



Ramsar Information Sheet

Published on 1 November 2022

Update version, previously published on : 10 January 2017

Netherlands

Zwanenwater en Pettemerduinen



Designation date	15 June 1988
Site number	400
Coordinates	52°48'25"N 04°41'14"E
Area	770,00 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 Zwanenwater en Pettemerduinen (770 ha) was created after closure of the Zijpe inlet around 1600, which allowed for the formation of dunes. Nowadays the site is a vast dune area between Callantsoog in the north and Petten in the south. The Zwanenwater in the north is an almost intact landscape of predominantly calcareous dunes with moist and swampy valleys. In the center are two extensive dune lakes. Both lakes are surrounded by a wide strip of wetland. Peat formation occurs in some of the moist dune valleys and locally on the banks of the lakes. Behind the foredunes in the southern part (the Pettemerduinen) there are well-developed dry dunes and dune valleys, such as the Korfwateren. The site is characterised by a great diversity of habitat types which is due to the large variation in abiotic circumstances, ranging from dry to very moist and from calcareous to acid circumstances.

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	<input type="text" value="2015"/>
To year	<input type="text" value="2020"/>

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Zwanenwater en Pettemerduinen
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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	<input type="text" value="0"/>
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Boundaries description

The boundary of the Ramsar site is equal to the Natura 2000-site with the same name. In 2013 the boundary of the Ramsar Site has been adjusted to the Natura 2000 site.
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2.2.2 - General location

a) In which large administrative region does the site lie?	Province of Noord-Holland
b) What is the nearest town or population centre?	ca. 10 km north-west of Alkmaar with a population of 109.896 in 2021 (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 countries?	Yes <input type="radio"/> No <input checked="" type="radio"/>
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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

The Dutch coastal dunes system stretching from the north-eastern border with Germany and the south-western border with Belgium is actually one big nature reserve. Within the Netherlands but also within the Atlantic biogeographic region it may be regarded as one of the most biodiverse ecosystems. The Zwanenwater en Pettemerduinen is a relatively small dune reserve. The site has never been used for the extraction of drinking water however, resulting in very well developed humid dune slacks. The site represents a unique dune-system containing a large variety of species and (priority) habitat types of European importance.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The Zwanenwater en Pettemerduinen is designated as a Natura 2000 site (both SAC and SPA) and can therefore be considered important for maintaining the biodiversity of the Atlantic biogeographic region. Besides the species mentioned under criterion 2, the site has also been designated as a SAC for a range of habitat types (Annex I of HD, 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 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 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).

For detailed information see:
<https://www.natura2000.nl/gebieden/noord-holland/zwanenwater-pettemerduinen>
<https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=NL9910002>

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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA/ LILIOPSIDA	<i>Dactylorhiza incarnata</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National red list species	
TRACHEOPHYTA/ LILIOPSIDA	<i>Epipactis palustris</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	National red list species	
TRACHEOPHYTA/ LILIOPSIDA	<i>Liparis loeselii</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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.
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Oenanthe lachenalii</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National red list species	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Parnassia palustris</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	National red list species	
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Pedicularis palustris</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	National red list species	

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								
Fish, Mollusc and Crustacea																
MOLLUSCA/ GASTROPODA	<i>Myosotella myosotis</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	National red list species	
Birds																
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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	405	2015/16-2019/20	0.6		<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>Anser erythropus</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"/>	35	2015/16-2019/20	0.1	VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Reference population: albifrons, NW 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	<i>Aythya ferina</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	304	2015/16-2019/20	0.2	VU	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: North-east Europe/North-west Europe.
CHORDATA/ AVES	<i>Botaurus stellaris</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"/>	5	2015/16-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	National red list species Reference population: stellaris, W Europe, NW 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>Larus fuscus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	59	2015/16-2018/19	0	LC	<input type="checkbox"/>	<input type="checkbox"/>	Reference population: intermedius, S Scandinavia, Netherlands, Ebro Delta, Spain. Breeding
CHORDATA/ AVES	<i>Oenanthe oenanthe</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 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2368	2015/16-2019/20	0.4	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.
CHORDATA/ AVES	<i>Platalea leucorodia</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"/>	10	2015/16-2019/20	0.1	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.

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> (white dunes)	<input checked="" type="checkbox"/>	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.

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Wooded dunes of the Atlantic region	<input 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.
Humid dune slacks	<input 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.
Decalcified fixed dunes with <i>Empetrum nigrum</i>	<input checked="" type="checkbox"/>	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 <i>Salix repens</i> spp. <i>Argentea</i> (<i>Salicion arenariae</i>)	<input 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.
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	<input 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.
Dunes with <i>Hippophae rhamnoides</i>	<input 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 decalcified fixed dunes (<i>Calluno-Ulicetea</i>)	<input checked="" type="checkbox"/>	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.
Embryonic shifting dunes	<input 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.
Fixed coastal dunes with herbaceous vegetation (grey dunes)	<input checked="" type="checkbox"/>	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.
Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>	<input checked="" type="checkbox"/>	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.
Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas	<input checked="" type="checkbox"/>	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.

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

Zwanenwater en Pettemerduinen is a dune area south from the town of Callantsoog. It is a nearly undisturbed landscape of mostly dune land with a lime deficiency with moist and marshy dune slacks. In the centre of the area are two connected fresh water dune lakes, which are among the largest of its kind in Europe. Both lakes are surrounded by marshland. Humid dune slacks exist locally as well as bogs at the lake shores. Here are characteristic fresh water vegetations which are rare in this part of the Netherlands.

The large variation in abiotic circumstances, ranging from dry to very moist and from calcareous to acid allows for the development of a diverse vegetation pattern with several rare species.. Empetrum nigrum heath land for instance occurs in the decalcified fixed dunes.

Apart from the vegetations, the Zwanenwater en Pettemerduinen is also an important breeding area for birds of (reed)marshes and open dunes and is of importance for non-breeding birds as well.

The site is an integral part of the North Sea dunes which protect the Netherlands against the North Sea. The site is partly open to public and non-members of management organisation Natuurmonumenten need to pay for an entrance fee. There are two hides for bird watching and it is possible to attend excursions.

Physical features :

The Zwanenwater en Pettemerduinen evolved after the Zijpe, a former creek, was closed off in 1597. As a result of this closure sand dunes were formed, first to the east of the existing beach barrier (Hondsbosche Zeewering), later also to the west. Between the two dune ridges a dune valley was formed. The result is a complex of secondary valleys and parabola dunes which overlap and transect each other many times.

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
E: Sand, shingle or pebble shores		1		Representative

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		2		Representative

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Coastal dunes	693.3

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 (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
- 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 catchment area of the Zwanenwater en Pettemerduinen is the surrounding dune area. Geologically and geomorphologically it consists of Quaternary sediments.

4.4.3 - Soil

Mineral

(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 soil type is Alluvial.

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 groundwater	<input type="checkbox"/>	No change
Water inputs from precipitation	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
Feeds groundwater	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:

The freshwater supply has a convex water table, which makes that the water is above ground water level in the lowest parts resulting in the two dune lakes. These lakes are approximately 1,5 m. deep.

The water level within the area is more or less natural, high in winter, low in summer. In order to stop drainage to the adjacent agricultural area a 1,4 km long dam of foil was constructed at the eastern border of the site in 1996.

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 coast is prone to erosion, which makes that so-called sand suppletion is regularly needed. The site also has habitats with shifting dunes. Apart from that, probably no significant erosion, accretion, deposition or transportation of sediments occurs on the site, although specific data were not available at the time of completing this database.

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

Fresh (<0.5 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 is oligohaline, eutrophic and rich in organic matter.

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 site itself: i) broadly similar ii) significantly different

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

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	Medium
Scientific and educational	Long-term monitoring site	High

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

The site is an integral part of the North Sea dunes which protect the Netherlands against the North Sea. The site is partly open to public and non-members of management organisation Natuurmonumenten need to pay for an entrance fee. There are two hides for bird watching and it is possible to attend excursions.

Other ecosystem service(s) not included above:

Within the Ramsar site:
 Paths, tracks, cycling tracks, walking, horse-riding and non-motorised vehicles, military training, Removal of sediments, Water management >95%, Dams, reservoirs & hydro-electric activities.

In the surroundings/catchment:
 intensive farming.

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
National/Federal government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Private ownership

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

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

Within the Ramsar site:

The site is owned by Natuurmonumenten and to a lesser extent by Staatsbosbeheer.

In the surrounding area:

The North Sea and beach 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:

- Natuurmonumenten, see <https://www.natuurmonumenten.nl/natuurgebieden/zwanenwater>
- Staatsbosbeheer, see <https://www.staatsbosbeheer.nl/Natuurgebieden/pettemerduinen>

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

See <https://www.natuurmonumenten.nl/natuurgebieden/zwanenwater> and <https://www.staatsbosbeheer.nl/Natuurgebieden/pettemerduinen>

Postal address:

Head office: Natuurmonumenten, P.O. Box 2166, 3800 CD Amersfoort, the Netherlands, tel. +31 (0)33 47 97 000
Head office: Staatsbosbeheer, P.O. Box 2, 3800 AA Amersfoort, the Netherlands, tel. +31 (0)30-6926111

E-mail address:

info@staatsbosbeheer.nl

5.2 - Ecological character threats and responses (Management)

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

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Water abstraction	Medium impact	Medium impact	<input 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
(Para)military activities	Low impact		<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Recreational and tourism activities	Low 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
Air-borne pollutants	High impact	High 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	Zwanenwater & Pettemerduinen	https://www.natura2000.nl/gebieden/noord-holland/zwanenwater-pettemerduinen	whole

National legal designations

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

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Zwanenwater & Pettemerduinen	http://datazone.birdlife.org/site/factsheet/1197	whole
Important Plant Area	Zwanenwater & Pettemerduinen	https://atlas.natuurlijkkapitaal.nl/important-plant-areas	whole
Other non-statutory designation	KBA Zwanenwater & Pettemerduinen	http://www.keybiodiversityareas.org/site/factsheet/1197	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
Hydrology management/restoration	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented

Human Activities

Measures	Status
Management of water abstraction/takes	Implemented
Regulation/management of recreational activities	Implemented
Communication, education, and participation and awareness activities	Implemented
Research	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 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, bird hide.

URL of site-related webpage (if relevant): <https://www.natuurmonumenten.nl/natuurgebieden/zwanenwater>

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

Ongoing biodiversity monitoring is one of the obligatory activities in relation to the (proposed) designation of Natura2000 habitat types and/or species. SOVON, the Dutch Bird Research Organisation, coordinates for instance a continues national bird monitoring program in which it cooperates with 7000 volunteers, research institutes and organisations in the monitoring of birds throughout the Netherlands (among others the Zwanenwater en Pettemerduinen).

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

The site equals the Natura 2000-boundaries. Voor up-to-date information and references about the site see <https://www.natura2000.nl/gebieden/noord-holland/zwanenwater-pettemerduinen>.

6.1.2 - Additional reports and documents

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

<no file available>

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

<no file available>

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

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



-(John Janssen, -)

6.1.4 - Designation letter and related data

Designation letter

<2 file(s) uploaded>

Date of Designation 1988-06-15