



Ramsar Information Sheet

Published on 27 March 2017

Update version, previously published on : 1 January 2002

Sweden Fylleån



Designation date	14 November 2001
Site number	1119
Coordinates	56°39'51"N 12°57'56"E
Area	910,00 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

The site encompasses parts of a river that is largely untouched by hydrological interventions. The water quality is good and offers suitable conditions for demanding species. Deciduous forests dominate close to the river. Dune areas are found at the river mouth.

The river is spawning ground to a unique wild salmon stock, and the benthic fauna is diverse. A constructed wetland close to the sea is a staging area for migratory birds and also an important breeding area for birds.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Viveka Strand (NFP: Jenny Lonnstad)
Institution/agency	Länsstyrelsen i Hallands län, (AA Naturvårdsverket)
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E-mail	halland@lansstyrelsen.se
Phone	+4602243000
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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)	Fylleån
Unofficial name (optional)	Fylleån (river)

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 type="checkbox"/>
(Update) The boundary has been restricted	<input 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 checked="" 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 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 (likely)
(Update) Are the changes	Positive <input type="radio"/> Negative <input type="radio"/> Positive & Negative <input checked="" type="radio"/>
(Update) Positive %	1
(Update) Negative %	1
(Update) No information available	<input type="checkbox"/>
(Update) Changes resulting from causes operating within the existing boundaries?	<input type="checkbox"/>
(Update) Changes resulting from causes operating beyond the site's boundaries?	<input type="checkbox"/>
(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?	<input checked="" type="checkbox"/>
(Update) Changes consequent upon site boundary increase alone (e.g., the inclusion of different wetland types in the site)?	<input checked="" type="checkbox"/>

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

The border has been slightly changed. The new border is based upon a digitalization of the old border made on a paper map, but the digitalization had some smaller discrepancies compared to the border on the paper map. We think these small changes in total have resulted in a small decrease of the site area. Areas excluded consist of open water, forests and grasslands. Areas added are part of forests, grasslands, railway and a built-up area.

(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

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
Freshwater Ecoregions of the World (FEOW)	406 Northern Baltic drainages
Other scheme (provide name below)	See textbox below
WWF Terrestrial Ecoregions	Sarmatic mixed forest PA0436
Udvardy's Biogeographical Provinces	11 Middle European Forest
Bailey's Ecoregions	240 Marine division
EU biogeographic regionalization	Continental and Boreal
Marine Ecoregions of the World (MEOW)	25. North sea

Other biogeographic regionalisation scheme

Södra Hallands kustland (Nordiska ministerrådet 1984, Naturgeografiska regioner i Norden).
Sarmatic mixed forest (EEA 2002, "DMEER" Digital Map of European Ecological Regions)
Marine Atlantic (EU Marine regions)

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 This river system is representative to the EU boreal and continental region, and in a near natural state.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification Fylleån supports particular elements of biological diversity that are rare of the EU Continental region. The benthic fauna is very diverse, and the fish stock includes a highly valued unique population of salmon.

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











- Criterion 7 : Significant and representative fish

Justification The site has a large biodiversity when it concerns fish. Altogether 25 fish species have been found in the river and that is a lot for the FEOW region Northern Baltic drainages. Families at the site include Percidae, Cyprinidae, Salmonidae, Gadiformes, Gasterosteidae, Anguillidae and Petromyzontidae. The river is a spawning area for a genetically unique subpopulation of wild salmon (*Salmo salar*). The site is feeding area for the red listed European Eel. Sea lamprey is re-producing the lower parts of the river, a species rare and red listed in Sweden.

- Criterion 8 : Fish spawning grounds, etc.

Justification Fylleån is a critical spawning ground and nursery area for freshwater and diadromous fish species such as salmon and trout.

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>Atriplex laciniata</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (EN)	See textbox below the table.
<i>Bryhnia novae-angliae</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
<i>Euphrasia micrantha</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
<i>Gentiana pneumonanthe</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
<i>Hookeria lucens</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (NT)	See textbox below the table.
<i>Isolepis setacea</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (EN)	See textbox below the table.
<i>Juncus capitatus</i> 	leafybract dwarf rush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (EN)	See textbox below the table.
<i>Taraxacum duplidentifrons</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
<i>Taraxacum maculigerum</i> 		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.

Criterion 2 and 3: For all species, the Swedish red-list status and general information for that classification etc can be found at <http://artfakta.artdatabanken.se/>. Observations can be found in www.artportalen.se.

Criteria 3: The site support a number of wetland species typical for these kinds of wetlands in the EU Boreal and Continental region.

The lichens *Rinodina fimbriata* (Swedish Red List CR) and *Poridia hydrophila* (Swedish Red List NT) are also part of the justification of criteria 3. They were not accepted by the RSIS in the table above.

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	8								
Birds																		
CHORDATA/AVES	 <i>Alcedo atthis</i>	Common Kingfisher	<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 (VU)	Foraging. See textbox below the table.
CHORDATA/AVES	 <i>Anas querquedula</i>	Garganey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
CHORDATA/AVES	 <i>Chroicocephalus ridibundus</i>	Black-headed Gull	<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"/>	150	2014			<input type="checkbox"/>	<input type="checkbox"/>		Important breeding area. See textbox below the table.
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
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"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT)	Staging site. See textbox below the table.
CHORDATA/AVES	 <i>Remiz pendulinus</i>	Eurasian Penduline Tit	<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 (EN)	Breeding. See textbox below the table.
CHORDATA/AVES	 <i>Sternula albifrons</i>	Little Tern	<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 (VU). EC Birds Directive Annex I.	Breeding, staging, foraging. See textbox below the table.
Fish, Mollusc and Crustacea																		
CHORDATA/ACTINOPTERYGII	 <i>Anguilla anguilla</i>	Eel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				CR 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (CR).	Foraging. See textbox below the table.
CHORDATA/CEPHALASPIDOMORPHI	 <i>Petromyzon marinus</i>	Lamprey Eel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT).	Suitable reproduction habitats available. See textbox below the table.
CHORDATA/ACTINOPTERYGII	 <i>Salmo salar</i>	Salmon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	EC Habitats Directive Annex II.	Genetically the population is unique for Fylleån. Spawning and nursery habitats present. See textbox below the table.
CHORDATA/ACTINOPTERYGII	 <i>Salmo trutta</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Spawning habitats. See textbox below the table.
Others																		
ARTHROPODA/INSECTA	 <i>Beraea maurus</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
ARTHROPODA/INSECTA	 <i>Brachyptera braueri</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
ARTHROPODA/INSECTA	 <i>Cicindela maritima</i>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (VU)	See textbox below the table.
CHORDATA/MAMMALIA	 <i>Lutra lutra</i>	European Otter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT)	See textbox below the table.

1) Percentage of the total biogeographic population at the site

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

Criteria 3: The site supports a number of wetland species typical or for these kinds of wetlands in the EU Boreal and Continental region.

Criteria 4: All the species where criteria 4 is applies are breeding within the site.

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
3260. Water courses of plain to montane levels with the Ranuncion fluitantis and Callitricho-Batrachion vegetation	<input checked="" type="checkbox"/>	Water courses of plain to montane levels, with submerged or floating vegetation of the Ranuncionfluitantis and Callitricho-Batrachion (low water level during summer) or aquatic mosses.	EC Habitats Directive Annex II. The conservation status (2013) was unfavourable in the Swedish part of the EU Continental and EU Boreal region respectively.

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

4.1 - Ecological character

A near natural river that is representative to the region, with seasonal cycles in water flow and occasional flooding. A variety of habitats occur including waterfalls, gravel areas and along the coastline where the river enters the sea there are sand dunes. The river is spawning ground to a unique wild salmon stock, and the benthic fauna is diverse. A constructed wetland close to the sea is a staging area for migratory birds and also an important breeding area for birds.

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		2		Representative
B: Marine subtidal aquatic beds (Underwater vegetation)		0		Representative
E: Sand, shingle or pebble shores		3		

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		1		Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		0		Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands	Wet Alnus forests	4		Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		0		Representative
Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases		0		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
2: Ponds		0		

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
deciduous forest, coniferous forest, arable land	

4.3 - Biological components

4.3.1 - Plant species

Invasive alien plant species

Scientific name	Common name	Impacts	Changes at RIS update
<i>Impatiens glandulifera</i>		Potentially	unknown
<i>Lysichiton americanus</i>		Potentially	increase

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>Circus aeruginosus</i>	Western Marsh Harrier				EC Birds Directive Annex I
CHORDATA/AVES	<i>Recurvirostra avosetta</i>	Pied Avocet				EC Birds Directive Annex I
CHORDATA/MAMMALIA	<i>Muscardinus avellanarius</i>					EU Habitat Directive Annex II

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
ARTHROPODA/MALACOSTRACA	<i>Pacifastacus leniusculus</i>	signal crayfish	No impacts	No change
PLATYHELMINTHES/MONOGENEA	<i>Gyrodactylus salaris</i>		Potentially	No change
CHORDATA/MAMMALIA	<i>Neovison vison</i>		Potentially	No change

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfb: Marine west coast (Mild with no dry season, warm summer)

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 site is part of the river basin Fylleån. It includes the river with its surroundings in the lower part of the catchment area. The river enters the Kattegatt. Part of the coast is also part of the site.

The river is Fylleån water body EU_CD: SE628804-132692.

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

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	No change

Source of water that maintains character of the site

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

4.4.5 - Sediment regime

Significant erosion of sediments occurs on the site

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

Significant accretion or deposition of sediments occurs on the site

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

Significant transportation of sediments occurs on or through the site

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

Sediment regime is highly variable, either seasonally or inter-annually

(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

Please provide further information on pH (optional):

Liming occurs in several parts of the catchment area.

4.4.7 - Water salinity

Fresh (<0.5 g/l)

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

Unknown

Please provide further information on salinity (optional):

The salinity of the surface water in the sea close to the site is 15-20 psu.

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:

The site consists of the river valley with the river, wetlands and adjacent deciduous forest. The river mouths in the sea Kattegatt.
The western part of the site is surrounded by arable land and built-up areas. The eastern part of the site is surrounded by forests and small villages.

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
Fresh water	Drinking water for humans and/or livestock	Medium
Fresh water	Water for energy production (hydro-electricity)	Low
Fresh water	Water for irrigated agriculture	Low
Wetland non-food products	Livestock fodder	Low

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
Recreation and tourism	Picnics, outings, touring	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:

Outside the site:

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

RIS for Site no. 1119, Fylleån, Sweden

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

5.1.2 - Management authority

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

Länsstyrelsen i Hallands län

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

Kontaktperson för Ramsarområden

Postal address:

Länsstyrelsen i Hallands län
30186 Halmstad

E-mail address:

halland@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
Commercial and industrial areas	Low impact	Medium impact	<input type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown
Housing and urban areas	Low impact	High impact	<input type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown

Water regulation

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

Agriculture and aquaculture

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

Transportation and service corridors

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

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Logging and wood harvesting	Medium impact	High impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown
Fishing and harvesting aquatic resources	Medium impact	High impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown

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

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dams and water management/use	Medium impact	High impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown
Vegetation clearance/land conversion	Medium impact	High impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown

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"/>	increase	<input checked="" type="checkbox"/>	unknown

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Air-borne pollutants	Medium impact	High impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	decrease
Agricultural and forestry effluents	Medium impact	High impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown
Household sewage, urban waste water	Low impact	High impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown

Please describe any other threats (optional):

The renewable energy production that is considered a threat to the site is hydropower. Three minor power stations occur at the site. They all have fish ladders, but nonetheless they are barriers to fish and other organisms as well as sediment transport, and they may affect the water flow.

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	3 sites see national legislation below.		partly

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Bird Sanctuaries	Trönningeängar, Skäret		partly
Natura 2000 SCI (1)	Fylleån	www.lansstyrelsen.se/halland/SiteCollectionDocuments/sv/djur-och-natur/skyddad-natur/natura-2000/Fylleån.pdf	partly
Natura 2000 SCI (2)	Brogård	www.lansstyrelsen.se/halland/SiteCollectionDocuments/sv/djur-och-natur/skyddad-natur/natura-2000/Brogård.pdf	partly
Natura 2000 SCI (3)	Åmarp	www.lansstyrelsen.se/halland/SiteCollectionDocuments/sv/djur-och-natur/skyddad-natur/natura-2000/Åmarp.pdf	partly
Natural Monument	Slyngestenen		partly
Nature Reserve (1)	Hagön	www.lansstyrelsen.se/halland/Sv/djur-och-natur/skyddad-natur/naturreservat/halmstad/Pages/hagon.aspx	partly
Nature Reserve (2)	Brogård	www.lansstyrelsen.se/halland/Sv/djur-och-natur/skyddad-natur/naturreservat/halmstad/Pages/brogard.aspx	partly
Nature Reserve (3)	Åmarp	www.lansstyrelsen.se/halland/Sv/djur-och-natur/skyddad-natur/naturreservat/halmstad/Pages/amarp.aspx	partly
Protected landscape	Fyllingeåns dalgång and Strandområdet Påarp-Fylleåns mynning		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	Partially implemented

Habitat

Measures	Status
Improvement of water quality	Implemented
Faunal corridors/passage	Partially implemented

Human Activities

Measures	Status
Fisheries management/regulation	Partially implemented
Regulation/management of recreational activities	Partially 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

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but restoration is needed

Further information

Within the site there are three ponds for hydropower: Fyllinge kvarn, Marbäcks bruk, Linnebergsmöllan. All three have fish ways, but they are probably not working for fish with weak swimming abilities like minnow, roach and perch. The dams result in disturbed sediment transportation and occupy valuable spawning areas for Salmon.

Invasive species occurs in the site, among them *Lysichiton americanus*, and *Pacifastacus leniusculus* and *Gyrodactylus salaris*.

Forestry occurs close to the river, and a buffer zone needs to be implemented.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water quality	Implemented
Animal community	Implemented

Monitoring of benthic invertebrates. Monitoring of reproduction of salmon, trout and other fishes.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

- Bengtsson, S. 1996. Naturvårdsprogram för Hallands län. Del 3. Halmstads kommun. Södra delen. Länsstyrelsen i Halland.
- Boström, A. & Nilsson, C. 2014. Bottenfauna i Hallands län 2014. Biologisk uppföljning i kalkade vatten. Länsstyrelsen i Hallands län. Meddelande 2014:15
- Erlandsson, J. 2001. Områden av riksintresse för naturvård i Hallands län. NN18 Simlångsdalen-Tönnersjöheden, s. 81-89. Länsstyrelsen Halland. Meddelande 2001: 20.
- Forslund, M. & Rundlöf, S. 1984. Inventering av våtmarker i Hallands län. Länsstyrelsen i Hallands län. Meddelande 1985:1.
- Fritz, Ö. 1996. Inventering av skogliga nyckelbiotoper inom naturskyddade områden i Hallands län 1995. Del 1. Södra länsdelen. Tar upp Brogård NR, s. 103-107 och Åmarp NR, s. 212-216. Länsstyrelsen i Hallands län. Meddelande 1996: 10.
- Fritz, Ö. 1996. Ytvattenvårdsprogram för Hallands län 1996. Länsstyrelsen i Hallands län. Del 2. Södra länsdelen. Fylleån, s. 107-132. Meddelande 1996: 13.
- Ivarsson, J. 1990. Geologisk inventering av Fylleåns dalgång. Länsstyrelsen i Hallands län. Meddelande 1990: 10.
- Nordiska ministerrådet. 1984. Naturgeografisk regionindelning av Norden.
- Rådén, R., Larsson, H., Bloch, I. & Johansson, J. 2014. Fiskeribiologisk undersökning inom Fylleåns kalkningsprojekt 2014. En undersökning av fiskfaunan vid nio lokaler i rinnande vatten. Länsstyrelsen i Hallands län. Meddelande 2014:20.
- Sjöstrand, P. 2001. Sammanställning av uppföljande elfiske 2000 inom Fylleåns kalkningsprojekt. Länsstyrelsen i Hallands län. Meddelande 2001: 5.
- Stibe, L. 2014. Vattenkemisk uppföljning i kalkade sjöar och vattendrag i Hallands län 2009-2013. Länsstyrelsen i Hallands län. Meddelande 2014:18.
- Strand, V. 2013. Biotopkartering av Fylleån. Länsstyrelsen i Hallands län. Meddelande 2013:18.

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>

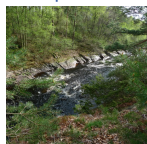
vi. other published literature

<no file available>

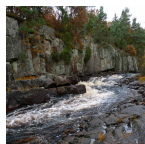
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6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Norteforsen (Länsstyrelsen
Halland, 09-05-2011)



Tolarpfallet (Länsstyrelsen
Halland, 23-10-2009)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2001-11-14