



**Izumi**

(formerly named "Arasaki")

**Japan**

EAAF NETWORK SITE CODE FOR OFFICE USE ONLY:

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**Updated 2023\_05**

**Site Information Sheet on  
East Asian-Australasian Flyway Network Sites  
(SIS) – 2017 version**

Available for download from <http://www.eaaflyway.net/about/the-flyway/flyway-site-network/>

*Categories approved by Second Meeting of the Partners of the East Asian-Australasian Flyway Partnership in Beijing, China 13-14 November 2007 - Report (Minutes) Agenda Item 3.13*

**Notes for compilers:**

1. The management body intending to nominate a site for inclusion in the East Asian - Australasian Flyway Site Network is requested to complete a Site Information Sheet. The Site Information Sheet will provide the basic information of the site and detail how the site meets the criteria for inclusion in the Flyway Site Network. When there is a new nomination or an SIS update, the following sections with an asterisk (\*), from Questions 1-14 and Question 30, must be filled or updated at least so that it can justify the international importance of the habitat for migratory waterbirds.
2. The Site Information Sheet is based on the Ramsar Information Sheet. If the site proposed for the Flyway Site Network is an existing Ramsar site then the documentation process can be simplified.
3. Once completed, the Site Information Sheet (and accompanying map(s)) should be submitted to the Secretariat. Compilers should provide an electronic (MS Word) copy of the Information Sheet and, where possible, digital versions (e.g. shapefile) of all maps.

**1. Name and contact details of the compiler of this form \*:**

**Compiler 1**

Full name:

Yuko HARAGUCHI

Institution/agency:

Izumi City Crane Museum "Crane Park Izumi"

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**Compiler 2**

Full name:

Institution/agency:

Postal Address:

Telephone:

Fax:

E-mail: (e.g. example@mail.net)

**2. Date this sheet was completed \*:**

DD/MM/YYYY

04/02/2022

**3. Country \*:**

Japan

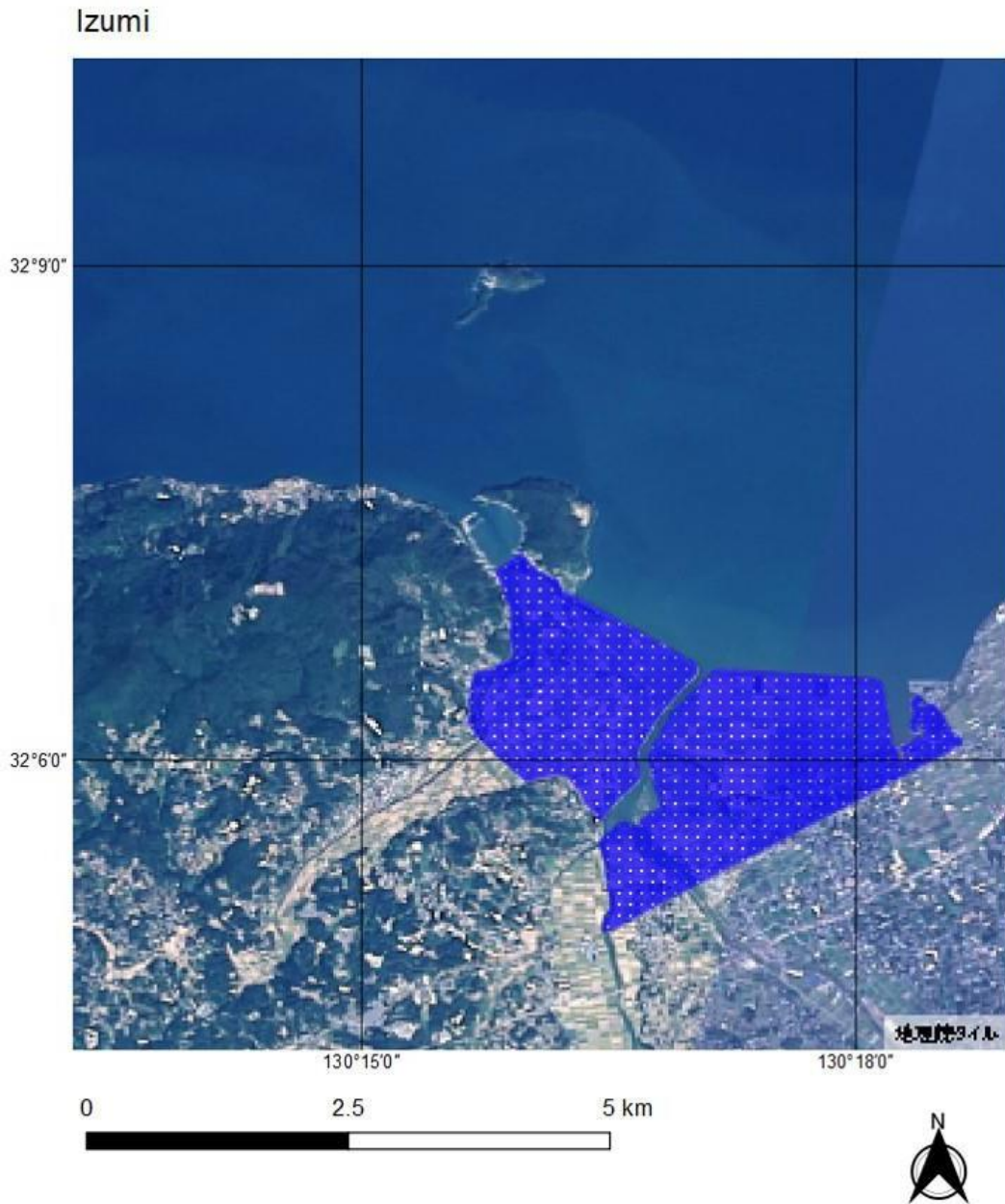
**4. Name of the Flyway Network site \*:**

Accepted English transcription of the Site's name.

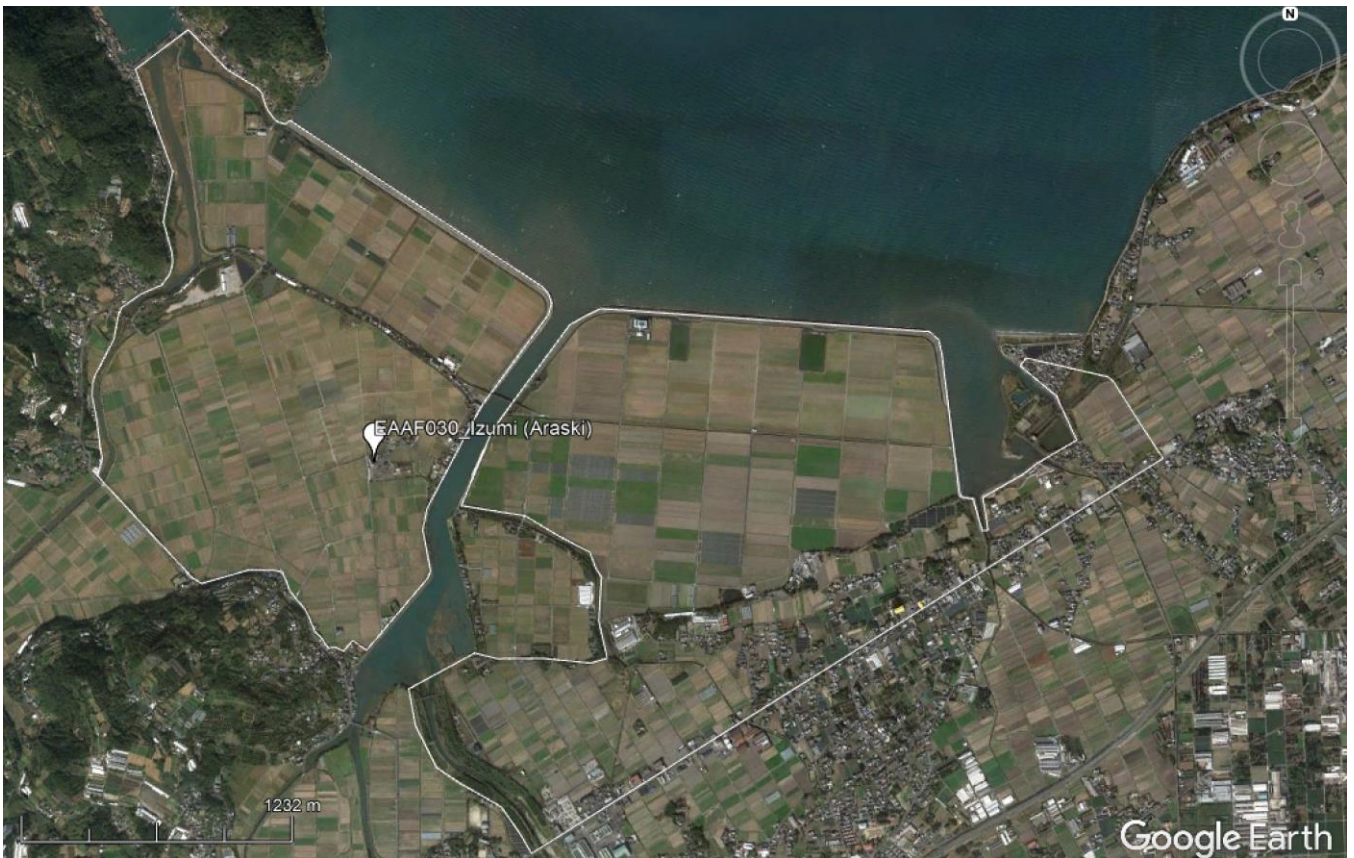
Izumi

**5. Map of site \*:**

The most up-to-date available and suitable map of the wetland should also be appended to the SIS (only in digital format and shape file). The map must clearly show the boundary of the site. Please refer to the “Digitising Site Boundaries in Google Earth” file linked [here](#).



**Google Earth Image of the Izumi FNS**



**6. Geographical coordinates (latitude/longitude, in decimal degrees) \*:**

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

Latitude 32 05'N, Longitude 130 20'E

**7. Elevation \*:** (in metres: average and/or maximum & minimum)

At sea-level to 10 m

**8. Area \*:**

The total area of the site, in hectares. If the areas of discrete site units are known, please also list each of these together with the names (or labels) used to identify and differentiate these units.

867 ha

**9. General overview of the site \*:**

A brief (two sentences) summary of the site, mentioning principal physical and ecological functions, and its importance for migratory waterbirds.

The site is located in the North-West of the Izumi Plains. It is a rural area around reclaimed lands faced the Yatsushiro Sea where three rivers' (Nodagawa River, Euchii River and Takaono River) water flow into. The site is an internationally important wintering ground for cranes. Approximately 80-90 % of the world population of Hooded Cranes (*Grus monacha*) and about 40 % of the White-naped Crane (*Grus vipio*) winter in the site.

## 10. Justification of Flyway Site Network criteria \*:

Please provide waterbird count information (with year of latest count) that demonstrates that the site meets the criteria of the Flyway Site Network (Annex 1). That is:

- it regularly supports > 20 000 migratory waterbirds; or,
- it regularly supports > 1 % of the individuals in a population of one species or subspecies of migratory waterbird; or,
- it supports appreciable numbers of an endangered or vulnerable population of migratory waterbird
- it is a “staging site” supporting > 5 000 waterbirds, or > 0.25% of a population stage at the site.

The “staging site” criterion is particularly difficult to apply and application of this should be discussed with the Secretariat. Also note that some species have several populations that are very difficult to distinguish in the field.

1. (Criterion 5) This site regularly supports over 20,000 migratory waterbirds.;

**Maximum number of waterbirds at this site:** This site supports from 24,128 to 33,671 migratory waterbirds, exceeding the 20,000 waterbirds threshold in all five recent years, and with a 2018-2022 average of 31,066 waterbirds.

Source: Ramsar Site Information Sheet (Based on the bird census data of the Izumi City Crane Museum ‘Crane Park Izumi’)

2. (Criterion 6) This site regularly supports:

- 81% - 99% (average 91%) of the individuals in the “Korea-Japan” population of *Grus monacha* (Hooded Crane), with counts exceeding the 1% threshold in all five recent years.
- 34% - 47% (average 40%) of the individuals in the “Korea-Japan” population of *Grus vipio* (White-naped Crane), with counts exceeding the 1% threshold in all five recent years.

### Crane Counts by Year and % of the Population

Species	Pop. Est.	Highest Count					1%	Percentage of Population				
		2018	2019	2020	2021	2022		2018	2019	2020	2021	2022
1. <i>Grus monacha</i>	15700	13,696	14,967	15,909	15,511	13,000	160	86%	94%	99%	97%	81%
2. <i>Grus vipio</i> (KR-JP)	6200-7000	3,057	2,356	2,779	2,182	2,700	65	47%	36%	43%	34%	42%

Source: Bird census data of the Izumi City Crane Museum ‘Crane Park Izumi: Population estimates and 1% values from the [Waterbirds Populations Portal](#) .

3. (Criterion 2) This site qualifies under Criterion 2 for supporting a threatened migratory waterbird species: >40-115 *Aythya ferina* (Common Pochard, IUCN: VU).

Source: Ramsar Site Information Sheet ‘Izumi Wintering Habitat of Cranes’ (Based on the bird census data of the Izumi City Crane Museum ‘Crane Park Izumi’, 2018-2022)

### 11. Wetland Types \*:

List the wetland types present (see Annex 2). List the wetland types in order of their area in the Flyway Network site, starting with the wetland type with the largest area.

Type A (Permanent shallow marine waters)  
Type E (Sand, shingle or pebble shores)  
Type F (Estuarine waters)  
Type G (Intertidal mud, sand or salt flats)  
Type H (Intertidal marshes)  
Human made wetland: 3 (Irrigated land)  
\*In no particular order

### 12. Jurisdiction \*:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Ministry of Agriculture/Dept. of Environment, etc.

This site is located in Izumi City in Kagoshima Prefecture. The Kyushu Regional Environment Office manages the National Wildlife Protection Area in the site. The Ministry of Education, Culture, Sports, Science and Technology manages the designated area of the National Natural Special Monument. Kagoshima Prefecture manages the rivers. The land improvement district manages the agricultural roads. In addition, agricultural lands are owned and managed by farmers.

### 13. Management authority \*:

Provide the name and address of the local office(s) of the agency (ies) or organisation(s) directly responsible for managing the wetland and the title and/or name and email address/phone number of the person or persons in this office with direct responsibility for managing the wetland.

**Representative local government and its relevant local office:**  
Izumi City, Izumi City Crane Museum "Crane Park Izumi"  
1000 Bunka cho, Izumi City, Kagoshima Prefecture 899-0208, Japan  
Tel: +81 996 63-8915  
E-mail: crane\_c@city.izumi.kagoshima.jp

**Major relevant agency:**  
Kyushu Regional Environment Office, Ministry of the Environment  
4F, Kumamoto Regional Joint Government Building B,,  
Kasuga 2-10-1, Nishi Ward, Kumamoto City, Kumamoto Prefecture 860-0047

### 14. Bibliographical references \*:

A list of key technical references relevant to the wetland, including management plans, major scientific reports, and bibliographies, if such exist. Please list Web site addresses dedicated to the site or which prominently feature the site, and include the date that the Web site was most recently updated. When a large body of published material is available about the site, only the most important references need be cited, with priority being given to recent literature containing extensive bibliographies.

Ministry of the Environment of Japan. 2021. Designation Plan of the Izumi-Takaono Special Protection Zone of Izumi-Takaono National Wildlife Protection Area.

### 15. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

The site is in the northern part of the Izumi reclaimed land where is located in the north-western part of Kagoshima Prefecture. The site is located at the end of alluvial fan of Izumi basin where three rivers run into, and the northeast of the reclaimed land created at the mouths of these rivers.

**Geography:**

Delta lowland between 0m and 10m above sea level.

**Geology:**

Mostly pyroclastic deposits (Alluvium), volcanic rock (Pleistocene)

**Soil type:**

Reduced form of coarse-grained grey soil

### 16. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

### 17. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

### 18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Flyway Network site, and the ecosystem services of the site and the benefits derived from them.

**Plants:**

Majority of vegetation is rice paddy weed community.

**Birds:**

Spring and autumn migrants: Shorebirds (Lesser Sand Plover (*Charadrius mongolus*), Pacific Golden Plover (*Pluvialis fulva*), Far Eastern Curlew (*Numenius madagascariensis*), Whimbrel (*Numenius phaeopus*), Little Curlew (*Numenius minutus*), and Black-winged Stilt (*Himantopus himantopus*)) and Chestnut-cheeked Starling (*Agropsar philippensis*).

Summer migrants: Northern White-rumped Swift (*Apus pacificus*), Oriental Great Reed Warbler (*Acrocephalus orientalis*), Narcissus Flycatcher (*Ficedula narcissina*)

Winter migrants: Cranes (Hooded Crane (*Grus monacha*) and White-naped Crane (*Grus vipio*)), Anatidae (Tundra Swan (*Cygnus columbianus*), Common Shelduck (*Tadorna tadorna*) and Common Pochard (*Aythya ferina*)), Raptors (Eastern Marsh Harrier (*Circus spilonotus*) and Common Kestrel (*Falco tinnunculus*)) and Black-faced Spoonbill (*Platalea minor*).

**Mammals:**

Japanese Weasel (*Mustela itatsi*)



**19. Noteworthy flora:**

Provide additional information on particular species and why they are noteworthy indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the SIS.*

(Please add here the species which do not come under sec no 14)

**20. Noteworthy fauna:**

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 10. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the SIS.*

(Please add here the species which do not come under sec no 14)

**21. Social, economic and cultural values:**

**a)** Describe if the site has any general social, economic and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

**b)** Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? (Double-click the checkbox to check and choose “Checked” under “Default Value” from “Check Box Form Field Options” window)

If yes, tick the box  and describe this importance under one or more of the following categories:

- I. Sites which provide 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. Sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- III. Sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- IV. Sites where 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:

**22. Land tenure/ownership:**

a) Within the Flyway Network site:

a) In the surrounding area:

**23. Current land (including water) use:**

a) Within the Flyway Network site:

Agricultural land (mainly rice paddy) and residential

b) In the surroundings/catchment:

Agricultural land (mainly rice paddy) and residential

**24. Factors (past, present or potential) adversely affecting the sites ecological character, including changes in land (including water) use and development projects:**

a) Within the Flyway Network site:

Solar panel, reclaimed land, abandoned farmland, changing type of cultivated crops

b) In the surrounding area:

Solar panel, reclaimed land, abandoned farmland, changing type of cultivated crops, highway

**25. Conservation measures taken:**

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Flyway Network site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

**National legal designations:**  
National Special Natural Monument  
National Wildlife Protection Area and its Special Protection Zone

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate, see Annex 3):

Ia <input type="checkbox"/>	Ib <input type="checkbox"/>	II <input type="checkbox"/>	III <input type="checkbox"/>	IV <input checked="" type="checkbox"/>	V <input type="checkbox"/>	VI <input type="checkbox"/>
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c) Does an officially approved management plan exist; and is it being implemented?

If yes, is it being implemented? If no, is one being planned?

d) Describe any other current management practices:

**26. Conservation measures proposed but not yet implemented:**

e.g. management plan in preparation; official proposal as a legally protected area, etc.

**27. Current scientific research and facilities:**

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Monitoring survey of cranes and ducks are conducted. Also banding survey and distribution survey are conducted.  
Field research station; Izumi City Crane Museum "Crane Park Izumi"

**28. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:**

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

There are events (e.g. bird watching events, living creature surveys in rice paddies and the certification programme of student crane guides certified by the Board of Education of Izumi City) organised by the crane park. There is also the Izumi City Crane Observation Centre in Arasaki Area as an observation facility.

**29. Current recreation and tourism:**

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Crane tour, bird watching, and shell gathering (especially razor clam): there are visitors for bird watching every day during the winter season.  
 Related to the section 28 above, Izumi City is implementing visitor-entry restrictions in cooperation with related organisations. This aims to promote a new-style crane tourism by restricting the number of visitors and unauthorised vehicles for achieving environmental conservation and coexistence with cranes.

**30. Threats \*:**

Which of the following threats is present historically – when the threat stopped but the effects are still there (H), currently (C) or potentially (P)?

	Historically	Currently	Potentially
<b>Residential and commercial development</b>			
housing and urban areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
commercial and industrial areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
tourism and recreation areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Agriculture and aquaculture</b>			
annual and perennial non-timber crops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
wood and pulp plantations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
livestock farming and ranching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
marine and freshwater aquaculture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Energy production and mining</b>			
oil and gas drilling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mining and quarrying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
renewable energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Transportation and service corridors</b>			
roads and railroads	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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utility and service lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shipping lanes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
flight paths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Biological resource use**

hunting and collecting terrestrial animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
gathering terrestrial plants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
logging and wood harvesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fishing and harvesting aquatic resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Natural system modifications**

fire and fire suppression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dams and water management/use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
other ecosystem modifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Human intrusions and disturbance**

recreational activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
war, civil unrest and military exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
work and other activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Natural system modifications**

fire and fire suppression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dams and water management/use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other ecosystem modifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Invasive and other problematic species and genes**

invasive non-native/alien species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
problematic native species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
introduced genetic material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Pollution**

household sewage and urban waste water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
industrial and military effluents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
agricultural and forestry effluents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
garbage and solid waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
air-borne pollutants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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excess energy

**Geological events**

volcanoes

earthquakes/tsunamis

avalanches/landslides

**Climate change and severe weather**

habitat shifting and alteration

droughts

temperature extremes

storms and flooding

**Please write here any additional threats and comments/queries you have on the threats.**

## **Annex 1: Criteria for the inclusion of sites in the Flyway Site Network**

(From the Partnership Text)

To be considered for inclusion in the Flyway Site Network, this Partnership adopts the following criteria:

- a. Convention on Wetlands (Ramsar, Iran, 1971) criteria for internationally important sites for migratory waterbirds. That is:
  - Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
  - Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.
  - Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.
  
- b. The staging criteria as applied under the Asia - Pacific Migratory Waterbird Conservation Strategy. That is:
  - i. A staging site should be considered internationally important if it regularly supports 0.25% of individuals in a population of one species or subspecies of waterbirds on migration.
  - ii. A staging site should be considered internationally important if it regularly supports 5,000 or more waterbirds at one time during migration.
  
- c. Under exceptional circumstances a site can be nominated if it supports migratory waterbirds at a level or stage of their life cycle important to the maintenance of flyway populations. Justification of such nominations will be considered by the Partnership on a case by case basis.

## Annex 2: Ramsar Classification System for Wetland Type

The codes are based upon the Ramsar Classification System for Wetland Type as approved by Recommendation 4.7 and amended by Resolutions VI.5 and VII.11 of the Conference of the Contracting Parties. The categories listed herein are intended to provide only a very broad framework to aid rapid identification of the main wetland habitats represented at each site.

To assist in identification of the correct Wetland Types to list in section 19 of the RIS, the Secretariat has provided below tabulations for Marine/Coastal Wetlands and Inland Wetlands of some of the characteristics of each Wetland Type.

### Marine/Coastal Wetlands

- A -- **Permanent shallow marine waters** in most cases less than six metres deep at low tide; includes sea bays and straits.
- B -- **Marine subtidal aquatic beds**; includes kelp beds, sea-grass beds, tropical marine meadows.
- C -- **Coral reefs.**
- D -- **Rocky marine shores**; includes rocky offshore islands, sea cliffs.
- E -- **Sand, shingle or pebble shores**; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks.
- F -- **Estuarine waters**; permanent water of estuaries and estuarine systems of deltas.
- G -- **Intertidal mud, sand or salt flats.**
- H -- **Intertidal marshes**; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.
- I -- **Intertidal forested wetlands**; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.
- J -- **Coastal brackish/saline lagoons**; brackish to saline lagoons with at least one relatively narrow connection to the sea.
- K -- **Coastal freshwater lagoons**; includes freshwater delta lagoons.
- Zk(a) – **Karst and other subterranean hydrological systems**, marine/coastal

### Inland Wetlands

- L -- **Permanent inland deltas.**
- M -- **Permanent rivers/streams/creeks**; includes waterfalls.
- N -- **Seasonal/intermittent/irregular rivers/streams/creeks.**
- O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.
- P -- **Seasonal/intermittent freshwater lakes** (over 8 ha); includes floodplain lakes.
- Q -- **Permanent saline/brackish/alkaline lakes.**
- R -- **Seasonal/intermittent saline/brackish/alkaline lakes and flats.**
- Sp -- **Permanent saline/brackish/alkaline marshes/pools.**
- Ss -- **Seasonal/intermittent saline/brackish/alkaline marshes/pools.**
- Tp -- **Permanent freshwater marshes/pools**; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season.
- Ts -- **Seasonal/intermittent freshwater marshes/pools on inorganic soils**; includes sloughs, potholes, seasonally flooded meadows, sedge marshes.
- U -- **Non-forested peatlands**; includes shrub or open bogs, swamps, fens.
- Va -- **Alpine wetlands**; includes alpine meadows, temporary waters from snowmelt.
- Vt -- **Tundra wetlands**; includes tundra pools, temporary waters from snowmelt.
- W -- **Shrub-dominated wetlands**; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils.
- Xf -- **Freshwater, tree-dominated wetlands**; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils.
- Xp -- **Forested peatlands**; peat swamp forests.
- Y -- **Freshwater springs; oases.**
- Zg -- **Geothermal wetlands**
- Zk(b) – **Karst and other subterranean hydrological systems**, inland

**Note:** “floodplain” is a broad term used to refer to one or more wetland types, which may include examples from the R, Ss, Ts, W, Xf, Xp, or other wetland types. Some examples of floodplain wetlands are seasonally

inundated grassland (including natural wet meadows), shrublands, woodlands and forests. Floodplain wetlands are not listed as a specific wetland type herein.

#### Human-made wetlands

- 1 -- **Aquaculture** (e.g., fish/shrimp) **ponds**
- 2 -- **Ponds**; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).
- 3 -- **Irrigated land**; includes irrigation channels and rice fields.
- 4 -- **Seasonally flooded agricultural land** (including intensively managed or grazed wet meadow or pasture).
- 5 -- **Salt exploitation sites**; salt pans, salines, etc.
- 6 -- **Water storage areas**; reservoirs/barrages/dams/impoundments (generally over 8 ha).
- 7 -- **Excavations**; gravel/brick/clay pits; borrow pits, mining pools.
- 8 -- **Wastewater treatment areas**; sewage farms, settling ponds, oxidation basins, etc.
- 9 -- **Canals and drainage channels, ditches.**
- Zk(c) -- **Karst and other subterranean hydrological systems**, human-made.

### Annex 3: IUCN Protected Areas Categories System

IUCN protected area management categories classify protected areas according to their management objectives. The categories are recognized by international bodies such as the United Nations and by many national governments as the global standard for defining and recording protected areas and as such are increasingly being incorporated into government legislation.

#### Ia Strict Nature Reserve

Category Ia are strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphical features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values.

#### Ib Wilderness Area

Category Ib protected areas are usually large unmodified or slightly modified areas, retaining their natural character and influence without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.

#### II National Park

Category II protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible, spiritual, scientific, educational, recreational, and visitor opportunities.

#### III Natural Monument or Feature

Category III protected areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.

#### IV Habitat/Species Management Area

Category IV protected areas aim to protect particular species or habitats and management reflects this priority. Many Category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

#### V Protected Landscape/ Seascape

A protected area where the interaction of people and nature over time has produced an area of distinct character with significant, ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

#### VI Protected area with sustainable use of natural resources

Category VI protected areas conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems.