



Ramsar Information Sheet

Update version, previously published on 31 January 2013

Sweden Vindelälven



Designation date	19 March 2013
Site number	2181
Coordinates	65°07'33"N 18°12'14"E
Area	66 395,00 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

Vindelälven is a free-flowing river with plenty of tributaries. There are no hydropower dams in its main channel and a large number of impressive, untamed rapids. The river is 450 kilometres long, originates in the alpine region and stretches to the coast. High species diversity is a significant character of the river. Prominent species in the river are naturally reproducing salmon (*Salmo salar*), otter (*Lutra lutra*) and the freshwater pearl mussel (*Margaritifera margaritifera*). A hydrologic characteristic of the river is the high and regular seasonal fluctuations of the water-level, the snow melting in the alpine region mostly creating the annual peak-flow. The inland delta in Ammarnäs is of significant importance for migrating and breeding water birds.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

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Compiler 2

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

From year	2013
To year	2015

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Vindelälven
Unofficial name (optional)	Vindelälven (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 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? Not evaluated

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 boundary of the site corresponds with the boundary of the EU Natura 2000 area Vindelälven.

2.2.2 - General location

a) In which large administrative region does the site lie?	Västerbotten County
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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
Udvardy's Biogeographical Provinces	The Palearctic Realm: 3 West Eurasian Taiga
EU biogeographic regionalization	Alpine
Freshwater Ecoregions of the World (FEOW)	Ecoregion 406: Northern Baltic drainages
EU biogeographic regionalization	Boreal
WWF Terrestrial Ecoregions	Scandinavian - Russian taiga
WWF Terrestrial Ecoregions	Scandinavian montane birch forest and grasslands
Bailey's Ecoregions	130 Subarctic Division
Bailey's Ecoregions	M240 Marine Regime mountains

Other biogeographic regionalisation scheme

Nordiska ministerrådet (NMR), 1977: Naturgeografisk regionindelning av Norden. NU B 1977:34. Alpine zone and Boreal zone.

EEA, 2002: Digital Map of the European Ecological regions. "Scandinavian - Russian taiga" and "Scandinavian montane birch forest and grasslands"

EU Biogeographic Regionalization: Alpine

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

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

Hydrological services provided The river provides drinking water, water purification and to some extent flood control.

Other ecosystem services provided The site provides good fishing.

Other reasons The site is a rare example of a natural permanent river (M). It includes smaller parts that are permanent freshwater lakes (O) and a permanent inland delta (L). The river is large and has a lot of tributaries. It is free-flowing with natural water fluctuations several impressive rapids, and without any hydropower dams. Such natural rivers are very rare in the EU boreal and alpine regions as well as in FEOW Ecoregion 406: Northern Baltic drainages.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification The site is very important for maintaining the biological diversity of free-flowing rivers in the region (FEOW Ecoregion 406: Northern Baltic drainages), since almost all other large rivers are exploited for hydropower production. This creates good conditions for migrating aquatic species and species living in fast flowing waters. The natural water flow and the seasonal flooding's have a good effect on the flora along the river and the flora is very species-rich for northern boreal conditions. The water vegetation in the slow-running parts of the river is well developed. The site is also one of the flyways for birds, from the shores of Baltic sea to the alpine region. The inland delta in Ammamäs is of significant importance for migrating and breeding water birds. The site is important for birds, fish and invertebrates with aquatic larvae.

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

- Criterion 7 : Significant and representative fish

Justification The site is of importance for maintaining populations of migrating aquatic species and for species in need of free-flowing waters with rapids. The fish fauna is varied and includes an endemic morphotype.

- Criterion 8 : Fish spawning grounds, etc.

Justification The Vindelälven river is important as a migrating and spawning site for anadromous populations of Baltic salmon *Salmo salar* and Brown trout (*Salmo trutta*) migrating to spawning territories in the river Vindelälven. The site is also important for reproduction of European grayling *Thymallus thymallus*. There are also strong populations of freshwater pearl mussel *Margaritifera margaritifera*.

- Criterion 9 : >1% non-avian animal 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>Fontinalis antipyretica</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Persicaria foliosa</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. The species is included in a specific action programme to improve its situation.
<i>Potamogeton alpinus</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Ranunculus peltatus</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Taraxacum crocodes</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 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 etc. can be found at <http://artfakta.artdatabanken.se/>. Observations can be found in 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 ¹⁾	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7								
Birds																	
CHORDATA/AVES	<i>Anser erythropus</i>	Lesser White-fronted Goose	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Swedish Red List 2015 (CR). EC Birds Directive Annex I.	Staging and feeding places along the river. See text box below the table and in section 3.1.
CHORDATA/AVES	<i>Cygnus cygnus</i>	Whooper Swan	<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"/>	EC Birds Directive Annex I.	Staging. See text box below the table and in section 3.1.
Fish, Mollusc and Crustacea																	
CHORDATA/ACTINOPTERYGII	<i>Coregonus maraena</i>	morphotype storskallesik	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10000		100	VU	<input type="checkbox"/>	<input type="checkbox"/>	Endemic morphotype, unique for the site.	See text box below the table and in section 3.1.
CHORDATA/ACTINOPTERYGII	<i>Cottus gobio</i>	European bullhead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EC Habitats Directive Annex II.	See text box below the table and in section 3.1.
MOLLUSCA/BIVALVIA	<i>Margaritifera margaritifera</i>	freshwater pearl mussel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10000		2	EN	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (EN). EC Habitats Directive Annex II.	Good conditions for re-production, host fish population for larvae in sufficient numbers. See text box below the table and in section 3.1.
CHORDATA/ACTINOPTERYGII	<i>Salmo salar</i>	Salmon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5000		3		<input type="checkbox"/>	<input type="checkbox"/>	EC Habitats Directive Annex II.	Important migrating and spawning sites. See text box below the table and in section 3.1.
CHORDATA/ACTINOPTERYGII	<i>Salmo trutta</i>	Herling/Trout	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important migrating and spawning sites. See text box below the table and in section 3.1.
CHORDATA/ACTINOPTERYGII	<i>Thymallus thymallus</i>	European Grayling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important migrating and spawning sites. See text box below the table and in section 3.1.
MOLLUSCA/GASTROPODA	<i>Valvata sibirica</i>		<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 (NT).	See text box below the table and in section 3.1.
Others																	
ARTHROPODA/INSECTA	<i>Dytiscus latissimus</i>	Diving beetle "sp"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	EC Habitats Directive Annex II.	See text box below the table and in section 3.1.
ARTHROPODA/INSECTA	<i>Kageronia orbiticola</i>		<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"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT).	Development of larvae. See text box below the table and in section 3.1.
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"/>				NT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT). EC Habitats Directive Annex II.	Strong population. See text box below the table and in section 3.1.
ARTHROPODA/INSECTA	<i>Nemoura arctica</i>	Arctic Forestfly	<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"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT).	Development of larvae. See text box below the table and under 3.1.
ARTHROPODA/INSECTA	<i>Paraleptophlebia weneri</i>		<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"/>	<input type="checkbox"/>	Swedish Red List 2015 (DD).	Development of larvae. See text box below the table and in section 3.1.
ARTHROPODA/INSECTA	<i>Rhantus fennicus</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6		27		<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT).	See text box below the table and in section 3.1.
ARTHROPODA/INSECTA	<i>Semblis phalaenoides</i>		<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"/>	<input type="checkbox"/>	Swedish Red List 2015 (NT).	See text box below the table and in section 3.1.

1) Percentage of the total biogeographic population at the site

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

Criterion 9 for the *Rhantus fennicus*. The species is only known from two sites in Sweden, 6 observations at the Ramsar site and 12 at the other site. There are two modern observations of the species in Russia and there are two individuals found in Finland. So if there are only 22 individuals/observations and 6 have been observed at the site, 27 % occur at the Ramsar site. Reference is <http://artfakta.artdatabanken.se/> and a letter from the University of Agricultural Science, the Swedish Species Information Centre file number NV-07735-14 at the Swedish EPA.

Criterion 9 for the *Coregonus maraena* morphotype *storskallesik*. The Lake Storvindeln (part of the river Vindelälven) supports 100% population of the morphotype *Coregonus maraena* morphotype *storskallesik* (Nathanson 2001). Population size is hard to estimate. The fish lives in deep and not easily surveyed waters.

Criterion 9 for the *Salmo salar*. The total Baltic salmon *Salmo salar* population in the FEOW Ecoregion 406: Northern Baltic drainages is 120 000-195 000 individuals (Naturvårdsverket 2013).

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
Fennoscandian natural rivers (EU-code 3210)	<input checked="" type="checkbox"/>	EU-Boreal natural river systems with nutrient-poor water. The water level shows great amplitude, up to 6 m during the year. Especially high water level after snow melting. The water-dynamics can vary and contain waterfalls, rapid streams.	EC Habitats Directive, annex I. Unexploited large natural rivers are very rare. The habitat is in unfavourable conservation status for the Swedish part of the EU-boreal region (2013).

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

4.1 - Ecological character

The site consists of the river Vindelälven with all its tributaries and lakes along the river. The site is a large natural river with no hydroelectric dams and a great number of impressive, untamed rapids. The main channel is classified as Fennoscandian natural rivers (3210). The site also includes large freshwater lakes, an inland freshwater delta and seasonally flooded riparian meadows.

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 >> L: Permanent inland deltas		3		Representative
Fresh water > Flowing water >> M Permanent rivers/ streams/ creeks		1		Rare
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		2		Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		4		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 site consists of the river Vindelälven and its tributaries. The Vindelälven enters the river Umeälven 30 km from its outlet into the Bothnian bay in the Baltic sea.

4.4.3 - Soil

Mneral

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

No available information

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

Please provide further information on the soil (optional)

See annexed file on bedrock, soils and geomorphology under Additional material.

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 rainfall	<input checked="" type="checkbox"/>	No change
Water inputs from surface water	<input type="checkbox"/>	No change
Water inputs from groundwater	<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.

Predominant water source is rain fall and snow fall. There is a large water fluctuation including a large spring flood during snow melting period.

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

Please provide further information on sediment (optional):

Significant erosion, transportation and deposition of sediment are normal processes within a natural boreal river.

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

(ECD) Dissolved gases in water

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Mesotrophic

(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 Ramsar site is corresponding to the entire water body of the river. The surrounding area constitutes a managed boreal forest landscape (in the east) and alpine mountains (in the west). There are only few and small local villages and small farmland areas close to the river. Not far from the site's most western part there are two Ramsar sites, Tärnasjön to the south and Tjälmejaure-Laisdalen to the north.

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	Low
Fresh water	Water for energy production (hydro-electricity)	Low
Wetland non-food products	Timber	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	Low
Pollution control and detoxification	Water purification/waste treatment or dilution	Low
Hazard reduction	Flood control, flood storage	Low

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	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	Medium

Other ecosystem service(s) not included above:

The area surrounding river Vindelälven has been used by man for hundreds of years for fishing, hunting, farming and logging. There are several small towns and villages along the river. The river included its surroundings are of national cultural interest, due to traditional building and land use within a large Fennoscandian river valley. There are several bridges, roads and houses of interest along the river.

Within the site: 1000s

Outside the site: 1000s

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 checked="" type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Commercial (company)	<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 Västerbotten

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

Björn Jonsson, Head of Department for Nature conservation and management

Postal address:

Länsstyrelsen Västerbotten
SE - 901 86 UMEÅ, SWEDEN

E-mail address:

bjorn.jonsson@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	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Housing and urban areas	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Tourism and recreation areas	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Canalisation and river regulation			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Wood and pulp plantations	Medium impact	Medium impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Livestock farming and ranching	Low impact	Low 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	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" 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	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Aircraft flight paths	Low impact	Low impact	<input checked="" 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
Logging and wood harvesting	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Fishing and harvesting aquatic resources	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	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dams and water management/use			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Household sewage, urban waste water	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Industrial and military effluents	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Agricultural and forestry effluents	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Air-borne pollutants	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

Climate change and severe weather

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

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Vindelälven	http://www.lansstyrelsen.se/vast-erbotten/Sv/lantbruk-och-landsbygdd/landsbygdsutveckling/forstudi-e-biosfaromrade-vindelalvsdalen/Pages/default.aspx	whole

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Vindelälven	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skyddad-natur/Natura%202000/Ala%20bevarandep-laner/Vindelalven.pdf	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Environmental legislation against water hydropower and water transfer to other basins (MB 4 kap 6 §)	Vindelälven	http://www.notisum.se/mp/sls/la/g/19980808.HTM	whole
Nature reserve (1)	Vindelfjällen	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skyddad-natur/naturreservat/sorsele-kommun/Vindelfjallen/	partly
Nature reserve (10)	Järptjäm	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skyddad-natur/naturreservat/vindelns-kommun/jarptjam/Pages/default.aspx	partly
Nature reserve (11)	Kittelforsheden	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skyddad-natur/naturreservat/lycksele-kommun/kittelforsheden/Pages/default.aspx	partly

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature reserve (12)	Krycklan	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vindelns-kommun/krycklan/Pages/default.aspx	partly
Nature reserve (13)	Kåtaberget	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/kataberget/Pages/default.aspx	partly
Nature reserve (14)	Lerfallet	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vindelns-kommun/Pages/lerfallet.aspx	partly
Nature reserve (15)	Liksgelisen	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/sorsele-kommun/Liksgelisen/Pages/default.aspx	partly
Nature reserve (16)	Mårdseleheden	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vindelns-kommun/mardseleheden/Pages/default.aspx	partly
Nature reserve (17)	Mårdselforsen	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vindelns-kommun/mardselforsen/Pages/default.aspx	partly
Nature reserve (18)	Nalovardo	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/sorsele-kommun/nalovardo/Pages/default.aspx	partly
Nature reserve (19)	Sandseleforsen	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/sorsele-kommun/sandseleforsen/Pages/default.aspx	partly
Nature reserve (2)	Abborran	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/abborran/Pages/default.aspx	partly
Nature reserve (20)	Skälliden	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/sorsele-kommun/skalliden/Pages/default.aspx	partly
Nature reserve (21)	Smalaken	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/sorsele-kommun/smalaken/Pages/default.aspx	partly
Nature reserve (22)	Stenringsavan	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/stenringsavan/Pages/default.aspx	partly
Nature reserve (23)	Stor-Brännjämyran	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/umea-kommun/Storbrannjammyran/Pages/default.aspx	partly
Nature reserve (24)	Vindelforsarna	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vindelns-kommun/vindelforsarna/Pages/default.aspx	partly

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature reserve (25)	Vindelstorforsen	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/vindel-storforsen/Pages/default.aspx	partly
Nature reserve (26)	Vormforsen	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/vormforsen/Pages/default.aspx	partly
Nature reserve (27)	Vännforsen	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vannas-kommun/vannforsen/Pages/default.aspx	partly
Nature reserve (28)	Åmseleheden	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vindelns-kommun/amseleheden/Pages/default.aspx	partly
Nature reserve (3)	Altarliden	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/altarliden/Pages/default.aspx	partly
Nature reserve (4)	Björktjämskammen	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/bjorktjamskammen/Pages/default.aspx	partly
Nature reserve (5)	Bocksberget	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/bocksberget/Pages/default.aspx	partly
Nature reserve (6)	Degerö Stormyr	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vindelns-kommun/degerostormyr/Pages/default.aspx	partly
Nature reserve (7)	Gimegolts	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/sorsele-kommun/gimegolts/Pages/default.aspx	partly
Nature reserve (8)	Hjukenåsarna	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/vindelns-kommun/hjukenasarna/Pages/default.aspx	partly
Nature reserve (9)	Hällbergstråk	http://www.lansstyrelsen.se/vast-erbotten/Sv/djur-och-natur/skydd-ad-natur/naturreservat/lycksele-kommun/hallbergstrask/Pages/default.aspx	partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Vindelfjällen mountains (including Lake Tjämasjön)	http://datazone.birdlife.org/site/factsheet/vindelfjallen-mountains-(including-lake-tjamasjon)-iba-sweden	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
Catchment management initiatives/controls	Partially implemented
Habitat manipulation/enhancement	Partially implemented
Hydrology management/restoration	Partially implemented
Faunal corridors/passage	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Measures	Status
Management of water abstraction/takes	Partially implemented
Regulation/management of wastes	Implemented
Fisheries management/regulation	Partially implemented
Regulation/management of recreational activities	Partially implemented
Communication, education, and participation and awareness activities	Partially implemented

Other:

Unknown

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:

There is no facility associated with the Ramsar site per se. But there is a "Naturum" (certified Nature centre) in Ammarnäs connected to the alpine nature reserve Vindelfjällen. The exhibition includes information about the river and the delta. There also is a (uncertified) Nature centre connected to river Vindelälven in Vindeln. In some of the nature reserves, especially those with scenic rapids, there are trails and bridges passing the water course.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Plant species	Proposed

There is no monitoring programme specific for the river Vindelälven. But there are official monitoring programmes that are partly connected for example with flora/fauna occurring in the river.

Smaller research projects are conducted. Birds are surveyed yearly. There is a field research station in Ammamäs, which has been running since the 1960's.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

- Anonymous. 1984. Naturgeografisk regionindelning av Norden. Nordiska Ministerrådet, Helsinki, Finland.
- Bergqvist, E. 1986. Svenska nip- och ravinlandskap. Processer och former, översikt och förslag till naturreservat. Naturvårdsverket Rapport 3156.
- Erixon, G. 1980. Naturinventering av Vindelälven inom Sorsele kommun. Länsstyrelsen i Västerbottens län, meddelande 14:1980.
- Erixon, G. 1981. Naturinventering av Vindelälven inom Lycksele och Vindelns kommuner. Länsstyrelsen i Västerbottens län, meddelande 9:1981.
- Erixon, G. 1982. Naturinventering av Vindelälven inom Umeå och Vännäs kommuner. Länsstyrelsen i Västerbottens län, meddelande 2:1982.
- Fredén, C. 1998. National Atlas of Sweden: Geology
- Gärdefors, U. (ed.) 2010. Rödlistade arter i Sverige 2010 - The 2010 Red List of Swedish Species. Artdatabanken, SLU, Uppsala.
- Havs- och vattenmyndigheten 2012. Fiskbestånd och miljö i hav och vatten. Resurs- och miljööversikt 2012.
- ICES. 2012. Report of the Baltic Salmon and Trout Assessment Working Group (WGBAST), 15–23 March 2012, Uppsala, Sweden. ICES CM 2012/ACOM:08. 353 pp.
- IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2.
- Jansson, E. 1985. Mindre vattendrag i Västerbottens län – en sammanställning av naturvärden. Länsstyrelsen i Västerbottens län, meddelande 2:1985.
- Jonsson, H. 1984. Övre Giertsbäcksdalen. Vegetationsinriktad naturinventering. Biologisk grundutbildning, Umeå universitet. Rapportserie 1989:4.
- Kulling, O. 1953. Fjällkedjans berggrund. (Bedrock of the Caledonian Mountain Range). Atlas över Sverige, kartblad 7-8.
- Lundqvist, J. 1974. Översikt över vegetationsförhållandena inom Vindelälvsystemet.
- Lundqvist, J. 1980. Botaniskt värdefulla naturområden i Vindelälvsdalen. Länsstyrelsen i Västerbottens län, meddelande 14:1980.
- Länsstyrelsen i Västerbottens län 2001. Riksintressen för naturvård Västerbottens län. Meddelande 4 2001.
- Länsstyrelsen i Västerbottens län 2008. Bevarandeplan Vindelfjällen SE0810080.
- Länsstyrelsen i Västerbottens län, 2005. Bevarandeplan Vindelälven SE0810435.
- Naturvårdsverket, 2013. Compilation of not yet reported results about salmon for the article 17 report under the Habitats directive to be delivered by Sweden and Finland compared with data about salmon in Vindelälven from Havs- och vattenmyndigheten 2013. Excel-table in file NV-01787-11.
- Nathanson, J. E. 2001. Rev. Nathanson, J. E. 2005, Rev. Svensson, M.2006. Artfaktablad för Coregonus maraena morphotype storskallesik – storskallesik. Artdatabanken, SLU 2010-01-19.
- Nilsson, A. 1985. Vindelälvens vattenskalbaggar – utbredning och habitatval. Entomologisk Tidskrift 107:31-42.
- Nilsson, C. 1979. Piteälven, Laisälven och Vindelälven. Växt- och djurliv samt biologiska effekter av vattenöverledning. Wahlenbergia 6.
- Raab, B. & Vedin, H. 1995. National Atlas of Sweden: Climate, Lakes and Rivers.
- Rudberg, S. 1970. Geomorphology. Maps 5-6 in M. Lundqvist, editor. National Atlas of Sweden. Generalstabens Litografiska Anstalts Förlag, Stockholm, Sweden.
- Rudberg, S. & Sundborg, A. 1975. Vattendragen i norra Norrland. Geovetenskapliga naturvärden. UNGI. Uppsala.
- Sundborg, A., Elfström, A. & Rudberg, S. 1980. Piteälven, Laisälven och Vindelälven. Naturförhållanden och miljöeffekter vid vattenöverledning. Uppsala univ, Naturgeogr. Inst. Rapport 51.

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)

<1 file(s) uploaded>

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>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Vindelforsarna winter (Andreas Garpebring, 2012-01-11)



Vindelforsarna (Andreas Garpebring, 2012-05-22)



Vindelforsarna resting facility (Andreas Garpebring, 2012-05-22)



Vindelforsarna winter (Andreas Garpebring, 2013-01-23)



Vindelforsarna winter (
Andreas Garpebring, 2013-
01-23)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation