



# Ramsar Information Sheet

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Update version, previously published on : 10 January 2017

## Netherlands

### Markermeer & IJmeer



Designation date	29 August 2000
Site number	1245
Coordinates	52°27'57"N 05°09'42"E
Area	68 463,40 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 Markermeer & IJmeer (68,463 ha) was created in 1976 as a result of the completion of the Houtribdijk (dike) between the cities of Enkhuizen and Lelystad. In sheltered and shallower parts, such as the Gouwzee and the coastal zone of Muiden, overgrowths with benthic vegetation of *Chara* spp have developed. In summer and autumn these provide an important food source for herbivorous water bird species like the Red-crested Pochard.

The site is important for mussel-eating, fish-eating and aquatic herbivorous water birds. Conditions for the species in the first two categories however deteriorated since the 1990s due to a decline in Zebra Mussels and a decline in Smelt. The first process is linked to a decrease in nutrients after the construction of the Houtribdijk in combination with the high silt content, the second process may be related to climate change.

In order to halt biodiversity loss, one of the largest 'building with nature' projects in western Europe was started in spring 2016. Islands, marshes and mud flats will be constructed over the years, from the sediments that have accumulated in the lake. Eventually it will result in a 100 square kilometers archipelago named 'Marker Wadden', which will form a unique ecosystem that will boost biodiversity and nature recreation values in the Netherlands.

## 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)	Markermeer & IJmeer
Unofficial name (optional)	Originally designated as two separate Ramsar Sites

#### 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?	Yes (actual)
(Update) Are the changes	Positive <input checked="" type="radio"/> Negative <input type="radio"/> Positive & Negative <input type="radio"/>
(Update) No information available	<input checked="" type="checkbox"/>

(Update) Optional text box to provide further information

A remarkable project concerns the development of the 10.000 ha archipelago of the Marker Wadden at the Markermeer & IJmeer Ramsar site, one of the largest nature restoration projects in Western Europe. The first created islands already gave a boost to the biodiversity of the site, especially for birds. (<https://www.natuurmonumenten.nl/projecten/marker-wadden/natuurherstel>).

(Update) Changes resulting from causes operating within the existing boundaries?	<input checked="" type="checkbox"/>
(Update) Changes resulting from causes operating beyond the site's boundaries?	<input type="checkbox"/>
(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?	<input type="checkbox"/>
(Update) Changes consequent upon site boundary increase alone (e.g., the inclusion of different wetland types in the site)?	<input type="checkbox"/>

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

The changes to the ecological character are being monitored. The project is still ongoing for coming years. Short-term results are positive.

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

### 2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps

Boundaries description

The boundary of the Ramsar site is equal to the Natura 2000-site with the same name. The two separate Ramsar Sites IJmeer and Markermeer (former Site no. 1249) were merged into a single Site and aligned with the Natura 2000 boundary, increasing the area by 131 ha .

### 2.2.2 - General location

a) In which large administrative region does the site lie?

b) What is the nearest town or population centre?

### 2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes  No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes  No

### 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

<no data available>

Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

Justification

The Markermeer & IJmeer 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 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 please see Natura 2000 data sheet:  
<https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=NL9803029>  
<https://www.natur.a2000.nl/gebieden/flevoland/markermeer-ijmeer>

Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

121,879

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 121,879 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 site has an important function as a spawning, nursery and feeding ground for a range of fish species and it has among others been designated as a SAC for the conservation of Bullhead *Cottus gobio*

#### 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
<b>Plantae</b>								
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Oenanthe lachenalii</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<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	8								
<b>Others</b>																	
CHORDATA/ MAMMALIA	<i>Myotis dasycneme</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"/>				NT	<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>Fish, Mollusc and Crustacea</b>																	
CHORDATA/ ACTINOPTERYGII	<i>Cobitis taenia</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>Cottus gobio</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.
MOLLUSCA/ GASTROPODA	<i>Lithoglyphus naticoides</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"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National red list species	
MOLLUSCA/ BIVALVIA	<i>Pisidium amnicum</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	
MOLLUSCA/ BIVALVIA	<i>Pisidium hibernicum</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	
MOLLUSCA/ GASTROPODA	<i>Theodoxus fluviatilis</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"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National red list species	
<b>Birds</b>																	
CHORDATA/ AVES	<i>Anas acuta</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"/>	184	2015/16-2019/20	0.3	LC	<input type="checkbox"/>	<input type="checkbox"/>	National red list species	Reference population: North-west Europe. foraging, resting
CHORDATA/ AVES	<i>Anas clypeata</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 type="checkbox"/>	<input type="checkbox"/>	1108	2015/16-2019/20	1.7		<input type="checkbox"/>	<input type="checkbox"/>	National red list species	Reference population: North-west & Central Europe (win). Data by SOVON, Centre for Field Ornithology. Data for five seasons are available, three of which qualify for the 1% criterium.
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"/>	1910	2015/16-2019/20	0.4	LC	<input type="checkbox"/>	<input type="checkbox"/>	National red list species	Reference population: crecca, North-west Europe. foraging, resting
CHORDATA/ AVES	<i>Anas penelope</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 type="checkbox"/>	<input type="checkbox"/>	41570	2015/16-2019/20	3		<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 strepera</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"/>	1537	2015/16-2019/20	1.3		<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 albifrons</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2044	2015/16-2019/20	0.2	LC	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: albifrons, NW Siberia & NE Europe/North-west Europe. foraging, resting

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								
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"/>	4569	2015/16-2019/20	0.5	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>Ardea alba</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	57	2015/16-2019/20	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>	National red list species	Reference population: alba, W, C & SE Europe/Black Sea & Mediterranean. foraging, resting
CHORDATA/ AVES	<i>Aythya ferina</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 type="checkbox"/>	<input type="checkbox"/>	28951	2015/16-2019/20	14.5	VU	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: North-east 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 fuligula</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"/>	33058	2015/16-2019/20	3.7	LC	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: North-west 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>Aythya marila</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"/>	9672	2015/16-2019/20	3.1	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 leucopsis</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"/>	8823	2015/16-2019/20	0.7	LC	<input type="checkbox"/>	<input type="checkbox"/>		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	<i>Bucephala clangula</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"/>	125	2015/16-2019/20	0	LC	<input type="checkbox"/>	<input type="checkbox"/>		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>Chlidonias niger</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6100	2015/16-2019/20	1.5	LC	<input type="checkbox"/>	<input type="checkbox"/>		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	<i>Chroicocephalus ridibundus</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"/>	7348	2015/16-2019/20	0.2		<input type="checkbox"/>	<input type="checkbox"/>		Reference population: W Europe/W Europe, W Mediterranean, West Africa. foraging, resting
CHORDATA/ AVES	<i>Cygnus columbianus bewickii</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"/>	102	2015/16-2019/20	0.5		<input type="checkbox"/>	<input type="checkbox"/>		Reference population: bewickii, Western Siberia & NE Europe/North-west Europe. foraging, resting
CHORDATA/ AVES	<i>Cygnus olor</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"/>	1692	2015/16-2019/20	0.8	LC	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: North-west Mainland & Central Europe. foraging, resting
CHORDATA/ AVES	<i>Fulica atra</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"/>	43154	2015/16-2019/20	2.8	LC	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: atra, North-west 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>Hydrocoloeus minutus</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. However, no data on the species were available for the period concerned.

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								
CHORDATA/AVES	<i>Larus fuscus</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"/>	1201	2015/16-2019/20	0.2	LC	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: intermedius, S Scandinavia, Netherlands, Ebro Delta, Spain. foraging, resting
CHORDATA/AVES	<i>Limosa limosa</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 type="checkbox"/>	<input type="checkbox"/>	889	2015/16-2019/20	1.1	NT	<input type="checkbox"/>	<input type="checkbox"/>	National red list species	Reference population: limosa, Western Europe/NW & West Africa. Data by SOVON, Centre for Field Ornithology. Data for five seasons are available, three of which qualify for the 1% criterium.
CHORDATA/AVES	<i>Mergellus albellus</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"/>	329	2015/16-2019/20	1.1	LC	<input type="checkbox"/>	<input type="checkbox"/>		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>Mergus merganser</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"/>	402	2015/16-2019/20	0.2	LC	<input type="checkbox"/>	<input type="checkbox"/>		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	<i>Netta rufina</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	145	2015/16-2019/20	0.3	LC	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: South-west & Central Europe/West Mediterranean.
CHORDATA/AVES	<i>Phalacrocorax carbo</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"/>	6000	2015/16-2019/20	1	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	181	2015/16-2019/20	1.1	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.
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"/>	1051	2015/16-2019/20	0.2	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"/>	436	2015/16-2019/20	0.5	LC	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: Western Europe & North-west Africa (bre). foraging, resting
CHORDATA/AVES	<i>Sterna hirundo</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"/>	3896	2015/16-2018/19	0.4	LC	<input type="checkbox"/>	<input type="checkbox"/>	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	<i>Tadorna tadorna</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	0.1	LC	<input type="checkbox"/>	<input type="checkbox"/>		Reference population: North-west Europe. foraging, resting

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
Hard oligo-mesotrophic waters with benthic vegetation of Chara spp	<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.
Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	<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 Markermeer & IJmeer is a permanent freshwater lake. Submerged water vegetations exist in vast areas. Stone worth vegetations exist in shallow and sheltered parts, like the Gouwzee. Water birds exist in great numbers especially during winter time.

Plant communities of European interest that occur are:

- Charetum hispidae
- Charetum asperae
- Nitellopsidetum obtusae
- Potametum perfoliati
- Potametum lucentis
- Ranunculo fluitantis

The ecosystem services mainly refer to:

- the wetlands potential for water recreation;
- the ability to store fresh water (especially i.r.t. climate change);
- the ability for agriculture to take fresh water in (for irrigation or livestock drinking water) or to drain it off.

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

#### 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 >> O: Permanent freshwater lakes		1	67094	
Fresh water > Marshes on inorganic soils >> Tp: Permanent freshwater marshes/pools		2	1369	

### 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 climates according to Köppen are rainy (Cbf) and montane (EH).

#### 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 lake belongs to the catchment of the river Rhine. The surface area of the Rhine catchment is 185.000 km<sup>2</sup>. Geologically and geomorphologically it consists mainly of Quarternary, Paleozoic and Mesozoic sediments and Tertiary mountains.

#### 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 general soil types are: Alluvial, Brown forest soils and montane 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
Water inputs from precipitation	<input type="checkbox"/>	No change
Water inputs from surface water	<input type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
To downstream catchment	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.

Lake Markermeer & IJmeer were separated from the IJsselmeer by the Houtribdijk in 1975. This dike was built for land reclamation purposes (polder Markerwaard). This plan however has never been carried out. Lake Markermeer and IJmeer are one stagnant freshwater lake. The average depth is 3,9 meters, but in sand extraction areas the depth can be over 30 meters. For agricultural purposes the water level is high in summer (NAP – 0,20) and low in winter (NAP – 0,40 m). Water is supplied by several sources: rain, flow from the lakes Gooimeer and Eemmeer, water inlet for lake IJsselmeer, discharge water from the provinces Flevoland and North-Holland and by the river Vecht. Lake Markermeer drains via Lake IJmeer and the North Sea Channel into the North Sea. Water is also sluiced into lake IJsselmeer. The soil mainly consists of clay. The lake shores concern mainly basalt dikes without vegetation.

#### 4.4.5 - Sediment regime

Significant transportation of sediments occurs on or through the site

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

Sediment regime unknown

Please provide further information on sediment (optional):

Natuurmonumenten (Dutch Society for Nature Conservation) and Rijkswaterstaat (the executive agency of the Ministry of Infrastructure and Water Management) are restoring one of the largest freshwater lakes in western Europe by constructing islands, marshes and mud flats from the sediments that have accumulated in the lake in recent decades. These 'Marker Wadden' will form a unique ecosystem that will boost biodiversity in the Netherlands. (see: <https://www.natuurmonumenten.nl/projecten/marker-wadden/english-version>)

#### 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

#### 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

##### Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Fresh water	Drinking water for humans and/or livestock	High
Fresh water	Water for irrigated agriculture	High

##### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	High

##### Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	High
Recreation and tourism	Water sports and activities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
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

a) within the Ramsar site:

Boating 100%, Tourism and leisure 100%, Extractive operations 20%, Commercial fisheries 90%, Shipping traffic 20%, Conservation and research 100%, Water management 100%.

Hydrological values:

The surrounding polders (located below sea level) drain into the IJmeer and Markermeer which are discharged into the North Sea Channel (to the North Sea) or to lake IJsselmeer. The site is important for the provision of fresh water during drought or storage of water during wet periods.

b) in the surroundings/catchment:

The Markermeer & IJmeer is situated near the expanding cities of Amsterdam in the west and Almere in the east. Besides the ongoing urbanisation, the main land-use around the lake is still agriculture.

Within the site: see 5.2.5

Outside the site:

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
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Foundation/non-governmental organization/trust	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

a) within the Ramsar site:  
Small part of the site is owned by Staatsbosbeheer (3 ha), the water is state owned.

b) in the surrounding area:  
The water (IJsselmeer) 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 IJsselmeergebied  
 (2) Staatsbosbeheer  
 (3) Natuurmonumenten (manages the Marker Wadden)

Postal address: (1) Rijkswaterstaat IJsselmeergebied, P.O. Box 600, 8200 AP, Lelystad, tel. +31 (0)320 299 111.  
 (2) Staatsbosbeheer, P.O. Box 2, 3800 AA Amersfoort, the Netherlands, tel. 030-6926111  
 (3) Natuurmonumenten, P.O. Box 2166, 3800 CD Amersfoort, the Netherlands, tel. 033 47 97 000

E-mail address: [info@staatsbosbeheer.nl](mailto: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

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	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Housing and urban areas	Medium impact	Medium impact	<input 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
Dredging	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input 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
Shipping lanes	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Aircraft flight paths	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 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	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 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	Markermeer & IJmeer	<a href="https://www.natura2000.nl/gebieden/flevoland/markerveer-ijmeer">https://www.natura2000.nl/gebieden/flevoland/markerveer-ijmeer</a>	whole

#### National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Ecological Network (NEN)	Markermeer & IJmeer	<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
National Park	Nieuw Land	<a href="https://www.nationaalparknieuwland.nl/nl">https://www.nationaalparknieuwland.nl/nl</a>	partly

#### Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Markermeer & IJmeer	<a href="http://datazone.birdlife.org/site/factsheet/1216">http://datazone.birdlife.org/site/factsheet/1216</a>	whole
Other non-statutory designation	KBA Markermeer & IJmeer	<a href="http://www.keybiodiversityareas.org/site/factsheet/1216">http://www.keybiodiversityareas.org/site/factsheet/1216</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
Improvement of water quality	Implemented
Hydrology management/restoration	Implemented
Re-vegetation	Implemented
Soil management	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
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 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:

Currently a 10.000 ha island archipelago is being created in the Markermeer aimed to increase the ecological values of the site, especially for birds. The main island is accessible for visitors while information is provided about the project.

URL of site-related webpage (if relevant):

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

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

Most research and monitoring is carried out by the Institute for Inland Water Management and Waste Main research in the Veluwerandmeren is carried out by Rijkswaterstaat IJsselmeergebied from the Ministry of Infrastructure and the Environment and SOVON Vogelonderzoek Nederland, the NGO for bird research in the Netherlands.

Relevant research is also carried out by the Institute for River Research, which is part of the Institute for Hydraulic Engineering (IHE, www.ihe.nl) in Delft, and the Center for Limnology (NIOO-CL, www.nioo.nl) in Nieuwersluis.



## 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/flevoland/markerveer-ijmeer>.

#### 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:



- ( Misjel Decleer  
(Vindaphoto), - )

#### 6.1.4 - Designation letter and related data

Designation letter  
<2 file(s) uploaded>

Date of Designation 2000-08-29