



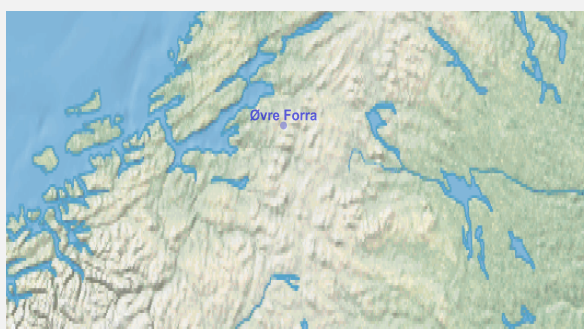
# Ramsar Information Sheet

Published on 10 May 2023

Update version, previously published on : 8 March 2018

## Norway

### Øvre Forra



|                  |                       |
|------------------|-----------------------|
| Designation date | 6 August 2002         |
| Site number      | 1194                  |
| Coordinates      | 63°36'07"N 11°36'21"E |
| Area             | 10 254,00 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

Øvre Forra is one of Norway's largest nature reserves, larger than some national parks of the country. The Site constitutes a huge, intact mire system found at a relatively high elevation (370m - 936m), which is partly forested (Norway spruce and Scots pine) and interspersed with several smaller lakes and meandering rivers. The landscape is characterized by the mire system, and mires also exist on a sloping terrain due to high precipitation. Ombrotrophic bogs receive all their nutrients from precipitation and as a result they are nutrient-poor with only a few vascular plant species. Peat depth varies greatly in relation to the varied landscape, and ranges from 2.5 m in the large plain areas to only a few cm in the sloping terrain (>10° inclination).

In 1982, a discovery was made of a bloomery (Heglesvollen) for production of iron straight from bog ore. Several remains from such bloomeries exists all over Øvre Forra. Fuel for the bloomery furnaces was charcoal, and deforestation in relation to this activity likely resulted in waterlogging, contributing to the formation of the many mires one can find in this area today.

The river Forra is a tributary river of the Stjørdalselva which runs through the protected area. The Forra meanders through the large plain mire landscape and over an 8 km long stretch, the river descends by only 2.2 m, resulting in two large and deep slow-flowing river stretches.

The area is well known for its abundance of waterfowl, especially waders, but also for its diversity in mire types and flora. A total of 331 vascular plant species are registered, along with 370 species of higher fungi. One can also find 130 species of birds (19 wader species), and more than 70 of these are registered as breeding species. The most abundant avian species in Øvre Forra are common redshank, common greenshank, common gull, common snipe and whimbrel.

Human activities include canoeing, berry picking (cloudberries and blueberries), skiing activities, hiking and recreational hunting and fishing.

## 2 - Data & location

### 2.1 - Formal data

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

##### Responsible compiler

Institution/agency

Postal address

##### National Ramsar Administrative Authority

Postal address

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

From year

To year

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

#### 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

(Update) For secretariat only: This update is an extension

#### 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?

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<1 file(s) uploaded>

Former maps

#### Boundaries description

### 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

10254.878

## 2.2.5 - Biogeography

### Biogeographic regions

| Regionalisation scheme(s)         | Biogeographic region   |
|-----------------------------------|--|
| EU biogeographic regionalization  | 1. Alpine  |
| Other scheme (provide name below) | 2. Middle boreal zone (MbO2 - clearly oceanic section), Northern boreal zone (NbO2 - clearly oceanic section) and Alpine zone (AO1 - slightly oceanic section) |

### Other biogeographic regionalisation scheme

1. Biogeographical regions of Europe, European Environment Agency, 2005
2. Zonal division showing the variation in vegetation from south to north and from the lowlands to the mountains, and sectional graduation showing the variation between the coast and inland (In: Moen, A. 1998. Nasjonalatlas for Norge; vegetasjon. Statens kartverk, Hønefoss).

### 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

Øvre Forra is representative of a large and unspoilt mire and forested mire-system to be found at higher elevation. Characteristic, and of international interest, are the many different types of mires, such as blanket bogs, raised bogs, ombrotrophic mires, alkaline fens and others. As a whole, Øvre Forra comprises a unique natural environment and mountainous cultural landscape.

- Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

Øvre Forra include several threatened ecological communities, such as meanders (NRL: VU), blanket bog (NRL: VU), semi-natural fen (NRL: EN) and semi-natural grassland (NRL: VU). Additionally, the Site hosts several rare/threatened species, including the Eurasian eagle-owl (NRL: EN), ruff (NRL: VU) and the freshwater pearl mussel (NRL: EN).

- Criterion 3 : Biological diversity

Justification

The area is well known for its abundance of waterfowl, especially waders, but also for its diversity in mire types and botany. A total of 331 vascular plant species are registered, along with 370 species of "higher fungi". One can also find 130 species of birds, of these 19 species constitute waders.

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

Optional text box to provide further information

The area is an important breeding location for several bird species. Additionally, the area provides valuable pastures for reindeer as well as migration routes and paths for driving the herds. The reindeer graze in the Øvre Forra year round, particularly in the mires during spring time due to early snow melt.

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

| Phylum                         | Scientific name               | Criterion 2                         | Criterion 3                         | Criterion 4              | IUCN Red List | CITES Appendix I         | Other status                        | Justification                               |
|--------------------------------|-------------------------------|-------------------------------------|-------------------------------------|--------------------------|---------------|--------------------------|-------------------------------------|---|
| <b>Plantae</b>                 |                               |                                     |                                     |                          |               |                          |                                     |   |
| TRACHEOPHYTA / LILIOPSIDA      | <i>Pseudorchis albida</i>     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU | A rare species encountered in this wetland. |
| TRACHEOPHYTA / LILIOPSIDA      | <i>Schoenus ferrugineus</i>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| <b>Fungi</b>                   |                               |                                     |                                     |                          |               |                          |                                     |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Clavaria zollingeri</i>    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Cortinarius salor</i>      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| ASCOMYCOTA / LECANOROMYCETES   | <i>Cyphelium karelicum</i>    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Entoloma pratulense</i>    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Entoloma rhombisporum</i>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Entoloma velenovskyi</i>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| ASCOMYCOTA / GEOGLOSSOMYCETES  | <i>Geoglossum hakelieri</i>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as EN |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Hygrocybe ingrata</i>      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | VU            | <input type="checkbox"/> | National Red List: Considered as VU |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Hygrocybe subpapillata</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Hygrocybe turunda</i>      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as VU |   |
| BASIDIOMYCOTA / AGARICOMYCETES | <i>Tricholoma sejunctum</i>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |               | <input type="checkbox"/> | National Red List: Considered as EN |   |

Capitalized letters shows the species' status on the National Red List 2021.

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

| Phylum              | Scientific 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>Others</b>       |                          |                                     |                                     |                          |                          |                                     |                          |                          |                          |           |                     |                            |               |                                     |                          |   |   |
| CHORDATA / MAMMALIA | <i>Castor fiber</i>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                            | LC            | <input type="checkbox"/>            | <input type="checkbox"/> |   | Criterion 4: This species breed within this wetland area.                         |
| CHORDATA / MAMMALIA | <i>Gulo gulo</i>         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                            | LC            | <input type="checkbox"/>            | <input type="checkbox"/> | National Red List: Considered as EN, Annex II of Berne Convention |   |
| CHORDATA / MAMMALIA | <i>Lutra lutra</i>       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                            | NT            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Annex II of Berne Convention                                      |   |
| CHORDATA / MAMMALIA | <i>Lynx lynx</i>         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                            | LC            | <input type="checkbox"/>            | <input type="checkbox"/> | National Red List: Considered as EN, Annex III, Berne Convention  |   |
| CHORDATA / MAMMALIA | <i>Rangifer tarandus</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                            | VU            | <input type="checkbox"/>            | <input type="checkbox"/> |   | During winter approximately 700 ind. graze in the area of Skjöttingen–Hårskallen. |
| CHORDATA / MAMMALIA | <i>Ursus arctos</i>      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                            | LC            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as EN,                              |   |

| Phylum | Scientific 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 |           |                     |                 |               |                  |                |              |               |

| Fish, Mollusc and Crustacea |                                    |                                     |                                     |                          |                          |                                     |                          |                          |                          |  |  |  |    |                          |                          |   |   |
|-----------------------------|------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--|--|--|----|--------------------------|--------------------------|---|---|
| MOLLUSCA/<br>BIVALVIA       | <i>Margaritifera margaritifera</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | EN | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as VU       |   |
| Birds                       |                                    |                                     |                                     |                          |                          |                                     |                          |                          |                          |  |  |  |    |                          |                          |   |   |
| CHORDATA/<br>AVES           | <i>Actitis hypoleucos</i>          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This species is a common breeder.  |
| CHORDATA/<br>AVES           | <i>Anas crecca</i>                 | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: One of the most frequently encountered breeding duck species.            |
| CHORDATA/<br>AVES           | <i>Anas penelope</i>               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  |    | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This species can be observed during migration.                           |
| CHORDATA/<br>AVES           | <i>Aquila chrysaetos</i>           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This is a common breeding species, particularly during rodent years.     |
| CHORDATA/<br>AVES           | <i>Aythya fuligula</i>             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This species is a common breeder.  |
| CHORDATA/<br>AVES           | <i>Aythya marila</i>               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as EN       | Criterion 4: This species can be observed during migration.                           |
| CHORDATA/<br>AVES           | <i>Bubo bubo</i>                   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as EN       | Criterion 4: This used to be a characteristic breeding species.                       |
| CHORDATA/<br>AVES           | <i>Bucephala clangula</i>          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: One of the most frequently encountered breeding duck species.            |
| CHORDATA/<br>AVES           | <i>Buteo lagopus</i>               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This is a common breeding species, particularly during rodent years.     |
| CHORDATA/<br>AVES           | <i>Charadrius hiaticula</i>        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> | Ann. II Berne Convention                  | Criterion 4: This species breed within this wetland area.                             |
| CHORDATA/<br>AVES           | <i>Chroicocephalus ridibundus</i>  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  |    | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as VU       | Criterion 4: This used to be a characteristic breeding species.                       |
| CHORDATA/<br>AVES           | <i>Clangula hyemalis</i>           | <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"/> |  |  |  | VU | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This species can be observed during migration.                           |
| CHORDATA/<br>AVES           | <i>Cygnus cygnus</i>               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> | Ann. II Berne Convention, Emerald Network | Criterion 4: This species utilize Fersoset as a staging area during spring migration. |
| CHORDATA/<br>AVES           | <i>Gallinago gallinago</i>         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This species is a noteworthy breeder.                                    |
| CHORDATA/<br>AVES           | <i>Gallinago media</i>             | <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"/> |  |  |  | NT | <input type="checkbox"/> | <input type="checkbox"/> | Ann. II Berne Convention                  | Criterion 4: This species is a noteworthy breeder.                                    |
| CHORDATA/<br>AVES           | <i>Gavia arctica</i>               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as NT       | Criterion 4: This species is a common breeder.  |
| CHORDATA/<br>AVES           | <i>Gavia stellata</i>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This species is a common breeder.  |
| CHORDATA/<br>AVES           | <i>Grus grus</i>                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This species is a common breeder.  |
| CHORDATA/<br>AVES           | <i>Larus canus</i>                 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as VU       | Criterion 4: This species breed within this wetland area.                             |
| CHORDATA/<br>AVES           | <i>Melanitta nigra</i>             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as VU       | Criterion 4: This species is a common breeder.  |
| CHORDATA/<br>AVES           | <i>Mergus merganser</i>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |  | LC | <input type="checkbox"/> | <input type="checkbox"/> |   | Criterion 4: This species is a common breeder.  |

| Phylum        | Scientific name             | Species qualifies under criterion   |                                     |                          |                          | Species contributes under criterion |                          |                          |                          | Pop. Size | Period of pop. Est. | % occurrence 1) | IUCN Red List | CITES Appendix I         | CMS Appendix I           | Other Status                        | Justification   |
|---------------|-----------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-----------|---------------------|-----------------|---------------|--------------------------|--------------------------|-------------------------------------|---|
|               |                             | 2                                   | 4                                   | 6                        | 9                        | 3                                   | 5                        | 7                        | 8                        |           |                     |                 |               |                          |                          |                                     |   |
| CHORDATA/AVES | <i>Mergus serrator</i>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | LC            | <input type="checkbox"/> | <input type="checkbox"/> |                                     | Criterion 4: This species can be observed during migration.     |
| CHORDATA/AVES | <i>Numenius phaeopus</i>    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | LC            | <input type="checkbox"/> | <input type="checkbox"/> |                                     | Criterion 4: This species is a noteworthy breeder.              |
| CHORDATA/AVES | <i>Pluvialis apricaria</i>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | LC            | <input type="checkbox"/> | <input type="checkbox"/> |                                     | Criterion 4: This species is a noteworthy breeder.              |
| CHORDATA/AVES | <i>Scolopax rusticola</i>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | LC            | <input type="checkbox"/> | <input type="checkbox"/> |                                     | Criterion 4: This species breeds within this wetland area.      |
| CHORDATA/AVES | <i>Somateria mollissima</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | NT            | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as VU | Criterion 4: This species can be observed during migration.     |
| CHORDATA/AVES | <i>Tadorna tadorna</i>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | LC            | <input type="checkbox"/> | <input type="checkbox"/> |                                     | Criterion 4: This species can be observed during migration.     |
| CHORDATA/AVES | <i>Tringa glareola</i>      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | LC            | <input type="checkbox"/> | <input type="checkbox"/> | Ann. II Berne Convention            | Criterion 4: This species is a noteworthy breeder.              |
| CHORDATA/AVES | <i>Tringa nebularia</i>     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | LC            | <input type="checkbox"/> | <input type="checkbox"/> |                                     | Criterion 4: This used to be a characteristic breeding species. |
| CHORDATA/AVES | <i>Vanellus vanellus</i>    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |           |                     |                 | NT            | <input type="checkbox"/> | <input type="checkbox"/> | National Red List: Considered as CR | Criterion 4: This species is a common breeder.                  |

1) Percentage of the total biogeographic population at the site

Capitalized letters shows the species' status on the National Red List 2021.

### 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                       |
|------------------------------|--|-------------|-------------------------------------|
| Meanders                     | <input checked="" type="checkbox"/>    |             | National Red List: Considered as VU |
| Semi-natural grassland       | <input checked="" type="checkbox"/>    |             | National Red List: Considered as VU |
| Semi-natural fen             | <input checked="" type="checkbox"/>    |             | National Red List: Considered as EN |
| Blanket bogs                 | <input checked="" type="checkbox"/>    |             | National Red List: Considered as VU |

Optional text box to provide further information

Ridge raised bog: National Red List: Considered as NT

Capitalized letters show the habitats' status on the National Red List for Ecosystems and Habitat types 2021.



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

### 4.1 - Ecological character

The main area of the reserve includes the upper part of the river Forra, surrounded by extensive mires. The mires cover 62% of the area. There are both flat mires and mires in sloping terrain (blanket mires). The mires have a very varied vegetation and are of international importance.

Extensive forested areas with coniferous forests (36% of the protected area, of which 11% grow on mires). Freshwater bodies are numerous and the slow flowing and meandering river Forra is often covered with aquatic vegetation, Potamogeton, Carex and Nymphaea (in all 24 species). Gallery (partly swamp) forests occur along the river (Betula pubescens, Alnus incana and Salix spp.), and are an important feature of flora and fauna. Some higher elevated hills and peaks with nutrient demanding vegetation occur to the west. Small hay-gathering areas exist from former times, most of these are today growing back to natural vegetation, however, smaller areas are kept open by traditional methods according to the management plan for the area. The area also constitutes an important breeding site for waders.

Nowadays, the most abundant bird species in Øvre Forra is the common redshank. This species has outnumbered the previously most abundant species, the meadow pipit. The numbers of the meadow pipit, the Northern lapwing, the European golden plover and the common sandpiper all tend to be lower than 40 years ago. The common gull and two Tringa species, the common redshank and the common greenshank, seem to have increased in numbers, while the situation for the common snipe and the whimbrel appears to be stable. The ruff used to be a characteristic species on the Øvre Forra's bogs in the 1970s, but has since vanished. Altogether, the study shows an apparently quite stable avifauna over the time span of 40 years in this environmentally stable reserve.

### 4.2 - What wetland type(s) are in the site?

#### Inland wetlands

| Wetland types (code and name)  | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha) of wetland type | Justification of Criterion 1 |
|--|------------|--|---------------------------|------------------------------|
| Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks        |            | 3  |                           |                              |
| Fresh water > Lakes and pools >> O: Permanent freshwater lakes             |            | 4  |                           |                              |
| Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools   |            |  |                           |                              |
| Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands |            | 1  |                           | Representative               |
| Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands    |            | 2  |                           | Representative               |

### 4.3 - Biological components

#### 4.3.1 - Plant species

Other noteworthy plant species

| Phylum                       | Scientific name                          | Position in range / endemism / other  |
|------------------------------|--|---|
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Alloclavaria purpurea</i>             | National Red List: Considered as NT   |
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Bankera violascens</i>                | National Red List: Considered as NT   |
| TRACHEOPHYTA/LILIOPSIDA      | <i>Briza media</i>                       | This wetland comprise the Northernmost distribution range for this species. |
| TRACHEOPHYTA/LILIOPSIDA      | <i>Carex lepidocarpa</i>                 | National Red List: Considered as NT   |
| ASCOMYCOTA/NOT ASSIGNED      | <i>Chaenotheca subroscida</i>            | National Red List: Considered as NT   |
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Clavaria fumosa</i>                   | National Red List: Considered as NT   |
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Cystostereum murrayi</i>              |   |
| TRACHEOPHYTA/LILIOPSIDA      | <i>Dactylorhiza incarnata</i>            | Very common species in this wetland area.                                   |
| TRACHEOPHYTA/LILIOPSIDA      | <i>Dactylorhiza incarnata cruenta</i>    | Very common species in this wetland area.                                   |
| TRACHEOPHYTA/LILIOPSIDA      | <i>Dactylorhiza viridis</i>              |   |
| TRACHEOPHYTA/MAGNOLIOPSIDA   | <i>Gentianella campestris campestris</i> | National Red List: Considered as NT   |
| TRACHEOPHYTA/MAGNOLIOPSIDA   | <i>Gentianella campestris islandica</i>  | National Red List: Considered as NT   |
| TRACHEOPHYTA/LILIOPSIDA      | <i>Gymnadenia conopsea</i>               | Demanding species, adapted to rich mire areas.                              |
| TRACHEOPHYTA/LILIOPSIDA      | <i>Hammarbya paludosa</i>                |   |
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Hebeloma birrus</i>                   | National Red List: Considered as NT   |
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Hygrocybe nitrata</i>                 | National Red List: Considered as NT   |
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Hygrocybe russocoriacea</i>           | National Red List: Considered as NT   |
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Hygrophorus secretanii</i>            |   |
| TRACHEOPHYTA/MAGNOLIOPSIDA   | <i>Micranthes tenuis</i>                 | National Red List: Considered as NT   |
| TRACHEOPHYTA/MAGNOLIOPSIDA   | <i>Moneses uniflora</i>                  | Very common species in this wetland area.                                   |
| TRACHEOPHYTA/MAGNOLIOPSIDA   | <i>Myricaria germanica</i>               | National Red List: Considered as NT   |
| BASIDIOMYCOTA/AGARICOMYCETES | <i>Phellinus kamahi</i>                  | National Red List: Considered as NT   |
| ASCOMYCOTA/NOT ASSIGNED      | <i>Pseudographis pinicola</i>            | National Red List: Considered as NT   |

[Optional text box to provide further information](#)

Not assessed for Catalogue of Life yet:  
Tayloria tenuis - National Red List: Considered as NT.

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

#### 4.3.2 - Animal species

Other noteworthy animal species

| Phylum                  | Scientific name             | Pop. size | Period of pop. est. | % occurrence | Position in range /endemism/other   |
|-------------------------|-----------------------------|-----------|---------------------|--------------|---|
| CHORDATA/ACTINOPTERYGII | <i>Salmo salar</i>          |           |                     |              | Salmon <i>Salmo salar</i> goes up the river Forra, but does not enter the site. |
| CHORDATA/ACTINOPTERYGII | <i>Salmo trutta</i>         |           |                     |              | Trout <i>Salmo trutta</i> is using the river and lake in the site.              |
| CHORDATA/AVES           | <i>Picoides tridactylus</i> |           |                     |              |   |
| CHORDATA/AVES           | <i>Sumia ulula</i>          |           |                     |              |   |

Invasive alien animal species

| Phylum            | Scientific name       | Impacts   | Changes at RIS update |
|-------------------|-----------------------|-----------|-----------------------|
| CHORDATA/MAMMALIA | <i>Neovison vison</i> | Potential | No change             |

## 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) |

Normal annual precipitation is well above 1000 mm, with cold winters and relatively warm summers. Slow snow melt in the spring also creates a humid climate. Middle yearly temperature is 2,3°C, with an average of -6,9°C in January and 12,1°C in July. Snow cover usually lasts from October/November to May/June.

### 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.

Forra river

### 4.4.3 - Soil

Mineral

(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)

Cambro-silurian bedrock, with minerotrophic rock (calcerous grey phyllite) in the western parts and harder rocks in the eastern part (gneiss and schist). Smaller areas with greenschists (up to Hårskallen); These cambro-silurian rocks erode quickly, providing plant nutrients.

Generally, harder and more resistant bedrock when moving eastwards, which reflects in a gradually poorer vegetation (fewer species requiring a base-rich environment).

Gravel and silt deposits from the meltdown of the ice (moraine) with some huge east-west going drumlin deposits.

Peat depth varies greatly coherent with the varied landscape, and range from 2,5 m in the large plain mire areas to only a few cm in sloping terrain (>10° inclination).

### 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 precipitation | <input type="checkbox"/> | No change             |
| Water inputs from surface water | <input 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 largely stable | No change             |

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

Water quality is high and nitrogen-poor, with a flow average of 20m<sup>3</sup>/sec in the river Forra.

4.4.5 - Sediment regime

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):

Most of the area with management in Øvre Forra Nature reserve is rich fen (pH > 6 in the peat), and much of this consists of sloping fens (gradient of more than 3°) with a good supply of calcareous water. The fen below the footpath has rich fen vegetation close to the path, but gradually becomes poorer (lower pH in the peat) toward the forest margin.

4.4.7 - Water salinity

Fresh (<0.5 g/l)

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

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Oligotrophic

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

Unknown

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

Water quality is high and nitrogen-poor, with a flow average of 20m<sup>3</sup>/sec in the river Forra.

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:

Timber production and recreational use as within the site.

4.5 - Ecosystem services

#### 4.5.1 - Ecosystem services/benefits

##### Provisioning Services

| Ecosystem service         | Examples         | Importance/Extent/Significance |
|---------------------------|------------------|--------------------------------|
| Wetland non-food products | Livestock fodder | Medium                         |
| Wetland non-food products | Other            | Medium                         |

##### Regulating Services

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

##### Cultural Services

| Ecosystem service           | Examples  | Importance/Extent/Significance |
|-----------------------------|---|--------------------------------|
| Recreation and tourism      | Recreational hunting and fishing                  | Medium                         |
| Recreation and tourism      | Picnics, outings, touring                         | Medium                         |
| Spiritual and inspirational | Cultural heritage (historical and archaeological) | Medium                         |
| Scientific and educational  | Major scientific study site                       | Medium                         |

##### Supporting Services

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

Other ecosystem service(s) not included above:

The area has an important role in flood control, since its catchment area is large and the river Forra drains into one of the larger rivers in the region, the river Stjørdalselva situated in an agricultural valley with spring flood problems.

The area has played an important role in the history of the inhabitants of the area since they started to produce iron from bog ore approximately 2200 years ago and this period lasted about 1200 years. During this period all the forest was logged as firewood for iron production and the mires were used for haymaking. The haymaking lasted long after the bog ore period was over and the last haymaking on the mires was around 1935. Mountain dairy farming was common in the area until some years after 1900.

The area is today used for grazing cattle and sheep. Also some reindeer herding is performed, especially in the winter months and as calving ground. Parts of the area is popular for trekking, often combined with hunting activities, fishing or berry picking (cloudberry and blueberry). Also canoeing, skiing activities.

Extensive research on a number of fields have been conducted in the past: Hydrology, limnology, climate, geology, flora and fauna.

Within 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

- 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

Description if applicable

There are reasons to assume that the site has been changed by ancient human activity over a period of 1200 years when the people here made iron from bog ore. The production of an estimated 50 tons of steel probably led to a total deforestation of the area with a subsequent formation of mires. The mires were held open by haymaking the following 1000 years and the last 100 years the forest is slowly creeping in on the mires again.

- 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

#### 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"/> |

Provide further information on the land tenure / ownership regime (optional):

Within the Ramsar site:  
Private and state (statsallmenning).

In the surrounding area:  
Private and state (statsallmenning).

#### 5.1.2 - Management authority

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

County Governor of Trøndelag

Postal address:

Statsforvalteren i Trøndelag  
Pb. 2600  
N-7734 STEINKJER

E-mail address:

sftlpost@statsforvalteren.no

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

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

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

Please describe any other threats (optional):

Within the Ramsar site:  
Little impact at present.

In the surrounding area:  
Little impact at present.

#### 5.2.2 - Legal conservation status

##### National legal designations

| Designation type | Name of area | Online information url | Overlap with Ramsar Site |
|------------------|--------------|------------------------|--------------------------|
| Nature Reserve   | Øvre Forra   |                        | 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

#### Human Activities

| Measures   | Status      |
|--|-------------|
| Regulation/management of recreational activities | Implemented |

Other:

Dogs have to be kept on a leash in the period 1st April – 20th August.

### 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:

A leaflet exists, and a poster has been put on display at the different entrances to the area.

### 5.2.6 - Planning for restoration

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

### 5.2.7 - Monitoring implemented or proposed

| Monitoring       | Status      |
|------------------|-------------|
| Animal community | Implemented |
| Plant community  | Implemented |

Extensive research on a number of fields have been conducted in the past: Hydrology, limnology, climate, geology, flora and fauna.

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Ely-Aastrup, Hilde. 2015. Forvaltningsplan for Øvre Forra naturreservat i Levanger, Stjørdal, Meråker og Verdal kommuner. Fylkesmannen i Nord-Trøndelag, Miljøvernavdelingen. Rapport 2015-2. 34 s

Lyngstad, A. 2012. Kartlegging, overvåking og skjøtsel i Øvre Forra naturreservat 2012. – NTNU Vitensk.mus. Bot. Notat 2012-8: 1-36.

Thingstad, P. G. (2015). Bird communities at two marshes in Øvre Forra, today and 40 years ago. *Ornis Norvegica*, 38, 18-24.

Artsdatabanken (2021, 24. november). Norsk rødliste for arter 2021. <https://www.artsdatabanken.no/lister/rodlisterforarter/2021/>

Biogeographic regionalisation scheme:

Moen, A. 1998. Nasjonalatlas for Norge; vegetasjon. Statens kartverk, Hønefoss

Natural history/general:

Solem, T. 1975. Naturhistoriske undersøkelser i Forra-dalsområdet - et suboseanisk, høytliggende myrområde i Nord-Trøndelag. DKNVS Rapp. Zool. Ser. 4. (in Norwegian - a report on natural history).

Moen, A. & Jensen, J.W. 1979. Naturvitenskapelige interesser og verneverdier i Forra-vassdraget og Øvre Forradalsområdet i Nord-Trøndelag. DKNVS. Gunneria 33. (in Norwegian - natural history)

Solem, T. 1974. Klima- og vegetasjonshistorie i Forradalsområdet i Nord-Trøndelag. Hovedfagsoppgave ved Universitetet i Trondheim. (in Norwegian - thesis on climate and vegetation history).

Øien, D-I., Nilsen, L.S. & Moen, A. 1997. Skisse til skjøtelsesplan for deler av Øvre Forra naturreservat i Nord-Trøndelag. NTNU, Vitenskapsmuseet Rapp. Bot. Ser. 2:1-26. (in Norwegian - proposal for management plan, includes a list on literature on the protected site).

Flora:

Moen, A., Kjelvik, L., Bretten, S., Sivertsen, S. & Sæther, B. 1976. Vegetasjon og flora i Øvre Forradalsområdet i Nord-Trøndelag, med vegetasjonskart. DKNVS. Rapp. Bot. Ser. 9. (in Norwegian - flora mapping and vegetation map).

Birds:

Hellan, M. E. 2004. Fugletaksering i Øvre Forra Naturreservat 2003. Birdestimate in Øvre Forra Nature Reserve 2003. Bacheloroppgave i Naturforvaltning, Høgskolen i Nord-Trøndelag. 29s.

Moksnes, A. 1970. Ornitologiske undersøkelser i Forradalsområdet i Nord-Trøndelag sommeren 1970. Notat. (in Norwegian - short report on the birdlife).

Moksnes, A. 1977. Fuglefaunaen i Forraområdet i Nord-Trøndelag. Sluttrapport fra undersøkelsene 1970- 1972. DKNVS Rapp. Zool. Ser. 3. (in Norwegian - report on bird research 1970-1972).

Fish:

Jensen, J.W. 1972. Fiskeribiologiske undersøkelser i Øvre Forra 1971. DKNVS Rapp. Zool. Ser. 11. (in Norwegian - on fishbiology)

Archaeology:

Berre, I. 1983. Om jarnvinna og jarnvinneanlegg. Levanger historielag. Årsskrift 1983. (in Norwegian - on the iron production)

#### 6.1.2 - Additional reports and documents

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

<no file available>

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

<no file available>

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

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<1 file(s) uploaded>

vi. other published literature

<11 file(s) uploaded>

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

Please provide at least one photograph of the site:



Øvre Forra ( Gunnar Kjørstad/Norwegian Environment Agency, 04-09-2007 )



Øvre Forra ( Hilde Ely-Aastrup, 04-10-2012 )



Øvre Forra ( Hilde Ely-Aastrup, 20-06-2012 )



Øvre Forra ( Hilde Ely-Aastrup, 20-06-2012 )





Øvre Forra ( Hilde Ely-  
Aastrup, 04-10-2012 )

#### 6.1.4 - Designation letter and related data

##### Designation letter

<1 file(s) uploaded>

Date of Designation