



# Ramsar Information Sheet

Published on 1 November 2022

Update version, previously published on : 15 December 2014

## Netherlands

### Voordelta



Designation date	29 August 2000
Site number	1279
Coordinates	51°44'37"N 03°39'55"E
Area	92 271,00 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 Ramsar site Voordelta (92,271 ha) comprises the shallow sea part of the Zeeland and South Holland Delta. The area is characterized by the presence of a varied and dynamic environment of coastal waters (salt), intertidal area and beaches, which forms a relatively sheltered transition zone between the (former) estuaries and the sea. After the closure of the Delta Works, this coastal section has been subject to major changes, resulting in the creation of an extensive system of tidal and deeper sandbanks with deeper channels in between. Erosion and sedimentation processes cause shifts in the size of the intertidal areas. The 'sand hunger' of the Oosterschelde, but also the expansion of the areas due to siltation in the Kwade Hoek, has an effect on the Voordelta (Westplaat). The water quality is influenced in particular by the outflow of the Rhine and Meuse rivers via the Haringvliet locks. Partly due to this supply of nutrients, the Voordelta has a high nutrient richness. In the edges of the area near Voorne and Goeree there are a number of salt marshes and more silty flats. The beaches of the Zeeland and South Holland islands, where local dune formation occurs, are also part of the area. The site is particularly important as a resting area for seals, a nursery area for fish and as a foraging and resting area for several species of water birds.

## 2 - Data & location

### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

##### Responsible compiler

Institution/agency	Wageningen Environmental Research
Postal address	PO Box 47 6700 AA Wageningen The Netherlands

##### National Ramsar Administrative 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 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)	Voordelta
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#### 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 type="radio"/> No <input checked="" type="radio"/>
(Update) B. Changes to Site area	No change to area
(Update) For secretariat only: This update is an extension	<input 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?	No
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## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

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

Former maps	0
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##### Boundaries description

The boundary of the Ramsar site is equal to the Natura 2000-site with the same name.
The Ramsar Site boundary has been aligned with the Natura 2000 site, resulting in an increase of 10,026 ha in its area.

### 2.2.2 - General location

a) In which large administrative region does the site lie?	Zeeland and Zuid-Holland
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b) What is the nearest town or population centre?	Several villages and cities among which Rotterdam with a population of 651.631 in 2021 (Source: CBS, Netherlands Statistics).
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### 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

### 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

#### Other biogeographic regionalisation scheme

The bio-geographic regions dataset used, contains the official delineations used in the Habitats Directive (92/43/EEC) and for the EMERALD Network set up under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)

### 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

Other reasons

With over 90.000 ha of shallow sandbanks, mudflats, salt meadows and embryonic shifting dunes the site resembles one of the largest sites of its kind within the Atlantic biogeographic region.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The Voordelta 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 Habitats Directive, see section 3.4) and SPA for a number of bird species that are not on Annex I of the Birds Directive.

see also: <https://natura2000.eea.europa.eu/>

The benthic biomass is almost twice as high compared to similar sized areas in the North Sea, due to the supply of nutrients by rivers and the favourable light conditions in the shallow water. There are over least 100 species that spend at least part of their lives at the bottom among which larvae of worms, fish and crustaceans. The high abundance of food attracts seals, fish and birds that depend on it.

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

Optional text box to provide further information

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 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).

- Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

31,732

Start year

2015

End year

2020

Source of data:

Sovon, Dutch Centre for Field Ornithology

Optional text box to provide further information

Start season 2015/2016. End season 2019/2020. Peak numbers for all five seasons > 20,000. Average 31,732 individuals.

- Criterion 6 : >1% waterbird population

Optional text box to provide further information

The 1% waterbird population thresholds are based on the 7th Edition of the Conservation Status Report (CSR7).

Criterion 8 : Fish spawning grounds, etc.

Justification

The Dutch coastal zone, among which the Voordelta, is the richest fish species part of the North Sea. The high food abundance and low predatory pressure from large fish makes the coastal zone an important spawning and nursery site. The number of juvenile species like Flounder, Sole, Plaice, Dab, Brill, Turbot, Cod, Whiting and Pouting are very high. The site is very important for migratory fish species due to its position at the mouth of the large rivers. The site has among others been designated as a SAC for the conservation of following fish species: Sea lamprey *Petromyzon marinus*, River lamprey *Lampetra fluviatilis*, Allis shad *Alosa alosa* and Twaite shad *Alosa fallax* (see criterion 2).

### 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	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
<b>Others</b>																	
CHORDATA / MAMMALIA	<i>Halichoerus grypus</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	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	<i>Phoca vitulina</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	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	<i>Phocoena phocoena</i>	<input checked="" type="checkbox"/>	<input checked="" 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"/>	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.
<b>Fish, Mollusc and Crustacea</b>																	
CHORDATA / ACTINOPTERYGII	<i>Alosa alosa</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		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 / ACTINOPTERYGII	<i>Alosa fallax</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Lampetra fluviatilis</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		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	<i>Petromyzon marinus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		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.
<b>Birds</b>																	
CHORDATA / AVES	<i>Anas acuta</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1327	2015/16-2019/20	2.2	LC	<input type="checkbox"/>	<input type="checkbox"/>	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.

Phylum	Scientific name	Species qualifies under criterion			Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7								
CHORDATA/AVES	<i>Anas clypeata</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	353	2015/16-2019/20	0.5	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Anas crecca</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1500	2015/16-2019/20	0.3	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Anas penelope</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1290	2015/16-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Anas platyrhynchos</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3666	2015/16-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: platyrhynchos, North-west Europe. foraging, resting
CHORDATA/AVES	<i>Anas strepera</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	361	2015/16-2019/20	0.3	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Anser anser</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	782	2015/16-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Arenaria interpres</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	267	2015/16-2019/20	0.2	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Aythya ferina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	497	2015/16-2019/20	0.2	VU	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: North-east Europe/North-west Europe. foraging, resting
CHORDATA/AVES	<i>Aythya fuligula</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	541	2015/16-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: North-west Europe (win). foraging, resting
CHORDATA/AVES	<i>Aythya marila</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19	2015/16-2019/20	0	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Branta bernicla</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	253	2015/16-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: bernicla, Western Siberia/Western Europe. foraging, resting
CHORDATA/AVES	<i>Bucephala clangula</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	416	2015/16-2019/20	0	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Calidris alba</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4549	2015/16-2019/20	2.3	LC	<input type="checkbox"/>	<input type="checkbox"/>	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.

Phylum	Scientific name	Species qualifies under criterion			Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7								
CHORDATA/AVES	<i>Calidris alpina</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7721	2015/16-2019/20	0.6	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Calidris canutus islandica</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	734	2015/16-2019/20	0.1		<input type="checkbox"/>	<input type="checkbox"/>	Reference population: islandica, NE Canada & Greenland/Western Europe. foraging, resting
CHORDATA/AVES	<i>Charadrius hiaticula</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	480	2015/16-2019/20	0.2	LC	<input type="checkbox"/>	<input type="checkbox"/>	National red list species Reference population: psammodomus, Canada, Greenland & Iceland/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	<i>Charadrius hiaticula hiaticula</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	220	2015/16-2019/20	0.4		<input type="checkbox"/>	<input type="checkbox"/>	National red list species Reference population: hiaticula, Northern Europe/Europe & North Africa
CHORDATA/AVES	<i>Gavia stellata</i>	<input type="checkbox"/>	<input checked="" 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"/>	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	<i>Haematopus ostralegus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7318	2015/16-2019/20	0.9	NT	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Limosa lapponica</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	995	2015/16-2019/20	0.2	NT	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Limosa lapponica lapponica</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	508	2015/16-2019/20	0.3		<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Melanitta nigra</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	86	2015/16-2019/20	0	LC	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: W Siberia & N Europe/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	<i>Mergellus albellus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33	2015/16-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: North-west & Central Europe (win). foraging, resting
CHORDATA/AVES	<i>Mergus serrator</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	645	2015/16-2019/20	0.8	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Numenius arquata</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4786	2015/16-2019/20	0.6	NT	<input type="checkbox"/>	<input type="checkbox"/>	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.
CHORDATA/AVES	<i>Phalacrocorax carbo</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1877	2015/16-2019/20	0.3	LC	<input type="checkbox"/>	<input type="checkbox"/>	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.



Phylum	Scientific name	Species qualifies under criterion			Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7								
CHORDATA/AVES	<i>Platalea leucorodia</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	260	2015/16-2019/20	1.6	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Pluvialis apricaria</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	567	2017/18-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	National red list species Reference population: altifrons, Northern Europe/Western Europe & NW Africa. foraging, resting
CHORDATA/AVES	<i>Pluvialis squatarola</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1412	2015/16-2019/20	0.7	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Podiceps auritus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	46	2015/16-2019/20	0.2	VU	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: auritus, North-east Europe (small-billed). 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	<i>Podiceps cristatus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	240	2015/16-2019/20	0	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Recurvirostra avosetta</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	547	2015/16-2019/20	0.6	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Somateria mollissima</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	309	2015/16-2019/20	0	NT	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Tadorna tadorna</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4112	2015/16-2019/20	1.6	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Tringa totanus robusta</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	520	8	0.2		<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Tringa totanus totanus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	738	2015/16-2019/20	0.4		<input type="checkbox"/>	<input type="checkbox"/>	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.

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).

### 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
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (	<input checked="" type="checkbox"/>		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	<input checked="" type="checkbox"/>		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 ( <i>Glauco-Puccinellietalia maritimae</i> )	<input checked="" type="checkbox"/>		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 ( <i>Spartinion maritimae</i> )	<input checked="" type="checkbox"/>		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.
Mudflats and sandflats not covered by seawater at low tide	<input checked="" type="checkbox"/>		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.
Salicornia and other annuals colonizing mud and sand	<input checked="" type="checkbox"/>		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	<input checked="" type="checkbox"/>		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

The site is especially important for water birds. Due to the shallow coastal waters (approx. 96% of the area) the area is of importance to grebes, divers and sea-ducks. During heavy frost the Voordelta functions as refuge area for water birds coming from inland waters. The Westplaat is a 350 ha mudflat and salt marsh. This area is important for wader species during the migration periods.

### 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		Representative
E: Sand, shingle or pebble shores		3		Representative
G: Intertidal mud, sand or salt flats		2		Representative

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Embryonic dunes	

### 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)

The climate according to Köppen is rainy (Cfb).

#### 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
- Coastal

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 Voordelta is situated in the delta of the rivers Schelde, Meuse and Rhine.

#### 4.4.3 - Soil

Mineral

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

Organic

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

No available information

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)

The general soil types are: Alluvial, Brown forest soils and montane

#### 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
Water inputs from surface water	<input type="checkbox"/>	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:

After closure of the Delta by dams and a storm surge barrier this coastal area has changed dramatically. An extensive system of sandbanks and trenches appeared. Now, the Voordelta encompasses the shallow waters at the seaside of the Zeeuwse and Zuid-Hollandse Delta. The area is characterised by the presence of a varied and dynamic environment of coastal waters (marine), tidal systems and beaches. It functions as a transitional zone between the (former) estuary and the open sea.

#### 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  Increase  Decrease  Unknown

Sediment regime unknown

Please provide further information on sediment (optional):

The intertidal system changes due to erosion and sedimentation processes.

#### 4.4.6 - Water pH

Unknown

Please provide further information on pH (optional):

Probably no change although the pH of the water was not exactly known at the time of completing this database.

#### 4.4.7 - Water salinity

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

Eutrophic

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

Unknown

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

The water quality is mainly influenced by the eutroficated waters of the Rhine and Meuse which enter the area via the Haringvliet sluices. The 20th of depth line constitutes the border of the Voordelta at sea.

#### 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:

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

### 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

##### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	Medium

##### Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	Medium
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Major scientific study site	High
Scientific and educational	Educational activities and opportunities	Medium

##### Supporting Services

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

##### Optional text box to provide further information

Main ecosystem services of the Voordelta:  
 - the sandbanks in the Voordelta function as barriers against rough sea.  
 - the area has an important function for water recreation in the region.

##### Other ecosystem service(s) not included above:

Angling 75%, Boating 20%, Commercial fisheries 96%, Conservation and research 100%.

Most of the topics studied at in the Wadden Sea (ecology of seals, birds (numbers, distribution, foraging, breeding), fish, invertebrates, sediment) are also studied and monitored in the Delta by Rijkswaterstaat Directie Noordzee, the Institute for Coast and Sea (RIKZ, Middelburg, [www.rikz.nl](http://www.rikz.nl)) the Center for Marine and Estuarine Ecology (NIOO/CEMO, [www.nioo.nl](http://www.nioo.nl)) and IMARES (part of the Wageningen University and Research Centre; [www.imares.wur.nl](http://www.imares.wur.nl)) in Yerseke.

Besides that, ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura 2000-habitat types and species.

Excursions, hikes, information booklet.

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

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

ii) the site has exceptional cultural traditions or records of former civilizations 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

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

<no data available>

#### 4.6 - Ecological processes

<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
Local authority, municipality, (sub)district, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
National/Federal government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

##### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

within the Ramsar site:

The marine part of the site is state owned.

The land (i.e. Westplaat) included in the site is largely owned by the Zuidhollands Landschap (350 ha), Natuurmonumenten (59 ha) and Staatsbosbeheer (6 ha).

in the surrounding area:

The water (North Sea) is state owned, on land several private owners.

#### 5.1.2 - Management authority

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

Main management authorities:

1. Rijkswaterstaat Zee en Delta, see: <https://www.rijkswaterstaat.nl/over-ons/onze-organisatie/organisatiestructuur/zee-en-delta/locatie-r-ijswijk>
2. Natuurmonumenten, see: <https://www.natuurmonumenten.nl/natuurgebieden/duinen-van-goeree>
3. Zuid-Hollands Landschap, see: <https://www.zuidhollandslandschap.nl/contact>

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

See websites mentioned above.

Postal address:

1. Rijkswaterstaat Zee en Delta, PO Box 5807, 2280 HV Rijswijk, the Netherlands, +31 70 3366600.
2. Natuurmonumenten head office, P.O. Box 2166, 3800 CD Amersfoort, the Netherlands, tel. +31 (0)33 47 97 000
3. Zuid-Hollands Landschap, Olof Palmestraat 18, 2616 LR Delft, tel. +31 (0)10 272 22 22

E-mail address:

[info@zhl.nl](mailto:info@zhl.nl)

## 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
Commercial and industrial areas	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Tourism and recreation areas	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Water regulation

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

#### Energy production and mining

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

#### Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Aircraft flight paths	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Shipping lanes	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Biological resource use

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	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Human intrusions and disturbance

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

Natural system modifications

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

Pollution

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

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Voordelta	<a href="https://www.natura2000.nl/gebieden/zeeland/voordelta">https://www.natura2000.nl/gebieden/zeeland/voordelta</a>	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Ecological Network (NEN)	Voordelta	<a href="https://www.government.nl/topics/nature-and-biodiversity/national-ecological-network-nen">https://www.government.nl/topics/nature-and-biodiversity/national-ecological-network-nen</a>	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Delta Coast	<a href="http://datazone.birdlife.org/site/factsheet/1198">http://datazone.birdlife.org/site/factsheet/1198</a>	whole
Other non-statutory designation	KBA Voordelta	<a href="http://www.keybiodiversityareas.org/site/factsheet/1198">http://www.keybiodiversityareas.org/site/factsheet/1198</a>	whole

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib 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

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
Communication, education, and participation and awareness activities	Implemented
Research	Implemented
Regulation/management of recreational activities	Implemented
Fisheries management/regulation	Implemented

Other:

The loss of natural values as a result of the construction of the Tweede Maasvlakte will be compensated for. These compensation measures are an integral part of the construction works.

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:

Excursions, hikes, information booklet.

URL of site-related webpage (if relevant): <https://www.natura2000.nl/gebieden/zeeland/voordelta>

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
Birds	Implemented
Animal community	Implemented
Soil quality	Implemented
Animal species (please specify)	Implemented

Most of the topics studied at in the Wadden Sea (ecology of seals, birds (numbers, distribution, foraging, breeding), fish, invertebrates, sediment) are also studied and monitored in the Delta by Rijkswaterstaat Directie Noordzee, the Institute for Coast and Sea (RIKZ, Middelburg, www.rikz.nl) the Center for Marine and Estuarine Ecology (NIOO/CEMO, www.nioo.nl) and IMARES (part of the Wageningen University and Research Centre; www.imares.wur.nl) in Yerseke. Besides that, ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura 2000-habitat types and species.

## 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/zeeland/voordelta>.

#### 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:



Voordelta ( Hans Dekkers,  
- )

#### 6.1.4 - Designation letter and related data

Designation letter  
<2 file(s) uploaded>

Date of Designation 2000-08-29