

Information Sheet on Ramsar Wetlands

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

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

1. Date this sheet was completed/updated:

12-09-2002

FOR OFFICE USE ONLY.

DD	MM	YY

Designation date

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Site Reference Number

2. Country:

the Netherlands

3. Name of wetland: Waddeneilanden, Noordzeekustzone, Breebaart

4. Geographical coordinates: 53°26'N - 05°47'E

5. Altitude: (average and/or max. & min.) NAP -20 – 30 m

6. Area: (in hectares) 135,000

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

The site concerns the dune areas of the Wadden islands Texel, Vlieland, Terschelling, Ameland and Schiermonnikoog and the North Sea coastal zone forming an continuous area covered by one designation.

North Sea north of the Wadden Sea: An extensive area of coastal waters from the Eems/ Dollard estuary and German border in the east till Petten (province of Noord-Holland) in the south. The outer boundary follows 3 nautical mile line, which is roughly the 15 meter depth line. Between the islands the site is adjacent to Ramsar site Waddensea.

Texel: Extensive dune area along the North Sea side of Texel including small lakes and dune slacks (e.g. De Muy, De Geul), sea inlets with salt marshes (De Slufter, De Mok), and sand flats (De Hors). Part of the inner dunes have forest plantations (largely excluded from site). Total length 25 km, width varies from 200 m (near village De Koog) to 2 km.

Vlieland: Waddensea barrier island between Texel and Terschelling of which the western half is an extensive sandflat (Vliehors). The eastern part consists of an extensive area of sand dunes, forest plantations, some embanked brackish lagoons (Kroonpolders) and mudflats (Posthuiswad). The site covers 85% of the island; the village and the main tourist facilities on the east side have been excluded. Total length 17 km, width of dune area varies from 300 to 1700 m.

Terschelling (Dunes and Noordvaarder): This site comprises the dune area of the Waddensea barrier island Terschelling from an extensive sandflat in the west (Noordvaarder) up to and including the sand dunes north of Ramsar site De Boschplaat in the east. In the south it is bordered by villages, grassland polders and conifer plantations.

Ameland (Duinen-Oerd): Extensive area of dunes adjacent to salt meadows (Neerlands Reid), sand flats (De Hon), and intertidal mud flats of Ramsar site Waddensea. The site does not include the villages, extensive touristic facilities, and the grassland polders intensively used for dairy farming. Total length 22 km, width of dunes varies from 100 m (near main village) to 1.5 km.

Schiermonnikoog: Part of the easternmost of the five inhabited Waddensea barrier islands, with beaches, sand dunes, salt marshes, mudflats, freshwater marsh and improved grassland. The site comprises the main part of the island but excluding the village and the adjoining part of the grassland polder. Total length 14 km, maximum width 2500 m.

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

marine-coastal: **A** . B . C . D . **E** . F . G . H . I . J . **K**

inland: L . M . N . O . P . Q . R . Sp . Ss . **Tp** . Ts
 . U . Va . Vt . W . Xf . Xp . Y . Zg . Zk

man-made: 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9

Please now rank these wetland types by listing them from the most to the least dominant: AEKTP

9. Ramsar Criteria: (please circle the applicable criteria; see point 12, next page.)

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

Please specify the most significant criterion applicable to the site: 2

10. Map of site included? Please tick *yes* -or- *no*

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

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

National Reference Centre for Agriculture, Nature Management and Fisheries

PO Box 30, 6700 AA Wageningen, the Netherlands

tel.: +31 317 474800; fax: +31 317 427561

12. Justification of the criteria selected under point 9, on previous page.

Note that the criteria have been applied separately to the marine zone (Noordzeekustzone) and the five island sites (Texel, Vlieland, Terschelling, Ameland and Schiermonnikoog).

Criterion 1: The dune area of the island Texel includes fine examples of wet dune slacks and freshwater lakes which are rare in Western Europe.

Criterion 2: The site has a high diversity of interesting plants and animal species including (examples refer to the dune area of the island of Texel):

- five wetland plant species of the national red list including Fen Orchid *Liparis loeselii*, Grass-of-Parnassus *Parnassia palustris*, and Parsley Water-dropwort *Oenanthe lachenalii*;
- two species of stoneworts Characea of the national red list: *Chara contraria* and *Nitella opaca*;
- seven wetland mosses of the national red list including *Bryum neodamense*, *Drepanocladus sendtneri*, and *Riccardia multifida*;
- seven species of mushrooms of the national red list including *Marasmiellus trabutii*, *Entoloma queletii*, *E. querquedula* and *E. rhombisporum*;
- eight species of breeding birds included on Annex I of the EU Birds Directive including Spoonbill *Platalea leucorodia* and Bittern *Botaurus stellaris*;
- one species of mammal included on Annex II of EU Habitats Directive: *Microtus oeconomus arenicola*.

Criterion 5: The site regularly supports more than 20,000 wintering waterbirds: average peak number 83,612 (1991/92-1996/97)

Criterion 6, Average peak numbers of species meeting the 1% threshold (1993-1997, unless stated otherwise):

TEXEL

Species	Biogeographical population	1% Biogeogr. Population	% at site
<i>Platalea leucorodia</i>	East Atlantic	10 breeding pairs	8,4%
<i>Larus fuscus</i>	W-Europe/ W-Africa	1500 breeding pairs	3,6%

VLIELAND

Species	Biogeographical population	1% Biogeogr. Population	% at site
<i>Platalea leucorodia</i>	East Atlantic	10 breeding pairs	11,9%
<i>Platalea leucorodia</i>	East Atlantic	30	3,3%

NORTH SEA COASTAL ZONE

Species	Biogeographical population	1% Biogeogr. Population	% at site	Period
<i>Gavia stellata</i>	NW-Europe (win)	750	4,0%	1980-94
<i>Aythya marila</i>	North-/ West-Europe	3100	1,1%	1993-97
<i>Somateria mollissima</i>	Baltic - Netherlands	15000	1,8%	1993-97
<i>Melanitta nigra</i>	W-Siberia/ W -Europe	16000	4,1%	1993-97
<i>Pluvialis squatarola</i>	East Atlantic	1500	2,5%	1993-97
<i>Calidris alba</i>	East Atlantic/ W-Africa	1000	2,9%	1994-97
<i>C. alpina</i>	N-Siberia/ W-Africa	15 000	1,7%	1995-97
<i>C. canutus islandica</i>	NE-Canada/ NW-Europe	3500	2,5%	1995-97
<i>C. canutus canutus</i>	West-/ South-Africa (win)	5000	1,7%	1994-97
<i>Limosa lapponica</i>	NW-Europe	1000	1,0%	1993-97

13. General location: (include the nearest large town and its administrative region)

Provinces of Noord-Holland, Friesland and Groningen. Nearest large towns are Den Helder, Leeuwarden and Groningen.

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

North Sea: The outer boundary follows 3 nautical mile line, which is roughly the 15 meter depth line.

Texel: The natural sea wall on the north side is formed by the dunes. *Ammophila arenaria* has been planted and reed screens are placed in order to fix the dunes. Between 1979 and 1990 sand was added in order to stop erosion of the dunes. For the same reason a long dam (800 m) was recently built at the northern side. The groundwater level, which is only replenished by precipitation, declined 50 to 100 centimetres due to coastal erosion, digging of drainage streams, water extraction, afforestation of part of the dune area.

Vlieland: To improve growing of the dunes *Ammophila arenaria* has been planted and reed screens are placed. Locally sand has been added.

Terschelling: In the eastern part of the site (adjacent to the Boschplaat) coastal erosion is compensated with sand suppletions.

Ameland: Coastal erosion on the North Sea side is compensated with sand suppletions.

Schiermonnikoog: Measures are taken in order to counteract water shortage due to low groundwater level.

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

The dune areas of the five Wadden Sea islands, which are included in this site, form the natural coastal defence of the island against the North Sea.

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

North Sea north of the Wadden Sea: Shallow marine waters 100%.

Texel: Salt marshes 10%, Coastal sand dunes 71%.

Vlieland: Coastal sand dunes 37%, Forests, plantations, and rural estates 6%.

Terschelling: Coastal sand dunes 67%, Forests, plantations, and rural estates 8%.

Ameland: Coastal freshwater lakes 5%, Coastal sand dunes 45%, Drained grassland/ rough grassy vegetation 6%, Forests, plantations, and rural estates 5%.

Schiermonnikoog: Coastal sand dunes 40%, Wet grassland 8%.

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

Plant communities of European interest: *Charetum hispidiae*; *Charetum asperae*; *Charetum canescentis*; *Echinodora-Potametum graminei*; *Scirpetum fluitantis*; *Samolo-Littorelletum*; *Cladietum marisci*; *Junco-Caricetum extensae*;

Stoneworth species on the Red List: *Chara contraria*; *Nitella opaca*;

Mushroom species on the Red List: *Marasmiellus trabutii*; *Hygrocybe helobia*; *Hygrocybe phaeococcinea*; *Entoloma queletii*; *Entoloma querquedula*; *Entoloma rhombisporum*;

Moss species on the Red List: *Bryum neodamense*; *Campylium elodes*; *Campylium polygamum*; *Drepanocladus sendtneri*; *Fissidens adianthoides*; *Scorpidium scorpioides*; *Riccardia multifida*;

Vascular plants on the Red list: Fen Orchid *Liparis loeselii*; Grass-of-Parnassus *Parnassia palustris*; Parsley

Water-dropwort *Oenanthe lachenalii*; Marsh Helleborine *Epipactis palustris*; Early Marsh-Orchid *Dactylorhiza incarnata*.

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

Note: Species included on Annex II of the EC Habitats Directive and bird species listed on Annex I of the EC Birds Directive have been indicated with an asterisk. In addition to those waterbirds listed under point 12, all waterbirds are mentioned occurring in numbers between 0,1 and 1,0% of their respective biogeographical populations Other non-waterbird species are included on the national Red List for the species group concerned.

Dragonflies: *Brachytron pratense*;

Freshwater molluscs: *Anisus vorticulus*; *Ovatella myosotis*;

Mammals: *Root vole *Microtus oeconomus arenicola*; *Harbour porpoise *Phocoena phocoena*; *Grey seal *Halichoerus grypus*; *Common seal *Phoca vitulina*.

Birds, North Sea north of the Wadden Sea: (non-breeding) *Red-throated Diver *Gavia stellata*, *Arctic Loon *Gavia arctica*, Great Cormorant *Phalacrocorax carbo*, *Bewick's Swan *Cygnus bewickii*, Common Shelduck *Tadorna tadorna*, Northern Pintail *Anas acuta*, Greater Scaup *Aythya marila*, Common Eider *Somateria mollissima*, Black Scoter *Melanitta nigra*, Red-breasted Merganser *Mergus serrator*, Common Merganser *Mergus merganser*, Eurasian Oystercatcher *Haematopus ostralegus*, *Avocet *Recurvirostra avosetta*, Common Ringed Plover *Charadrius hiaticula*, Grey Plover *Pluvialis squatarola*, Knot *Calidris canutus canutus*, Knot *Calidris canutus islandica*, Sanderling *Calidris alba*, *Calidris alpina alpina*, *Bar-tailed Godwit *Limosa lapponica*, Eurasian Curlew *Numenius arquata*, Turnstone *Arenaria interpres*.

Texel: (breeding): *Eurasian Spoonbill *Platalea leucorodia*, Common Eider *Somateria mollissima*, *Western Marsh-Harrier *Circus aeruginosus*, *Northern Harrier *Circus cyaneus*, Lesser Black-backed Gull *Larus fuscus [graellsii]*, Herring Gull *Larus argentatus*, *Little Tern *Sterna albifrons*, *Short-eared Owl *Asio flammeus*, Common Stonechat *Saxicola torquata*, Northern Wheatear *Oenanthe oenanthe*.

Vlieland: (breeding): Great Cormorant *Phalacrocorax carbo*, *Eurasian Spoonbill *Platalea leucorodia*, Common Eider *Somateria mollissima*, *Western Marsh-Harrier *Circus aeruginosus*, *Northern Harrier *Circus cyaneus*, Kentish Plover *Charadrius alexandrinus*, Lesser Black-backed Gull *Larus fuscus [graellsii]*, Northern Wheatear *Oenanthe oenanthe*; (non-breeding): *Eurasian Spoonbill *Platalea leucorodia*, Northern Pintail *Anas acuta*, Northern Shoveler *Anas clypeata*, *Avocet *Recurvirostra avosetta*, Eurasian Curlew *Numenius arquata*, Common Redshank *Tringa totanus totanus*.

Terschelling: (breeding): Little Grebe *Tachybaptus ruficollis*, *Western Marsh-Harrier *Circus aeruginosus*, *Northern Harrier *Circus cyaneus*, Common Ringed Plover *Charadrius hiaticula*, Kentish Plover *Charadrius alexandrinus*, *Short-eared Owl *Asio flammeus*, Whinchat *Saxicola rubetra*, Northern Wheatear *Oenanthe oenanthe*, Sedge Warbler *Acrocephalus schoenobaenus*.

Ameland: (breeding): Common Eider *Somateria mollissima*, *Western Marsh-Harrier *Circus aeruginosus*, *Northern Harrier *Circus cyaneus*, *Spotted Crake *Porzana porzana*, *Short-eared Owl *Asio flammeus*, Northern Wheatear *Oenanthe oenanthe*, Sedge Warbler *Acrocephalus schoenobaenus*.

Schiermonnikoog: (breeding): Common Eider *Somateria mollissima*, *Western Marsh-Harrier *Circus aeruginosus*, *Northern Harrier *Circus cyaneus*, Kentish Plover *Charadrius alexandrinus*, *Short-eared Owl *Asio flammeus*, Whinchat *Saxicola rubetra*.

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

See 21. Current land use.

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

North Sea: state owned

Texel: Staatsbosbeheer (2750 ha), Natuurmonumenten (4 ha).

Vlieland: Staatsbosbeheer (1397 ha)

Terschelling: Staatsbosbeheer (4411 ha)

Ameland: Staatsbosbeheer (656 ha)

Schiermonnikoog: Staatsbosbeheer (2435 ha)

Surrounding area: The water (Wadden Sea and North Sea) is state owned, on land several private owners.

21. Current land use: (a) site (b) surroundings/catchment

North Sea north of the Wadden Sea: Angling 100%, Boating 20%, Extractive operations 10%, Commercial fisheries 100%, Shipping traffic 10%, Military training 2%.

Texel Site: Tourism and leisure 95%, Residential (scattered) 1%, Extractive operations 1%, Farming 1%, Military training 4%, Conservation and research 84%.

Vlieland: Angling 7%, Boating 7%, Tourism and leisure 50%, Residential (scattered) 2%, Extractive operations 5%, Commercial fisheries 4%, Military training 6%, Conservation and research 57%.

Terschelling: Tourism and leisure 50%, Residential (scattered) 2%, Extractive operations 1%, Conservation and research 100%.

Ameland: Forestry 5%, Boating 8%, Tourism and leisure 50%, Residential (scattered) 1%, Extractive operations 2%, Commercial fisheries 8%, Conservation and research 20%, Reed cutting 3%.

Schiermonnikoog: Dairy farming 8%, Angling 5%, Tourism and leisure 50%, Residential (scattered) 2%, Extractive operations 1%, Farming 8%, Conservation and research 67%, Water management 8%.

Surroundings/ catchment: –

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

Site (A = serious threat covering large part of the area; B = moderate threat or local threat; C = minor threat):

North Sea north of the Wadden Sea: Aquaculture/ fisheries (A - shellfish fisheries); Disturbance to birds (B - military training (air force); increase of boating); (C - gas exploration; impact under study); Pollution (not Industrial discharge) (B – chronic oil pollution from shipping).

Texel: Disturbance to birds (B - military training); Recreation/ tourism (B -).

Vlieland: Disturbance to birds (B military training (airforce)); Groundwater abstraction (B -); Recreation/ tourism (B).

Terschelling: Groundwater abstraction (B); Natural events (C - increase of grassy vegetation); Recreation/ tourism (B).

Ameland: Disturbance to birds (B- expansion of airfield); Groundwater abstraction (B -); Recreation/ tourism (B -).

Schiermonnikoog: Groundwater abstraction (B -); Recreation/ tourism (B -).

Around the site: –

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

Total site: Special Protection Area (Birds Directive 79/409/EEC, 2000, 135000 ha); Wetland of International Importance (2/4/2000, 135000 ha).

North Sea north of the Wadden Sea: management covered by the general management plan for national waters (Beheersplan Rijkswateren 1996-2000), which has been recently elaborated and updated in a more specific policy document for the North Sea (Beheersvisie Noordzee 2010).

Texel: Nature Conservation Act (1976, 51 ha); Nature Conservation Act (1995, 70 ha); Nature Conservation Act (1996, 5 ha). Management plans: Bakker T., ten Haaf C., Kruijssen B. 1991? Beheersplan duinen Texel.

Terschelling: Management plan: Staatsbosbeheer, Rijkswaterstaat Directie Friesland. 1992. Beheerplan rijksgronden Terschelling 1992-2002.

Ameland: Nature Conservation Act (1982, 265 ha). Management plans for dune area available.

Schiermonnikoog: National Park (1989, 5400 ha). Management plan: Vereniging Natuurmonumenten. 1997. Beheerplan 1997 Nationaal Park Schiermonnikoog: beheersvisie 1998-2013. O&B-rapport 97-17. Vereniging Natuurmonumenten, 's-Graveland.

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

Texel (dunes): National Park in the process of formation (5000 ha).

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

Monitoring the macrobenthic fauna of the estuarine area in the Delta region, in particular related to environmental impact assessment of land reclamation schemes (SLUFTER) (NIOO, www.nioo.nl). Also regular bird counts.

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

Visitors centres, excursions, hides, information booklets.

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

See 21. Current land use. Texel: c. 650,000 tourists a year; Schiermonnikoog: c. 300,000 tourists a year.

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

Texel: Municipality Texel, Vlieland: Municipality of Vlieland, Terschelling: Municipality of Terschelling,

Ameland: Municipality of Ameland, Schiermonnikoog: Municipality of Schiermonnikoog.

Functional jurisdiction (conservation purposes): Ministerie van Landbouw, Natuurbeheer en Visserij.

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

North Sea: Rijkswaterstaat (Ministerie van Verkeer en Waterstaat), Directie Noord-Nederland, PO Box 2301, 8901 JH Leeuwarden, the Netherlands, +31 58 2344344

Texel: Staatsbosbeheer, PO Box 1300, 3970 BH Driebergen, the Netherlands, tel. +31 30-6926111

Vlieland: Staatsbosbeheer, PO Box 1300, 3970 BH Driebergen, the Netherlands, tel. +31 30-6926111

Terschelling: Staatsbosbeheer, PO Box 1300, 3970 BH Driebergen, the Netherlands, tel. +31 30-6926111

Ameland: Staatsbosbeheer, PO Box 1300, 3970 BH Driebergen, the Netherlands, tel. +31 30-6926111

Schiermonnikoog: Natuurmonumenten, PO Box 9955, 1243 ZS 's Graveland, the Netherlands, tel. +31 35 6559933

30. Bibliographical references: (scientific/technical only)

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