecca* (NB), Wigeon *Anas Penelope* (NB), Barnacle goose *Branta leucopsis* (BR), Avocet *Recurvirostra avosetta* (BR) and Sandwich tern *Sterna sandvicensis* (BR).

Justification criterion 8

The site has an important function as a spawning, nursery and feeding ground for a range of fish species and is part of the migration route for many others. The site has among others been designated as a SAC for the conservation of a range of fish species like Sea lamprey *Petromyzon marinus*, River lamprey *Lampetra fluviatilis*, Allis shad *Alosa alosa*, Twait shad *Alosa fallax*, Salmon *Salmo salar*, Bitterling *Rhodeus sericeus*

amarus and Bullhead *Cottus gobio* (see criterion 2).

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 Haringvliet is a dammed former estuary which is part of the Rhine/Meuse Delta. The building of the Haringvliet dam in 1970 was part of the “Deltaplan”. This plan provided in the closure of most tidal inlets in order to prevent flood disasters like the one of 1953. The Haringvliet adjoins the Hollands Diep and De Biesbosch. The tidal brackish system almost completely vanished after completion of the Haringvliet sluices in 1970. The water became fresh and the tidal variations became limited. The Haringvliet now is a more or less stagnant fresh water basin which is only connected with the North Sea through the Spui, Oude Maas and the Nieuwe Waterweg. The water level varies depending river supply, barrages upstream and drain off through the sluices to the North Sea.

The water quality of the site is mainly determined by the water quality of the river Rhine. Due to the limited tidal movement large amounts of polluted sediment were deposited.

The Haringvliet measures 28 kilometers in length, ranges 795 to 3150 m wide and the average depth is - 8.00 m NAP (Nieuw Amsterdams Peil). Maximum depth in former gullies is -39 m.

17. Physical features of the catchment area:

The Haringvliet is part of the Rhine/Meuse Delta:

- The surface area of the Rhine 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).
- The surface area of the Meuse catchment is 33.000 km². Geologically and geomorphologically it consists mainly of Quarternary and Mesozoic sediments and Paleozoic (eroded) mountains. The general soil types are: Alluvial, Brown forest soils and montane soils. The climate according to Köppen is rainy (Cbf).

18. Hydrological values:

Part of the water from the river Rhine and Maas flows into this former sea arm which is regularly discharged into the North Sea (i.e. Voordelta) through the sluices at the west side of the lake. In 2005 the connection with the sea was re-opened for 10% to restore the freshwater-salt gradient, mainly as a reason to restore natural values like restoring the opportunities for fish species to migrate between fresh waters and the sea.

Discussions are still going on to what extent the former gradients of all dammed arms of the sea in this part of the Netherlands can be restored.

Without a restored tidal system many shores need to be artificially stabilized to prevent erosion by waves. The lack of strong tidal currents also causes that more or less polluted river sediments are precipitated in the Haringvliet.

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 landscape is characterized by open water, sandbanks and mudflats, fresh and brackish water grasslands, reed land and scrub. The area could become important for migratory fish species (after opening of the Haringvliet sluices) but is especially important for a wide range of water birds.

A plant community of European interest that occurs is: *Lemno-Nitellatum capillaris*

The ecosystem services mainly refer to:

- the opportunities for water recreation;
- the ability to store fresh water (especially i.r.t. potential impacts of climate change) to be drained into the North Sea;
- the ability for agriculture to take fresh water in (for irrigation or livestock drinking water) or drain water off.

21. Noteworthy flora:

Most noteworthy flora has been listed under no. 14.

22. Noteworthy fauna:

Most noteworthy fauna has been listed under no. 14.

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 partly owned by Natuurmonumenten and Staatsbosbeheer; the main part is state ownership (Dienst der Domeinen, Ministerie van Financiën).

b) in the surrounding area:

The adjacent waters (Voordelta, Hollands Diep and Krammer-Volkerak) are state owned, on land several private owners.

25. Current land (including water) use:

a) within the Ramsar site:

Site: Angling 65%, Boating 65%, Tourism and leisure 15%, Extractive operations 1%, Dams, reservoirs & hydro-electric activities 2%, Farming 5%, Commercial fisheries 65%, Shipping traffic 50%, Conservation and research 32%, Water management 100%, Reed cutting 5%.

b) in the surroundings/catchment:

The land-use in the immediate surrounding is dominated by farming. On the broader scale of the catchment areas the general land-use concerns a substantial part of Northwest-Europe:

- General land-use of Rhine-catchment: the general land use is forestry, pasture farming, arable farming, inproductive land (high mountains);
- General land-use of Meuse catchment: The general land use is pasture farming, arable farming and forestry.

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:

- Industrialization and urbanization (B - bottom sediment pollution and wind turbines);
- Recreation/ tourism (B -);
- Pollution (not Industrial discharge) (A - eutrophication);

b) in the surrounding area:

- Construction (C - 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);
- Special Area of Conservation (Habitats Directive 92/43/EEC);
- Natura2000 site.

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 (proposed) designation for Natura 2000.
The process for developing the Natura2000 management plan has started.

d) Describe any other current management practices:

Nothing particular.

28. Conservation measures proposed but not yet implemented:

In 2004 it was decided to partly open the Haringvlietdam by 1 January 2008 as to allow salt water to enter the 'line' Middelharnis - Spui (so-called "Kierbesluit") and aiming for a gradual transition between salt and fresh water. In December 2007 this has been postponed towards December 2010. However the government decided in December 2010 to keep the dam closed due to the high costs (approx. 40 million euro) and the damage that the salt water will cause to agriculture in the region. However, this decision receives a lot of resistance ranging from nature conservation organizations and recreational organizations to the European Commission.

29. Current scientific research and facilities:

Ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura2000 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 others the Haringvliet).

Main research in the Delta (including the Haringvliet) is carried out by the Institute for Coast and Sea (RIKZ, Middelburg, www.rikz.nl) and the Center for Marine and Estuarine Ecology (NIOO/CEMO, www.nioo.nl) in Yerseke.

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

The island Tiengemeten has a visitor centre. Excursions concentrate at the island Tiengemeten and the Korendijkse Slikken (at the northern border of the Haringvliet). These areas have nature trails and hikes. Information is available through booklets, websites etc.

31. Current recreation and tourism:

The site has an important function for water recreation on the water and along its shores. Nature experiences, like bird-watching, especially on the island of Tiengemeten, is also important. Current number of visitors is not well known.

32. Jurisdiction:

Territorial: Municipalities of Hellevoetsluis, Bernisse, Korendijk, Cromstrijen, Goedereede, Dirksland, Middelharnis, Oostflakkee; Functional jurisdiction (conservation purposes): Ministry of Economic Affairs.

33. Management authority:

Rijkswaterstaat (Ministry of Infrastructure and Environment), Zuid-Holland, Boompjes 200, 3011 XD Rotterdam, P.O. Box 556, 3000 AN Rotterdam, Tel. +31 (010) 402 62 00, Fax +31 (010) 404 79 27.

34. Bibliographical references:

- 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 LNV. Ontwerpbesluit Natura 2000 gebied Haringvliet.
 - 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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Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
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