

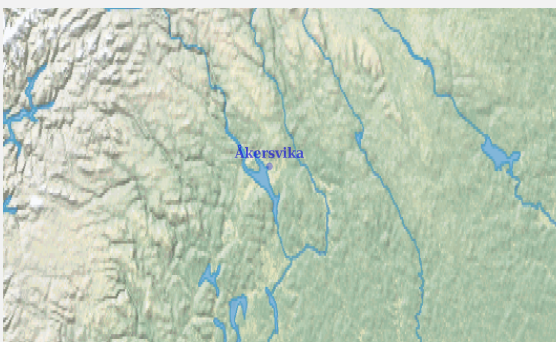


# Ramsar Information Sheet

Published on 27 March 2017

Update version, previously published on : 1 January 2012

## Norway Åkersvika



Designation date	9 July 1974
Site number	13
Coordinates	60°47'57"N 11°06'50"E
Area	428,10 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

Åkersvika includes the deltas of the rivers Svartelva and Flakstadelva and the adjacent shallow basin which form the rivers joint delta with the outlet into Mjøsa. Causeways built for roads and railway seal Åkersvika from Mjøsa itself. The two rivers drain an almost continuous layer of calcium rich moraine deposits with a high content of fine particles, which are the material forming the delta. Along the lower reaches the rivers meander over fine grained alluvial deposits. A number of banks and small islands have built up in the delta and between these the river has created many small channels and bays. During periods of low water in spring, and occasionally also in autumn, large areas of sandbank and mudbank are exposed. Under normal summer water levels about 2/3 of the reserve is open water.

The reserve is one of the most important staging sites for wetland birds following inland migration routes in Norway, and was the first area in Norway to be designated as a Ramsar site (in 1974). A total of 226 bird species are recorded in the area, which is a very high total for an inland site in Norway. Large numbers of ducks and waders rest in Åkersvika, both in spring and in autumn. Numbers are normally highest during spring passage, but can also be high if there is much exposed mud in autumn. Over 1000 duck are regular during both spring and autumn, whereas numbers of waders are now fewer; there were higher numbers of several wader species in the period 1960's to the 1980's. Large numbers of Pink-footed Geese *Anser brachyrhynchus* have rested in recent years during autumn. Standardised counts of passage water birds since the early 1970's have revealed that a number of species have declined dramatically in numbers during migration periods in the last 10-20 years. This applies to waders in particular. The area is also of some importance for nesting waterfowl, although large variations on water levels mean that many nesting attempts fail.

Åkersvika has also interesting water and bog vegetation and many rare and national red-listed species occur, both among higher plants and mosses. In particular the vegetation on the mudbanks and the channels bogs are species rich and special.

A total of 16 of Mjøsa's 20 species of fish use Åkersvika at various times. There are occasional records of *Astacus astacus*.

## 2 - Data & location

### 2.1 - Formal data

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

##### Compiler 1

Name	Gunnar Kjærstad
Institution/agency	Norwegian Environment Agency
Postal address	Miljødirektoratet Postboks 5672 Sluppen N-7485 Trondheim
E-mail	gunnar.kjarstad@miljodir.no
Phone	+47 952 30 617

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

From year	2000
To year	2015

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Åkersvika
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#### 2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input checked="" type="radio"/> No <input type="radio"/>
(Update) The boundary has been delineated more accurately	<input type="checkbox"/>
(Update) The boundary has been extended	<input checked="" type="checkbox"/>
(Update) The boundary has been restricted	<input type="checkbox"/>
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has been calculated more accurately	<input 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 checked="" 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?	Not evaluated
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## 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 (optional)

The Ramsar site border is the same as for the Åkersvika Nature reserve
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### 2.2.2 - General location

a) In which large administrative region does the site lie?	Hedmark county
b) What is the nearest town or population centre?	Hamar

### 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
EU biogeographic regionalization	boreal
Other scheme (provide name below)	boreonemoral

##### Other biogeographic regionalisation scheme

### 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

Transportation of sediments from Flakstadelva and Svartelva are responsible for the making of the delta at Åkersvika. The area functions as a barrier or trap for sediments and has an important function as regards sedimentation and fixing of nutrients (especially nitrogen and phosphor). Due to a large watershed the river plays an role in reducing flooding. Vegetation within the reserve is important for stabilizing the shoreline of Åkersvika.

Other ecosystem services provided

The site is important spawning area for fish in the lake Mjøsa, and is a popular area for sport fishing.

Other reasons

Åkersvika is one of the largest and best developed freshwater deltas in Norway, where the rivers running into the delta are unregulated. The delta is varied with stretches of meandering river, islands, sandbanks, mudbanks, channels, old river courses, pools and meadows beside freshwater.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

Åkersvika has well developed annual vegetation on exposed banks (Nanocyperetalia) and underwater meadows which are typical for river deltas under the marine boundary in southern Norway, as well as aquatic and bog vegetation associated with channels and old rivercourses. A number of rare and threatened species are found in the vegetation communities and it is important to preserve these and their habitats. The wetland fauna of Åkersvika includes both threatened species (see e.g. justification of criterion 2) as well as species which are typical/representative for the biogeographical region like Northern Lapwing (*Vanellus vanellus*), Common Moorhen (*Gallinula chloropus*), Whooper Swan (*Cygnus Cygnus*). In total there are registered approximately 300 plant species, of these there are 27 national red listed species. There are registered nine different national red listed habitat types, these include habitat types listed under "Ecological communities" and the near threatened habitat types active delta, almond willow scrub, tall herb Norway spruce forest and lime-rich low-herb Scots pine Heath woodland. Åkersvika is important for migratory birds and there are registered 226 species within the Ramsar site. Several of these birds are considered as threatened.

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














- Criterion 6 : >1% waterbird population

- Criterion 8 : Fish spawning grounds, etc.

Justification











Sixteen species of fish are registered in Åkersvika, this is considered to be a high number of species in fresh water in Norway. Trout (*Salmo trutta*), Grayling (*Thymallus thymallus*) and Lamprey (*Lampetra fluviatilis/planeri*) uses the nearby rivers as reproduction area and pass Åkersvika both as spawning fish and as young fish. Pike (*Esox lucius*), Perch (*Perca fluviatilis*), Ruffe (*Gymnocephalus cernuus*), Ide (*Leuciscus idus*), Common Roach (*Rutilus rutilus*), Freshwater Bream (*Abramis brama*), Common Bleak (*Alburnus alburnus*), Common Minnow (*Phoxinus phoxinus*). Alpine Bullhead (*Cottus poecilopus*), Ninepines Stickleback (*Pungitius pungitius*) uses the Åkersvika and nearby rivers both as spawning area and for young fish. Common Whitefish (*Coregonus lavaretus*) and Burbot (*Lota lota*) uses Åkersvika for feeding. Åkersvika is considered as the main spawning site for fish in Mjøsa, the largest lake in Norway.



































### 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>Bidens cernua</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	National red list (2015) - VU	
 <i>Crassula aquatica</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National red list (2015) - VU	
 <i>Glyceria lithuanica</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National red list (2015) - VU	
 <i>Myriophyllum verticillatum</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	National red list (2015) - VU	
 <i>Stellaria palustris</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National red list (2015) - VU	
 <i>Umus glabra</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National red list (2015) - VU	
 <i>Veronica anagallis-aquatica</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	National red list (2015) - VU	
 <i>Viola persicifolia</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	National red list (2015) - VU	
 <i>Zannichellia palustris</i>	null	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	National red list (2015) - VU	

Several nationally red-listed species grow within the Ramsar site in particular those associated with aquatic habitats and meadows and woodland beside freshwater. This includes *Elatine triandra* (NT), *Lemna trisulca* (NT), *Myriophyllum verticillatum* (VU), *Stellaria palustris* (VU), *Veronica anagallis-aquatica* (VU), *Viola persicifolia* (VU), *Chara contraria* (NT), *Chara Braunii* (VU), *Nitella mucronata* (VU). Red listed mosses include *Riccia fluitans* (NT), *Hygroamblystegium varium* (NT), *Amblystegium radicale* (EN). It is referred to the national red list for species 2015.

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

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence <sup>1)</sup>	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
<b>Birds</b>																		
CHORDATA/ AVES	 <i>Accipiter gentilis</i>	Northern Goshawk	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The northern goshawk uses the site for foraging
CHORDATA/ AVES	 <i>Anas crecca</i>	Eurasian Teal; Green-winged Teal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		staging area for migratory birds
CHORDATA/ AVES	 <i>Anas platyrhynchos</i>	Mallard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2015			<input type="checkbox"/>	<input type="checkbox"/>		Important staging area for migratory birds. Up to 1330 individuals uses the site during migration
CHORDATA/ AVES	 <i>Anser brachyrhynchus</i>	Pink-footed Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	630	1999-2009	1	LC 	<input type="checkbox"/>	<input type="checkbox"/>		During migration there is yearly seen numbers between 630 to 1200 individuals.
CHORDATA/ AVES	 <i>Chroicocephalus ridibundus</i>	Black-headed Gull	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2015			<input type="checkbox"/>	<input type="checkbox"/>		staging area
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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The Marsh Harrier uses the site for foraging

Phylum	Scientific name	Common name	Species qualifies under criterion			Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	GITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7								
CHORDATA/AVES	 <i>Cygnus cygnus</i>	Whooper Swan	<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"/>		Staging area. Up to 50 individuals
CHORDATA/AVES	 <i>Falco peregrinus</i>	Peregrine Falcon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input checked="" type="checkbox"/>	<input type="checkbox"/>		The Peregrine Falcon uses the site for foraging
CHORDATA/AVES	 <i>Falco subbuteo</i>	Eurasian Hobby, Northern Hobby	<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"/>		The Eurasian Hobby uses the site for foraging
CHORDATA/AVES	 <i>Gallinula chloropus</i>	Common Moorhen	<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"/>		uses the site regularly in small numbers
CHORDATA/AVES	 <i>Haematopus ostralegus</i>	Eurasian Oystercatcher	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>		Breeding site (1-3 pairs)
CHORDATA/AVES	 <i>Larus argentatus</i>	European Herring Gull; Herring Gull	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		staging area
CHORDATA/AVES	 <i>Larus canus</i>	Mew Gull	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>	National red list (2015) - NT	staging area
CHORDATA/AVES	 <i>Mergus merganser</i>	Common Merganser	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		Staging area
CHORDATA/AVES	 <i>Numenius arquata</i>	Eurasian Curlew	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT 	<input type="checkbox"/>	<input type="checkbox"/>	National red list (2015) - VU	Staging area, up to 340 individuals.
CHORDATA/AVES	 <i>Sterna hirundo</i>	Common Tern	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	National red list (2015) - EN	Breeding site
CHORDATA/AVES	 <i>Tringa nebularia</i>	Common Greenshank	<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"/>		Staging area
CHORDATA/AVES	 <i>Vanellus vanellus</i>	Northern Lapwing	<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"/>	National red list (2015) - EN	Staging area, maximum number up to 366 individuals
<b>Fish, Mollusc and Crustacea</b>																	
ARTHROPODA/MALACOSTRACA	 <i>Astacus astacus</i>	European crayfish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU 	<input type="checkbox"/>	<input type="checkbox"/>	National red list (2015) - EN	European crayfish is established in the river "Svartelva". From time to time it is registered within the Ramsar-site.
CHORDATA/ACTINOPTERYGII	 <i>Esox lucius</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		spawning area
CHORDATA/ACTINOPTERYGII	 <i>Gymnocephalus cernua</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Spawning area
CHORDATA/ACTINOPTERYGII	 <i>Salmo trutta</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Migration path
CHORDATA/ACTINOPTERYGII	 <i>Thymallus thymallus</i>	European grayling; European grayling; European grayling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		Uses the site as migration path, there might be some spawning in the river.

1) Percentage of the total biogeographic population at the site

The reserve is one of the most important staging sites for wetland birds following inland migration routes in Norway, and was the first area in Norway to be designated as a Ramsar site (in 1974). A total of 218 bird species are recorded in the area, which is a very high total for an inland site in Norway. Large numbers of ducks and waders rest in Åkersvika, both in spring and in autumn. Numbers are normally highest during spring passage, but can also be high if there is much exposed mud in autumn. Over 1000 duck are regular during both spring and autumn, whereas numbers of waders are now fewer; there were higher numbers of several wader species in the period 1960's to the 1980's. Large numbers of Pinkfooted Geese *Anser brachyrhynchus* have rested in recent years during autumn.

## 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
Oxbow lakes, meanders and flood channels	<input checked="" type="checkbox"/>	Oxbow lakes and meanders forms the northern part of the Ramsar site.	National red list for habitat types - 2011 - EN
Semi-natural grassland	<input checked="" type="checkbox"/>	Semi-natural grassland forms important ecological communities within the Ramsar site. These areas is of high value also for several species of birds and plants.	National red list for habitat types - 2011 - VU
Open lime-rich shallow-soil lowland system in the boreonemoral zone	<input checked="" type="checkbox"/>	Lime-rich shallow-soil lowland system forms small but important areas within the Ramsar site	National red list for habitat types - 2011 - VU



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

### 4.1 - Ecological character

The reserve receives large amounts of nutrients from the surrounding fertile farmland which is on nutrient rich bedrock and has therefore a high biological production. The vegetation is composed of various bog, meadow, scrub and woodland communities. For large parts of the reserve, the vegetation is unstable due to the dynamic processes within the delta. Around 300 higher plants are recorded in the area.

The mudbanks have a rich freshwater shoreline vegetation with annual vegetation on exposed banks (Nanocyperetalia). The channels, pools and backwaters are dominated by aquatic vegetation, of which the most important species is the nationally red-listed *Myriophyllum verticillatum* (VU). Previously there were large areas of sedge meadow (with *Carex vesicaria* in the outer part and *C. nigra* spp. *juncella* on more solid ground), although these areas are being taken over by meadow communities and *Salix*-scrub, following cessation of burning and grazing in the late 1970's/early 1980's. Regulation of Lake Mjøsa has also accelerated this process. Management measures are now implemented to stop overgrowing. Alder/bird-cherry woodland grows along the riverside, whereas on higher ground – mainly around Kråkhølmene in the Svartelva delta – there are wooded meadows dominated by Pine *Pinus sylvestris*.

The benthic fauna in Åkersvika has altered in recent years following reduced amounts of nutrients. Several species which are sensitive towards pollution have re-colonised the area, whereas species which are more tolerant of pollution and which previously had large populations have declined. In sum, the biomass of benthic fauna has been reduced by 50-60% since the 1970's, and this has resulted in a reduction in the amount of food available to waders. Several Chironomidae species which are found in the area, are not previously recorded in Norway.

### 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	Åkersvika	1	268	Rare
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		3	45	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		2	97	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools				
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils				
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands				
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		4		

#### Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Field, grazeland	17
Forest	48

### 4.3 - Biological components

#### 4.3.1 - Plant species

##### Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Carex hirta</i>	hairy sedge	Southern species established north to Hedmark
<i>Cinna latifolia</i>	null	

##### Invasive alien plant species

Scientific name	Common name	Impacts	Changes at RIS update
<i>Glyceria maxima</i>	null	Actually (minor impacts)	decrease
<i>Impatiens glandulifera</i>	null	Potentially	increase
<i>Lysimachia nummularia</i>	null	Potentially	increase
<i>Solidago canadensis</i>	null	Potentially	No change

#### 4.3.2 - Animal species

##### Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	Eptesicus nilssonii	Northern Bat		2000-2015		
CHORDATA/MAMMALIA	Myotis daubentonii	Daubenton's Myotis				

#### 4.4 - Physical components

##### 4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dwb: Humid continental (Humid with severe, dry winter, 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 name of the river basin is Mjøsa. The two rivers form a classic delta into the lake Mjøsa. The outflow from the Svartelva river is the main delta within the wetland, whereas the outflow from the Flakstadelva river lies north of Åkersvika itself and runs into the area via a small river channel.

##### 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	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 surface water	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
To downstream catchment	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.

Mjøsa has, since 1965, a regulating level of 3.61 metres. Water levels are lowest late in winter and early spring, although they are normally high during summer and autumn. During periods of little water transport then levels may also be low during autumn. Large areas of mudflats are exposed during low water levels.

##### 4.4.5 - Sediment regime

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):

Transportation of sediments from Flakstadelva and Svartelva are responsible for the making of the delta at Åkersvika. The area functions as a barrier or trap for sediments and has an important function as regards sedimentation and fixing of nutrients.

(ECD) Water temperature Flagstadelvdeltaet and Svartelvdeltaet in June 18-19 degrees, Mjøsa in June approximate 12 degrees.

4.4.6 - Water pH

Alkaline (pH>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

Please provide further information on dissolved or suspended nutrients (optional):

The concentrations of total phosphorus in Åkersvika generally is high, compared with the lake ranges in classification guidelines for water directive. For total nitrogen equivalent average concentrations has moderate condition in the lake and poor condition of the other parts of the delta.

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

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)	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	Low
Hazard reduction	Flood control, flood storage	Medium
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	Low

Cultural Services

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

Within the site: 10000

Outside the site: 50000

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. 13, Åkersvika, Norway

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:

County Governor of Hedmark

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

N/A

Postal address:

County Governor Hedmark  
Pb 4034  
N-2306 HAMAR

E-mail address:

fmhepost@fylkesmannen.no

### 5.2 - Ecological character threats and responses (Management)

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

##### Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Housing and urban areas	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Unspecified development	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input 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	Medium 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	Medium impact	Medium impact	<input checked="" type="checkbox"/>	increase	<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			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

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

#### 5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
nature reserve	Åkersvika naturreservat	http://faktaark.naturbase.no/Ver n?id=V00001178	whole

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Habitat

Measures	Status
Habitat manipulation/enhancement	Proposed
Faunal corridors/passage	Proposed

Species

Measures	Status
Control of invasive alien plants	Proposed

Human Activities

Measures	Status
Fisheries management/regulation	Implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes  No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes  No

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

There are two bird observation towers within the reserve – by the Svartelvdelta and by Flakstaddelta. The area is used for educational purposes by schools from Hamar and from Stange. This includes schools at all levels from primary schools to colleges of higher education. The reserve is used for walks, projects and theme days/theme weeks to highlight conservation in general and in particular wetland conservation.

5.2.6 - Planning for restoration

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

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

Kålås, J.A., Viken, Å., Henriksen, S. and Skjelseth, S. (eds.). 2010. The 2010 Norwegian Red-list for Species. Norwegian Biodiversity Information centre, Norway.

Botanical and management plans:  
 Fylkesmannen i Hedmark, miljøvernavdelingen 1997. Åkersvika naturreservat. Forslag til forvaltningsplan. 61 s. + vedlegg. (In Norwegian - management plan for Åkersvika).

Kjellberg, G., Solheim, R. & Wold, O. 1983. Forslag til kompensasjonstiltak i Åkersvika. Konsekvensutredning. NVA-rapport, Inr. 31410: 1-36 + vedlegg (In Norwegian – an assessment of compensation measures in Åkersvika).

Hamarland, A. T. 2003. Åkersvika naturreservat – etablering av ny minimumsvannstand. NVE Region Øst. Rapport, 13 s. + vedlegg. (In Norwegian - technical plan for water regulation in the reserve).

Wold, O. 1993. Åkersvika naturreservat – vegetasjon og flora. Fylkesmannen i Hedmark, miljøvernavdelingen. Rapport nr. 11/93: 1-46. (In Norwegian – vegetation and flora of Åkersvika).

Freshwater ecology:  
 Kjellberg, G. 1992. Undersøkelse av bunnsedimenter og bunndyrforekomst i Åkersvika naturreservat i 1990-91. Sluttrapport. NVA-rapport, Inr. 2783: 1-53. (In Norwegian – on sediments and benthic fauna in Åkersvika).

Birds:  
 Solheim, R. 1992. Sammenstilling av ornitologisk registreringsmateriale for Åkersvika naturreservat. Fylkesmannen i Hedmark, miljøvernavdelingen. Rapport nr. 2/92: 1-23 + vedlegg. (In Norwegian – on changes in numbers of staging birds in Åkersvika).

Sonerud, G. A. 1973. Åkersvika ved Hamar - en truet lokalitet. Sterna 12: 1-20. (In Norwegian with English summary, on the importance of Åkersvika for migrating and breeding birds).

Please see 6.1.2 Additional reports and documents - other published literature.

#### 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

<9 file(s) uploaded>

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

Please provide at least one photograph of the site:



Åkersvika ( *Gunnar Kjørstad, 12-08-2014* )



Svartelvdeltaet ( *Gunnar Kjørstad, 28-04-2014* )



Åkersvika (near Kvennvegen) ( *Gunnar Kjørstad, 28-04-2014* )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation