



# Ramsar Information Sheet

Published on 29 March 2017

Update version, previously published on : 1 January 2004

## Switzerland Niederried Stausee



Designation date	9 November 1990
Site number	508
Coordinates	46°59'14"N 07°15'03"E
Area	297,00 ha

## Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

## 1 - Summary

### Summary

The "Niederried Stausee" (i.e. the Artificial lake Niederried) dates back to the building of a river dam and the creation of an artificial lake in the year 1913. The Site includes this artificial lake of a length of 2.5 km on the river Aare and natural stretches of the rivers Aare and Sarine with a total surface of 297 ha.

The right shore of the "Niederried Stausee" is characterised by sandstone cliffs, while the left shore is dominated by flat water zones, alluvial forests and periodically flooded alluvial fens. Even though the lake is of anthropogenic origin, the site has evolved to one of the richest alluvial landscapes of the Swiss Plateau. The vegetation includes reedbeds, tall sedge marshland, meadowsweet fen meadows (Calthion), basophile small sedge reed (Caricion), alluvial forest of silver willow, grey alder, and ash tree as well as beech forest. A particularity of the site is the remarkable thermophilous flora on the sandbanks and sandstone cliffs. Niederried Stausee is home to eight plant and 77 animal species figuring on the red lists of endangered species in Switzerland. The site is an important wintering and/or stop over site for waterbirds and other migratory bird species.

Silting up of the artificial lake and massive changes in nutrient loads seem to be a major driver for changes in the waterbird community. Main factors affecting the site are the artificial regulation of water debits (absence of natural dynamism in the alluvial zone) and the water warming due to the nuclear power station in Mühleberg. Human activities such as leisure activities, agriculture and hydroelectricity production also impact the site.

## 2 - Data & location

### 2.1 - Formal data

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

##### Compiler 1

Name	Dr. Reinhard Schnidrig
Institution/agency	Federal Office for the Environment FOEN
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Fax	+41 58 463 89 74

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

From year	1990
To year	2014

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Niederried Stausee
Unofficial name (optional)	Originally designated as 'Lac artificiel de Niederried'

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

(Update) A. Changes to Site boundary Yes  No

(Update) B. Changes to Site area No change to area

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

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS? Not evaluated

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

b) Digital map/image  
<2 file(s) uploaded>

Former maps 0

### 2.2.2 - General location

a) In which large administrative region does the site lie?	Canton of Berne
b) What is the nearest town or population centre?	Town: Golaten, Berne

### 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): 297

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

### 2.2.5 - Biogeography

#### Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Central & Western Europe
Other scheme (provide name below)	Swiss plateau (Mittelland)

#### Other biogeographic regionalisation scheme

### 3 - Why is the Site important?

#### 3.1 - Ramsar Criteria and their justification

<no data available>

Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

Justification

At national level, the river Aare on the site is classified as "watercourse section with high biodiversity and / or national priority species" (FOEN). The area is located in the densely populated region of the central Plateau and provides a high diversity of habitats and natural elements (e.g. watercourses and pond systems with pondweed and duckweed communities, reed beds, sedge meadows, hydrophilous tall herb fringe communities, floodplain forests, stream-alder-ash forests, alder marshes and stocks of White willow). Compared to the surrounding area, there is a high species richness - especially of water and wetland depending species. A relatively high amount of rare and of threatened species (at a national/local level) is occurring.

Some examples:

The site is part of an «Important Bird Area of Switzerland IBA», object N°004 'Grosses Moos' plain and Niederried reservoir. It is home to nearly 80 species of birds. The fen of Oltigenmatt is particularly favourable to breeding waterbirds and therefore of a high importance. The site harbours five threatened amphibian species and four threatened reptile species. It offers valuable habitat to the European beaver and to several dragonfly and orthoptera species. The cliffs of sandstone on the right bank of the Aare harbour a remarkable thermophilous flora. There are several species of protected orchids occurring in this part of the site.

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

Criterion 6 : >1% waterbird population

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













































Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Callitriche brutia hamulata</i> 	Intermediate Water Starwort	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	VU (National Red List Ferns and Flowering Plants 2002)	
<i>Carex cuprina</i> 	False Fox Sedge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	VU (National Red List Ferns and Flowering Plants 2002)	
<i>Carex riparia</i> 	Greater Pond Sedge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	VU (National Red List Ferns and Flowering Plants 2002)	
<i>Cortinarius tumalis</i> 		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	EN (National Red List Macrofungi 2007)	
<i>Cypripedium calceolus</i> 	Yellow Lady's Slipper Orchid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	VU (National Red List Ferns and Flowering Plants 2002)	
<i>Gyalecta truncigena</i> 	Truncated dimple lichen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	VU (National Red List Lichens 2002)	
<i>Himantoglossum hircinum</i> 	Lizard Orchid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	VU (National Red List Ferns and Flowering Plants 2002)	
<i>Orchis purpurea</i> 	Lady Orchid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	VU (National Red List Ferns and Flowering Plants 2002)	
<i>Schoenoplectus tabernaemontani</i> 	Great Bulrush	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	VU (National Red List Ferns and Flowering Plants 2002)	
<i>Spiranthes aestivalis</i> 	Summer Lady's-tresses	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	VU (National Red List Ferns and Flowering Plants 2002)	
<i>Strigula jamesii</i> 		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	VU (National Red List Lichens 2002)	












































Outstanding variety of species present.  
 The area records one of the largest and most important national stock of the White Willow (*Salix alba*). The cliffs of sandstone on the right bank of the Aare harbour a remarkable thermophilous flora. There are several species of endangered / protected orchids.

National Red List Macrofungi 2007:  
*Panus tigrinus* VU  
*Trechispora sulphurea* VU

































### 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>Actitis hypoleucos</i> 	Common Sandpiper	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	<i>Alcedo atthis</i> 	Common Kingfisher	<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (national Red List Breeding Birds 2007)	
CHORDATA/ AVES	<i>Anas clypeata</i> 	Northern Shoveler	<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/AVES	 <i>Anas crecca</i>	Eurasian Teal	<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"/>	VU (National Red List Breeding Bird 2010)	
CHORDATA/AVES	 <i>Anas querquedula</i>	Garganey	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Anas strepera</i>	Gadwall	<input checked="" 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"/>	923	1998	1	LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	Central Europe (AEWA) Wintering species
CHORDATA/AVES	 <i>Anthus pratensis</i>	Meadow Pipit	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Ardea purpurea</i>	Purple Heron	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	CR (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Athene noctua</i>	Little Owl	<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"/>		2006		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Aythya ferina</i>	Common Pochard	<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"/>	EN (National Red List Breeding Birds 2010)	Wintering species
CHORDATA/AVES	 <i>Aythya fuligula</i>	Tufted Duck	<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"/>	VU (National Red List Breeding Birds, 2010)	Wintering species
CHORDATA/AVES	 <i>Bucephala clangula</i>	Common Goldeneye	<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"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Charadrius dubius</i>	Little Ringed Plover	<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"/>		2010		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Chroicocephalus ridibundus</i>	Black-headed Gull	<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"/>		2013			<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Ciconia ciconia</i>	White Stork	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Circus aeruginosus</i>	Western Marsh Harrier	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Corvus monedula</i>	Western Jackdaw	<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"/>		2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Emberiza calandra</i>	Corn Bunting	<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"/>		2006			<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Emberiza schoeniclus</i>	Common Reed Bunting	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Gallinago gallinago</i>	Common Snipe	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	CR (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Hippolais icterina</i>	Icterine Warbler	<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"/>		2000		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Ixobrychus minutus</i>	Little Bittern	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Lanius excubitor</i>	Great Grey Shrike	<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"/>		2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	RE (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Larus canus</i>	Mew Gull	<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"/>		2007		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Mergus merganser</i>	Common Merganser	<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"/>		2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/AVES	 <i>Mergus serrator</i>	Red-breasted Merganser	<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"/>		2006		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ AVES	 <i>Numenius arquata</i>	Eurasian Curlew	<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"/>	2008		NT 	<input type="checkbox"/>	<input type="checkbox"/>	CR (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Nycticorax nycticorax</i>	Black-crowned Night Heron	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Pandion haliaetus</i>	Osprey	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	RE (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Panurus biarmicus</i>	Bearded Reedling	<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"/>	2008		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Phylloscopus sibilatrix</i>	Wood Warbler	<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"/>	2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Phylloscopus trochilus</i>	Willow Warbler	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Picus canus</i>	Grey-headed Woodpecker	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Podiceps nigricollis</i>	Black-necked Grebe	<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"/>	2010		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Porzana porzana</i>	Spotted Crake	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Remiz pendulinus</i>	Eurasian Penduline Tit	<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"/>	2008		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Riparia riparia</i>	Sand Martin	<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"/>	2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Saxicola rubetra</i>	Whinchat	<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"/>	2010		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Scolopax rusticola</i>	Eurasian Woodcock	<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"/>	2009		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Somateria mollissima</i>	Common Eider	<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"/>	2008		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Tachybaptus ruficollis</i>	Little Grebe	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Tadorna tadorna</i>	Common Shelduck	<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"/>	2008		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Tringa totanus</i>	Common Redshank	<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"/>	2004		LC 	<input type="checkbox"/>	<input type="checkbox"/>	RE (National Red List Breeding Birds 2010)	
CHORDATA/ AVES	 <i>Turdus pilaris</i>	Fieldfare	<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"/>	2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Breeding Birds 2010)	
<b>Fish, Mollusc and Crustacea</b>																		
CHORDATA/ ACTINOPTERYGII	 <i>Alburnoides bipunctatus</i>	Bleak	<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"/>	2000			<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Fish and Cyclostomes 2007)	
CHORDATA/ ACTINOPTERYGII	 <i>Anguilla anguilla</i>	Common Eel	<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"/>	2000		CR 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Fish and Cyclostomes 2007)	
CHORDATA/ ACTINOPTERYGII	 <i>Chondrostoma nasus</i>	Common Nase	<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"/>	1998		LC 	<input type="checkbox"/>	<input type="checkbox"/>	CR (National Red List Red List of Fish and Cyclostomes, 2007)	
CHORDATA/ ACTINOPTERYGII	 <i>Cyprinus carpio</i>	Common Carp	<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"/>	1998		VU 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Fish and Cyclostomes 2007)	



Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ CEPHALASPIDOMORPHI	 <i>Lampetra planeri</i>	European Brook Lamprey	<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"/>	1999		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Fish and Cyclostomes 2007)	
CHORDATA/ ACTINOPTERYGII	 <i>Rhodeus amarus</i>	Bitterling	<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"/>	1999		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Fish and Cyclostomes 2007)	
CHORDATA/ ACTINOPTERYGII	 <i>Thymallus thymallus</i>	European Grayling	<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"/>	1998		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List of Fish and Cyclostomes, 2007)	
<b>Others</b>																		
ARTHROPODA/ INSECTA	 <i>Agapetus nimbulus</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"/>	<input type="checkbox"/>	2008			<input type="checkbox"/>	<input type="checkbox"/>	VU (Red List Mayflies, Stoneflies and Caddisflies 2012)	
ARTHROPODA/ INSECTA	 <i>Amara schimperi</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"/>	<input type="checkbox"/>	2009			<input type="checkbox"/>	<input type="checkbox"/>	Vulnerable (National Red List Ground Beetles and Tiger Beetles 1994)	
ARTHROPODA/ INSECTA	 <i>Bacister dilatatus</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"/>	<input type="checkbox"/>	1988			<input type="checkbox"/>	<input type="checkbox"/>	Vulnerable (National Red List Ground Beetles and Tiger Beetles 1994)	
ARTHROPODA/ INSECTA	 <i>Bembidion latinum</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"/>	<input type="checkbox"/>	2012			<input type="checkbox"/>	<input type="checkbox"/>	Vulnerable (National Red List Ground Beetles and Tiger Beetles 1994)	
ARTHROPODA/ INSECTA	 <i>Bembidion litorale</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"/>	<input type="checkbox"/>	2009			<input type="checkbox"/>	<input type="checkbox"/>	Endangered (National Red List Ground Beetles and Tiger Beetles 1994)	
ARTHROPODA/ INSECTA	 <i>Bembidion stephensii</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"/>	<input type="checkbox"/>	1987			<input type="checkbox"/>	<input type="checkbox"/>	Vulnerable (National Red List Ground Beetles and Tiger Beetles 1994)	
CHORDATA/ AMPHIBIA	 <i>Bombina variegata</i>	Yellow-bellied Toad	<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"/>	2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Amphibians 2005)	Reproduction
CHORDATA/ AMPHIBIA	 <i>Bufo bufo</i>	Common Toad	<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"/>	2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Amphibians 2005)	Reproduction
CHORDATA/ MAMMALIA	 <i>Castor fiber</i>	Eurasian Beaver	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Endangered (National Red List Mammals 1994); High Priority Species (List of National Priority Species 2011)	
ARTHROPODA/ INSECTA	 <i>Ceraclaea nigronervosa</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"/>	<input type="checkbox"/>	2008			<input type="checkbox"/>	<input type="checkbox"/>	EN (Red List Mayflies, Stoneflies and Caddisflies 2012)	
ARTHROPODA/ INSECTA	 <i>Conocephalus fuscus</i>	Long-winged Conehead	<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"/>				<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Orthoptera, 2007)	
CHORDATA/ REPTILIA	 <i>Coronella austriaca</i>	Smooth Snake	<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"/>	2013			<input type="checkbox"/>	<input type="checkbox"/>	VU / CR regionally (National Red List Reptiles, 2005)	
CHORDATA/ REPTILIA	 <i>Emys orbicularis</i>	European Pond Turtle	<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"/>	2008			<input type="checkbox"/>	<input type="checkbox"/>	CR (National Red List Reptiles 2005)	
CHORDATA/ AMPHIBIA	 <i>Hyla arborea</i>	Common Tree Frog	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Amphibians, 2005)	Reproduction
CHORDATA/ REPTILIA	 <i>Lacerta agilis</i>	Sand Lizard	<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"/>	2014		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Reptiles 2005)	Reproduction
CHORDATA/ MAMMALIA	 <i>Lepus europaeus</i>	European Hare	<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"/>	1987		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Vulnerable (National Red List Mammals 1994)	
CHORDATA/ AMPHIBIA	 <i>Lissotriton helveticus</i>	Palmate Newt	<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"/>	2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Amphibians 2005)	Reproduction
CHORDATA/ MAMMALIA	 <i>Lutra lutra</i>	European Otter	<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"/>	1972		NT 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Endangered (National Red List Mammals 1994)	

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA/ MAMMALIA	 <i>Mustela putorius</i>	European Polecat	<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"/>	1986		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Vulnerable (National Red List Mammals 1994)	
CHORDATA/ REPTILIA	 <i>Natrix natrix helvetica</i>	Grass Snake	<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"/>	2013			<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Reptiles 2005)	Reproduction
ARTHROPODA/ INSECTA	 <i>Oodes helopioides helopioides</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"/>	<input type="checkbox"/>	1988			<input type="checkbox"/>	<input type="checkbox"/>	Vulnerable (National Red List Ground Beetles and Tiger Beetles 1994)	
ARTHROPODA/ INSECTA	 <i>Ophiogomphus cecilia</i>	Green Club-tailed Dragon Fly	<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	EN (National Red List Dragonflies 2002)	
CHORDATA/ AMPHIBIA	 <i>Salamandra salamandra</i>	Fire Salamander	<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"/>	2013		LC 	<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Amphibians 2005)	Reproduction
ARTHROPODA/ INSECTA	 <i>Silo piceus</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"/>	<input type="checkbox"/>	2008			<input type="checkbox"/>	<input type="checkbox"/>	VU (Red List Mayflies, Stoneflies and Caddisflies 2012)	
ARTHROPODA/ INSECTA	 <i>Stethophyma grossum</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"/>	<input type="checkbox"/>	2005			<input type="checkbox"/>	<input type="checkbox"/>	VU (National Red List Orthoptera 2007)	
ARTHROPODA/ INSECTA	 <i>Strangalia attenuata</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"/>	<input type="checkbox"/>	2009			<input type="checkbox"/>	<input type="checkbox"/>	Vulnerable (National Red List Ground Beetles and Tiger Beetles 1994)	

1) Percentage of the total biogeographic population at the site

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

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Ponds	<input checked="" type="checkbox"/>	Part of the last remaining Amphibian spawning biotopes in the region composed of different types of ponds and waters with its typical surrounding vegetation harboring many threatened amphibian species.	Site listed in the federal inventory of amphibian spawning areas of national importance.
Fen	<input checked="" type="checkbox"/>	The site includes rare fenland communities like as Phragmition (Reed beds), Magnocaricion (Tall-sedge stands), Filipendulion and Calthion (Meadowsweet fen meadow)	Site listed in the federal inventory of fenlands of national importance. The named communities are listed in the Ordinance on the Protection of Nature and Cultural Heritage as biotope types preserving protection.
alluvial zone	<input checked="" type="checkbox"/>	This site harbors rare alluvial communities like as Salicion albae (Silver willow alluvial forest), Alnion incanae (Gray alder alluvial forest) and Fraxinion (Ash tree alluvial forest)	Site listed in the federal inventory of alluvial zones of national importance. The named communities are listed in the Ordinance on the Protection of Nature and Cultural Heritage as biotope types preserving protection.

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

### 4.1 - Ecological character

At national level, the river Aare on the site is classified as "watercourse section with high biodiversity and / or national priority species". The area is located in the densely populated region of the central Plateau and provides a high diversity of habitats and natural elements (e.g. watercourses and pond systems with pondweed and duckweed communities, reed beds, sedge meadows, hydrophilous tall herb fringe communities, floodplain forests, stream-alder-ash forests, alder marshes and stocks of White willow). Compared to the surrounding area, there is a high species richness - especially of water and wetland depending species. A relatively high amount of rare and of threatened species (at a national/local level) is occurring. The site is home to nearly 80 species of breeding birds. It harbours threatened amphibian and reptile species, offers valuable habitat to the European beaver, and to several species of dragonflies and of orthoptera. The area records one of the largest and most important national stock of the White Willow (*Salix alba*). The cliffs of sandstone on the right bank of the Aare harbour a remarkable thermophilous flora.

### 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		4		
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		1		Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		3		
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		2		

#### Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
6: Water storage areas/Reservoirs	Stausee Niederried	1		

#### Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Agricultural land and pastures	
Deciduous Forest	

(EOD) Habitat connectivity The area is classified as a wildlife corridor of regional importance (regionale Verbindungsachse)

### 4.3 - Biological components

#### 4.3.1 - Plant species

##### Invasive alien plant species

Scientific name	Common name	Impacts	Changes at RIS update
<i>Cyperus esculentus</i>	Tiger Nut Sedge	Actually (major impacts)	unknown
<i>Erigeron annuus</i>	Annual Fleabane	Actually (major impacts)	unknown
<i>Fallopia japonica japonica</i>	Asiatic Knotweed	Actually (major impacts)	unknown
<i>Impatiens glandulifera</i>	Himalayan Balsam	Actually (major impacts)	unknown
<i>Robinia pseudoacacia</i>	Robinia	Actually (major impacts)	unknown
<i>Solidago canadensis</i>	Canadian Goldenrod	Actually (major impacts)	unknown
<i>Solidago gigantea</i>	Giant Goldenrod	Actually (major impacts)	unknown

#### 4.3.2 - Animal species

##### Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Acrocephalus arundinaceus</i>	Great Reed Warbler		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Alauda arvensis</i>	Eurasian Skylark		2013		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Apus apus</i>	Common Swift		2014		High Priority Species (List of National Priority Species 2011)

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Apus melba</i>	Alpine Swift		2007		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Asio otus</i>	Long-eared Owl		2008		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Carduelis cannabina</i>	Common Linnet		2007		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Cuculus canorus</i>	Common Cuckoo		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Delichon urbicum</i>	Common House Martin		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Dendrocopos medius</i>	Middle Spotted Woodpecker		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Falco peregrinus</i>	Peregrine Falcon		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Falco subbuteo</i>	Eurasian Hobby		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Falco tinnunculus</i>	Common Kestrel		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Jynx torquilla</i>	Eurasian Wren		2013		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Locustella luscinioides</i>	Savi's Warbler		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Locustella naevia</i>	Common Grasshopper Warbler		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Luscinia megarhynchos</i>	Common Nightingale		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Milvus milvus</i>	Red Kite		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Motacilla flava</i>	Western Yellow Wagtail		2011		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Netta rufina</i>	Red-crested Pochard		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Pernis apivorus</i>	European Honey Buzzard		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Phoenicurus phoenicurus</i>	Common Redstart		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Sterna hirundo</i>	Common Tern		2007		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Streptopelia turtur</i>	European Turtle Dove		2014		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Sylvia borin</i>	Garden Warbler		2'14		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Sylvia communis</i>	Common Whitethroat		2007		High Priority Species (List of National Priority Species 2011)
CHORDATA/AVES	<i>Tyto alba</i>	Barn Owl		2008		High Priority Species (List of National Priority Species 2011)
ARTHROPODAMALACOSTRACA	<i>Astacus astacus</i>	European crayfish		1993		3 (Appendix 1, VBGF 24. Nov. 1993)

#### 4.4 - Physical components

4.4.1 - Climate

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

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

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

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

The site is located in the Rhine basin. The reservoir is supplied by 2 rivers: The Aare and the Sarine which both originate in the Bernese Alps. The first originates in the crystalline massive of the Aar and the second in the limestone massif of Wildhorn.

4.4.3 - Soil

Mineral

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

Organic

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

No available information

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

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

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.

The site is characterised by the reservoir (100-150 m wide) which is fed by two rivers, the Aare and the Sarine, the latter flowing into the river Aare in the southern part of the site. Depth, fluctuations and permanence of water: Niederried Lake is shallow and permanent (6-8 m in the main course of the river and 0.5 to 1 m in areas located further back), which is favourable to wintering waterfowl. With the development of a small channel for the flow of water, the lake does not freeze in winter. The water regime of the reservoir is artificial (controlled at the dam Niederried) with higher water level in winter than in summer. The flow of the Sarine is controlled by an upstream dam (Schiffenen). It undergoes large daily variations. The flow of the Aare is rather stable. It is also regulated by an upstream dam (lake of Wohlen).

4.4.5 - Sediment regime

Significant accretion or deposition of sediments occurs on the site

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

Sediment regime unknown

4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4)

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

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

Mesotrophic

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

Oligotrophic

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

Dystrophic

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

Unknown

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

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

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Water for energy production (hydro-electricity)	High
Wetland non-food products	Timber	Low
Wetland non-food products	Other	Low
Wetland non-food products	Livestock fodder	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Erosion protection	Soil, sediment and nutrient retention	Low
Hazard reduction	Flood control, flood storage	Low

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	High
Recreation and tourism	Nature observation and nature-based tourism	Medium
Recreation and tourism	Recreational hunting and fishing	Medium
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or 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	High
Nutrient cycling	Carbon storage/sequestration	Medium

Other ecosystem service(s) not included above:

High production of biomass as feed for migratory birds.

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

## RIS for Site no. 508, Niederried Stausee, Switzerland

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
Provincial/region/state government	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Local authority, municipality, (sub)district, etc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

##### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Commercial (company)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 Ramsar Site: The Wetlands of Oltigenmatt and of Isleren are property of the Bernese Power Company - BKW-Group (40%). The lake belongs to the Canton of Bern (20%) and slope forests, farmland and cliffs are privately owned (40%). In order of a revision of the Cantonal Protected Area, in 2013 the Canton of Bern acquired the Runtigenfluh and two parcels along the Aare for a long-term conservation. The Surrounding area consists primarily of forest and agricultural land with private ownership.

#### 5.1.2 - Management authority

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

Office of Agriculture and Nature, Berne, Switzerland (LANAT). There are three sections in charge: For the protected area in general it is the nature promotion section, for waterbird protection and hunting the Inspectorate for hunting and for fishing and fish protection the Inspectorate for fishing.

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

Dominique Hindermann

Postal address:

LANAT Amt für Landwirtschaft und Natur, Naturförderung (ANF), Schwand 17, CH- 3110 Münsingen, Switzerland.

E-mail address:

info.anf@vol.be.ch

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

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

#### Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Water releases			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

#### Agriculture and aquaculture

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

#### Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
(Para)military activities			<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Recreational and tourism activities	Medium impact	High impact	<input checked="" type="checkbox"/>	increase	<input type="checkbox"/>	No change

#### Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Vegetation clearance/ land conversion			<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Dams and water management/use			<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"/>	No change	<input checked="" type="checkbox"/>	No change



Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Agricultural and forestry effluents			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Cantonal Protected Area	Niederried-Oltigenmatt	<a href="http://www.vol.be.ch">http://www.vol.be.ch</a>	whole
Federal Inventory of Alluvial Zones of National Importance (1992, RS 451.31)	Niederried-Oltigenmatt	<a href="http://www.admin.ch/opc/fr/classified-compilation/19920277/index.html">http://www.admin.ch/opc/fr/classified-compilation/19920277/index.html</a>	whole
Federal Inventory of Landscape and Natural Monuments of National Importance (1977, RS 451.11)	Stausee Niederried	<a href="http://www.admin.ch/opc/fr/classified-compilation/19770168/index.html">http://www.admin.ch/opc/fr/classified-compilation/19770168/index.html</a>	partly
Federal Inventory of reserves for Waterbirds and Migratory Birds of International and National Importance (1991, RS 922.32)	Stausee Niederried	<a href="http://www.admin.ch/opc/fr/classified-compilation/19910014/index.html">http://www.admin.ch/opc/fr/classified-compilation/19910014/index.html</a>	whole
Federal inventory of Amphibian Spawning Areas of National Importance (2001, RS 451.34)	Oltigenmatt	<a href="http://www.admin.ch/opc/fr/classified-compilation/20010968/index.html">http://www.admin.ch/opc/fr/classified-compilation/20010968/index.html</a>	whole
Federal inventory of Fenlands of National Importance (1994, RS 451.33)	Oltigenmatt	<a href="http://www.admin.ch/opc/fr/classified-compilation/19940213/index.html">http://www.admin.ch/opc/fr/classified-compilation/19940213/index.html</a>	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	IBA004 Grosses Moos und Stausee Niederried	<a href="http://www.birdlife.ch/iba">http://www.birdlife.ch/iba</a>	partly

5.2.3 - IUCN protected areas categories (2008)

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

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Habitat manipulation/enhancement	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented
Control of invasive alien plants	Partially implemented

Human Activities

Measures	Status
Management of water abstraction/takes	Implemented
Livestock management/exclusion (excluding fisheries)	Implemented
Fisheries management/regulation	Implemented
Regulation/management of recreational activities	Implemented
Regulation/management of wastes	Proposed

5.2.5 - Management planning

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

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

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

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Animal species (please specify)	Proposed
Plant community	Proposed

Monitoring of the European Beaver (*Castor fiber*) population is planned in 2015.  
 Bird monitoring: Since 1951, waterbirds on the Niederried reservoir along the Aare river near Berne, Switzerland, have been counted once every month from September to April. Report: Niggeler, E. & V. Keller (2007): Wintering waterbirds at the Ramsar site Stausee Niederried (canton of Berne, Switzerland) 1951/52–2005/06. *Ornithol. Beob.* 104: 279–300

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Reference list (pdf): See 6.1.2. vi.

#### 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

<5 file(s) uploaded>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<1 file(s) uploaded>

vi. other published literature

<3 file(s) uploaded>

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

Please provide at least one photograph of the site:



Niederried Stausee ( *Matthias Sorg, 21-10-2013* )



Niederried Stausee. Upper part of the site with sandstone cliffs. ( *Matthias Sorg, 21-09-2013* )



Niederried Stausee. Upper part of the site. Still water / side branch. ( *Matthias Sorg, 21-09-2013* )



Niederried Stausee. Upper part of the site with sandstone cliffs. ( *Matthias Sorg, 21-09-2013* )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation