



# Ramsar Information Sheet

Published on 22 December 2017

Update version, previously published on : 1 January 2002

## Sweden Svartådalen



Designation date	12 June 1989
Site number	436
Coordinates	59°52'40"N 16°19'52"E
Area	1 977,00 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

Svartådalen is a complex of four eutrophic, freshwater lakes: Fläcksjön, Gussjön, Gorgen and Rörbosjön. They are connected by the meandering river Svartån, and surrounded by low-lying, wet meadows. The site is listed as being of national importance for nature conservation, and it is internationally important for resting whooper swan *Cygnus cygnus*.

## 2 - Data & location

### 2.1 - Formal data

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

##### Compiler 1

Name	Carl Hanson
Institution/agency	Länsstyrelsen Västmanland
Postal address	Carl Hanson Länsstyrelsen i Västmanland S-721 86 Västerås, Sweden
E-mail	carl.hanson@lansstyrelsen.se
Phone	+46 10-2249000
Fax	+46 10-2249110

##### Compiler 2

Name	Jenny Lonnstad
Institution/agency	Swedish EPA (Naturvårdsverket)
Postal address	Naturvårdsverket, 106 48 Stockholm, Sweden
E-mail	jenny.lonnstad@naturvardsverket.se
Phone	+46 10 698 15 92
Fax	+46 10 698 16 00

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

From year	2002
To year	2015

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Svartådalen
Unofficial name (optional)	Svartådalen (river valley); originally designated as 'River Svartån'

#### 2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input checked="" type="radio"/> No <input type="radio"/>
(Update) The boundary has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The boundary has been extended	<input checked="" type="checkbox"/>
(Update) The boundary has been restricted	<input checked="" type="checkbox"/>
(Update) B. Changes to Site area	the area has decreased
(Update) The Site area has been calculated more accurately	<input checked="" type="checkbox"/>
(Update) The Site has been delineated more accurately	<input type="checkbox"/>
(Update) The Site area has increased because of a boundary extension	<input type="checkbox"/>
(Update) The Site area has decreased because of a boundary restriction	<input checked="" type="checkbox"/>

#### 2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	Yes (actual)
(Update) Are the changes	Positive <input type="radio"/> Negative <input type="radio"/> Positive & Negative <input checked="" type="radio"/>
(Update) Positive %	2
(Update) Negative %	1
(Update) No information available	<input type="checkbox"/>

(Update) Changes resulting from causes operating within the existing boundaries?

(Update) Changes resulting from causes operating beyond the site's boundaries?

(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?

(Update) Changes consequent upon site boundary increase alone (e.g., the inclusion of different wetland types in the site)?

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

The boundary has been changed in a way that better follow the boundaries for nature reserves and Natura sites. A large proportion of the land that has been excluded is arable land, but some small wetlands close to major wetland have also been excluded. Grasslands, small peatlands and wet forests as well as some arable land have been included in the site. About 10 % of the old site has been excluded. The % positive and negative above is a guess about how much wetlands that was included or excluded, it's probably less than written.

(Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change) Yes

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<1 file(s) uploaded>

Former maps

#### Boundaries description

The boundaries are to a large extent identical with the boundaries of the corresponding Natura 2000-site.

### 2.2.2 - General location

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

b) What is the nearest town or population centre?

### 2.2.3 - For wetlands on national boundaries only

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

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

### 2.2.4 - Area of the Site

Official area, in hectares (ha):

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

### 2.2.5 - Biogeography

#### Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
WWF Terrestrial Ecoregions	PA0436 Sarmatic mixed forest
WWF Terrestrial Ecoregions	PA0608 Scandinavian-Russian taiga
Other scheme (provide name below)	Sarmatic mixed forest
Other scheme (provide name below)	Scandinavian-Russian taiga
Freshwater Ecoregions of the World (FEOW)	406 Northern Baltic drainages
EU biogeographic regionalization	Boreal

#### Other biogeographic regionalisation scheme

EEA, 2002: Digital Map of the European Ecological Regions (DMEER): "Scandinavian-Russian taiga" and "Sarmatic mixed forest".

### 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

Other ecosystem services provided

Other reasons

- Criterion 2 : Rare species and threatened ecological communities



- Criterion 3 : Biological diversity

Justification

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

- Criterion 6 : >1% waterbird population
































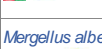
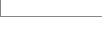

#### 3.2 - Plant species whose presence relates to the international importance of the site








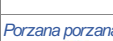





Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
 <i>Potamogeton acutifolius</i>	flat-stalked pondweed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015, (VU).	See textbox below the table and in section 3.1.
 <i>Viola uliginosa</i>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015, (NT).	See textbox below the table and in section 3.1.

Criterion 2 and 3: For all species, their status in the Swedish Red List and general information for that classification as well as their distribution etc can be found at <http://artfakta.artdatabanken.se/>. Observation of the species can be found in the Swedish database for observations <http://www.artportalen.se/>.

#### 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								
Birds																

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								
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"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VJ).	Important staging site during migration. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Anas clypeata</i>	Northern Shoveler	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Breeding, foraging and staging site. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Anas querquedula</i>	Garganey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (VJ).	See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Anser fabalis</i>	Bean Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (NT).	Important staging and foraging site during migration. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Aythya ferina</i>	Common Pochard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (VJ).	See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Botaurus stellaris</i>	Eurasian Bittern	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (NT). EC Birds Directive Annex I.	Breeding. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Chlidonias niger</i>	Black Tern	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (VJ).	Breeding. Very important site for species in the EU boreal region. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Circus aeruginosus</i>	Western Marsh Harrier	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	EC Birds Directive Annex I.	Foraging. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Circus cyaneus</i>	Northern Harrier	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (NT). EC Birds Directive Annex I.	Foraging. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Crex crex</i>	Corn Crane	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (NT). EC Birds Directive Annex I.	Breeding. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Cygnus cygnus</i>	Whooper Swan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2500	2000-2010	4	LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive Annex I.	Important staging site during migration. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Emberiza schoeniclus</i>	Common Reed Bunting; Reed Bunting; Common Reed-Bunting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (VJ).	See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Gallinago media</i>	Great Snipe	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (NT). EC Birds Directive Annex I.	Staging. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Grus grus</i>	Common Crane	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	EC Birds Directive Annex I.	Important site for staging, breeding and foraging. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Haliaeetus albicilla</i>	White-tailed Eagle	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Swedish Red List 2015, (NT). EC Birds Directive Annex I.	Foraging. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Larus argentatus</i>	European Herring Gull; Herring Gull	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	Swedish Red List 2015, (VJ).	See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Luscinia svecica</i>	Bluethroat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive Annex I.	Important staging site during migration. See textbox below the table and in section 3.1.
CHORDATA / AVES	 <i>Mergellus albellus</i>	Smew	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	EC Birds Directive Annex I.	Important staging and foraging site during migration. See textbox below the table and in section 3.1.

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								
CHORDATA / AVES	 <i>Motacilla flava</i>	Western Yellow Wagtail	<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"/>		Breeding, foraging, staging. See textbox below the table and in section 3.1.	
CHORDATA / AVES	 <i>Numerius arquata</i>	Eurasian Curlew	<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"/>	Swedish Red List 2015, (NT).	Important staging site during migration and breeding site as well. See textbox below the table and in section 3.1.	
CHORDATA / AVES	 <i>Philomachus pugnax</i>	Ruff	<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"/>	Swedish Red List 2015, (VJ).	Important staging and foraging site during migration, also a breeding site. See textbox below the table and in section 3.1.	
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive Annex I.	Important staging site during migration. See textbox below the table and in section 3.1.	
CHORDATA / AVES	 <i>Porzana porzana</i>	Spotted Crake	<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"/>	Swedish Red List 2015, (VJ). EC Birds Directive Annex I.	Breeding. See textbox below the table and in section 3.1.	
CHORDATA / AVES	 <i>Sterna hirundo</i>	Common Tern	<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"/>	EC Birds Directive Annex I.	Breeding and foraging. See textbox below the table and in section 3.1.	
CHORDATA / AVES	 <i>Tringa glareola</i>	Wood Sandpiper	<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"/>	EC Birds Directive Annex I.	Breeding site. See textbox below the table and in section 3.1.	

1) Percentage of the total biogeographic population at the site

Criterion 2, 3, 4 and 6: For all species, their status in the Swedish Red List and general information for that classification as well as their distribution etc can be found at <http://artfakta.artdatabanken.se/>. Observation of the species can be found in the Swedish database for observations <http://www.artportalen.se/>.

Criterion 6: The population size for the whooper swan in the "North-west Mainland Europe" is 59 000 (ref Wetlands International). The Ref for the population size at the site is the Swedish database for observations <http://www.artportalen.se/>.

### 3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>

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

### 4.1 - Ecological character

The wetlands mainly consist of a river and three shallow lakes, which are to a large extent surrounded by wet meadows. The lakes are eutrophic with large areas with emergent water vegetation. There are a number of vascular plants in the open water bodies that are favoured by the eutrophic conditions, e.g. several Potamogeton species. The surrounding wet meadows are to a large extent flooded during spring and are to a very large extent used by migratory birds during spring. The wet meadows are to a large extent mowed in the northern part of the area and in the Southern part of the area they are mainly mowed by grazing cattle. Like in many other shallow eutrophic lakes, the vegetation has changed to a large extent during the last decades in Gussjön and Fläcksjön. The vegetation cover in these lakes is much bigger than it used to be.

### 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 > Flowing water >> M: Permanent rivers/ streams/ creeks	Mindre vattendrag	0	23	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes	Naturligt näringsrika sjöar	2	650	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		3	170	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands	Öppna mossar och kärr	4	25	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		0	20	Representative

#### Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
4: Seasonally flooded agricultural land	Fuktängar	1	706	Representative

## 4.3 - Biological components

### 4.3.1 - Plant species

<no data available>

### 4.3.2 - Animal species

<no data available>

## 4.4 - Physical components

### 4.4.1 - Climate

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

### 4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

Entire river basin



- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The river Svartån is one of many larger tributaries to the large catchment area around the lake Mälaren. Svartån itself have many tributaries of which some enters Svartån at the site. The water from lake Mälaren finally enters the Baltic Sea.

#### 4.4.3 - Soil

Mneral

(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

#### 4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

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

Water destination

Presence?	Changes at RIS update
To downstream catchment	No change
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 water levels fluctuate with the season. Normally large flooding takes place when the snow melts or there have been large amounts of rain.

#### 4.4.5 - Sediment regime

Significant transportation of sediments occurs on or through the site

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

Sediment regime unknown

#### 4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4)

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

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

Eutrophic

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

Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself. i) broadly similar  ii) significantly different

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

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

The site mostly contains lakes and wet land areas that are regularly flooded. The surrounding consists of arable land, farms, and forest and some small wetlands.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Low
Wetland non-food products	Livestock fodder	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Low
Recreation and tourism	Nature observation and nature-based tourism	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High

Within the site: 1000

Outside the site: 500

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"/>
Other public ownership	<input checked="" type="checkbox"/>	<input 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):

The area is mostly privately owned, a minor part is owned by the state.

#### 5.1.2 - Management authority

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

Länsstyrelsen i Västmanlands län (County Administrative Board of Västmanland)

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

Kontaktperson för Ramsarområden

Postal address:

S-721 86 Västerås  
Sweden

E-mail address:

vastmanland@lansstyrelsen.se

## 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
Housing and urban areas	Low impact		<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Annual and perennial non-timber crops	Medium impact		<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Livestock farming and ranching	Medium impact		<input 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			<input type="checkbox"/>		<input checked="" type="checkbox"/>	

Please describe any other threats (optional):

Two of the lakes at the site have been lowered in the beginning of the 20th Century. There are old dykes adjacent to these areas. As a consequence, the lake Gorgen has changed into a wetland, with small areas of open water. In the lake Gussjön the vegetation is getting denser rapidly as a result of a high nutrient load and a shallow water level.

#### 5.2.2 - Legal conservation status

##### Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Fläckebo SAC & SPA	<a href="http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/flackebo.aspx">http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/flackebo.aspx</a>	partly
EU Natura 2000	Fläcksjön SAC & SPA	<a href="http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/flacksjon.aspx">http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/flacksjon.aspx</a>	partly
EU Natura 2000	Gorgen SAC & SPA	<a href="http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/gorgen.aspx">http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/gorgen.aspx</a>	partly
EU Natura 2000	Gussjön SAC & SPA	<a href="http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/gussjon.aspx">http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/gussjon.aspx</a>	partly
EU Natura 2000	Nötmyran SAC & SPA	<a href="http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/notmyran.aspx">http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/notmyran.aspx</a>	partly
EU Natura 2000	Rörbosjön SAC & SPA	<a href="http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/rorbosjon.aspx">http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/ista-over-bevarandeplaner/sala/Pages/rorbosjon.aspx</a>	partly
EU Natura 2000	Vrenninge SAC & SPA	<a href="http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/Gallande%20bevarandeplaner/BEVARANDEPLAN_VRENNINGE_SE0250151.pdf">http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/natura-2000/Gallande%20bevarandeplaner/BEVARANDEPLAN_VRENNINGE_SE0250151.pdf</a>	

## National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature reserve	Fläckebo	<a href="http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/naturreservat/sala/flackebo/Pages/index.aspx">http://www.lansstyrelsen.se/vastmanland/Svdjur-och-natur/skyddad-natur/naturreservat/sala/flackebo/Pages/index.aspx</a>	partly

## Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	River Svartån	<a href="http://datazone.birdlife.org/site/factsheet/river-svartan-iba-sweden">http://datazone.birdlife.org/site/factsheet/river-svartan-iba-sweden</a>	partly

## 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

Human Activities

Measures	Status
Livestock management/exclusion (excluding fisheries)	Implemented

Other:

Most of the area is included in the Natura 2000-network.  
Grazing and haymaking is regulated through agreements with the farmers in the area.

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

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, the site has already been restored

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Olson, A. Melica 2008. Submersa makrofyter i Fläcksjön, Gussjön och Rörbosjön 2006, basinventering Natura 2000. Länsstyrelsen i Västmanlands län, stencil.  
Jordbruksverket, 2002-2004. Inventering av värdefulla ängs- och betesmarker. Jordbruksverkets databas TUVÅ och GIS-skikt.  
Loreth, T. 2007. Nätprovfiske i Västmanlands län 2007. Länsstyrelsen i Västmanlands län, Rapport 2007:18.

#### 6.1.2 - Additional reports and documents

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

<no file available>

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

<no file available>

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

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<1 file(s) uploaded>

#### 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



View over one of the southern bays of the lake Fläcksjön. ( *Jenny Lonnstad, 07-09-2015* )



Old hay barns close to the lake Fläcksjön and its shore meadows. ( *Jenny Lonnstad, 07-09-2015* )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation