

Ramsar Information Sheet

Published on 19 July 2022 Update version, previously published on : 2 April 2015

Netherlands

Wadden Sea



Designation date 2 May 1984 Site number 289

Coordinates 53°20'53"N 06°04'11"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

Together with the Danish and German sections, the Waddenzee is the largest intertidal area in Europe. The Dutch part is a Ramsar site and measures 271,023 hectares. 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.

The site is bounded on the south side by the mainland of northern Netherlands, and, further east, by northern Germany. It was separated from the Ramsar Site Lake IJsselmeer in 1932 and from Ramsar Site Lauwersmeer in 1969. It is separated from the North Sea by a row of islands ("de Waddeneilanden").

The Site is of outstanding importance for the existence of at least 52 populations of 41 migratory waterbird species that use the East Atlantic Flyway.

The Site provides ecosystem services for tourism and fisheries among others.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the com	niler of this RIS
Responsible compiler	
Institution/agency	Wageningen Environmental Research
catato://agone/	PO Box 47
Postal address	6700 AA Wageningen The Netherlands
National Ramsar Administrati	ive Authority
Institution/agency	Ministry of Agriculture Nature and Food Quality
Postal address	Bezuidenhoutseweg 73 P.O. Box 20401 2500 EK The Hague The Netherlands
2.1.2 - Period of collection of data and	d information used to compile the RIS
From year	2015
To year	2020
2.1.3 - Name of the Ramsar Site	
Official name (in English, French or Spanish)	Wadden Sea
Unofficial name (optional)	Waddenzee; Sites includes former Sites Griend (formerly no. 196) and Boschplaat (formerly no. 195)
2.1.4. Changes to the houndaries on	d area of the Cite sines its designation or equilibrium date
	d area of the Site since its designation or earlier update Changes to Site boundary Yes O No
	te) B. Changes to Site area No change to area
(Update) For secretariat only: T	
Tor secretariationly. I	ins apode is an exercision —
2.1.5 - Changes to the ecological cha	
^(Update) 6b i. Has the ecological character of tapplicable Criteria) change	the Ramsar Site (including yes (actual) Yes (actual)
	(Update) Are the changes Positive ○ Negative ○ Positive & Negative ●
(Update	e) No information available 🗹
(Update) Optional text box to provide further info	
Changes are described in the Wado	den Sea Quality Status Report (https://qsr.waddensea-worldheritage.org/)
^(Update) Changes resulting from causes o	perating within the existing boundaries?
(Update) Changes resulting from causes of	operating beyond the site's boundaries?
(Update) Changes consequent upon site bour the exclusion of some wetland types former!	ordary reduction alone (e.g., yincluded within the site)?
(Update) Changes consequent upon site bou	

The Grey 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, like increase of mussel banks and return of sea grass beds.

(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.

(Update) Is the change in ecological character negative, human-induced $$\operatorname{Yes}\ O$$ AND a significant change (above the limit of acceptable change)

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

Former maps 0

Boundaries description

The boundary of the Ramsar site is equal to the Natura 2000-site with the same name.

The former Ramsar Sites Griend (former Site no. 196) and Boschplaat (former Site no. 195) as well as 750 ha of the nature development area Friesland Buitendijks were included within the Wadden Sea Ramsar Site in 2013.

2.2.2 - General location

a) In which large administrative region does Provinces of Groningen, Friesland, Noord Holland the site lie?

b) What is the nearest town or population | North of Den Helder (population 56.582 in 2021), Harlingen (population 15.807 in 2021) and Delfzijl (population 24.687 in 2020). (Source: CBS, Netherlands Statistics)

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

idem No O

d) Transboundary Ramsar Site name: Wadden Sea

2.2.4 - Area of the Site

Sites part of transboundary designation

Duinen Ameland - Netherlands

Duinen en Lage Land Texel - Netherlands

Duinen Schiermonnikoog - Netherlands

Duinen Terschelling - Netherlands

Duinen Vlieland - Netherlands

Hamburgisches Wattenmeer - Germany

North Sea Coastal Area - Netherlands

Schleswig-Holstein Wadden Sea and adjacent areas - Germany

Vadehavet - Denmark

Wattenmeer, Elbe-Weser-Dreieck - Germany

Wattenmeer, Jadebusen & westliche Wesermündung - Germany

Wattenmeer, Ostfriesisches Wattenmeer & Dollart - Germany

Official area, in hectares (ha): 271023.3

Area, in hectares (ha) as calculated from GIS boundaries

271012.486

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.

The Waddenzee, although heavily influenced by the closing of the Usselmeer and the reduction of the salt Other reasons 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

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 Justification species mentioned under criterion 2, the site has also been designated as a SAC for a range of habitat types (Annex I of HD, see section 3.4) and SPA for a number of bird species that are not on Annex I of the BD.

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

Optional text box to provide further

The Ramsar site is also part of the Natura 2000 network in the European Union. It is designated as a Special Protection Area (SPA) for the functions that it provides to specific breeding and non-breeding bird species (e.g. migratory, hibernating, sleeping, resting, foraging). The site is also designated as a Special Area of Conservation (SAC) for specific non-bird species (and habitat types, see section 3.4). See Natura 2000 - Standard data form https://natura2000.eea.europa.eu/

☑ Criterion 5 : >20.000 waterbirds

Overall waterbird numbers 1.477.196

Start year 2015

Source of data: Sovon, Dutch Centre for Field Ornithology

☑ Criterion 6 : >1% waterbird population

Optional text box to provide further The 1% waterbird population thresholds are based on the 7th Edition of the Conservation Status Report information (CSR7).

☑ Criterion 8 : Fish spawning grounds, etc.

The Wadden Sea is among others an important nursery for Plaice Pleuronectus platessa and Sole Solea Justification 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

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Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA/ LILIOPSIDA	Liparis loeselii	2	2	Ø			National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.

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

Phylum	Scientific name	qı u cr	pecie lalifie linde iterio 4 6	es r on	CO	Species ntributes under riterion	Pop. Size	Period of pop. Es	% t. occurrence		CMS Appendix I	Other Status	Justification
Others													
	Halichoerus grypus	Ø.	/	¥	√	000	4045	2017	1.3	LC		National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / MAMMALIA	Microtus oeconomus	V	2		V	000				LC		National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Unio
CHORDATA / MAMMALIA	Phoca vitulina	V	2	✓	V	000	10025	2017	2			National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / MAMMALIA	Phocoena phocoena	V	2		V	000				LC		National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
Fish, Mollusc and Cru	stacea								<u>'</u>				
CHORDATA/ ACTINOPTERYGII	Alosa fallax	V	2		V					LC		National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ CEPHALASPIDOMORPHI	Lampetra fluviatilis		2		V					LC			The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
MOLLUSCA/ GASTROPODA	Myosotella myosotis	V										National red list species	
CHORDATA / CEPHALASPIDOMORPHI	Petromyzon marinus		2 C		V					LC			The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.

Phylum	Scientific name	Species qualifies contributes under criterion criterion 2 4 6 9 3 5 7 8 Pop. Size	% occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
MOLLUSCA/ BIVALVIA	Pisidium amnicum						National red list species	fresh water mollusc
CHORDATA / ACTINOPTERYGII	Pleuronectes platessa							The Wadden Sea is among others an important nursery for Plaice Pleuronectes platessa.
CHORDATA / ACTINOPTERYGII	Solea solea							The Wadden Sea is among others an important nursery for Sole Solea solea.
MOLLUSCA/ GASTROPODA	Vertigo angustior			NT			National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
Birds								
CHORDATA/ AVES	Anas acuta	19094 2015/16-2019/2	0 31.8	LC			National red list species	Reference population: North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anas clypeata	2802 2015/16-2019/2	0 4.3				National red list species	Reference population: North-west & Central Europe (win), The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Anas crecca	13194 2015/16-2019/2	0 2.6	LC			National red list species	Reference population: crecca, North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Anas penelope	86792 2015/16-2019/2	0 6.2	LC			National red list species	Reference population: Western Siberia & NE Europe/NW Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anas platyrhynchos	25346 2015/16-2019/2	0 0.5	LC				Reference population: platyrhynchos, North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anas strepera	1441 2015/16-2019/2	0 1.2	LC				Reference population: strepera, North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anser albifrons	11270 2015/16-2019/2	0 0.9	LC				Reference population: albifrons, NW Siberia & NE Europe/North-west Europe.
CHORDATA/ AVES	Anser anser	27988 2015/16-2019/2	0 2.9					Reference population: anser, NW Europe/South-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anser brachyrhynchus	63 2015/16-2019/2	0 0.1	LC				Reference population: Svalbard/North-west Europe.
CHORDATA/ AVES	Anser fabalis serrirostris	19145 2015/16-2019/2	0 3.5					Reference population: rossicus, West & Central Siberia/NE & SW Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9	Species contributes under criterion 3 5 7 8	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Ardea alba	0000		217 2	2015/16-2019/20	0.3	LC				Reference population: alba, W, C & SE Europe/Black Sea & Mediterranean.
CHORDATA/ AVES	Ardea cinerea cinerea			370 2	2015/16-2019/20	0.1					Reference population: cinerea, Northern & Western Europe.
CHORDATA/ AVES	Arenaria interpres			5618 2	2015/16-2019/20	4					Reference population: interpres, NE Canada & Greenland/W Europe & NW Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Arenaria interpres interpres			3633 2	2015/16-2018/19	5					Reference population: interpres, Northern Europe/West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Asio flammeus						LC			National red list species	The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Aythya ferina			144 2	2015/16-2019/20	0.1	VU				Reference population: North-east Europe/North-west Europe.
CHORDATA/ AVES	Aythya fuligula			859 2	2015/16-2019/20	0.1	LC				Reference population: North-west Europe (win).
CHORDATA/ AVES	Aythya marila			28062 2	2015/16-2019/20	9.1	LC				Reference population: marila, Northern Europe/Western Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Branta bernicla			71852 2	2015/16-2018/19	34.2					Reference population: bernicla, Western Siberia/Western Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Branta leucopsis			201086 2	2015/16-2019/20	16.8	LC				Reference population: Russia/Germany & Netherlands. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Bucephala clangula			260 2	2015/16-2019/20	0	LC			National red list species	Reference population: clangula, North-west & Central Europe (win). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Calidris alba			22255 2	2015/16-2019/20	11.1	LC				Reference population: alba, East Atlantic Europe, West & Southern Africa (win). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Calidris alpina alpina			388265 2	2015/16-2019/20	29.2					Reference population: alpina, NE Europe & NW Siberia/W Europe & NW Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Calidris canutus			141521 2	2015/16-2019/20	26.7	LC				Reference population: islandica, NE Canada & Greenland/Western Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9	Species contribut under criterio	Pop. Size	Period of pop. Est.	% occurrence 1)		CITES Appendix	CMS Appendix I	Other Status	Justification
CHORDATA / AVES	Calidris canutus canutus			25763	2015/16-2018/19	10.3					Reference population: canutus, Northern Siberia/West & Southern Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Calidris canutus islandica			126104	4 2015/16-2019/20	23.8					Reference population: islandica, NE Canada & Greenland/Western Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Calidris ferruginea			2096	2015/16-2019/20	0.5	LC				Reference population: Central Siberia/SW Asia, E & S Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Charadrius alexandrinus			28	2015/16-2019/20	0				National red list species	Reference population: alexandrinus, West Europe & West Mediterranean/West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Charadrius hiaticula			3159	2016/17-2018/19	5.8	LC			National red list species	Reference population: hiaticula, Northern Europe/Europe & North Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Charadrius hiaticula psammodromus			15765	2015/16-2019/20	6.6				National red list species	Reference population: psammodromus, Canada, Greenland & lceland/W & S Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Chlidonias niger			4722	2015/16-2019/20	1.2	LC			National red list species	Reference population: niger, Europe & Western Asia/Atlantic coast of Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Chroicocephalus ridibundus			21190	1 2015/16-2019/20	6.8	LC				Reference population: W Europe/W Europe, W Mediterranean, West Africa.
CHORDATA / AVES	Circus aeruginosus						LC				The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Circus cyaneus						LC			National red list species	The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Cygnus columbianus bewickii			262	2015/16-2019/20	1.2					Reference population: bewickii, Western Siberia & NE Europe/North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Cygnus cygnus	2 000		176	2015/16	0.1	LC			National red list species	Reference population: North-west Mainland Europe.
CHORDATA / AVES	Cygnus olor			139	2015/16-2019/20	0.1	LC				Reference population: North-west Mainland & Central Europe.
CHORDATA / AVES	Egretta garzetta garzetta			102	2015/16-2019/20	0.1				National red list species	Reference population: garzetta, Western Europe, NW Africa.

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9	Species contributes under criterion 3 5 7 8	Pop. Size	Period of pop. Est.	% occurrence 1)		CITES Appendix	CMS Appendix I	Other Status	Justification
CHORDATA / AVES	Falco peregrinus	Ø000]			LC	V		National red list species	The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Fulica atra			2996	2015/16-2019/20	0.2	LC				Reference population: atra, North-west Europe (win).
CHORDATA / AVES	Haematopus ostralegus] 133941	2015/16-2019/20	16.3	LC				Reference population: ostralegus, Europe/South & West Europe & NW Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Larus argentatus			56805	2015/16-2019/20	3.9					Reference population: argentatus, North & North-west Europe.
CHORDATA/ AVES	Larus canus			85940	2015/16-2019/20	5.2	LC				Reference population: canus, NW & C Europe/Atlantic coast & Mediterranean.
CHORDATA/ AVES	Larus fuscus			36268	2015/16-2019/20	5.8	LC				Reference population: intermedius, S Scandinavia, Netherlands, Ebro Delta, Spain. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Larus marinus			3606	2015/16-2019/20	1	LC			National red list species	Reference population: North & West Europe.
CHORDATA / AVES	Limosa Iapponica			95489	2015/16-2019/20	63.7	NT				Reference population: lapponica, Northern Europe/Western Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Limosa lapponica taymyrensis			152215	2015/16-2019/20	30.4					Reference population: taymyrensis, Western Siberia/West & South-west Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Limosa limosa			5532	2017/18-2019/20	7	NT			National red list species	Reference population: limosa, Western Europe/NW & West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Melanitta nigra	0000		659	2015/16-2019/20	0.1	LC				Reference population: W Siberia & N Europe/W Europe & NW Africa.
CHORDATA / AVES	Mergellus albellus			22	2015/16-2019/20	0.1	LC				Reference population: North-west & Central Europe (win).
CHORDATA / AVES	Mergus merganser			49	2015/16- 2019/2020	0	LC				Reference population: merganser, North-west & Central Europe (win). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Mergus serrator			238	2015/16-2019/20	0.3	LC			National red list species	Reference population: North-west & Central Europe (win). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Numenius arquata			124711	2015/16-2019/20	16.4	NT			National red list species	Reference population: arquata, Europe/Europe, North & West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.

Phylum	Scientific name	qua ur crit	ecies ilifies ider erion 6 9	C	unc crite	butes ler rion	Pop. Size	Period of pop. Est.	% occurrenc 1)		CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA / AVES	Numenius phaeopus				V		1243	2015/16-2019/20	0.4	LC				Reference population: phaeopus, Northern Europe/West Africa.
CHORDATA/ AVES	Phalacrocorax carbo				Ø		6754	2015/16-2019/20	1.1					Reference population: sinensis, Northern & Central Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Platalea leucorodia				/		4457	2015/16-2019/20	27.9	LC				Reference population: leucorodia, West Europe/West Mediterranean & West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Pluvialis apricaria	V			/		39422	2015/16-2019/20	4.2	LC			National red list species	Reference population: altifrons, Northern Europe/Western Europe & NW Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Pluvialis squatarola				Ø		63361	2015/16-2018/19	31.7	LC				Reference population: squatarola, W Siberia & Canada/W Europe & W Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Podiceps cristatus				V		164	2015/16-2019/20	0	LC				Reference population: cristatus, North-west & Western Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Recurvirostra avosetta						11895	2015/16-2019/20	12.7	LC				Reference population: Western Europe & North-west Africa (bre). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Somateria mollissima				Ø	٥	81011	2015/16-2019/20	8.3	LC				Reference population: mollissima, Baltic, Denmark & Netherlands. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Sterna hirundo	V			V		5618	2015/16-2019/20	0.5	LC			National red list species	Reference population: hirundo, Northern & Eastern Europe (bre). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Sterna paradisaea	V			Ø		2353	2015/16-2019/20	0.1	LC			National red list species	Reference population: Western Eurasia (bre). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Sternula albifrons	V					1057	2015/16-2019/20	4.8	LC			National red list species	Reference population: albifrons, Europe north of Mediterranean (bre). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Tadorna tadorna			V	V		86030	2015/16-2019/20	34.4	LC				Reference population: North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9		op. Period of pop. Est.	% occurrence 1)		CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA / AVES	Thalasseus sandvicensis		11	699 2015/16-2019/20	6.9	LC			National red list species	Reference population: sandvicensis, Western Europe/West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Tringa erythropus		2	152 2015/16-2019/20	2.2	LC				Reference population: N Europe/Southern Europe, North & West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Tringa nebularia		■ ■ ■ 6	546 2015/16-2019/20	2	LC				Reference population: Northern Europe/SW Europe, NW & West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Tringa totanus		34	134 2015/16-2019/20	14.2	LC			National red list species	Reference population: robusta, Iceland & Faroes/Western Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Tringa totanus robusta		19	059 2015/16-2019/20	7.9				National red list species	Reference population: robusta, Iceland & Faroes/Western Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Tringa totanus totanus		35	144 2015/16-2018/19	19.5				National red list species	Reference population: totanus, Northern Europe (breeding). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Vanellus vanellus		23	735 2015/16-2019/20	0.3	LC				Reference population: Europe, W Asia/Europe, N Africa & SW Asia. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.

¹⁾ Percentage of the total biogeographic population at the site

Bird data are provided by SOVON, Dutch Centre for Field Ornithology. The 1% waterbird population thresholds are based on the 7th Edition of the Conservation Status Report (CSR7).

The 1% seal thresholds are based on: Jensen L. F., Teilmann J., Galatius A., Pund R., Czeck R., Jess A., Siebert U., Körber P. & Brasseur S. (2017) Marine mammals. In: Wadden Sea Quality Status Report 2017. Eds.: Kloepper S. et al., Common Wadden Sea Secretariat, Wilhelmshaven, Germany. (qsr.waddensea-worldheritage.org/reports/marine-mammals).

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

0.4 Loological communico W	nose presente rela	too to the international importar	100 OF LITO OILO
Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Mudflats and sandflats not covered by seawater at low tide			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Salicornia and other annuals colonising mud and sand			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Spartina swards (Spartinion maritimae)			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Atlantic salt meadows (Glauco- Puccinellietalia maritimae)			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Embryonic shifting dunes			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Shifting dunes along the shoreline with Ammophila arenaria (white dunes)			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Dunes with hippophae rhamnoides			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Humid dune slacks			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Sandbanks which are slightly covered by sea water all the time			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Fixed coastal dunes with herbaceous vegetation (grey dunes)	Ø	Priority habitat type	The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Dunes with Salix repens ssp. argentea (Salicion arenariae			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Estuaries			The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.

Optional text box to provide further information

The site is also designated as a Special Area of Conservation (SAC) for the habitat types listed above and is part of the Natura 2000 network within the European Union.

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.

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)
Entire river basin
Upper part of river basin
Middle part of river basin
Lower part of river basin
More than one river basin 🗷
Not in river basin

				-
00	-	٠.	1	

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

Mineral 🗹

(Update) Changes at RIS update No change O Increase O Decrease O Unknown O

No available information \Box

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)?

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	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Marine water		No change

Water destination

Presence?	Changes at RIS update
Marine	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

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 Usselmeer, 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

Significant erosion of sediments occurs on the site 🗹

^(Update) Changes at RIS update No change ⊙ Increase ○ Decrease ○ Unknown ○
Significant accretion or deposition of sediments occurs on the site 🗹
^(Update) Changes at RIS update No change ② Increase ○ Decrease ○ Unknown ○
Significant transportation of sediments occurs on or through the site $\ensuremath{m arnothing}$
^(Update) Changes at RIS update No change (1997) Increase (1997) Decrease (1997) Unknown (1997)
Sediment resime unlessure

Please provide further information on sediment (optional):

The bottom of the Wadden Sea is strongly influenced by the tides, causing erosion, transportation, accretion and deposition of sediment.

4.4.6 - Water pH

Alkaline (pH>7.4)

Unknown \square

4.4.7 - Water salinity

Mixohaline (brackish)/Mixosaline (0.5-30 g/l) ☑		
^(Update) Changes at RIS update No change (Increase (Decrease (Unknown ()		
Euhaline/Eusaline (30-40 g/l) ☑		
^(Update) Changes at RIS update No change (Increase (Decrease (Unknown ()		
Unknown		
4.4.8 - Dissolved or suspended nutrients in water		
Establis 🗖		

Eutrophic l	Zi .
(Update) Changes at RIS update N	lo change O Increase O Decrease ⊚ Unknown O
Linknown [٦

Please provide further information on dissolved or suspended nutrients (optional):

The levels of nutrients in coastal waters (nitrogen compounds and phosphates) have decreased in recent decades, but they are still higher than the natural background values. As a result, an increased production of algae is still possible. The balance between the amounts of nitrogen and phosphate is also unlike in a natural situation. Nowadays there is a relative excess of nitrogen. This influences the composition of the algal flora (which consists of hundreds of species). The eutrophication rate in the western part of the Wadden Sea has decreased, while still high nutrient levels can be observed in the eastern part.

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 O ii) significantly different Osite itself: Surrounding area has greater urbanisation or development lacktriangledown

> Surrounding area has higher human population density Surrounding area has more intensive agricultural use $\ensuremath{\checkmark}$

Surrounding area has significantly different land cover or habitat types

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

To violotining Oct vioco			
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	Picnics, outings, touring	Medium
Recreation and tourism	Recreational hunting and fishing	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Low
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Major scientific study site	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High

Other ecosystem service(s) not included above:

a)	within the Ramsar site:
	ommercial fisheries 65 - 95%, Angling 65 - 95%, Sand, clay, shell and gravel extraction, Exploration and extraction of oil or gas, Wind bines, Port areas, Shipping 5 - 35%, Leisure and tourism 35 - 65%, Military training 5 - 35%.
,	in the surroundings/catchment: hipping, fisheries etc.
	or more information on current recreation and tourism, please refer to Section 6.1.2 Additional reports and documents > vi. other published erature.
На	ecosystem services provided by this Ramsar Site?
4.5.	2 - Social and cultural values
aŗ	i) the site provides a model of wetland wise use, demonstrating the oplication of traditional knowledge and methods of management and use that maintain the ecological character of the wetland
civ	ii) the site has exceptional cultural traditions or records of former lilizations that have influenced the ecological character of the wetland
	iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples
	v) relevant non-material values such as sacred sites are present and eir existence is strongly linked with the maintenance of the ecological character of the wetland

4.6 - Ecological processes

<no data available>

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	/	/

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Foundation/non- governmental organization/trust	2	
Other types of private/individual owner(s)	₽	₽

Provide further information on the land tenure / ownership regime (optional):

a) within the Ramsar site:

The site is state owned, some small parts are owned by Staatsbosbeheer, Natuurmonumenten, It Fryske Gea and the Groniger Landschap.

b) in the surrounding area

Surrounding area: the water and mudflats (North Sea north of the Wadden, IJsselmeer) are state owned, part of the saltmarshes are privately owned.

5.1.2 - Management authority

Rijkswaterstaat, see: https://www.rijkswaterstaat.nl/water/waterbeheer/beheer-en-ontwikkeling-rijkswateren/waddenzee

Please list the local office / offices of any agency or organization responsible for managing the site:

D efensie, see: https://www.waddenzee.nl/themas/defensie/schiet-en-oefenterreinen
Staatsbosbeheer, see: https://www.staatsbosbeheer.nl/Over-Staatsbosbeheer/Dossiers/waddenzee
Het Groninger Landschap, see: https://www.groningerlandschap.nl/natuur/waddenkust/

It Fryske Gea, see: https://www.itfryskegea.nl/natuurgebied/noard-fryslan-butendyks/over-dit-gebied/Landschap Noord-Holland, see: https://www.landschapnoordholland.nl/natuurgebieden/wadden Natuurmonumenten, see: https://www.natuurmonumenten.nl/natuurgebieden/de-wadden

Provide the name and/or title of the person or people with responsibility for the wetland:

See websites mentioned above.

- Rijkswaterstaat Noord-Nederland, Zuidersingel 3, 8911 AV Leeuwarden, P.O. Box 2301, 8901 JH, Leeuwarden, tel. +31 (0)58 234 43 44
- Ministry of Defense, P.O. Box 20701, 2500 ES, The Hague, +31 (0)70 318 81 88
- Staatsbosbeheer, head office, P.O. Box 2, 3800 AA Amersfoort, the Netherlands, tel. +31 (0)30-6926111

Postal address:

- Het Groninger Landschap, Rijksstraatweg 333, 9752 CG, Haren, +31 (0)50 313 59 01
- It Fryske Gea, P.O. Box 3, 9244 ZN Beetsterzwaag, tel. +31 (0)512 38 14 48
- Landschap Noord-Holland, P.O. Box 222, 1850 AE Heiloo, tel. +31 (0)88 00 64 400
- Natuurmonumenten, head office: P.O. Box 2166, 3800 CD Amersfoort, the Netherlands, tel. +31 (0)33 47 97 000

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Tourism and recreation areas	Medium impact	Medium impact	✓	No change	✓	No change

Energy production and mining

Energy production and min	Energy production and mining					
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Oil and gas drilling	Medium impact	unknown impact	✓	No change	✓	No change
Mining and quarrying	Medium impact	unknown impact	✓	No change	✓	No change
Renewable energy	Medium impact	High impact	J.	No change	J	No change

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Shipping lanes	Medium impact	Medium impact	 ✓	No change	✓	No change

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fishing and harvesting aquatic resources	Medium impact	Medium impact	/	No change		No change
Human intrusions and dis	turbance					
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
(Para)military activities	Medium impact	Medium impact	✓	No change	√	No change
Pollution Factors adversely	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
affecting site	Actual till eat	r otelitiai tili eat	Within the site	Changes	in the surrounding area	Changes
Agricultural and forestry effluents	Medium impact	Medium impact	✓	No change	✓	No change
Climate change and sever	Climate change and severe weather					
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Habitat shifting and alteration	Low impact	High impact	2	No change	2	No change

5.2.2 - Legal conservation status

Global legal designations

Global legal designations			
Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Wadden Sea	https://en.wikivoyage.org/wiki/U NESCO_World_Network_of_Biosphere _Reserves#Europe	whole
World Heritage site	Wadden Sea	https://www.waddensea-worldherit age.org/	whole

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Waddenzee	https://www.natura2000.nl/gebied en/friesland/waddenzee	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Ecological Network (NEN)	Waddenzee	https://www.government.nl/topics /nature-and-biodiversity/nationa l- ecological-network-nen	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Waddenzee	http://datazone.birdlife.org/sit e/factsheet/1179	whole
Other non-statutory designation	KBA Wadden Sea	http://www.keybiodiversityareas. org/site/factsheet/1179	whole

5.2.3 - IUCN protected areas categories (2008)

la Strict Nature Reserve
lb Wilderness Area: protected area managed mainly for wilderness protection
II National Park: protected area managed mainly for ecosystem protection and recreation
III Natural Monument: protected area managed mainly for conservation of specific natural features
IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

9 F		
	Measures	Status
	Legal protection	Implemented

Habitat

Measures	Status
Habitat manipulation/enhancement	Implemented

Species

Measures		Status
	Threatened/rare species management programmes	Implemented

Human Activities

Measures	Status
Fisheries management/regulation	Implemented
Regulation/management of recreational activities	Implemented
Communication, education, and participation and awareness activities	Implemented
Research	Implemented
Regulation/management of wastes	Implemented
Harvest controls/poaching enforcement	Implemented

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 Yes O No

processes with another Contracting Party?

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

Several visitor centres exist at the Wadden Sea islands (like Ecomare at the island of Texel: https://www.ecomare.nl/) which inform the public about the values of the Wadden Sea.

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? Yes, there is a plan

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water quality	Implemented
Birds	Implemented
Plant species	Implemented
Animal community	Implemented
Soil quality	Implemented
Water regime monitoring	Implemented
Plant community	Implemented
Animal species (please specify)	Implemented

Ongoing monitoring of biodiversity and threats 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 site equals the Natura 2000-boundaries. For up-to-date information and references about the site see https://www.natura2000.nl/gebieden/friesland/waddenzee.

See also https://www.waddensea-worldheritage.org/nl.

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

<1 file(s) uploaded>

vi. other published literature

<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



- (Joop Schaminée, -)

6.1.4 - Designation letter and related data

Designation letter

<3 file(s) uploaded>

Transboundary Designation letter

<1 file(s) uploaded>

Date of Designation 1984-05-02