



Ramsar Information Sheet

Published on 1 January 2012

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Norway Havmyran



Designation date	6 August 2002
Site number	1190
Coordinates	63°30'14"N 08°37'41"E
Area	3 872,00 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

Havmyran is one of the largest mire- and wetland systems in Norway and covers a large area in the central-western part of the Hitra island in Sør-Trøndelag county. The wetland is an unspoiled characteristic coastal Atlantic mire- and lake system that serves as an important breeding site for several bird species, most notably the Southern dunlin (*Calidris alpina* spp *schinzii*). Along the peripheries of the wetland, one can find Scots pine, partly of old-growth character. The area is dotted with hundreds of ponds and lakes.

A survey from the summer of 2012 registered 60 different bird species, of which at least 35 were breeding. The area is known to be abundant with waterfowl. However, compared to a survey from 2002, there appears to be a general population decline of approximately 60% for birdlife and up to 90% decline for certain species.

Common redshank, Eurasian golden plover, whimbrel, dunlin and red-throated loon are among the most characteristic species for this wetland area. Nevertheless, all of these species have experienced population declines, especially significant for the whimbrel population, which has one of its most important breeding areas along the coast of Trøndelag and in Havmyran. The dunlin and red-throated loon are not regularly found in this region, but they occur in high numbers while breeding. Other common waders encountered in this area is the common sandpiper, common snipe, parasitic jaeger and mew gull.

Hitra is known for its large deer population and the periphery of Havmyran are important deer locations. The deer population has increased drastically in recent years, along with the recent establishment of moose in the area. One can also find other mammals here, such as otter and mountain hare. The freshwater pearl mussel is found in Skumfosselva river, which party runs through the site. Some of the ponds also host interesting fauna of planktonic freshwater crustaceans.

Human activities in the area include low-impact fishing and birdwatching. A monitoring programme exists for the freshwater pearl mussel, and another study observes the effect of possible increased nitrogen levels found in precipitation originating from a newly-opened gas refinery some 4 km away.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Pernille Kvernland
Institution/agency	Norwegian Environment Agency
Postal address	Post box 5672 Torgarden, N-7485 Trondheim, Norway
E-mail	post@miljodir.no
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2.1.2 - Period of collection of data and information used to compile the RIS

From year	1978
To year	2017

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Havmyran
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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? Uncertain

(Update) Optional text box to provide further information

A survey from the summer of 2012 registered 60 different bird species, of which at least 35 were breeding. The area is known to be abundant with waterfowl. However, compared to a survey from 2002, there appears to be a general population decline of approximately 60% for birdlife and up to 90% decline for certain species. Likely this population decline is the result of factors found outside the Ramsar-site.

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 boundaries are the same as for the Havmyran Nature Reserve.

2.2.2 - General location

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

b) What is the nearest town or population centre? Trondheim, approx pop. est. 190 000 (2016)

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): 3872

Area, in hectares (ha) as calculated from GIS boundaries 3865.52

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	2. Atlantic
Other scheme (provide name below)	1. Middle boreal zone (MbC3 – strongly oceanic section)

Other biogeographic regionalisation scheme

1. 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).
2. Biogeographical regions of Europe, European Environment Agency, 2005.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

Other reasons: A characteristic unspoiled large coastal Atlantic mire- and lake system with an extraordinary variety of different mire types. Nowadays, many of these kinds of habitats are cultivated or influenced by constructions.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification: Populations of Southern dunlin was previously more widespread, however, due to habitat destruction and fragmentation, there is only a few untouched areas in Norway (and in Northern parts of Europe) where one can find this species today, Havmyran being one of these.

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

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>Dactylorhiza majalis sphagnicola</i>	Western marsh orchid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as VU	
<i>Gentianella campestris baltica</i>	Field gentian	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as RE	
<i>Schoenus ferrugineus</i>	Brown bogrush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National Red List: Considered as VU	

Lophozia laxa - National Red List: Considered as VU

Field gentian - This species have previously been found in Havmyran and was previously (2010) considered as critically endangered, but is now (2015) considered regionally extinct in Norway.

Capitalized letters shows the species' status on 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 ¹⁾	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7								
Birds																	
CHORDATA / AVES	<i>Actitis hypoleucos</i>	Common Sandpiper	<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 site is a breeding 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	8								
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"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: The site is a breeding area for this species.
CHORDATA / AVES	<i>Anas platyrhynchos</i> 	Mallard	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: This species occur in large numbers during breeding season, migration and winter months.
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"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: This species occur in large numbers during breeding season, migration and winter months.
CHORDATA / AVES	<i>Calidris alpina</i> 	Dunlin	<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"/>	120			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Ann. II Berne Convention	55-65 pairs. Criterion 4: The site is a breeding area for this species.
CHORDATA / AVES	<i>Calidris alpina schinzii</i> 	Subspecies of Southern Dunlin	<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: The site is a breeding area for this species. Most remarkable bird species is the occurrence of the subspecies of Southern Dunlin <i>Calidris alpina</i> spp. <i>schinzii</i> . It is however uncertain if all the breeding pairs belongs to the subspecies.
CHORDATA / AVES	<i>Cygnus cygnus</i> 	Whooper Swan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Ann. II Berne Convention, Emerald Network	Criterion 4: This species occur during migration and winter months.
CHORDATA / AVES	<i>Gallinago gallinago</i> 	Common Snipe	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: The site is a breeding area for this species.
CHORDATA / AVES	<i>Gavia arctica</i> 	Black-throated Loon; Arctic Loon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Ann. II Berne Convention, Emerald Network	3-4 pairs. Criterion 4: The site is a breeding area for this species.
CHORDATA / AVES	<i>Gavia stellata</i> 	Red-Throated Diver	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Ann. II Berne Convention, Emerald Network	14-16 pairs. Criterion 4: The site is a breeding area for this species.
CHORDATA / AVES	<i>Haliaeetus albicilla</i> 	White-tailed Eagle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6			LC 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		2-3 pairs. Criterion 4: White-tailed Eagle use the site for hunting and resting. They are breeding outside the Ramsar site.
CHORDATA / AVES	<i>Larus argentatus</i> 	Herring Gull	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: The colony of breeding Herring Gull is considered a rarity in the county and is explained by the absence of Red Fox in the area.
CHORDATA / AVES	<i>Larus canus</i> 	Mew Gull	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as NT	Criterion 4: The site is a breeding area 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 4: This species occur in large numbers during breeding season, migration and winter months.
CHORDATA / AVES	<i>Numenius phaeopus</i> 	Whimbrel	<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"/>	134			LC 	<input type="checkbox"/>	<input type="checkbox"/>		65-70 pairs. Criterion 4: The site is a breeding area for this species.
CHORDATA / AVES	<i>Pluvialis apricaria</i> 	European Golden Plover; European Golden-Plover	<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"/>	210			LC 	<input type="checkbox"/>	<input type="checkbox"/>		100-110 pairs. Criterion 4: The site is a breeding area for this species.
CHORDATA / AVES	<i>Stercorarius parasiticus</i> 	Parasitic Jaeger	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as NT	Criterion 4: The site is a breeding area for this species.
CHORDATA / AVES	<i>Tringa totanus</i> 	Common Redshank	<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"/>	250			LC 	<input type="checkbox"/>	<input type="checkbox"/>		120-130 pairs. Criterion 4: The site is a breeding area for this species.

Fish, Mollusc and Crustacea

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								
MOLLUSCA / BIVALVIA	<i>Margaritifera margaritifera</i> 	Pearl Mussel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN 	<input type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU, Emerald Network	Freshwater pearl mussel occurs within the Ramsar site, but the most important area for the pearl mussel exists outside the Ramsar boundaries.	
Others																		
CHORDATA / MAMMALIA	<i>Lepus timidus</i> 	Mountain Hare	<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"/>	National Red List: Considered as NT	Criterion 4: The Site host breeding populations of this species.	
CHORDATA / MAMMALIA	<i>Lutra lutra</i> 	European Otter	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Red List: Considered as VU, Ann. II Berne Convention Emerald Network	Criterion 4: The Site host breeding populations of this species.	

1) Percentage of the total biogeographic population at the site

Capitalized letters shows the species' status on the National Red List 2015.

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
Coastal bog	<input checked="" type="checkbox"/>	National Red List: Considered as VU	
Coastal heath	<input checked="" type="checkbox"/>	National Red List: Considered as EN	

Optional text box to provide further information

Capitalized letters shows the habitats' status on the National Red List for Ecosystems and Habitat types 2011.

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

4.1 - Ecological character

The area is characterised by extensive peat moss mires, poor in nutrients and dotted with a number of ponds, smaller lakes and rocky outcrops. In the periphery of the wetland one can find typical oceanic/Atlantic Scots pine forests, partly of old growth character. Where outcrops of bedrock are found, slightly more minerotrophic conditions may occur. A number of flora species requiring minerotrophic conditions occur, but poor areas and vegetation dominate. Dominating mire types are blanket mires and ombrotrophic bogs. The unspoiled habitat is characterised as botanically interesting in itself and the broad variety of different types of mires on a well-defined area is unique. Large breeding populations of various wader species are characteristic for the site.

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		4		Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/pools		3		Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		1		Representative
Fresh water > Marshes on inorganic or peat soils >> Va: Montane wetlands		2		Representative

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Carex appropinquata</i>	Fibrous Tussock-sedge	This species is among the nationally rare or notable species recorded from the area.
<i>Carex diandra</i>	Lesser Tussock-sedge	This species is among the nationally rare or notable species recorded from the area.
<i>Carex hostiana</i>	Tawny Sedge	
<i>Carex pulicaris</i>	Flea Sedge	
<i>Dactylorhiza incarnata cruenta</i>	Early Marsh-orchid	
<i>Dactylorhiza incarnata incarnata</i>	Early Marsh-orchid	
<i>Eleocharis multicaulis</i>	Many-stalked Spike-rush	This species is among the nationally rare or notable species recorded from the area.
<i>Eriophorum latifolium</i>	Broad-leaved Cottongrass	
<i>Gymnadenia conopsea</i>	Fragrant Orchid	
<i>Hammarbya paludosa</i>	Bog orchid	National Red List: considered as NT
<i>Plantago uniflora</i>	Shoreweed	This species is among the nationally rare or notable species recorded from the area.
<i>Pseudorchis albida</i>	Small white orchid	National Red List: considered as NT
<i>Ranunculus flammula</i>	Lesser Spearwort	This species is among the nationally rare or notable species recorded from the area.
<i>Sparganium erectum</i>	Branched Bur-reed	This species is among the nationally rare or notable species recorded from the area.

Invasive alien plant species

Scientific name	Common name	Impacts	Changes at RIS update
<i>Picea sitchensis</i>	Menzies spruce	No impacts	No change

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>Lyrurus tetrix</i>	Eurasian Black Grouse; Black Grouse	15			The area is also important for the population of Black Grouse <i>Tetrao tetrix</i> (several leks with 10-20 males).
CHORDATA/AVES	<i>Picus canus</i>	Grey-headed Woodpecker				The Grey-headed Woodpecker <i>Picus canus</i> has a population in the larger area (inside and outside of the protected site), and is a typical feature of the Atlantic forest-area.
CHORDATA/ACTINOPTERYGII	<i>Anguilla anguilla</i>	European eel; European eel; European eel; European eel				National Red List: Considered as VU. Observed in Håvikvatnet right outside the boundaries of the Ramsar site. Likely to be found inside the Ramsar site as well.

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/MAMMALIA	<i>Neovison vison</i>	American Mink	Potentially	No change

Optional text box to provide further information

Ceraclea exisa - (mayfly) registered on the water of Håvikvatnet just outside the Ramsar boundaries. This species was first detected in Norway in 2004. It is not unlikely that this species can also be found inside the Ramsar site.

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfc: Subarctic (Severe winter, no dry season, cool summer)

Typical humid coastal climate, with wet cool summers (annual precipitation >1500 mm) and mild winters.

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.

A coastal mire-system with geology dominated by diorite but with some tonalite in the lower southern part. The bedrock is overgrown with mires and dotted with numerous ponds and lakes. The site is situated on an island and stretches roughly over the island from the southern to the northern coast. The catchment area has in general the same physical features as the site.

4.4.3 - Soil

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

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	No change

4.4.5 - Sediment regime

Sediment regime unknown

4.4.6 - Water pH

Unknown

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

Oligotrophic

(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 i) broadly similar ii) significantly different site itself.

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

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

Forestry is the main use of the adjacent areas.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Nature observation and nature-based tourism	Medium
Scientific and educational	Long-term monitoring site	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Nutrient cycling	Carbon storage/sequestration	Medium

Other ecosystem service(s) not included above:

A monitoring programme for the freshwater pearl mussel (NRL: VU) was established in 2000 and the river Grytelv in the area is a part of the programme.
The area is to some extent used for fishing and bird watching.

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

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: Private.
In the surrounding area: Private.

5.1.2 - Management authority

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

County Governor of Sør-Trøndelag

Postal address:

Fylkesmannen i Sør-Trøndelag, Miljøvernavdelingen, Statens Hus, 7468 Trondheim

E-mail address:

postmottak@fmst.no

5.2 - Ecological character threats and responses (Management)

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

Water regulation

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

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Renewable energy	High impact	High impact	<input 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
Hunting and collecting terrestrial animals	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Human intrusions and disturbance

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

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species	Low impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Problematic native species	unknown impact	High impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Pollution

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

Please describe any other threats (optional):

Within the Ramsar site:
 Crows and ravens have been attributed to the large population decline of waterfowl in the last decade. Offal from deer hunting that is not removed attract crows and ravens, and likely boost the populations of these two species. These birds are predators of eggs, and likely a threat for breeding birds in Hitra. However, it is argued that the crow and raven populations were this large previously, and in harmony with a large population of waterfowl, and therefore the decline of the waterfowl population cannot be attributed solely to increasing crow and raven populations.

Mink is an alien species observed inside the protected area. Mink feed on eggs, chicks and adult individuals, especially of ground-breeding species, and could reduce the density of fish, rodents and birds in the area.
 Close to Skumfossøra and the boundaries of the protected area, there is observed a cluster of sitka spruce, likely planted as a shelter belt. The sitka spruce population could potentially expand into the protected area.

In the surrounding area:

A study has been established in order to monitor the impact of potential change in composition of precipitation with possible increased levels of nitrogen (originating from a nearby gas-refinery).

A dam found just outside the area now function as a barrier for spawning fish, and it is estimated that the sea trout population inside the protected area suffer as a result of this dam being built, with as much as 18 500 smolts a year (1 850 spawning fish). This again can affect fish-eating bird species that inhabit the area.

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature Reserve	Havmyran		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

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:

Information brochures about the area are available.

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal species (please specify)	Implemented

A monitoring programme for the freshwater pearl mussel (NRL: VU) was established in 2000 and the river Grytelv in the area is a part of the programme. Another study observe the effect of possible increased nitrogen levels found in precipitation originating from a newly-opened gas refinery 4 km away.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Henriksen, S., Hilmo, O., 2015. Norsk rødliste for arter 2015 (red). Artsdatabanken, Norge - 2015 Norwegian Red List. Artsdatabanken, Norway

Forvaltningsplan for Havmyran naturreservat, Hitra kommune. Rapport x/2017. FYLKESMANNEN I SØR-TRØNDELAG

Statens naturoppsyn, Årsrapport 2012

Biogeographic regionalisation scheme:
Moen, A. 1998. Nasjonalatlas for Norge; vegetasjon. Statens kartverk, Hønefoss

General natural history:
Gjengedal, E. 1994. Vern av biologisk mangfold. Tema: Myrreservatene. Oversikt over naturfaglig kunnskap II. Fylkesmannen i Sør-Trøndelag, Miljøvernavdelingen. Rapport nr. 9:175-208. (In Norwegian - status of natural history knowledge, incl. literature review)

Birds:
Rygh, O. 1978. Ornitologiske undersøkelser på Havmyran, Hitra sommeren 1978. Rissa, 9 pp. (In Norwegian – bird survey)
Torp, E. 2006. Fuglelivet i Havmyran naturreservat, sommeren 2002. Fylkesmannen i Sør-Trøndelag, miljøvernadv. Rapp. 4-2006. 28pp. (In Norwegian – bird survey)

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

<2 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Havmyran (Carina Ulsund, 13-11-2013)



Havmyran (Carina Ulsund, 13-11-2013)



Havmyran (Carina Ulsund, 13-11-2013)



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Havmyran (Carina Ulsund, 13-11-2013)



Havmyran (Carina Ulsund, 13-11-2013)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation