

# Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

---

**1. Name and address of the compiler of this form:**

Ms. A. Pel-Roest  
Ministry of Economic Affairs  
Department of Nature and Biodiversity  
Prins Clauslaan 8  
P.O. Box 20401  
2500 EK The Hague, the Netherlands  
Tel: +31 (0)70 378 6868

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--

Site Reference Number

---

**2. Date this sheet was completed/updated:**

September 2013

---

**3. Country:**

the Netherlands

---

**4. Name of the Ramsar site:**

Zwarte Meer

---

**5. Designation of new Ramsar site or update of existing site:**

This RIS is for:

- a) Designation of a new Ramsar site ; or  
b) Updated information on an existing Ramsar site

---

**6. For RIS updates only, changes to the site since its designation or earlier update:****a) Site boundary and area**

The Ramsar site boundary and site area are unchanged:

or

**If the site boundary has changed:**

- i) the boundary has been delineated more accurately ; or  
ii) the boundary has been extended ; or  
iii) the boundary has been restricted\*\*

and/or

**If the site area has changed:**

- i) the area has been measured more accurately ; or  
ii) the area has been extended ; or  
iii) the area has been reduced\*\*

\*\* **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the

Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

**b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:**

The Zwarte Meer is one of the Ramsar sites in the larger area of the IJsselmeergebied. The ecological system of the IJsselmeergebied is changing. Long term monitoring data indicate seven trends (Noordhuis, 2010), which may lead to changes in the ecological system of the IJsselmeergebied and the Ramsar sites concerned. These trends are:

1. Decrease in eutrophication of the water, mainly due to strong decreasing phosphate levels;
2. Improvement of the chemical contamination of the water since the eighties;
3. Increase of submerged vegetation;
4. Continued changes in fish community, though the decrease in fish biomass seems to have stopped;
5. The biomass of the Zebra mussel (*Dreissena polymorpha*) in the bigger lakes, IJsselmeer, Markermeer and IJmeer decreased, while it increased in the smaller lakes. New exotic species may replace former sites of the Zebra mussel.
6. Birds follow the availability of food. Fish eating birds are highly dependent on Smelt, which availability decreased in the bigger lakes IJsselmeer, Markermeer and IJmeer. Mussel eating birds moved from the bigger lakes to the smaller lakes, like the Zwarte Meer, where the availability of mussels increased. The development of submerged vegetation, especially in the smaller lakes, attracts herbivorous bird species.
7. Reed lands decrease due to the permanent water level. This also has a negative impact on reed breeding birds. Nature development created new habitat for breeding birds like gulls and terns. This new habitat requests intense nature management.

These trends may lead to irreversible (positive?) changes of the natural values and the application of the criteria for the Ramsar sites concerned. For present RIS-update period for instance, the site did not qualify anymore for criterion 5. For criterion 6 the site only qualified for one species (see 14), while these were for instance seven species long ago in the period of 70-80's (based on Osieck 1982, Osieck & Braakhekke 1986).

---

**7. Map of site:**

**a) A map of the site, with clearly delineated boundaries, is included as:**

- i) a **hard copy** (required for inclusion of site in the Ramsar List):
- ii) an **electronic format** (e.g. a JPEG or ArcView image)
- iii) a **GIS file providing geo-referenced site boundary vectors and attribute tables** .

**b) Describe briefly the type of boundary delineation applied:**

The Ramsar site Zwarte Meer has also been designated as the European Natura 2000-site Zwarte Meer. For this RIS-version, the Ramsar site boundary has therefore been adjusted to the Natura 2000-boundary. The dike of the Noordoostpolder in the west has been excluded from the Ramsar site. In total this new boundary resulted in a decrease of -38,3 ha.

---

**8. Geographical coordinates (latitude/longitude, in degrees and minutes):**

52°38'N - 05°58'E

---

## 9. General location:

The Zwarte Meer is located in the Provinces of Overijssel and Flevoland and is part of the municipalities of Kampen (population 50.705 per 1-1-2012; source CBS, Netherlands Statistics), Noordoostpolder (population 46.284 per 1-1-2013), Steenwijkerland (population 43.437 per 1-1-2013) and Zwarte Waterland (population 22.139 per 1-1-2013). The nearest larger towns are within 5 km southeast of the lake, like Genemuiden, IJsselmuiden and Kampen.

---

## 10. Elevation: (in metres: average and/or maximum & minimum)

NAP -3 / -1 m

---

## 11. Area:

2.161,9 ha

---

## 12. General overview of the site:

Zwarte Meer is a large, shallow “randmeer” (water between the larger polders), bounded in the north by the dyke of Noordoostpolder (reclaimed in 1942) and in the south by the mainland (province of Overijssel). The Zwarte Water river flows into the lake in the northeast corner, and the site is adjacent to Lake Ketelmeer in the west (Ramspol). The northeaster border is close to De Wieden. The site consists of open water, with locally submerged water vegetation. Large reed marshes can be found at the south-eastern side. The grasslands on the banks are vegetations of mesotrophic and eutrophic soils. In 1942 the so-called Vogeleiland (Bird island) was constructed from soil that was dredged from the shipping lanes.

---

## 13. Ramsar Criteria:

1 • 2 • 3 • 4 • 5 • 6 • 7 8 • 9

---

## 14. Justification for the application of each Criterion listed in 13 above:

The Ramsar site Zwarte Meer has been designated under Natura 2000 as well. Natura 2000 is the centrepiece of EU nature & biodiversity policy. It is an EU-wide network of nature protection areas which aims to assure the long-term survival of Europe's most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive, and also incorporates Special Protection Areas (SPAs) designated under the Birds Directive. Natura 2000 applies to SACs and SPAs which are divided into biogeographical regions. The Ramsar site Zwarte Meer applies to both and the justification for the application of each Ramsar criterion below, greatly refers to its designation as a SAC and SPA.

### *Justification criterion 2*

The table below shows Annex II species (HD) and Annex I species (BD) for which the site has been designated as a SAC and SPA respectively, as well as their current status on the National Red List. Some other threatened species of the National Red Lists have also been added to the table.

*Species of Annex II of the European Habitat Directive (HD) and Annex I of the European Bird Directive for which the site has been designated as a SAC and SPA respectively, as well as species of annex IV, V (HD) and some threatened species of the National Red Lists (- = Not Applicable). Year of adoption of the National Red List in parentheses. Species marked with an \* are priority species.*

Species(group)	Species code	HD Annex	BD Annex	National RL category
<b>Vascular plants</b>				(2004)
<i>Fritillaria meleagris</i>	-	-	-	EN
<b>Moss species</b>				(2004)
<i>Calliergon giganteum</i>	-	-	-	EN
<i>Campyliadelphus elodes</i>	-	-	-	EN
<i>Drepanocladus sendtneri</i>	-	-	-	CR
<i>Fissidens adianthoides</i>	-	-	-	VU
<i>Rhizomnium pseudopunctatum</i>	-	-	-	VU
<i>Scorpidium scorpioides</i>	-	-	-	CR
<b>Mush rooms</b>				(2004)
<i>Tricholoma fulvum</i>	-	-	-	VU
<b>Mammals</b>				(2009)
Pond Bat <i>Myotis dasycneme</i>	H1318	II, IV	-	LC
<b>Non-breeding birds</b>				
Eurasian Spoonbill <i>Platalea leucorodia</i>	A034	-	I	-
Bewick's Swan <i>Cygnus bewickii</i>	A037	-	I	-
Black Tern <i>Chlidonias niger</i>	A197	-	I	-
<b>Breeding</b>				(2004)
Bittern <i>Botaurus stellaris</i>	A021	-	I	EN
Purple Heron <i>Ardea purpurea</i>	A029	-	I	EN
Spotted Crake <i>Porzana porzana</i>	A119	-	I	VU
<b>Fish</b>				(2004)
Weatherfish <i>Misgurnus fossilis</i>	H1145	II	-	VU
Spined Loach <i>Cobitis taenia</i>	H1149	II	-	LC
Bullhead <i>Cottus gobio</i>	H1163	II	-	LC
<b>Butterflies</b>				(2004)
<i>Boloria selene</i>	-	-	-	EN
<b>Molluscs</b>				(2004)
<i>Lithoglyphus naticoides</i>	-	-	-	VU
<i>Gyraulus riparius</i>	-	-	-	EN

### Justification criterion 3

The Zwarte Meer is designated as a Natura 2000 site (both SAC and SPA) and can therefore be considered important for maintaining the biodiversity of the Atlantic biogeographic region. Besides the species mentioned under criterion 2, the site has also been designated as a SAC for a range of habitat types (Annex I of HD) and SPA for a number of bird species that are not on Annex I of the BD. See the tables below.

*Habitat types (according to interpretation manual of EU-Habitat Directive) for which the site has been designated as a SAC.*

Habitat code	Habitat type
H3150	Natural eutrophic lakes with <i>magnopotamion</i> or <i>Hydrocharition</i> -type vegetation
H6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
H6510	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> )

Bird species (not on Annex I of the BD) for which the site has been designated as a SPA as well as their status on the National Red List (2004).

Species	Species code	National RL category
<b>Non-breeding birds</b>		
Great Crested Grebe <i>Podiceps cristatus</i>	A005	-
Great Cormorant <i>Phalacrocorax carbo</i>	A017	-
Tundra Bean Goose ( <i>Anser fabalis</i> ssp. <i>rossicus</i> )	A039	-
White-fronted Goose <i>Anser albifrons</i>	A041	-
Greylag Goose <i>Anser anser</i>	A043	-
Eurasian Wigeon <i>Anas [Mareca] Penelope</i>	A050	-
Gadwall <i>Anas strepera</i>	A051	-
Common Teal <i>Anas crecca</i>	A052	-
Northern Pintail <i>Anas acuta</i>	A054	-
Northern Shoveler <i>Anas clypeata</i>	A056	-
Common Pochard <i>Aythya ferina</i>	A059	-
Tufted Duck <i>Aythya fuligula</i>	A061	-
Common Coot <i>Fulica atra</i>	A125	-
Black-tailed Godwit <i>Limosa limosa</i>	A156	-
<b>Breeding</b>		(2004)
Savi's Warbler <i>Locustella luscinioides</i>	A292	VU
Sedge Warbler <i>Acrocephalus schoenobaenus</i>	A295	LC
Great Reed Warbler <i>Acrocephalus arundinaceus</i>	A298	EN

#### Justification criterion 4

The site is of particular importance for many breeding and non-breeding bird species (see criterion 2, 3 and 6), of which several species gather in high numbers and relatively small areas during wintering and/or migration periods like ducks and geese or breeding periods like the breeding colony of Purple Herons *Ardea purpurea*.

#### Justification criterion 5

Recently the site regularly supported more than 20,000 wintering water birds, with an average peak number of 35,347 between the winters of 1999/2000-2003/2004. For the period of 2005/2006-2009/2010 however, the average peak number did not surpass 20.000 water birds anymore (Source: Sovon, Dutch Centre for Field Ornithology).

#### Justification criterion 6

Species meeting the 1% threshold (WPE-4, Wetlands International 2006; Source: Sovon, Dutch Centre for Field Ornithology). (NB = nonbreeding, BR = breeding period 2006-2010 unless stated otherwise).

Species (UK)	Species	NB / BR	Biographical population	1% threshold	Average number of birds between 2005-2010	% at site
Gadwall	<i>Anas strepera</i>	NB	NW-Europe	600	924	1.5

#### Justification criterion 8

The site has among others been designated as a SAC for following fish species: Weatherfish *Misgurnus fossilis*, Spined Loach *Cobitis taenia*, and Bullhead *Cottus gobio* (see criterion 2).

---

## 15. Biogeography:

### a) biogeographic region:

Atlantic

### b) biogeographic regionalisation scheme (include reference citation):

Biogeographic regions of the EU (developed under council directive 92/43/CEE).

---

## 16. Physical features of the site:

The Zwarte Meer was formed after the closure of the Zuiderzee in 1932 and the creation of the Noordoostpolder in 1940-1942. The site is a shallow lake with an average depth of 1 metre. Some shipping lanes have been dug for shipping traffic. The water level is unnatural high in summer (NAP – 0,2 m) and low in winter (NAP – 0,4 m). The Zwarte Meer is situated on the east of the Ketelmeer and IJsselmeer. As a result of drawing up and off by the wind the water level can vary up to 0,5 meter a day. The Zwarte Meer receives water from the adjacent polders and the river Zwarte Water. The water in the Zwarte Meer has been strongly eutrophicated the last decennia. Since the 1990's the water quality is improving. The soils are calcareous marine clay grounds.

---

## 17. Physical features of the catchment area:

This wetland is part of the catchment area of the river Rhine. The surface area of the catchment is 185.000 km<sup>2</sup>. Geologically and geomorphologically it consists mainly of Quarternary, Paleozoic and Mesozoic sediments and Tertiary mountains. The general soil types are: Alluvial, Brown forest soils and montane soils. The general land use is forestry, pasture farming, arable farming, unproductive land (high mountains). The climates according to Köppen are rainy (Cbf) and montane (EH).

---

## 18. Hydrological values:

Zwarte Meer is a hydrological system driven by surface water, in which the “boezem” (polder outlet) is the infiltration area. The lower polders act as seepage area. Here seepage both from superficial ground water (rich in CO<sub>2</sub>) and from deeper ground water (anaerobic and rich in bases) may come up to the surface.

The hydrological values of the Zwarte Meer include flood control and sediment and nutrient retention.

---

## 19. Wetland Types

### a) presence:

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp • Ts • U •  
Va • Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

### b) dominance:

O 86%; Tp 10%; Wet grassland 4%.

---

## 20. General ecological features:

Zwarte Meer is a large, shallow lake that mostly consists of open water. After the arising of the Zwarte Meer, an excessive watervegetation of *Characeae* species en pondweeds developed. In the 1960's this vegetation was lost because of input of polluted water. Nowadays there is locally water vegetation of eutrofic circumstances.

At the south side there is a large reed marsh. In the eastern part there is an artificial island (Vogeleiland – “Birds island”) and some remains of rush fields. Along the banks are extensive reedbeds and marshes. Locally the marshes consist of mostly *Carex* species of more eutrofic environments. The grasslands on the banks are vegetations of mesotrofic and eutrofic soils, belonging to the *Arrhenatherion*. It is one of the most important sites in northwestern Europe for *Fritillaria meleagris*. This species occurs here in unfertilized grasslands that inundate or where the ground water level is high in winter. Because of the unpredictable water levels the forelands have always been used extensively. The traditional agricultural management consists of mowing in the late season and possibly grazing afterwards. This type of management is very favourable for the flowering and forming of seeds of *Fritillaria*.

Boezemlanden (polder areas with natural drainage) without embankment can be inundated by water from the Zwarte Meer all year. Inundations create a slight sedimentation and fertilisation.

Plant communities of European interest that occur are:

- *Ranunculo fluitantis*
- *Scorpidio*
- *Sphagno palustris*

The Zwarte Meer is an important breeding area for birds of reed marshes (Bittern, Purple Heron, Savi's Warbler and Great Reed Warbler). For the rare Great Reed Warbler the Zwarte Meer forms, together with Ketelmeer/Vossemeer, the most important breeding site in the Netherlands. The site is also important for birds of more open swampy (reed)marshes (Spotted Crake, Sedge Warbler).

Besides important water related ecosystem services as the collection and retention of fresh water, the site also provides services for shipping, recreation and some small-scale fishing.

---

## 21. Noteworthy flora:

Most noteworthy flora is listed under no. 14.

---

## 22. Noteworthy fauna:

Most noteworthy fauna is listed under no. 14.

---

## 23. Social and cultural values:

**a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:**

See 25. Current land use.

**b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?**

No

---

---

**24. Land tenure/ownership:****a) within the Ramsar site:**

The site is state owned, and partly owned by Natuurmonumenten (30 ha).

**b) in the surrounding area:**

The surrounding waters (Ketelmeer, Zwarte Water) are state owned, while on land there are several private owners.

---

**25. Current land (including water) use:****a) within the Ramsar site:**

Commercial fisheries 65 - 95%, shipping traffic 5 - 35%, nautical sports 65 - 95%, removal of sediments 5 - 35%, water management >95%.

**b) in the surroundings/catchment:**

Land use in the immediate surrounding mainly refers to farming and forestry. On a broader scale the Zwarte Meer belongs to the river Rhine-catchment where the general land-use is forestry, pasture farming, arable farming and unproductive land (high mountains).

---

**26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:****a) within the Ramsar site:(A = serious threat covering large part of the area; B = moderate threat or local threat; C = minor threat):**

Construction/ impact dykes/dams/barrage (B - storm surge barrier Ramspol); Selective logging/cutting (B - reed cutting); Pollution (not Industrial discharge) (B - eutrophication).

**b) in the surrounding area:**

No information available

---

**27. Conservation measures taken:****a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:**

- Special Protection Area Zwarte Meer (Birds Directive 79/409/EEC, 1995)
- Special Area of Conservation Zwarte Meer (Habitats Directive 92/43/EEC)
- Natura2000 site Zwarte Meer

**b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):**

Ia ; Ib ; II ; III ; IV ; V ; VI

**c) Does an officially approved management plan exist; and is it being implemented?:**

The Ramsar site matches 100% with the designation for Natura 2000.  
The process for the Natura2000 management plan has been started.

**d) Describe any other current management practices:**

Nothing particular.



---

**28. Conservation measures proposed but not yet implemented:**

The process for the Natura 2000-management plan has been started.

---

**29. Current scientific research and facilities:**

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

Main research in the Zwarte Meer 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.

---

**30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:**

Excursions. The site itself has no visitor centre, but the visitor centre at the site De Wieden also provides information on the Zwarte Meer. The website of nature management organisation Natuurmonumenten provides news on the Zwarte Meer. A weblog is set up for the breeding of Sea eagles.

---

**31. Current recreation and tourism:**

The IJsselmeergebied (including the Ketelmeer en Vossemeer) is very important for water recreation and tourism in the Netherlands. Organisations like HISWA ([www.hiswa.nl](http://www.hiswa.nl)), Watersportverbond ([www.watersportverbond.nl](http://www.watersportverbond.nl)), Vereniging voor beroepschartervaart ([www.bbz-charter.nl](http://www.bbz-charter.nl)), Sportvisserij Nederland ([www.sportvisserijnederland.nl](http://www.sportvisserijnederland.nl)), Stichting Waterrecreatie IJsselmeer en Randmeren ([www.stichtingwaterrecreatie.nl](http://www.stichtingwaterrecreatie.nl)) or Stichting Verantwoord Beheer IJsselmeer ([www.vbij.nl](http://www.vbij.nl)) all are important stakeholders in the field of recreation and tourism. For details on recreation types and frequency/intensity please see studies on the recreational use of the area (like Waterrecreatie Advies, 2010). In 2012 a formal code of conduct for recreation in the IJsselmeergebied was accepted by the Secretary of State of the Ministry of Economic affairs.

---

**32. Jurisdiction:**

Territorial: Dienst Domeinen (Ministerie van Financiën); Functional jurisdiction (conservation purposes): Ministry of Economic Affairs.

---

**33. Management authority:**

Main management authorities:

- Natuurmonumenten, P.O. Box 9955, 1243 ZS 's-Graveland, tel. +31 (0)35 655 99 33.
- Rijkswaterstaat IJsselmeergebied, P.O. Box 600, 8200 AP, Lelystad, tel. +31 (0)320 299 111.

---

**34. Bibliographical references:**

The number of scientific/technical references is too extended to list here. For a complete list please surf to the publication lists of the research institutes on the internet. For an arbitrary selection see below:

- Hornman, M., Hustings, F., Koffijberg, K., Kleefstra, R., Klaassen, O., van Winden, E., SOVON Ganzen- en Zwanenwerkgroep & L. Soldaat, 2012. Watervogels in Nederland 2009/2010. SOVON-rapport 2012/02, Waterdienst-rapport 12.06. SOVON Vogelonderzoek Nederland, Nijmegen.

- Janssen, John, A.M. & Joop, H.J. Schaminée, 2009. Europese Natuur in Nederland. Zee en kust Natura 2000-gebieden. KNNV-Uitgeverij. 296p.
  - Ministerie van LNV, 2009. Aanwijzingsbesluit Natura-2000 gebied Zwarte Meer.
  - Noordhuis, R., (red.) 2010. Ecosysteem IJsselmeergebied nog altijd in ontwikkeling; Trends en ontwikkelingen in water en natuur van het natte Hart van Nederland. Rijkswaterstaat, Ministerie van Verkeer en Waterstaat. 421p.
  - Osieck, E.R., 1982. Belangrijke watervogelgebieden in Nederland. Limosa 55: 43-44.
  - Osieck, E.R., Braakhekke W.G., 1986. Aanvullingen en verbeteringen op de lijst van belangrijke waterrijke vogelgebieden in Nederland. Limosa 59: 75-81.
  - Waterrecreatie Advies, 2010. Ontwikkeling watersport IJsselmeergebied 2010. Deelrapportages provincies Flevoland, Fryslân, Gelderland, Noord-Holland en Overijssel. 178p.
  - Wetlands International, 2006. Waterbird Population Estimates – Fourth Edition. Wetlands International, Wageningen.
- 

Please return to: **Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**

Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: [ramsar@ramsar.org](mailto:ramsar@ramsar.org)