
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:

Voornes Duin

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:

Nothing particular, though in September 2008 the construction started of the so-called “Tweede Maasvlakte”. This is a 2000 ha expansion of Main Port Rotterdam which includes among others harbours, and industrial area. The “Tweede Maasvlakte” is located within Ramsar site “Voordelta” southwest of Ramsar site Voornes Duin. Environmental Impact Assessments have been carried out and potential impacts on Voornes Duin will be compensated for at the “Tweede Maasvlakte” itself. This compensation among others includes the development of dune areas.

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:

The Ramsar site Voornes Duin has been designated as the European Natura 2000-site Voornes Duin. For this RIS-version, the new Ramsar site boundary has been adjusted to the Natura 2000- boundary. Some area in the northeast has been added as well as in the southwest. In total the site increased with +45,0 ha.

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

51°53'N - 04°03'E

9. General location:

Province of Zuid-Holland, ca. 20 km south of The Hague (population 502.055 per 1-1-2012; source: CBS, Netherlands Statistics).

10. Elevation: (min & max)

NAP 3 / 14 m

11. Area:

1431,8 ha

12. General overview of the site:

Voornes Duin, between Oostvoorne and the Haringvliet, is one of the least spoiled dune areas of the Netherlands. The dunes are relatively young and calcareous with a high biodiversity especially in flora. The area has an attractive variety of landscapes. The site encompasses two lakes (Breedewater and Quackjes-water), several small ponds, swamps, forests and scrub, dune grasslands and dune slacks.

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 Voornes Duin has been designated under Natura 2000 as well. Natura 2000 is the centrepiece of EU nature & biodiversity policy. It is a 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 Voornes Duin 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 1

The Dutch coastal dunes system stretching from the north-eastern border with Germany and the south-western border with Belgium is actually one big nature reserve. Within the Netherlands but also within the Atlantic biogeographic region it may be regarded as one of the most biodiverse ecosystems. With less than 1500 ha, the Voornes Duin is only a middle sized coastal dune reserve in the Netherlands.

The wide variety of dune habitats, calcareous soil and ground water situation results however in a large variety of plant and animal species making it one of the most diverse dune sites of Western Europe, and considering the variety of botanic species also one of the most biodiverse nature reserves in the Netherlands.

Justification criterion 2

The table below shows Annex II species (HD) for which the site has been designated as a SAC, 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) for which the site has been designated as a SAC, as well as species of annex IV (HD) and some threatened species of the National Red Lists (- = Not Applicable; * = priority species). Year of adoption of the National Red List in parentheses.*

Species(groups)	Species code	HD Annex	National RL category
Vascular plants			(2004)
Fen Orchid <i>Liparis loeselii</i>	H1903	II, IV	EN
Grass-of-parnassus <i>Parnassia palustris</i>	-	-	VU
Marsh Spurge <i>Euphorbia palustris</i>	-	-	VU
Marsh Lousewort <i>Pedicularis palustris</i>	-	-	VU
Parsley Water-dropwort <i>Oenanthe lachenalii</i>	-	-	VU
Marsh Helleborine <i>Epipactis palustris</i>	-	-	VU
Early Marsh-orchid <i>Dactylorhiza incarnate</i>	-	-	VU
Water Germander <i>Teucrium scordium</i>	-	-	EN
Autumn Gentian <i>Gentianella amarella</i>	-	-	VU
Mosses			(2004)
<i>Bryum neodamense</i>	-	-	CR
<i>Campyliadelphus elodes</i>	-	-	EN
<i>Drepanocladus sendtneri</i>	-	-	CR
<i>Fissidens adianthoides</i>	-	-	VU
<i>Preissia quadrata</i>	-	-	EN

Mushrooms			(2004)
<i>Gyrodon lividus</i>	-	-	EN
<i>Tricholoma fulvum</i>	-	-	VU
Mammals			(2009)
*Root Vole <i>Microtus oeconomus arenicola</i>	H1340	II, IV	VU
Breeding birds			(2009)
Eurasian Spoonbill <i>Platalea leucorodia</i>	A034	I	LC
Dragonflies			(2004)
<i>Brachytron pratense</i>	-	-	VU
Molluscs			(2004)
Narrow-mouthed Whorl Snail <i>Vertigo angustior</i>	H1014	II	EN

Justification criterion 3

The Voornes Duin 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
H2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')
H2130	*Fixed coastal dunes with herbaceous vegetation ('grey dunes')
H2160	Dunes with <i>Hippophaë rhamnoides</i>
H2170	Dunes with <i>Salix repens ssp. Argentea (Salicion arenariae)</i>
H2180	Wooded dunes of the Atlantic region
H2190	Humid dune slacks

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
Breeding birds		(2004)
Black-necked Grebe <i>Podiceps nigricollis</i>	A008	NT
Great Cormorant <i>Phalacrocorax carbo</i>	A017	LC

Justification criterion 4

The site is of particular importance for many breeding bird species (see criterion 2, 3 and 6), of which several species gather in relatively small areas like breeding colonies of Eurasian Spoonbill *Platalea leucorodia* and Great Cormorant *Phalacrocorax carbo*.

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	Biogeographic population	1% threshold	Average number of birds between 2006-2010	% at site
Eurasian Spoonbill	<i>Platalea leucorodia</i>	BR	Eastern Atlantic	110	513	4,7

Compared to the period of 1992-98 (previous updated version) the species Great Cormorant *Phalacrocorax carbo* (BR) does not meet the 1%-standard anymore.

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 is of natural origin, although people always have influenced the development of the site. The two dune lakes Quackjeswater and Breede Water are sometimes completely dry, or the water surface level is low. The dunes have a sandy, calcareous soil.

17. Physical features of the catchment area:

The dunes form their own catchment area. To a larger extent the site belongs to the catchment area of the river Rhine and Meuse:

- 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).
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18. Hydrological values:

The dune area of Voornes Duin forms the natural coastal defence of the former island “Voorne-Putten” against the North Sea. Unlike most other dune areas this site is not being used for the extraction of drinking water.

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:

E K Tp

20. General ecological features:

Voornes Duin is a middle sized coastal dune reserve in the Netherlands. Coastal sand dunes make up 96% of the area, while 4% are coastal freshwater lakes. The site has rather contrasting habitats. Dry dune ridges alternate with wet marshes and lakes in the damp hollows among the dunes. Bare beaches contrast with lush wood lands in the inland dunes. A calcareous soil in combination with a natural and

undisturbed ground water situation results in a large variety of plant and animal species. It is not surprising therefore that Voornes Duin is one of the most diverse dune sites of western Europe, and considering the variety of species it's also the richest nature reserve in the Netherlands. Some figures to show this: over 650 plant species (the Netherlands 1450 species); 100 breeding-bird species (NL 165); 27 sedentary butterfly species (NL 56); 120 hover fly species *Syrphidae* (NL 300); 24 dragon-fly species (NL 70); and 14 grasshopper species (NL 42) (Council of Europe, 1997).

Plant communities of European interest that occur are:

- *Charetum hispidae*
- *Charetum asperae*
- *Charetum canescentis*
- *Echinodora-Potametum graminei*
- *Samolo-Littorelletum*
- *Cladietum marisci*

The ecosystem services mainly refer to:

- The opportunities for recreation as the landscape is very varied and attractive.
- The dunes form a natural defense against the sea.
- The dunes purify and retain water, although this is not used for drinking water purposes as in many other dune areas.

21. Noteworthy flora:

Most noteworthy flora is listed under 14.

22. Noteworthy fauna:

Most noteworthy fauna is listed under 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 owned by Natuurmonumenten and to a minor extent by the Zuid-Hollands Landschap.

b) in the surrounding area:

On land several private owners

25. Current land (including water) use:

a) within the Ramsar site:

Tourism and leisure 50%, Residential (scattered) 2%, Conservation and research 98%, Water management 100%.

b) in the surroundings/catchment:

The land-use in the immediate surrounding is dominated by farming and urbanisation. On the broader scale of the Rhine and Meuse 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:

- Disturbance to birds (B - pleasure aircrafts);
- Recreation/tourism (B -).

b) in the surrounding area:

- Construction (B - The construction of Maasvlakte 2, an industrial and harbour area at the coast near Voornes Duin will influence the salt spray and dynamics of shifting dunes).
- Construction (B - The (partly) opening of the sluices in the Haringvlietdam will influence the morphogenesis of the site).

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)
- Natura 2000-site

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?:

The Ramsar site matches 100% with the designation for Natura2000.

The process for the Natura 2000-management plan has been started.

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 others the Voornes Duin).

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

Visitors centre, excursions, hide, information booklet.

31. Current recreation and tourism:

Number of visitors not known.

32. Jurisdiction:

Municipalities Hellevoetsluis, Westvoorne. Functional jurisdiction (conservation purposes): Ministry of Economic Affairs.

33. Management authority:

Main management authorities:

- Natuurmonumenten, P.O. Box 9955, 1243 ZS 's Graveland, the Netherlands, tel. +31 (0)35 6559933.
- Zuid-Hollands Landschap, Nesserdijk 368, 3063 NE Rotterdam, tel. +31 (0)10 272 22 22.
- Rijkswaterstaat (Ministry of Infrastructure and Environment) Zuid-Holland, P.O. Box 556, 3000 AN Rotterdam, tel. +31 (0)10 402 62 00.

34. Bibliographical references:

- BirdLife International, 2004. Birds in Europe, population estimates, trends and conservation status. Cambridge, UK: BirdLife International. (BirdLife Conservation Series No. 12).
- Council of Europe, 1997. Colloquy on conservation, management and restoration of habitats for invertebrates: enhancing biological diversity: Killarney, Ireland, 26-29 May 1996. Management in relation to insects in Voornes Duin: p102.
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- 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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