



# Ramsar Information Sheet

Published on 1 January 2012

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## Norway

### Øra



Designation date	24 July 1985
Site number	305
Coordinates	59°09'41"N 10°59'29"E
Area	1 676,00 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

Øra is situated in Østfold County in the south-east of Norway. The site consists of a large estuary where the river Glomma flows into the sea. It is characterized by shallow areas of brackish water with numerous small islands and skerries surrounded by fluvial sediments that the river has deposited. In addition to the estuary, the site also contains meadows, grassland and forest areas.

Glomma drains an area with a diverse geology and climate and the southern part of the river catchment is dominated by soils rich in clay. Freshwater and saltwater meet within the reserve and brackish conditions influence the flora and fauna of the area. Where the water is less than 0.5 m deep the vegetation is dominated by *Phragmites australis*, *Schoenoplectus tabernaemontani* and *Schoenoplectus maritimus*, which often form colonies. *Potamogeton perfoliatus* was the most important water plant, in particular as winter food for whooper swans, although this pondweed has declined in recent years. *Zostera marina* and *Fucus vesiculosus* are found in the outer parts of the reserve.

The area is an important site for breeding, staging, wintering and moulting waterbirds. The most abundant nesting species at present is the great cormorant of the subspecies *sinensis*, with 992 pairs in 2004. Øra was also the first site where both the mute swan *Cygnus olor* (1937) and the Caspian tern *Hydroprogne caspia* were known to have bred in Norway. Øra is also an important site for moulting wildfowl. A total of around 250 bird species are recorded in the area, around 90 of which are known to breed.

Both freshwater and saltwater fish species are found. In general saltwater species dominate in winter, and freshwater species in summer.

## 2 - Data & location

### 2.1 - Formal data

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

##### Compiler 1

Name	Ellen Haakonsen Karr
Institution/agency	Norwegian Environment Agency
Postal address	P.O. Box 5672 Torgarden, N-7485 Trondheim, Norway
E-mail	post@miljodir.no
Phone	+47 73 58 05 00

#### 2.1.2 - Period of collection of data and information used to compile the RIS

From year	2005
To year	2017

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Øra
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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  No

(Update) B. Changes to Site area No change to area

#### 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

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<1 file(s) uploaded>

Former maps	0
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#### Boundaries description

The border of the Ramsar site is the same as the border of the Øra Nature Reserve

### 2.2.2 - General location

a) In which large administrative region does the site lie?	Østfold
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b) What is the nearest town or population centre?	Fredrikstad
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### 2.2.3 - For wetlands on national boundaries only

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

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

### 2.2.4 - Area of the Site

Official area, in hectares (ha):	1676
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Area, in hectares (ha) as calculated from  
GIS boundaries

1675.41

## 2.2.5 - Biogeography

### Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Other scheme (provide name below)	2. Boreonemoral vegetation zone, slightly oceanic section (Bn-O1)
EU biogeographic regionalization	1. Boreal

### Other biogeographic regionalisation scheme

1. EU Habitat directive 92/43/EEC
2. Zonal division showing the variation in vegetation from south to north and from the lowlands to the mountains, and sectional graduation showing the variation between the coast and inland (In: Moen, A. 1998. Nasjonalatlas for Norge; vegetasjon. Statens kartverk, Hønefoss).

### 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

Hydrological services provided

The area acts as a sedimentation trap for nutrients from further upstream.

Other reasons

A large estuary with brackish areas, mudflats and large areas of reed forests, as well as islands and beaches with salt marsh. Formed by Norway's largest river (Glomma) which drains 13% of the total area of the country. Despite the closeness to a large major town and important industrial areas, large areas are barely exploited. Large variations in water levels, as well as tidal currents and the effects of the wind pushing saltwater from the south and south-west, result in large variations in water salinity.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The site supports a high diversity of both birds and fish species, and 256 different bird species have been registered on the site (2014).

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

- Criterion 7 : Significant and representative fish

Justification

Øra has one of the most species-rich fish communities in Norway with 41 known species, including 18 of the 27 freshwater species known in Norway. The vegetation in the brackish areas is relatively species-poor as few can cope with large variations in salinity.
















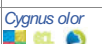






















#### 3.2 - Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Carex hartmanii</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as VU	Criterion 2: Nationally Red-listed vascular plants found in the area include this species.
<i>Centaurium littorale</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as VU	Criterion 2: Nationally Red-listed vascular plants found in the area include this species.
<i>Centaurium pulchellum</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>		Criterion 3: Although not threatened (NT on national list) this species is rare and is an important species in the tidal Meadows.
<i>Gentianella uliginosa</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as EN	Criterion 2: Nationally Red-listed vascular plants found in the area include this species.
<i>Odontites litoralis litoralis</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Criterion 3: Although not threatened (NT on national list) this species is rare and is an important species in the tidal Meadows.
<i>Ophioglossum vulgatum</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as VU	Criterion 2: Nationally Red-listed vascular plants found in the area include this species.
<i>Potamogeton pusillus</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	National Red List: Considered as EN	Criterion 2: Nationally Red-listed vascular plants found in the area include this species.
<i>Radiola linoides</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as EN	Criterion 2: Nationally Red-listed vascular plants found in the area include this species.
<i>Rumex hydrolapathum</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>		Criterion 3: Although not threatened (NT on national list) this species is rare and is an important species in the tidal Meadows.
<i>Stellaria palustris</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as EN	Criterion 2: Nationally Red-listed vascular plants found in the area include this species.

It is referred to the National Red List 2015.


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

Phylum	Scientific name	Common name	Species qualifies under criterion			Species contributes under criterion			Pop. Size	Period of pop. Est.	% occurrence <sup>1)</sup>	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5								
<b>Birds</b>																
CHORDATA/ AVES	<i>Acrocephalus scirpaceus</i>	Eurasian Reed Warbler	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: This species breeds at the site.
CHORDATA/ AVES	<i>Alauda arvensis</i>	Eurasian Skylark; SkyLark	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU	Criterion 4: This species feeds at the saltmarshes and meadows, and is most likely breeds at the site.
CHORDATA/ AVES	<i>Anas acuta</i>	Northern Pintail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU	Criterion 4: Important staging area for this species.

Phylum	Scientific name	Common name	Species qualifies under criterion			Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7								
CHORDATA/AVES	<i>Anas clypeata</i> 	Northern Shoveler	<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"/>	<input type="checkbox"/>	National Red List: Considered as VU	Criterion 4: The area is important during migration for this national red-listed species.
CHORDATA/AVES	<i>Anas crecca</i> 	Green-winged Teal; Eurasian Teal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: Important staging area for this species.
CHORDATA/AVES	<i>Anser anser</i> 	Greylag Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: Important staging area for this species.
CHORDATA/AVES	<i>Anthus pratensis</i> 	Meadow Pipit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: This species breeds at the site.
CHORDATA/AVES	<i>Aythya fuligula</i> 	Tufted Duck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: Important staging and wintering site for this species. Possibly breeding.
CHORDATA/AVES	<i>Aythya marila</i> 	Greater Scaup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU	Criterion 4: The area is important during migration for this national red-listed species.
CHORDATA/AVES	<i>Bucephala clangula</i> 	Common Goldeneye	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1000			LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: During spring and autumn migration hundreds of waterbirds gather and the area is important as a foraging site, such as for over 1000 individuals of this species in spring.
CHORDATA/AVES	<i>Cygnus cygnus</i> 	Whooper Swan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	150	2017		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II, Bern Convention	(App. 150 ind. observed in 2017). Criterion 4: Important wintering site for this species.
CHORDATA/AVES	<i>Cygnus olor</i> 	Mute Swan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: Important staging and feeding area for this species.
CHORDATA/AVES	<i>Emberiza schoeniclus</i> 	Common Reed Bunting; Common Reed-Bunting; Reed Bunting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: Important breeding site for this species.
CHORDATA/AVES	<i>Hirundo rustica</i> 	Barn Swallow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: The reedbeds are important for this species.
CHORDATA/AVES	<i>Mergus merganser</i> 	Common Merganser	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: Important wintering and feeding site for this species.
CHORDATA/AVES	<i>Mergus serrator</i> 	Red-breasted Merganser	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: Important staging and feeding area for this species.
CHORDATA/AVES	<i>Motacilla flava</i> 	Western Yellow Wagtail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Annex II, Bern Convention	Criterion 4: Important breeding and feeding area for this species.
CHORDATA/AVES	<i>Numenius arquata</i> 	Eurasian Curlew	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU	Criterion 4: Important staging area for this species.
CHORDATA/AVES	<i>Pandion haliaetus</i> 	Western Osprey, Osprey	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Emerald Network	Criterion 4: Regularly seen hunting in the area.
CHORDATA/AVES	<i>Panurus biarmicus</i> 	Bearded Reedling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15	2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		(15 pairs) Criterion 4: important breeding area for this quite rare species that only breeds a few places in Norway and in small numbers.
CHORDATA/AVES	<i>Phalacrocorax carbo sinensis</i> 	Great Cormorant	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1000	2004-2013			<input type="checkbox"/>	<input type="checkbox"/>		(1000 pairs) Criterion 4: This species breeds on the site.
CHORDATA/AVES	<i>Rallus aquaticus</i> 	Water Rail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU	Criterion 4: important wintering site for this species.
CHORDATA/AVES	<i>Somateria mollissima</i> 	Common Eider	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: Breeding site for this species.

