



# Ramsar Information Sheet

Published on 1 February 2020

## India

### Beas Conservation Reserve



Designation date	26 September 2019
Site number	2408
Coordinates	31°23'41"N 75°11'40"E
Area	6 428,92 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

A 185 km stretch of the River Beas starting from 52 Headworks, Talwara to Harike Headworks was declared as the Beas Conservation Reserve under the Wildlife Protection Act, 1972 on 29 August 2017. The main channel of the river is broad, dotted with islands, sand bars, braids and wide pools. The average depth of the river varies from about 1.5 m during the dry season to about 4.5 m during the rainy season. Through its course, a strip of shallow alluvial soil fringes the riverbanks, which is inundated during the rainy season. The Beas Conservation Reserve hosts the only population of Indus river dolphins (*Platanista gangetica minor*) in India. Gharial (*Gavialis gangeticus*) re-introduction programme project was initiated in 2017 in Beas Conservation Reserve to repopulate the river with gharial more than thirty years after their disappearance. Forty-seven gharial have been reintroduced near village Gagdewal. The smooth-coated otter (*Lutrogale perspicillata*) is another rare and important species, which is found in waters of River Beas. The terrestrial fauna of the Beas includes hog deer (*Axis porcinus*), blue bull (*Boselaphus tragocamelus*) and wild pig (*Sus scrofa*). The River Beas provides vital habitats for more than 500 species of birds and is a particularly important staging area for both summer and winter migratory waterbirds. The river supports species of freshwater turtles like Indian softshell turtle, Indian flapshell turtle, narrow-headed softshell turtle, spotted pond turtle, crowned river turtle and brown roofed turtle. Harike and Beas conservation reserve together support more than 90 fish species. After its declaration as a "protected area" the Department of Forests and Wildlife Preservation, Punjab now conduct the scientific management of the area.

## 2 - Data & location

### 2.1 - Formal data

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

##### Compiler 1

Name	Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Punjab.
Institution/agency	Department of Forests & Wildlife Preservation.
Postal address	Forest Complex, Tower No 2, 2nd floor, Sec -68, S.A.S Nagar, Punjab.
E-mail	cwlpunjab@gmail.com
Phone	0172-2298010

##### Compiler 2

Name	Rivers, Wetlands and Water Policy
Institution/agency	World Wide Fund for Nature - India
Postal address	172-B, Max Muller Marg, Lodi Estate, New Delhi - 110 003
E-mail	gkanwar@wwfindia.net
Phone	011-43516280

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

From year	2015
To year	2019

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Beas Conservation Reserve
---	---------------------------

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

b) Digital map/image  
<1 file(s) uploaded>

Former maps	0
-------------	---

#### Boundaries description

The site's boundary is the same as the boundary of the conservation reserve, which is the 185 km stretch of the River Beas starting from 52 Headworks, Talwara to Harike Headworks. It was declared as the Beas Conservation Reserve under the Wildlife Protection Act, 1972 on 29 August 2017.

### 2.2.2 - General location

a) In which large administrative region does the site lie?	Hoshiarpur, Amritsar, Gurdaspur, Kaputhala, Jalandhar, Tam Taran
b) What is the nearest town or population centre?	Talwara, Dasuya, Tanda, Shri Hargobindpur, Beas, Goindwal, Harike.

### 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):	6428.92
----------------------------------	---------

Area, in hectares (ha) as calculated from  
GIS boundaries 6428.963

## 2.2.5 - Biogeography

### Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Lower & Middle Indus

### Other biogeographic regionalisation scheme

Biogeographic regionalization scheme: Terrestrial Eco-regions of the World.

Scientific Code: IM1304

Eco-Zone: Indomalayan

Biome: Desert and xeric scrub-land

Eco-region: Northwestern scrub forest

Country: India. North-western part in State of Punjab.

### 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 7 : Significant and representative fish

Justification

Various studies have shown a total of 90 species recorded from the River Beas. Of these Ompak pabda is an endangered species; Tor putitora, Labeo dero, Labeo dyocheilus, Bagarius bagarius are vulnerable species; and Botia birdi, Lepidocephalichthys guntea, Mystus vittatus, Mystus bleekeri, Amphipnous cuchia are rare species found in the Beas ecosystem.

The general representative species of fish along the stretch of the river are Indian river shad (Gudusia chapra), dwarf barb (Puntius phutunio), Indian rohu (Labeo rohita), freshwater garfish (Xenentodon cancila), rayfinned fish (Osteobrama cotia), reba carp (Cirrihinus reba), singhara (Sperata seenghala), sole (Channa marulius), grass carp (Ctenopharyngodon idella), silver carp (Hypophthalmichthys molitrix), common carp (Cyprinus carpio), katla (Catla catla), mali (Wallago attu), mrigal (Cirrihinus mrigala), white carp (Cirrihinus mrigala), salmo (Salmo facia), olive barb (Puncticus sarana), large razerbelly (Salmophasia bacaila), minnow, dwarf river monster (Bagarius bagarius), chitala (Chitala chitala), bagrid catfish (Rita rita).

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

<no data available>

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

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
<b>Birds</b>																		
CHORDATA/AVES	<i>Aquila clanga</i>	Greater Spotted Eagle	<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"/>	Vulnerable (IUCN Red List)	
CHORDATA/AVES	<i>Aythya ferina</i>	Common Pochard	<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"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Ciconia episcopus</i>	Woolly-necked 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"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Fish, Mollusc and Crustacea</b>																		
CHORDATA/ACTINOPTERYGII	<i>Bagarius bagarius</i>	Dwarf goonch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			NT	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	<i>Botia birdi</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	<i>Lepidocephaliichthys guntea</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	<i>Mystus bleekeri</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	<i>Mystus mysticetus</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/ACTINOPTERYGII	<i>Tor putitora</i>	Masheer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			EN	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Others</b>																		
CHORDATA/MAMMALIA	<i>Axis porcinus</i>	Hog deer	<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"/>			EN	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/REPTILIA	<i>Chitra chitra chitra</i>	Indian narrow-headed softshell 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"/>				<input type="checkbox"/>	<input type="checkbox"/>	Endangered (IUCN Red List)	
CHORDATA/REPTILIA	<i>Gavialis gangeticus</i>	Gharial	<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"/>			CR	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/REPTILIA	<i>Geoclemys hamiltonii</i>	Spotted 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"/>			EN	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/REPTILIA	<i>Hardella thurjii</i>	Crowned River 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"/>			VU	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Lutrogale perspicillata</i>	Smooth-coated 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"/>			VU	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/REPTILIA	<i>Nilssonina gangetica</i>	Indian softshell 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"/>			VU	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Platanista minor</i>	Indus River Dolphin	<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"/>	10			<input type="checkbox"/>	<input type="checkbox"/>	Endangered (IUCN Red List)	

1) Percentage of the total biogeographic population at the site

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

<no data available>

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

### 4.1 - Ecological character

The main channel of the Beas conservation reserve is broad, dotted with islands, sand bars, braids and wide pools. The average depth of the Beas conservation reserve varies from about 1.5 m during the dry season to about 4.5 m during the rainy season. The soil mainly constitutes recent deposits known collectively as Indo-gangetic alluvium, which consists of alluvial sand, clay and loam. The temperature ranges from a minimum of around 1° C in January to a maximum of about 45° C during the peak summer in June. It is not unusual for the temperature to drop to zero and rise up to 48° C. Beas conservation reserve hosts the only population of Indus river dolphins (*Platanista gangetica minor*) in India. The conservation reserve also has a gharial (*Gavialis gangeticus*) re-introduction programme to repopulate the river with gharial more than thirty years after their disappearance. Forty-seven gharial have been reintroduced near village Gagdewal and Wazir Bhullar. The smooth-coated otter (*Lutrogale perspicillata*) is another rare and important species, which is found in waters of River Beas. The terrestrial fauna of the conservation reserve includes hog deer (*Axis porcinus*), blue bull (*Boselaphus tragocamelus*) and wild pig (*Sus scrofa*). The River Beas provides vital habitats for more than 500 species of birds and particularly is an important staging area for both summer and winter migratory water birds. The river supports species of freshwater turtles (Indian softshell turtle, Indian flapshell turtle, narrow-headed softshell turtle, spotted pond turtle, crowned river turtle and brown roofed turtle). The River Beas and Harike wildlife sanctuary together support more than 90 species of fishes.

### 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	Beas river	1		

#### 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		2		

### 4.3 - Biological components

#### 4.3.1 - Plant species

##### Optional text box to provide further information

In the Beas Conservation Reserve there is extensive growth of *Typha elephantina* and *Phragmites karka* along the riverbanks, and in the surrounding low-lying areas. Of the free-floating plants, *Azolla* occurs in patches of open water. Among the floating rooted plants, *Nelumbo nucifera* grows extensively in marshy areas of the wetland. Submerged plants such as *Hydrilla verticillata*, *Potamogeton crispus*, *Vallisneria sp.*, *Ceratophyllum demersum* and *Chara sp* are commonly found, while the semi-woody *Ipomoea fistulosa* is observed growing on the islands in the lake. Amongst the tall grasses *Saccharum spontaneum* and *S. benghalensis* are the most common along the higher ground in the wetland area and on the slopes and margins of surrounding bunds and dykes. *Tamarix diocia* is the sole woody plant truly adapted to an aquatic habitat found in wetland areas. The rest of the trees are upland species which include *Acacia arabica*, *Dalbergia sissoo*, *Prosopis juliflora* and are usually found growing on elevated or occasionally flooded parts of the landscape.

#### 4.3.2 - Animal species

##### Optional text box to provide further information

Fishes of Beas Conservation Reserve: Indian river shad (*Gudusia chapra*), dwarf barb (*Puntius phutunio*), Indian rohu (*Labeo rohita*), freshwater garfish (*Xenentodon cancila*), rayfinned fish (*Osteobrama cotio*), reba carp (*Cirrhinus reba*), singhara (*Sperata seenghala*), sole (*Channa marulius*), grass carp (*Ctenopharyngodon idella*), silver carp (*Hypophthalmichthys molitrix*), common carp (*Cyprinus carpio*), katla (*Catla catla*), mali (*Wallago attu*), mrigal (*Cirrhinus mrigala*), white carp, salmo (*Salmo facia*), olive barb (*Puntius sarana*), large razerbelly minnow (*Salmophasia bacaila*), dwarf river monster (*Bagarius bagarius*), chitala (*Chitala chitala*), bagrid catfish (*Rita rita*).

### 4.4 - Physical components

#### 4.4.1 - Climate

Climatic region	Subregion
B: Dry climate	BWk: Mid-latitude desert (Mid-latitude desert)

The temperature ranges from a minimum of around 1° C in January to a maximum of about 45° C during the peak summer in June. It is not unusual for the temperature to drop to zero and rise up to 48° C. Average rainfall 770 mm.

#### 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.

River Beas Basin

4.4.3 - Soil

- Mneral
- Organic
- 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)

Through its course, a strip of shallow alluvial soil fringes the river banks and these are inundated during the rainy season.

4.4.4 - Water regime

Water permanence

Presence?	
Usually permanent water present	No change

Source of water that maintains character of the site

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

Water destination

Presence?	
Feeds groundwater	No change
To downstream catchment	No change

Stability of water regime

Presence?	
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.

The main channel of the river is broad, dotted with islands, sand bars, braids and wide pools. The average depth of the river varies from about 1.5 m during the dry season to about 4.5 m during the rainy season.

4.4.5 - Sediment regime

- Significant erosion of sediments occurs on the site
- Significant accretion or deposition of sediments occurs on the site
- Significant transportation of sediments occurs on or through the site
- Sediment regime is highly variable, either seasonally or inter-annually
- Sediment regime unknown

Please provide further information on sediment (optional):

Not studied.

(ECD) Water turbidity and colour



(ECD) Light - reaching welland	Not studied.
(ECD) Water temperature	24-25 degree Celsius (in summer), 16-19 degree Celsius (in winter)

4.4.6 - Water pH

- Acid (pH<5.5)
- Circumneutral (pH: 5.5-7.4)
- Alkaline (pH>7.4)
- Unknown

Please provide further information on pH (optional):

The water quality in Beas Consevation Reserve after it leaves 52 Headworks in Talwara township is classified by the Punjab Pollution Control Board as very good, conforming to Class 'A', and remains so till it receives the sewage from Mukerian town, Beas city and Goindwal Sahib where the quality comes down to Class "C" / "B".

4.4.7 - Water salinity

- Fresh (<0.5 g/l)
- Mixohaline (brackish)/Mixosaline (0.5-30 g/l)
- Euhaline/Eusaline (30-40 g/l)
- Hyperhaline/Hypersaline (>40 g/l)
- Unknown

(ECD) Dissolved gases in water

Oxygen reliable in water.

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic
- Mesotrophic
- Oligotrophic
- Dystrophic
- Unknown

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

Not studied.

(ECD) Dissolved organic carbon	Not studied.
(ECD) Redox potential of water and sediments	Not studied.
(ECD) Water conductivity	155-236(µS)

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
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Fresh water	Drinking water for humans and/or livestock	High
Fresh water	Water for irrigated agriculture	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	High
Pollution control and detoxification	Water purification/waste treatment or dilution	Medium

Cultural Services

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

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
Soil formation	Sediment retention	Medium
Nutrient cycling	Carbon storage/sequestration	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High
Pollination	Support for pollinators	High

Within the site:

Outside the site:

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

4.5.2 - Social and cultural values

- i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland
- ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland
- iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples
- iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

<no data available>

4.6 - Ecological processes

(ECD) Primary production	<input type="text" value="Unknown and not investigated"/>
(ECD) Nutrient cycling	<input type="text" value="Unknown and not investigated"/>
(ECD) Carbon cycling	<input type="text" value="Unknown and not investigated"/>
(ECD) Animal reproductive productivity	<input type="text" value="Unknown and not investigated"/>
(ECD) Vegetational productivity, pollination, regeneration processes, succession, role of fire, etc.	<input type="text" value="Unknown and not investigated"/>
(ECD) Notable species interactions, including grazing, predation, competition, diseases and pathogens	<input type="text" value="Unknown and not investigated"/>
(ECD) Notable aspects concerning animal and plant dispersal	<input type="text" value="Unknown and not investigated"/>

(ECD) Notable aspects concerning migration	Annual summer and winter waterbird migration
(ECD) Pressures and trends concerning any of the above, and/or concerning ecosystem integrity	Unknown and not investigated

## 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
Public land (unspecified)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Provincial/region/state government	<input checked="" type="checkbox"/>	<input checked="" 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
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Religious body/organization	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cooperative/collective (e.g., farmers cooperative)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 5.1.2 - Management authority

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

The Beas conservation reserve is managed by the Department of Forests and Wildlife Preservation, Punjab through the Wildlife Divisions of Pathankot, Hoshiarpur, Phillaur and Ferozepur at the local level.

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

Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Punjab.

Postal address:

Forest Complex, Tower No 2, 2nd floor, Sec -68, S.A.S Nagar, Punjab.

E-mail address:

cwlpunjab@gmail.com

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

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

##### Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Tourism and recreation areas		Low impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Commercial and industrial areas	Medium impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Housing and urban areas	Low impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unspecified development	unknown impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>

##### Water regulation

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

##### Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Livestock farming and ranching	Low impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Annual and perennial non-timber crops	High impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wood and pulp plantations	Low impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Marine and freshwater aquaculture	Low impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>

##### Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Gathering terrestrial plants	Low impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fishing and harvesting aquatic resources	Low impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities		Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Vegetation clearance/ land conversion	Low impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dams and water management/use		Medium impact	<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	In the surrounding area
Invasive non-native/ alien species	Low impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Agricultural and forestry effluents	Medium impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Garbage and solid waste	Low impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Household sewage, urban waste water	Medium impact		<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
Conservation Reserve	Beas Conservation Reserve	<a href="http://www.pbforests.gov.in/community_reserves.html">http://www.pbforests.gov.in/community_reserves.html</a>	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

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Improvement of water quality	Proposed
Catchment management initiatives/controls	Partially implemented
Hydrology management/restoration	Proposed
Habitat manipulation/enhancement	Proposed
Soil management	Proposed

Species

Measures	Status
Threatened/rare species management programmes	Proposed
Reintroductions	Implemented
Control of invasive alien plants	Proposed

Human Activities

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

5.2.5 - Management planning

Is there a site-specific management plan for the site? No

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

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

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Animal species (please specify)	Implemented

Indus River Dolphin Survey, Gharial Survey, Annual Bird Survey.

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Braich, O.S. and Ladhar, S.S. (2005) "Fish biodiversity in the Wetlands of Punjab– A Field Guide" Published by Punjab State Council for Science and Technology, Chandigarh. ISBN : 81- 88362-11-5.

Ladhar, S.S. and Braich, O.S. (2005) "Biological diversity in wetlands of Punjab-A check list". Published by Punjab State Council for Science and Technology, Chandigarh. ISBN : 81-88362-12-3

#### 6.1.2 - Additional reports and documents

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

<1 file(s) uploaded>

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

<no file available>

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

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<no file available>

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

Please provide at least one photograph of the site:



Indus River Dolphin at Mundapind village. ( *Gitanjali Kanwar, 10-08-2017* )



Gharial basking on a mid channel island near River Beas. ( *Gitanjali Kanwar, 30-06-2019* )



Flock of Bar-headed Geese in River Beas ( *Gitanjali Kanwar, 12-03-2019* )



Riparian community crossing river Beas near village Kapoora. ( *Gitanjali Kanwar, 12-05-2019* )



Indus River Dolphin following country boat at Karmowala village. ( *Gitanjali Kanwar, 05-10-2018* )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation