



Ramsar Information Sheet

Published on 2 April 2015

Update version

Netherlands

Wadden Sea



Designation date	2 May 1984
Site number	289
Coordinates	53°17'33"N 6°15'55"E
Area	271 023,30 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Wadden Sea (Waddenzee) is a large intertidal area in the North of the Netherlands. It stretches from the northern corner of Noord-Holland in the west to the German and Danish coast in the north-east. The Waddenzee is bounded on the south side by the mainland of northern Netherlands, and, further east, of northern Germany. It was separated from Lake IJsselmeer in 1932 and from the Lauwerszee in 1969. It is separated from the North Sea by a row of islands ("de Waddeneilanden").

It consists of a complex of deep channels and shallow waters with mudflats and sandflats, from which large parts are uncovered at low tide. These banks are criss-crossed with a fine branched system of channels. Along the mainland and on the southern side of the islands are scattered saltmarshes, that have a very diverse flora and fauna due to large differences in humidity and salinity. For example on the Boschplaat (on the island Terschelling) and Neerlands Reid (on the island Ameland) there are very rare types of saltmarshes on the transition to the dune region of the islands. The Ems (on the border with Germany) is an estuary.

The hydrodynamics and geomorphology are nearly undisturbed and natural processes cause the conservation and development of the characteristic habitats and the boundaries between water and land change continuously.

Human activities include tourism, extraction of natural gas and of sand, and shellfish fisheries.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Ms. A. Pel-Roest
Institution/agency	Ministry of Economic Affairs, Department of Nature and Biodiversity
Postal address	Prins Clauslaan 8 P.O. Box 20401 2500 EK The Hague, the Netherlands
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Phone	+31 70 378 6868

2.1.2 - Period of collection of data and information used to compile the RIS

To year

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Wadden Sea
Unofficial name (optional)	Waddenzee

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input checked="" type="radio"/> No <input type="radio"/>
(Update) The boundary has been extended	<input checked="" type="checkbox"/>
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has increased because of a boundary extension	<input checked="" type="checkbox"/>

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	Yes (actual)
(Update) Are the changes	Positive <input type="radio"/> Negative <input type="radio"/> Positive & Negative <input checked="" type="radio"/>
(Update) No information available	<input checked="" type="checkbox"/>
(Update) Changes resulting from causes operating within the existing boundaries?	<input checked="" type="checkbox"/>

(Update) Please describe any changes to the ecological character of the Ramsar Site, including in the application of the Criteria, since the previous RIS for the site.

The Harbour Seals population increased and passed the 1% threshold (see criterion 9). No other major changes since last RIS update have occurred, though the changes encountered are mainly positive.

After a long phase of overexploitation, protection measures have triggered spectacular recoveries in seals (TSEG 2011a, 2011b) and breeding birds. Large-scale land claims have ceased and the Wadden Sea is today highly rated for its serene beauty. Global warming with an accelerating sea-level rise, however, may threaten the sandy barrier, the extent of the tidal flats (Reise, 2010) and the species that depend on them.

Long-term monitoring data reveal that 14 bird species out of 34 of all counted, such as Oystercatchers, Avocets, Kentish Plovers, Herring Gulls and others, have reduced in quantity significantly, while 20 species such as Eurasian Spoonbill, Bar-tailed Godwit, Sanderling and Grey Plover show an increase.

Particularly species that breed and winter in North, Central or Western Europe seem to be influenced by the conditions in North-West Europe, which have a negative impact on the trends (Laursen et al. 2010).

(Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change)	Yes <input type="radio"/>
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2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<1 file(s) uploaded>

Boundaries description (optional)

The Ramsar site Waddenzee has also been designated as the European Natura 2000-site Waddenzee. For this RIS-version, the Ramsar site boundary has therefore been adjusted to the Natura 2000-boundary. This means that the former Ramsar site Griend, part of the Ramsar site Boschplaat and some 750 ha of nature development area in the south (Friesland Buitendijks) are now included within this Ramsar site, while part of the shipping lane in the Eems-Dollard Estuary at the German border has been excluded. In total the Ramsar site substantially increased with +5405,3 ha.

2.2.2 - General location

- a) In which large administrative region does the site lie?
- b) What is the nearest town or population centre?

2.2.3 - For wetlands on national boundaries only

- a) Does the wetland extend onto the territory of one or more other countries? Yes No
- b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No
idem No
- d) Transboundary Ramsar Site name:

2.2.4 - Area of the Site

- Official area, in hectares (ha):
- Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Atlantic

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

The Waddenzee (Wadden Sea) is a particularly good representative example of a wetland which plays a substantial ecological role in the natural functioning of a coastal system, located in a trans-border position with Germany. In June 2009 the Dutch-German Waddensea was added to the Unesco World Heritage List.

Other reasons

The Waddenzee, although heavily influenced by the closing of the IJsselmeer and the reduction of the salt marsh area, consists of an extensive system of intertidal mudflats, gulleys and sandy islets in which natural processes still play a prominent role. The salt marshes of the Wadden Sea belong to the largest intact examples of Europe. One of these, named the Boschplaat at the island of Terschelling, has been awarded a European Diploma of Protected Areas by the Council of Europe since 1970. This award is a prestigious international award by the Committee of Ministers of the Council of Europe to natural and semi-natural areas and landscapes of exceptional European importance for the preservation of biological, geological and landscape diversity and managed in an exemplary way.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The Waddenzee 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 section 3.4 Ecological communities whose presence relates to the international importance of the site.

- Criterion 4 : Support during critical life cycle stage or in adverse conditions

- Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

Start year

Source of data:

- Criterion 6 : >1% waterbird population

- Criterion 8 : Fish spawning grounds, etc.

Justification

The Wadden Sea is among others an important nursery for Plaice *Pleuronectus platessa* and Sole *Solea solea*. Besides that it has been designated as a SAC for the migratory fish species Sea lamprey *Petromyzon marinus*, River lamprey *Lampetra fluviatilis* and Twaite shad *Alosa fallax*.

- Criterion 9 : >1% non-avian animal population

3.2 - Plant species whose presence relates to the international importance of the site

<no data available>

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ ACTINOPTERYGII	<i>Alosa fallax</i> 	Twaiite shad	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II, V of the EU Habitat Directive ; (National Red List (2004): LC)	The site has been designated as a SAC for the migratory fish species including the Twaiite shad.
CHORDATA/ AVES	<i>Anas acuta</i> 	Northern Pintail	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12739	2006-2010	21.2	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NW Europe
CHORDATA/ AVES	<i>Anas clypeata</i> 	Northern Shoveler	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1432	2006-2010	3.6		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NW/Central Europe
CHORDATA/ AVES	<i>Anas crecca</i> 	Common Teal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13544	2006-2010	2.7	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NW Europe
CHORDATA/ AVES	<i>Anas penelope</i> 	Eurasian Wigeon	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	96823	2006-2010	6.5	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): W-Siberia/ NW-NE Europe
CHORDATA/ AVES	<i>Anas platyrhynchos</i> 	Mallard	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30390	2006-2010	1.5	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NW-Europe
CHORDATA/ AVES	<i>Anas strepera</i> 	Gadwall	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	818	2006-2010	1.4	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Biogeographic population (NB): NW-Europe
CHORDATA/ AVES	<i>Anser anser</i> 	Greylag Goose	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23440	2006-2010	4.7		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NW-Europe/ SW-Europe
CHORDATA/ AVES	<i>Anser fabalis serrirostris</i> 	Tundra Bean Goose	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6075	2006-2010	1		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): W. & C. Siberia/ NE-SW-Europe
CHORDATA/ AVES	<i>Arenaria interpres</i> 	Turnstone	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4315	2006-2010	2.9		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6) as well as moulting species. Biogeographic population (NB): Greenland & NE Canada (wintering) - data in table Biogeographic population (NB): Scandinavia & W-Russia - pop. size = 3081 - Period of pop. estimate = 2006-2010 - % occurrence = 3.7
CHORDATA/ AVES	<i>Asio flammeus</i> 	Short-eared Owl	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Breeding birds: Annex I EU Bird Directive ; National Red List (2004): CR	Breeding birds
CHORDATA/ AVES	<i>Aythya marila</i> 	Greater Scaup	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	52768	2006-2010	17	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: the site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NW-Europe

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	<i>Branta bernicla</i> 	Dark-bellied Brent Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	77347	2006-2010	38.7		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for pre-migratory fattening of geese and waders. Biogeographic population (NB): W-Siberia/ W-Europe
CHORDATA/ AVES	<i>Branta leucopsis</i> 	Barnacle Goose	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	146527	2006-2010	34.9	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I EU Bird Directive	Non-breeding birds. Criteria 4: The site is of particular importance for pre-migratory fattening of geese and waders. Biogeographic population (NB). Russia/ Germany/ Netherlands
CHORDATA/ AVES	<i>Bucephala clangula</i> 	Common Goldeneye	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD.
CHORDATA/ AVES	<i>Calidris alba</i> 	Sanderling	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12313	2006-2010	10.3	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): East Atlantic/ W&S. Africa (win)
CHORDATA/ AVES	<i>Calidris alpina alpina</i> 	Dunlin	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	332395	2006-2010	25		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6) as well as moulting species. Biogeographic population (NB): N. Siberia/ Europe/ W-Africa
CHORDATA/ AVES	<i>Calidris canutus</i> 	Knot	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	53309	2006-2010	11.8	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6), moulting species and for pre-migratory fattening of geese and waders. Biogeographic population (NB): Western/Southern Africa (win)
CHORDATA/ AVES	<i>Calidris canutus canutus</i> 	Knot	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32994	2006-2010	9.7		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): Western/Southern Africa (win)
CHORDATA/ AVES	<i>Calidris canutus islandica</i> 	Knot	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	99561	2006-2010	22.1		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NE-Canada/NW-Europe
CHORDATA/ AVES	<i>Calidris ferruginea</i> 	Sandpiper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD.
CHORDATA/ AVES	<i>Charadrius alexandrinus</i> 	Kentish Plover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Non-breeding birds: Annex I EU Bird Directive Breeding birds - National Red List (2004): EN	Non-breeding birds. Criteria 3: Breeding birds - The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD.
CHORDATA/ AVES	<i>Charadrius hiaticula</i> 	Common Ringed Plover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7545	2006-2010	4	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Breeding birds - National Red List (2004): VU	Criteria 3: Non-breeding and breeding birds. The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): Northern Europe/Europe & North Africa (Wetlands International) - data in table. Biogeographic population (NB): Canada Greenland & Iceland/W & S Africa (Wetlands international) - pop size = 795 - period of pop. estimate = 2006-2010 - % occurrence = 1.1
CHORDATA/ AVES	<i>Chlidonias niger</i> 	Black Tern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8565	2006-2010	1.1	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I EU Bird Directive	Non-breeding birds. Biogeographic population: Europe/ Asia (breeding)

Phylum	Scientific name	Common name	Species qualifies under criterion			Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification	
			2	4	6	9	3	5	7									8
CHORDATA/ AVES	<i>Chroicocephalus ridibundus</i> 	Black-headed Gull	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	164061	2006-2010	8.2	LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ AVES	<i>Circus aeruginosus</i> 	Marsh Harrier	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Non-breeding birds: Annex I EU Bird Directive Breeding birds: Annex I EU Bird Directive ; (National Red List (2004): LC)	Non-breeding bird and breeding birds.
CHORDATA/ AVES	<i>Circus cyaneus</i> 	Hen Harrier	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Non-breeding birds: Annex I EU Bird Directive Breeding birds: Annex I EU Bird Directive ; (National Red List (2004): NT)	Non-breeding bird and breeding birds.
CHORDATA/ AVES	<i>Cygnus columbianus bewickii</i> 	Bewick's Swan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	462	2006-2010	2.3		<input type="checkbox"/>	<input type="checkbox"/>	Annex I EU Bird Directive	Non-breeding birds. Biogeographic population (NB): W-Siberia/NE-NW, Europe
CHORDATA/ AVES	<i>Falco peregrinus</i> 	Peregrine Falcon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Annex I EU Bird Directive	Non-breeding birds.
CHORDATA/ AVES	<i>Haematopus ostralegus</i> 	Eurasian Oystercatcher	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	138843	2006-2010	13.6	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6) as well as moulting species. Biogeographic population (NB): Europe and NW-Africa
CHORDATA/ MAMMALIA	<i>Halichoerus grypus</i> 	Gray Seal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II, V of the EU Habitat Directive ; National Red List (2009): NT	
CHORDATA/ CEPHALASPIDOMORPHI	<i>Lampetra fluviatilis</i> 	River lamprey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II, V of the EU Habitat Directive ; (National Red List (2004): LC)	The site has been designated as a SAC for the migratory fish species including the River lamprey.
CHORDATA/ AVES	<i>Larus argentatus</i> 	European Herring Gull	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	49192	2006-2010	8.3		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 4: Gathered in relatively small areas the site also supports substantial breeding colonies of Herring Gull <i>Larus argentatus</i> Biogeographic population (NB): Iceland & Western Europe Biogeographic population (Breeding): Iceland & Western Europe - pop. size = 50181 - period pop. estimate = 2006-2010 - % occurrence = 8.5
CHORDATA/ AVES	<i>Larus canus</i> 	Mew Gull	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	81112	2006-2010	4.1	LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ AVES	<i>Larus fuscus</i> 	Lesser Black-backed Gull	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	74661	2006-2010	19.6	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 4: Gathered in relatively small areas the site also supports substantial breeding colonies of Lesser Black-backed Gull <i>Larus fuscus</i> . Biogeographic population (BR): W-Europe
CHORDATA/ AVES	<i>Larus fuscus graellsii</i> 	Lesser Black-backed Gull	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	(Breeding birds - National Red List: LC)	Criteria 3: Breeding birds: the site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD.
CHORDATA/ AVES	<i>Limosa lapponica</i> 	Bar-tailed Godwit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	82383	2006-2010	68.7		<input type="checkbox"/>	<input type="checkbox"/>	Annex I EU Bird Directive	Non-breeding birds. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6), moulting species and for pre-migratory fattening of geese and waders. Biogeographic population (NB): Southwestern Africa (win)
CHORDATA/ AVES	<i>Limosa lapponica taymyrensis</i> 	Bar-tailed Godwit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	168700	2006-2010	28.1		<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ AVES	<i>Limosa limosa</i> 	Black-tailed Godwit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2057	2006-2010	1.2	NT 	<input type="checkbox"/>	<input type="checkbox"/>		Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): W-Europe/W-Africa

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	<i>Mergus merganser</i> 	Common Merganser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD.
CHORDATA/ AVES	<i>Mergus serrator</i> 	Red-breasted Merganser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD.
MOLLUSCA/ GASTROPODA	<i>Myosotella myosotis</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	National Red List (2004): VU	terrestrial mollusc
CHORDATA/ AVES	<i>Numenius arquata</i> 	Eurasian Curlew	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	143483	2006-2010	16.9	NT 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6) as well as moulting species. Biogeographic population (NB): Europe (breeding)
CHORDATA/ AVES	<i>Numenius phaeopus</i> 	Whimbrel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3206	2006-2010	1.2	LC 	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ CEPHALASPIDOMORPHI	<i>Petromyzon marinus</i> 	Sea lamprey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitat Directive ; (National Red List (2004): LC)	The site has been designated as a SAC for the migratory fish species including the Sea lamprey.
CHORDATA/ AVES	<i>Phalacrocorax carbo</i> 	Great Cormorant	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6646	2006-2010	1.7		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): Northern/Central Europe
CHORDATA/ MAMMALIA	<i>Phoca vitulina</i> 	Harbor Seal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6487	2008-2012	1.3		<input type="checkbox"/>	<input type="checkbox"/>	Annex II, IV of the EU Habitat Directive ; National Red List (2009): VU	Criteria 9: Since 2008 the Harbour Seal population in the Dutch Wadden Sea counts more than 5000 individuals. 1% threshold = 5000 (source: Common Wadden Sea Secretariat)
MOLLUSCA/ BIVALVIA	<i>Pisidium amnicum</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	National Red List (2004): VU	fresh water mollusc
CHORDATA/ AVES	<i>Platalea leucorodia</i> 	Eurasian Spoonbill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1678	2006-2010	15.3	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Non-breeding birds: Annex I EU Bird Directive Breeding birds: Annex I EU Bird Directive ; (National Red List (2004): LC)	Non-breeding bird and breeding birds. Biogeographic population (NB): Eastern Atlantic - data in table Biogeographic population (breeding): Eastern Atlantic - pop. size = 1980 - period pop. estimate = 2006-2010 - % occurrence = 18.0
CHORDATA/ ACTINOPTERYGII	<i>Pleuronectes platessa</i> 	Plaice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		The Wadden Sea is among others an important nursery for Plaice <i>Pleuronectes platessa</i> .				
CHORDATA/ AVES	<i>Pluvialis apricaria</i> 	Eurasian Golden Plover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	41790	2006-2010	5.6	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex I EU Bird Directive	Non-breeding birds. Biogeographic population (NB): NW-Europe (breeding)
CHORDATA/ AVES	<i>Pluvialis squatarola</i> 	Grey Plover	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	62536	2006-2010	25	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6), moulting species and for pre-migratory fattening of geese and waders. Biogeographic population (NB): Eastern Atlantic (wintering)
CHORDATA/ AVES	<i>Podiceps cristatus</i> 	Great Crested Grebe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	 <i>Recurvirostra avosetta</i>	Avocet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16399	2006-2010	22.5	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Breeding birds: Annex I EU Bird Directive ; (National Red List (2004): LC)	Breeding birds Criteria 4: Gathered in relatively small areas the site also supports substantial breeding colonies of Avocet <i>Recurvirostra avosetta</i> . Biogeographic population (NB): W-Europe/ W-Med (breeding) - data in table Biogeographic population (Breeding): W-Europe/ W-Med (breeding) - pop.size = 4383 - period pop. estimate = 2006-2010 - % occurrence = 6.0	
CHORDATA/ ACTINOPTERYGII	 <i>Solea solea</i>	Sole	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		The Wadden Sea is among others an important nursery for Sole <i>Solea solea</i> .	
CHORDATA/ AVES	 <i>Somateria mollissima</i>	Common Eider	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8550	2006-2010	1.1	LC 	<input type="checkbox"/>	<input type="checkbox"/>	(Breeding birds: National Red List (2004): LC)	Criteria 3: Non-breeding and breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6) as well as moulting species. Gathered in relatively small areas the site also supports substantial breeding colonies of Eider <i>Somateria mollissima</i> Biogeographic population (BR): Baltic/ Denmark/ Netherlands	
CHORDATA/ AVES	 <i>Sterna hirundo</i>	Common Tern	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9717	2006-2010	5.1	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Breeding birds: Annex I EU Bird Directive ; National Red List (2004): VU	Breeding birds Criteria 4: Gathered in relatively small areas the site also supports substantial breeding colonies of Common Tern <i>Sterna hirundo</i> . Biogeographic population (breeding): SW-Europe	
CHORDATA/ AVES	 <i>Sterna paradisaea</i>	Arctic Tern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Breeding birds: Annex I EU Bird Directive ; (National Red List (2004): LC)	Breeding birds	
CHORDATA/ AVES	 <i>Sternula albifrons</i>	Little Tern	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	582	2006-2010	1.2	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Breeding birds: Annex I EU Bird Directive ; National Red List (2004): VU	Breeding birds Criteria 4: Gathered in relatively small areas the site also supports substantial breeding colonies of Little Tern <i>Sternula albifrons</i> . Biogeographic population (Breeding): W-Europe	
CHORDATA/ AVES	 <i>Tadorna tadorna</i>	Common Shelduck	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	66964	2006-2010	22.3	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NW-Europe	
CHORDATA/ AVES	 <i>Thalasseus sandvicensis</i>	Sandwich Tern	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35958	2006-2010	21.2	LC 	<input type="checkbox"/>	<input type="checkbox"/>	Breeding birds: Annex I EU Bird Directive ; National Red List (2004): EN	Breeding birds Criteria 4: Gathered in relatively small areas the site also supports substantial breeding colonies of Sandwich Tern <i>Thalasseus sandvicensis</i> Biogeographic population (breeding): W-Europe	
CHORDATA/ AVES	 <i>Tringa erythropus</i>	Spotted Redshank	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2486	2006-2010	2.8	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): Europe/ W-Africa	
CHORDATA/ AVES	 <i>Tringa nebularia</i>	Common Greenshank	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8398	2006-2010	3.7	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): NW-Europe	
CHORDATA/ AVES	 <i>Tringa totanus</i>	Common Redshank	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21802	2006-2010	7.8	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Biogeographic population (NB): Eastern Atlantic (win)	
CHORDATA/ AVES	 <i>Tringa totanus robusta</i>	Common Redshank	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20004	2006-2010	7.1		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6) as well as moulting species. Biogeographic population (NB): Iceland/ Faroes Islands (bre)	

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	<i>Tringa totanus totanus</i> 	Common Redshank	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24958	2006-2010	10		<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Criteria 4: The site is of particular importance for many migratory and breeding species (see criterion 2, 3 and 6) as well as moulting species. Biogeographic population (NB): Eastern Atlantic (win)
CHORDATA/ AVES	<i>Vanellus vanellus</i> 	Northern Lapwing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35085	2006-2010	1.8	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criteria 3: Non-breeding birds: The site has also been designated as a SPA for a number of bird species that are not on Annex I of the BD. Biogeographic population (NB): Europe
MOLLUSCA/ GASTROPODA	<i>Vertigo angustior</i> 	marsh snail	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II of the EU Habitat Directive ; (National Red List (2004): LC)	terrestrial mollusc

Criteria 4: Gathered in relatively small areas the site also supports resting and breeding seals.

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Sandbanks which are slightly covered by sea water all the time	<input type="checkbox"/>		Criteria 3: 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).
Mudflats and sandflats not covered by seawater at low tide	<input type="checkbox"/>		Criteria 3: 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).
Salicornia and other annuals colonising mud and sand	<input type="checkbox"/>		Criteria 3: 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).
Spartina swards (<i>Spartinion maritimae</i>)	<input type="checkbox"/>		Criteria 3: 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).
Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)	<input type="checkbox"/>		Criteria 3: 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).
Embryonic shifting dunes	<input type="checkbox"/>		Criteria 3: 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).
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	<input type="checkbox"/>		Criteria 3: 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).
Fixed coastal dunes with herbaceous vegetation (grey dunes)	<input type="checkbox"/>		Criteria 3: 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).
Dunes with <i>hippophae rhamnoides</i>	<input type="checkbox"/>		Criteria 3: 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).
Humid dune slacks	<input type="checkbox"/>		Criteria 3: 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).

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Together with the Danish and German sections, the Waddenzee is the largest intertidal area in Europe. It consists of mudflats, sandflats, saltmarshes, shallowly submerged sandbanks, and estuaries. The site includes the permanent water and mudflats of the Wadden Sea, the adjacent saltmarshes of Texel, Vlieland, Terschelling, Ameland, and Schiermonnikoog and a number of small uninhabited isles and sand flats. One of them is Griend between Harlingen and Terschelling. It's a small, crescent-shaped island with beaches, intertidal mudflats and sandflats, and raised saltmarshes.

It is one of the few European sites where the hydrodynamics and geomorphology are nearly undisturbed and natural processes cause the conservation and development of the characteristic habitats. The boundaries between water and land change continuously.

For more information on the ecological character of the Site, please refer to Section 6.1.2 Additional reports and documents > vi. other published literature.

4.2 - What wetland type(s) are in the site?

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
A: Permanent shallow marine waters		1	149063	Representative
E: Sand, shingle or pebble shores		4	8131	Representative
F: Estuarine waters		4	8131	Representative
G: Intertidal mud, sand or salt flats		2	94858	Representative
H: Intertidal marshes		3	10841	Representative

4.3 - Biological components

4.3.1 - Plant species

<no data available>

4.3.2 - Animal species

<no data available>

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfb: Marine west coast (Mild with no dry season, warm summer)

Large-scale land claims have ceased and the Wadden Sea is today highly rated for its serene beauty. Global warming with an accelerating sea-level rise, however, may threaten the sandy barrier, the extent of the tidal flats (Reise, 2010) and the species that depend on them.

Catchment of the river Rhine: The climate according to Köppen are rainy (Cbf) and montane (EH).

Catchment of the river Ems: The climate according to Köppen is rainy (Cbf).

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

More than one river basin

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The relevant catchment areas for the Dutch Waddenzee are the catchments of the rivers Rhine and Ems.

The surface area of the catchment of the river Rhine is 185.000 km².

The surface area of the catchment of the river Ems is 12.900 km².

4.4.3 - Soil

Mneral

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

Please provide further information on the soil (optional)

Catchment of the river Rhine:
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.

Catchment of the river Ems:
Geologically and geomorphologically it consists mainly of Quarternary sediments. The general soil types are: Alluvial and Podzol soils.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

Tide is an important factor in the site. Freshwater enters the Wadden Sea from the River Ems, the Lauwersmeer, the IJsselmeer, a number of small canals and indirect from the rivers Scheldt, Meuse and Rhine via the northward residual current along the Dutch coast. Important habitats of the ecosystem include mudflats, sandflats, saltmarshes, shallowly submerged sandbanks, and estuaries.

4.4.5 - Sediment regime

<no data available>

4.4.6 - Water pH

<no data available>

4.4.7 - Water salinity

Mxohaline (brackish)/Mxosaline (0.5-30 g/l)

Euhaline/Eusaline (30-40 g/l)

4.4.8 - Dissolved or suspended nutrients in water

<no data available>

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ii) significantly different site itself.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Medium
Wetland non-food products	Other	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	Medium
Hazard reduction	Flood control, flood storage	Medium
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	
Spiritual and inspirational	Cultural heritage (historical and archaeological)	
Scientific and educational	Educational activities and opportunities	

Other ecosystem service(s) not included above:

a) within the Ramsar site:

Commercial fisheries 65 - 95%, Angling 65 - 95%, Sand, clay, shell and gravel extraction, Exploration and extraction of oil or gas, Wind turbines, Port areas, Shipping 5 - 35%, Leisure and tourism 35 - 65%, Military training 5 - 35%.

b) in the surroundings/catchment:

Shipping, fisheries etc.

For more information on current recreation and tourism, please refer to Section 6.1.2 Additional reports and documents > vi. other published literature.

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

<no data available>

4.6 - Ecological processes

<no data available>

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified	Medium impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified	High impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Please describe any other threats (optional):

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

Some of the (potential) threats below are scored with an A, though measures have been taken to keep the threat at an acceptable level.

- Aquaculture/ fisheries (A - mussel fisheries);
- Disturbance to birds (B - military training (air force and amphibious vehicles));
- Extraction industry (mining) (A - gas exploitation);
- Recreation/ tourism (B);
- Pollution (not Industrial discharge) (currently B - eutrophication by river Rhine water);
- Pollution (not Industrial discharge) (B - chronic oil pollution (shipping)).
- Sea level rise due to climate change: A

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Unesco transboundary Wadden Sea World Heritage site		whole

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Waddenzee		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
national park			whole
nature reserve			whole
natural monument			whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Other non-statutory designation	Water Framework Directive. Directive 2000/60/EC		whole

5.2.3 - IUCN protected areas categories (2008)

IV Habitat/Species Management Area: protected area managed mainly
 for conservation through management intervention

VI Managed Resource Protected Area: protected area managed mainly
 for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Habitat

Measures	Status
Habitat manipulation/enhancement	Partially implemented

Human Activities

Measures	Status
Fisheries management/regulation	Partially implemented

Other:

For more information on particular current management practices including on a ban on cockle fisheries, limited mussel seed fisheries, prawns, sea grass restoration and the Wadden Fund, please refer to section 6.1.2 Additional reports and documents > vi. other published literature.

At the 11th Trilateral Wadden Sea Governmental Conference (Sylt, March 2010), a refreshed Joint Declaration on the Protection of the Wadden Sea was signed, which replaces the old one from 1982 and new Governance Arrangements were adopted. An updated Wadden Sea Plan 2010 was adopted at this conference. See below, 5.2.5 Management Planning.

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

As part of the Wadden Sea World Heritage communication and awareness strategy, many communication activities were launched. In summer 2011 a so-called 'Story Hunter Campaign' was executed throughout the region. For more information, see: <http://www.waddensea-worldheritage.org/>

The International Wadden Sea School (IWSS) is initiated and supported by the governments of the three states working together in the Trilateral Wadden Sea Cooperation. The overall goal of the IWSS is to enhance the awareness on the Wadden Sea as a shared natural and cultural heritage and to support the understanding for a long-term protection and sustainable management of the Wadden Sea as a whole by translating the ideas behind the cooperation on the Wadden Sea into the education of the future generation.

URL of site-related webpage (if relevant): <http://www.waddensea-worldheritage.org/>

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Please select a value

5.2.7 - Monitoring implemented or proposed

Ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura2000 habitat types and species.

Numerous scientific research projects are ongoing in the Wadden Sea. Main responsible executors are:

- NIOZ: Royal Netherlands Institute for Sea Research (www.nioz.nl);
- Wageningen IMARES: The Institute for Marine Resources and Ecosystem Studies (www.imares.wur.nl; which joins same facilities with NIOZ);
- University of Groningen (www.rug.nl; offering an MSc in Marine Biology);
- SOVON, the Dutch Bird Research Organisation (www.sovon.nl);
- TNO: Netherlands Organization for Applied Scientific Research (www.tno.nl; Den Helder);
- NIOO: Netherlands Institute of Ecology (www.nioo.nl);
- RIKZ: The National Institute for Coastal and Marine Management (www.rikz.nl).

The three lateral Wadden Sea cooperation also concerns joint research. See the Trilateral Monitoring and Assessment Programme at: <http://www.waddensea-secretariat.org/TMAP/Monitoring.html>

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - 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.
- Laursen, K., Blew, J., Eskildsen, K., Gunther, K., Halterlein, B., Kleefstra, R., Luersen, G., Potel, P., Schrader, S., 2010. Migratory Waterbirds in the Wadden Sea 1987- 2008. Wadden Sea Ecosystem No.30. Common Wadden Sea Secretariat, Joint Monitoring Group of Migratory Birds in the Wadden Sea, Wilhelmshaven, Germany.
- Ministerie van LNV, 2008. Aanwijzingsbesluit Natura-2000 gebied Waddenzee.
- Reise, Karsten, Martin Baptist, Peter Burbridge, Norbert Dankers, Ludwig Fischer, Burghard Flemming, Albert P. Oost, Cor Smit, 2010. The Wadden Sea – A Universally Outstanding Tidal Wetland. Wadden Sea Ecosystem No. 29. Common Wadden Sea Secretariat, Wilhelmshaven, Germany, page 7 - 24.
- Sijtsma, Frans, J., Gelijk J. Werner, Lourens Broersma, 2008. Recreatie en toerisme in het Waddengebied.
- Toekomstige ontwikkelingsmogelijkheden en hun effecten op economie, duurzaamheid en identiteit behorende bij advies 2008/05. Rijks Universiteit Groningen, Raad voor de Wadden.
- TSEG, 2011a. Aerial Surveys of Harbour Seals in the Wadden Sea in 2011: Solid increases in total number as well as pups. by the Trilateral Seal Expert Group (TSEG) (07 November 2011)
- TSEG, 2011b Aerial surveys of grey seals in the Wadden Sea in 2010-2011: Continued growth, through birth and immigration. by the Trilateral Seal Expert Group (TSEG) (07 November 2011)

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:

<no data available>

6.1.4 - Designation letter and related data

Designation letter

<no file available>

Transboundary Designation letter

<1 file(s) uploaded>

Date of Designation 1984-05-02