Phylum	Scientific name	Common 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>Stumus vulgaris</i>	European Starling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: The saltmarshes and meadows are important feeding areas for this species.
CHORDATA/ AVES	<i>Tadorna tadorna</i>	Common Shelduck	<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"/>	Annex II, Bern Convention	Criterion 4: Important staging and feeding area for this species.
CHORDATA/ AVES	<i>Vanellus vanellus</i>	Northern Lapwing	<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"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU	Criterion 4: Important staging and feeding area for this species.
<b>Fish, Mollusc and Crustacea</b>																		
CHORDATA/ ACTINOPTERYGII	<i>Abramis brama</i>	Aral bream	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the common freshwater species.
CHORDATA/ ACTINOPTERYGII	<i>Clupea harengus</i>	Matje cured herring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the dominant saltwater species.
CHORDATA/ ACTINOPTERYGII	<i>Coregonus lavaretus</i>	Baltic whitefish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the dominant freshwater species.
ARTHROPODA/ MALACOSTRACA	<i>Corophium volutator</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"/>					<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: This species lives in huge numbers in the mud and is an important source of food for several bird species.
CHORDATA/ ACTINOPTERYGII	<i>Gadus macrocephalus</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is a common species on the site.
CHORDATA/ ACTINOPTERYGII	<i>Leuciscus idus</i>	Golden orfe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the common freshwater species.
CHORDATA/ ACTINOPTERYGII	<i>Leuciscus leuciscus</i>	Common dace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the common freshwater species.
CHORDATA/ ACTINOPTERYGII	<i>Merlangius merlangus</i>	Golden cutlet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the dominant saltwater species.
CHORDATA/ ACTINOPTERYGII	<i>Perca flavescens</i>	Perch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the common freshwater species.
CHORDATA/ ACTINOPTERYGII	<i>Platichthys flesus</i>	Baltic flounder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is a common species on the site.
CHORDATA/ ACTINOPTERYGII	<i>Pleuronectes platessa</i>	European plaice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is a common species on the site.
CHORDATA/ ACTINOPTERYGII	<i>Pollachius virens</i>	Sillock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the dominant saltwater species.
CHORDATA/ ACTINOPTERYGII	<i>Rutilus rutilus</i>	Siberian roach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the common freshwater species.
CHORDATA/ ACTINOPTERYGII	<i>Sander lucioperca</i>	Pikeperch; Pikeperch; Pikeperch; Pikeperch; European pike-perch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is one of the common freshwater species.
CHORDATA/ ACTINOPTERYGII	<i>Sprattus sprattus</i>	European sprat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Criterion 7: It is a common species on the site.
<b>Others</b>																		
ANNELIDA/ POLYCHAETA	<i>Alkmaria romijni</i>	Tentacled lagoon worm	<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"/>					<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU	Criterion 4: This site has the only confirmed population of this species nationally. A species adapted to brackish water, lives in naturally small populations and is therefore sensitive to human impacts.



Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence <sup>1)</sup>	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
ANNELIDA/ POLYCHAETA	<i>Hediste diversicolor</i> 	estuary ragworm	<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"/>	<input type="checkbox"/>		Criterion 4: This species lives in the mud and is an important source of food for several bird species.

1) Percentage of the total biogeographic population at the site

It is referred to the National Red List 20105.

Criterion 4: The area is an important site for breeding, staging, wintering and moulting waterbirds. Øra includes several small islands and skerries and is surrounded by rich littoral areas, such that in sum Øra is an area rich in a number of species. During spring and autumn migration hundreds of waterbirds gather and the area is important as a foraging site. Together with Nordre Øyeren, Dokkadeltaet by Randsfjorden, Lågendeltaet and Åkersvika by Mjøsa, Øra is a major part of an important system of wetlands used by migratory birds inland in southern Norway.

Criterion 7: None of the 41 species of fish recorded can be classified as threatened, although with 23 freshwater species and 2 saltwater species Øra is one of the most species-rich sites in the country.

### 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
Tidal meadows	<input checked="" type="checkbox"/>	Southern tidal meadows with several red-listed species.	Tidal meadows containing a high diversity of interesting and red-listed species. This is a nature type in decline nationally.
Underwater meadows	<input type="checkbox"/>	Rich underwater vegetation with species like <i>Potamogeton perfoliatus</i>	Underwater vegetation is of high importance for both birds and fish in the area.
Reedbeds	<input type="checkbox"/>	Large stands with <i>Phragmites australis</i> , <i>Schoenoplectus tabernaemontani</i> and <i>Schoenoplectus maritimus</i>	Important for many species, such as Barn Swallow <i>Hirundo rustica</i> and Common Starlings.

Optional text box to provide further information

Underwater meadows: Vegetation adapted to the brackish water. *Potamogeton perfoliatus* was one of the characteristic species for Øra, but has declined in recent decades, most likely due to changes in salinity. As a result, Øra's importance for the wintering whooper swan has probably also declined somewhat. *Zostera marina* and *Fucus vesiculosus* are found in the outer parts of the reserve.

## 4 - What is the Site like? (Ecological character description)

### 4.1 - Ecological character

The site is a large estuary where the river Glomma flows into the sea. It is characterized by shallow areas of brackish water with numerous small islands and skerries surrounded by fluvial sediments that the river has deposited. The area is within the boreonemoral zone, and the aquatic habitats range from shallow eutrophic vegetation communities with large beds of reed and club-rush in areas with low salinity, to areas of seawater dominated by communities of bladder seaweed. *Potamogeton perfoliatus* was one of the characteristic species but has declined dramatically. The islands are either wooded or composed of saltmarshes and pastures as the result of many years of farming. The invertebrate fauna is relatively species-poor, as is usual in brackish areas, yet has remained stable in recent decades. The fish fauna is affected by the brackish conditions, and both freshwater and saltwater species are present. The area has a rich birdlife, and about 250 species are recorded, of which around 90 species breed.

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

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
A: Permanent shallow marine waters		1		
D: Rocky marine shores		4		
E: Sand, shingle or pebble shores		0		Representative
F: Estuarine waters		2		Representative
G: Intertidal mud, sand or salt flats		3		Representative

### 4.3 - Biological components

#### 4.3.1 - Plant species

<no data available>

#### 4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Cygnus columbianus</i>	Tundra Swan				Unusual winter guest
CHORDATA/AVES	<i>Podiceps grisegena</i>	Red-necked Grebe				Unusual winter guest
CHORDATA/AVES	<i>Acrocephalus schoenobaenus</i>	Sedge Warbler				Observed in small numbers, possibly breeding.
CHORDATA/AVES	<i>Hydroprogne caspia</i>	Caspian Tern				This nationally unusual species is regularly observed at the site.

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/AVES	<i>Branta canadensis</i>	Canada Goose	Potentially	unknown

### 4.4 - Physical components

#### 4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfb: Humid continental (Humid with severe winter, no dry season, warm summer)

Coastal climate. Winds in winter are mainly northerly, with predominately south- westerly winds in summer. Average temperatures in the period 1961-1990 were – 3,70C in January and 16,00C in July. Annual precipitation in the same period was 880 mm. The climate in the catchment area is generally continental.

#### 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.

Glomma River, Norwegian Sea

#### 4.4.3 - Soil

Mineral

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

Organic

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

No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes  No

Please provide further information on the soil (optional)

Marsh and shallow water (estuary) with an accumulation of clay, silt, sand and organic materials.

#### 4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Marine water	<input type="checkbox"/>	No change
Water inputs from surface water	<input type="checkbox"/>	No change
Water inputs from rainfall	<input type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
Marine	No change

Stability of water regime

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

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

The brackish delta is very shallow, with a few deeper galleys. A wide estuary with several square kilometres of marsh and shallow waters with an uneven surface and gulleys/holes formed by currents and tides.

#### 4.4.5 - Sediment regime

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):

Transportation of sediments from Glomma (Norway's longest river) are responsible for the formation of the estuary. The area acts as a sedimentation trap for muddy water from Glomma, although this function has been reduced following the filling in of the area at Øratangen.

#### 4.4.6 - Water pH

Unknown

#### 4.4.7 - Water salinity

Mixohaline (brackish)/Mixosaline (0.5-30 g/l)

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

Unknown

#### 4.4.8 - Dissolved or suspended nutrients in water

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

Please describe other ways in which the surrounding area is different:

The area is bordered in the north and north-west by industrial areas and a waste disposal site. To the north-east and east, there are low wooded hills as well as grazed and cultivated land. To the south and south-west, there is the sea. Filling in of shallow waters for future industrial purposes takes place in the inner part of the bay at Gansrødbukta, thus reducing the amount of shallow water which naturally makes up the estuary.

## 4.5 - Ecosystem services

### 4.5.1 - Ecosystem services/benefits

#### Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Wetland non-food products	Livestock fodder	Medium

#### Regulating Services

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

#### Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	Medium
Recreation and tourism	Nature observation and nature-based tourism	Medium
Recreation and tourism	Recreational hunting and fishing	Medium
Scientific and educational	Educational activities and opportunities	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium

Other ecosystem service(s) not included above:

The area acts as a sedimentation trap for muddy water from Glomma, although this function has been reduced following the filling in of the area at Øratangen.

The largest island – Hestholmen – is used for recreational purposes including birdwatching.

The area is used by local residents, mainly for birdwatching, as well as some boating, rod-fishing and other recreational activities.

In connection with establishment of the nature reserve, a number of extensive scientific studies were carried out. Øra has also been used for smaller scale studies, and a great number of publications related to the area exist.

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

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

within the Ramsar site:

Mainly municipal, some private and state.

in the surrounding area: Partly private, partly municipal.

#### 5.1.2 - Management authority

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

County Governor of Østfold

Postal address:

County Governor of Østfold, P.b. 325, 1502 Moss

E-mail address:

postmottak@fmos.no

## 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	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Natural system modifications

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

Please describe any other threats (optional):

Within the Ramsar site:

The site is located in a populated area that are characterized by surrounding industry activities, and a consequence of this is that there is always a certain risk for pollution and other effects. However, this has been the case since the site was registered and there are most likely no new threats. Cessation of hay-cutting, grazing and tree-felling has resulted in an increase in overgrowth of nearby areas and islands within the estuary, with the result that some species of plants and birds have become rarer or even disappeared. Measures to reverse this trend have been implemented.

In the past the area between Glomma and Gansrødbukta in the inner part of Øra was filled in, and this altered the watercourse and resulted in higher salinity and with negative consequences for *Potamogeton perfoliatus*. The Øra channel was then created to correct this somewhat and to lead fresh water back into the northern part of Øra, and it is today vital to preserve good ecological status in the area.

In 2017 there were performed dredging and other management work in the Øra channel. This was done to make it easier for ship traffic to enter the channel. The work was done in close cooperation with local environment authorities to ensure that natural values would not be threatened, and several corrective/restoring measures were required in order to achieve this. The situation will be monitored closely.

#### 5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
nature reserve	Øra		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	Partially implemented

Human Activities

Measures	Status
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Implemented

Other:

A minor expansion of the reserve is being considered, mainly to encompass more saltmarsh.

The saltmarshes and natural meadows in the area have formerly been grazed and cut. Overgrowth has resulted in a reduction in breeding birds preferring managed meadows and open landscapes. The management authorities have therefore restarted management by cutting and grazing in recent years, in order to recreate the hay meadows and to prevent further overgrowing.

The largest island – Hestholmen – and part of the shoreline nearby consists of saltmarsh and grazing land. Here some management in the form of grazing and cutting takes place. Fishing with potentially damaging equipment such as nets is not permitted within the reserve. Hunting is forbidden within the reserve.

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:

A bird observation tower has been built on the outer part of Øratangen beside an artificial channel. An information brochure has been produced.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

<no data available>

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

"Øraundersøkelsene" 1973-1977. 7 rapporter av Pethon, P., Hovde, H.R. & Gjelland, A. Zoologisk Museum, Norsk inst. for vannforskning og Universitetet i Oslo. (In English – Research at Øra (7 reports)).

Båtvik, J.I.I. mfl. 2001. Naturfaglige undersøkelser i Øra naturreservat 2001. Fylkesmannen i Østfold, miljøvernadv. rapp. 4-2001: (In English – Environmental studies at Øra nature reserve).

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Henriksen S and Hilmo O (2015) Norwegian Red List of Species 2015.

Krohn, O. (red.) 1990. Fuglelivet i Øra-området 1985-88. Østfold-Natur 29: 1-42. (In Norwegian – On Birdlife of Øra).

Viker, M & Bosy, R.G. (red.) 1986. Fuglelivet i Øra-området - Med en fullstendig litteraturoversikt. Østfold-Natur nr. 25:1-143. (In English – On the Birdlife of Øra, including literature list).

Viker, M. & Fredriksen, Å.S. 1995. Ornitologiske registreringer i Øraområdet 1989-1992. Fylkesmannen i Østfold, miljøvernadv. rapp. 10-1995: 1-64 (In English – On Bird observations at Øra 1989-1992).

Viker, M. 2002. Ornitologiske registreringer i Øraområdet 1993-1997. Fylkesmannen i Østfold, miljøvernadv. rapp. 4-2002: 1-67. (In English – On Bird observations at Øra 1993-1997).

Fylkesmannen i Østfold. 2014. Forvaltningsplan for Øra naturreservat. Fylkesmannen i Østfold, miljøvernadv. (In English – Management plan for Øra nature reserve).

#### 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:



View from the bird observation Tower towards Løvøya ( Gunnar Bjare, County Governor of Østfold, 19-07-2006 )



Reed forest in the bay Gansrødbukta. ( Gunnar Bjare, County Governor of Østfold, 24-05-2013 )



Hestholmen. ( Gunnar Bjare, County Governor of Østfold, 30-07-2016 )



Hestholmen. ( Gunnar Bjare, County Governor of Østfold, 30-07-2016 )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 1985-07-24