

# Information Sheet on EAA 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 Flyway Partnership Secretariat. Compilers should provide an electronic (MS Word) copy of the Information Sheet and, where possible, digital versions (e.g. shapefile) of all maps.

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

Full name: Gombobaatar Sundev (Ph.D.)

EAAF SITE CODE FOR OFFICE USE ONLY:

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

03/09/2014

**3. Country \*:**

Mongolia

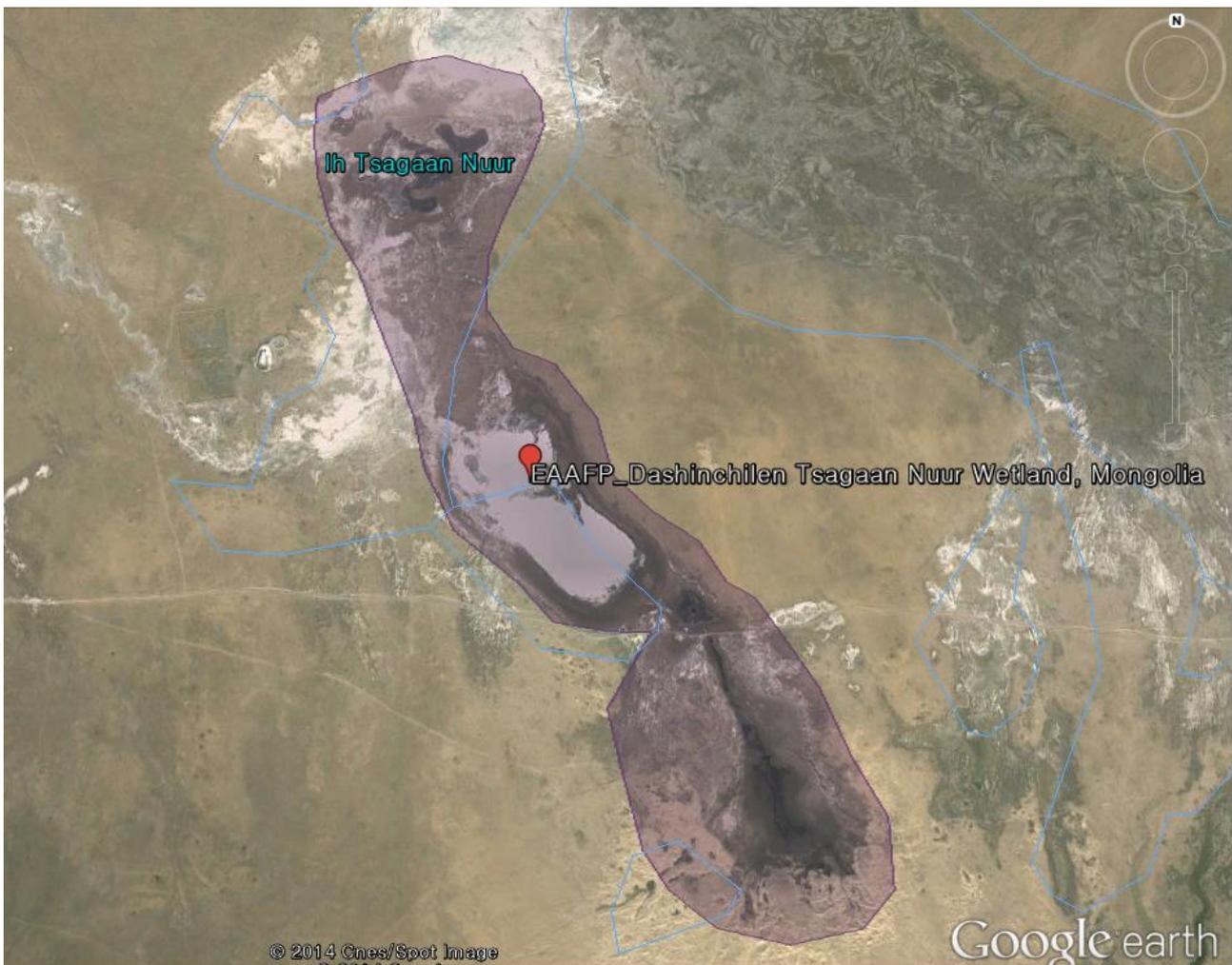
**4. Name of the Flyway Network site \*:**

Bayannuur or Dashinchilen Tsagaan wetlands

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

The most up-to-date available and suitable map of the wetland should 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](#).

[https://www.google.com/maps/d/edit?mid=zKG5zXy7v\\_2Q.kIRy8grTnh\\_Q](https://www.google.com/maps/d/edit?mid=zKG5zXy7v_2Q.kIRy8grTnh_Q)



**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.

Dashinchilen Tsagaan Nuur Complex : 47°51'44.07"N; 104°18'11.41"E

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

Dashinchilen Tsagaan Nuur Complex: 957 m min 957 m –max. 964 m a.s.l.

**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.

Dashinchilen Tsagaan Nuur Complex: 28.4 km<sup>2</sup> or 2840 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 in central Mongolia and comprises a complex of spring-fed lakes of variable depth and salinity, and marshes with reed/sedge habitat, in a broad near-flat valley with no outward-draining river. It provides migration stop-over habitat for a rich diversity of waterbird species from many families as well as breeding habitat for some migratory waterbirds including cranes, Anatidae and shorebirds.

**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.

A listing of the populations of migratory waterbirds covered by the East Asian – Australasian Flyway Partnership and the 1% thresholds is attached (Annex 3).

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.

## INTRODUCTION (METHODS APPLIED)

Information on waterbird use of this remote site is based on a small number of surveys, notably during 2011 to 2014. In this context, the concept of 'regular support' has been interpreted according to the guidance provided by Ramsar (Appendix E, at <http://www.ramsar.org/pdf/guide/guide-list2009-e.pdf> ) whereby international importance may be assessed on the basis of limited information:

“In some instances, however, for species occurring in very remote areas or which are particularly rare, or where there are particular constraints on national capacity to undertake surveys, areas may be considered suitable on the basis of fewer counts. For some countries or sites where there is very little information, single counts can help establish the relative importance of the site for a species.”

The compilers also consider that, although the site may vary in depth and salinity according to annual and long-term patterns in rainfall and evaporation, nevertheless it frequently provides habitat for migratory waterbirds. Different suites of migratory waterbirds use the site under these varied wetland conditions, thereby increasing the significance of the site.

Data on waterbird species composition and numbers for the site have mainly been compiled from the largest lake and/or associated marshes, which abut the national highway. Some data may refer to contiguous or hydrologically connected wetland south of the highway or to the north of the main lake. However, considerable daily and seasonal movements of waterbirds occur across this wetland system. Thus the compilers consider that – for many species – counts from any substantial part of the system to be relevant to this nomination.

The site seems to be in an overlap zone of the East Asian – Australasian Flyway (EAAF) and the Central Asian Flyway (CAF) and supports species that have a population wintering only in the EAAF, others only in the CAF, and others with 'separate' populations wintering in each flyway. Difficulties for site nomination arise where a species has populations in two adjacent flyways and those populations cannot be identified at the site. Until research clarifies the migration pathways with respect to this site and where the 1% threshold for the EAAF population is at least the same size as for the CAF, for the purpose of this nomination the compilers have assumed that the numbers of individuals migrating to spend the northern winter in non-breeding areas in the EAAF or in the CAF is in proportion to the ratio of 1% thresholds for the EAAF and CAF (Wetlands International 2013, modified where necessary by the EAAF protocol of applying 1% to the lower end of a range estimate).

## CRITERION A-2

The site meets EAAFP Criterion A-2 because it supports appreciable numbers of two globally-threatened species of migratory waterbird:

Swan Goose *Anser cygnoides* (Vulnerable): 1,433 were counted at the site on 22-24 August, 2014 (Gombobaatar et al. 2014), 945 on 25-26 August 2013 (Gombobaatar 2013) and 52 on 12-15 August 2012 (Jaensch 2012).

White-naped Crane *Grus vipio* (Vulnerable): 4 were recorded at the site on 22-24 August 2014 (Gombobaatar et al. 2014), 4 on 25-26 August 2013 (Gombobaatar 2013; with chicks in the reeds), and 6 on 12-15 August 2012 (Jaensch 2012). This species is often noted at the site in the breeding season. With a combined 1% threshold of only 55 birds for the two populations of this species, the presence of several breeding pairs at this site is considered significant with respect to Criterion A-2.

## **CRITERION A-6**

The site meets EAAFP Criterion A-6 because it supports numbers of migratory Swan Goose above the 1% threshold (680 birds: Wetlands International 2013): 1,433 were counted on 22-24 August 2014 (Gombobaatar et al. 2014) and 945 on 25-26 August 2013 (Gombobaatar 2013). As the species breeds in the local area and the observations were not made under unusual circumstances regarding habitat, the compilers consider it likely that high numbers frequently occur at the site.

The site also meets EAAFP Criterion A-6 because it supports numbers of migratory Spotted Redshank *Tringa erythropus* above the 1% threshold (250 birds: Wetlands International 2013): 256 were counted on 22-24 August 2014 (Gombobaatar et al. 2014), 2,500 on 12-15 August 2012 (Jaensch 2012) and 824 were recorded at the site on 25-26 August 2013 (Gombobaatar 2013). As the 1% threshold for each flyway is 250 birds, half of the numbers counted at the site are assumed to refer to the EAAF, with the result that both counts remain well above the 1% threshold for the EAAF.

The site also meets EAAFP Criterion A-6 because it supports numbers of migratory Pied Avocet *Recurvirostra avosetta* above the 1% threshold (1,000 birds: Wetlands International 2013): 1,485 were counted on the site on 22-24 August 2014 (Gombobaatar et al. 2014), 1,448 on 12-15 August 2012 (Jaensch 2012). As the ratio of EAAF to CAF thresholds is 10:1 (Wetlands International 2013), 1,316 of the total number estimated at the site in 2012 (and similarly in 2014) is assumed to refer to the EAAF and the figure is well above the 1% threshold for the EAAF.

## **CRITERION B-1**

Many of the species recorded at the site (certain shorebirds and Anatidae), including most of the abundant species, breed farther north and none of the recorded species spend the winter at the site because the wetlands are frozen. Therefore, many of the species recorded at the site can confidently be classed as migrating when they occur at the site. Total numbers of migratory waterbirds have exceeded 12,700 (12-15 August 2012: Jaensch 2012), 7,000 (25-26 August 2013: Gombobaatar 2013), and 15,561 (22-24 August 2014; Gombobaatar et al. 2014). Therefore the compilers consider that EAAFP Criterion B-1 is very likely met at the site.

## CRITERION B-2

As mentioned above, many of the species recorded at the site can confidently be classed as migrating when they occur at the site. Based on counts in August 2012 (Jaensch 2012) and subject to further clarification of migration pathways (EAAF vs. CAF), it is likely that several populations (in addition to those meeting EAAFP Criterion A-6) meet EAAFP Criterion B-2 at the site, including possibly Common Teal *Anas crecca*, Pacific Golden Plover *Pluvialis fulva*, and Black-tailed Godwit *Limosa limosa*.

Table 1. List of species in the site that meet related EAAFP FNS criteria

Criterion	Species	1% threshold (WPE5)	Peak Count	Date of record
A-2	Swan Goose <i>Anser cygnoides</i>	680	1,433	22-24 Aug 2014
	White-naped Crane <i>Grus vipio</i>	55	6	12-15 Aug 2012
A-6	Swan Goose <i>Anser cygnoides</i>	680	1,433	22-24 Aug 2014
	Spotted Redshank <i>Tringa erythropus</i>	250	2,500	12-15 Aug 2012
	Pied Avocet <i>Recurvirostra avosetta</i>	1,000	1,485	22-24 Aug 2014
B-2	Common Teal <i>Anas crecca</i>	4,000	3,100	12-15 Aug 2012
	Pacific Golden Plover <i>Pluvialis fulva</i>	1,000	5,516	22-24 Aug 2014
	Black-tailed Godwit <i>Limosa limosa</i>	1,600	803	12-15 Aug 2012

## REFERENCES

Gombobaatar, S. 2013. Conservation and sustainable management of migratory waterbird habitat at Dashinchilen Tsagaan wetlands, Mongolia. Report to Asian Waterbird Conservation Fund. Mongolian Ornithological Society and Mongolica Publishing. Ulaanbaatar, Mongolia. 18 pp.

Gombobaatar, S., Odkhuu, B., Bayanmunkh, D. 2014. Conservation and sustainable management of migratory waterbird habitat at Dashinchilen Tsagaan wetlands, Mongolia. Report to Asian Waterbird Conservation Fund. Mongolian Ornithological Society and Mongolica Publishing. Ulaanbaatar, Mongolia.

Jaensch, R. 2012. Building capacity for research and conservation of migratory shorebirds in Mongolia, with emphasis on populations that migrate to Australia. Report to Secretariat for the East Asian – Australasian Flyway Partnership, 27 pp.

Wetlands International 2013. Waterbird Population Estimates. Online at <http://wpe.wetlands.org/search> accessed 28 October 2013.

### 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.

#### Inland wetland:

- O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.
- Q -- **Permanent saline/brackish/alkaline lakes.**
- Sp -- **Permanent 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.

### 12. Jurisdiction \*:

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

Dashinchilen lake belongs to Bayannuur (eastern shore) and Dashinchilen (western shore) sums of Bulgan province.

### 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.

Mr. B. Altanshagai

Local Governor, Bayannuur sum,

Bulgan Province 63011

Tel: 70346210

In collaboration with  
Mongolian Ornithological Society  
Dr. Sundeв Gombobaatar  
Tel: 976-91000148  
E-mail: [info@mos.mn](mailto:info@mos.mn)

#### **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.

Roger Jaensch, David Milton, Sandra Harding, Choi Chang-yong, Nam Hyunyoung and Sundeв Gombobaatar. 2012. Concerns for breeding success of sand plovers in Mongolia. *Tattler Newsletter for the Asia Pacific Flyways* 26: 3-5.

Gombobaatar, S. 2013. Conservation and sustainable management of migratory waterbird habitat at Dashinchilen Tsagaan wetlands, Mongolia. Report to Asian Waterbird Conservation Fund. Mongolian Ornithological Society and Mongolica Publishing. Ulaanbaatar, Mongolia. 18 pp.

Gombobaatar, S., Odkhuu, B., Bayanmunkh, D. 2014. Conservation and sustainable management of migratory waterbird habitat at Dashinchilen Tsagaan wetlands, Mongolia. Report to Asian Waterbird Conservation Fund. Mongolian Ornithological Society and Mongolica Publishing. Ulaanbaatar, Mongolia.

Jaensch, R. 2012. Building capacity for research and conservation of migratory shorebirds in Mongolia, with emphasis on populations that migrate to Australia. Report to Secretariat for the East Asian – Australasian Flyway Partnership, 27 pp.

<http://www.mos.mn>

Wetlands International 2013. Waterbird Population Estimates. Online at  
<http://wpe.wetlands.org/search>

#### **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 Wetlands system covers approximately 1,500 hectares of which the main lake is about 300 ha. The site is registered as an IBA and qualifies as a candidate Ramsar Site and a candidate EAAFP Flyway Network Site based on the 1% criterion and also the presence of globally threatened waterbirds. Freshwater lake system with associated freshwater reedbeds, grassy marshes and surrounding steppe grasslands. The wetland consists of large saline lake in the north and large pool surrounded by tall reedbeds in the south, connected with marshes with shallow water and tall sedges. Surrounding areas of the lake and pool have wet and dry meadow with short grasses. On south-eastern corner of the marsh, a large hummocky area is covered by short vegetation and shallow water. The large saline lake is fed by small fresh water channel from the pool. The large lake is not deep; varying from muddy shore to probably 1-2 m deep in max. The fresh water pool depth varies from 50 cm to 2.5 m. The large lake area and marshland's soil is sticky clay. In dry year, southern shore with shallow water of the large lake dries out. Water level fluctuates depending on precipitation. The wetland is located in the valley of the mountains covered by Caragana and tall Needle Grasses.

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

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

The large lake and marshes surrounded by Caragana steppe and Needle Grasses in typical mountain steppe of Mongolia. Mountain slope consists of Caragana grasses and rocky surface in general and sandy soil in some areas. General soil type is sandy on the slopes and clay-type in marshes.

#### **17. Hydrological values:**

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

Freshwater pool and marsh recharge the large open lake with clay shore through a channel.

#### **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.

NE and N shores of the lake is surrounded by reed beds. Some parts of the freshwater pool is covered by reeds with different height. The vegetation of the marsh land varies from short sedge to tall reeds.

### 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)

There are interesting habitats for breeding and migratory birds including lake shores, open dried habitats and reed beds consisting of *Achnatherum splendens*, *Pragmites communis*, *Scirpus hyppolytii*, *Triglochin maritimum*, *Puccinellia tenuiflora*, and *Peucedanum salinum*.

### 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)

Many of the species recorded at the site (certain shorebirds and Anatidae), including most of the abundant species, breed farther north and none of the recorded species spend the winter at the site because the wetlands are frozen. Therefore, many of the species recorded at the site can confidently be classed as migrating when they occur at the site. Total numbers of migratory waterbirds have exceeded 12,700 (12-15 August 2012: Jaensch 2012), 7,000 (25-26 August 2013: Gombobaatar 2013), and 15,561 (22-24 August 2014; Gombobaatar et al. 2014). Therefore the compilers consider that EAAFP Criterion B-1 is very likely met at the site. As mentioned above, many of the species recorded at the site can confidently be classed as migrating when they occur at the site. Based on counts in August of 2012 (Jaensch 2012) and subject to further clarification of migration pathways (EAAF vs. CAF), it is likely that several populations (in addition to those meeting EAAFP Criterion A-6) meet EAAFP Criterion B-2 at the site, including possibly Common Teal *Anas crecca*, Pacific Golden Plover *Pluvialis fulva*, Black-tailed Godwit *Limosa limosa* and/or Wood Sandpiper *Tringa glareola*.

For mammal, Corsac Fox (*Vulpes corsac*) and Eurasian Badger (*Meles meles*) in marsh land in summer and Brandt's Vole (*Lasiopodomys brandtii*) and Manul Cat (*Otoclopus manu*) (Regionally Threatened) in dry areas around the wetland occur in common. Mongolian Toad (*Bufo raddei*) is the commonest amphibian in the areas in summer.

**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:

- Economic importance: The area is important to develop a community based birding tourism in the wetland due to location on tourism development area listed by the Mongolian government.
- Local herders' livestock use the wetland as pasture and water source.
- Historical importance: The wetland contains many locally important historical sites.

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:

State owned but managed by local governor

b) In the surrounding area:

State owned but managed by local governor

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

a) Within the Flyway Network site:

State owned but used by local governor

b) In the surroundings/catchment:

State owned but used by local governor

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

a) Within the Flyway Network site

Livestock overgrazing, less managed birding tourism, fire, and drought

b) In the surrounding area:

Livestock overgrazing, less managed birding tourism, fire, and drought

**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.

None

**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 ; Ib ; II ; III ; IV ; V ; VI ; N/A

**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?

We have been planning to implement the conservation and community-based tourism site by the support of the Asian Waterbird Conservation Fund by WWF Hong Kong.

**d)** Describe any other current management practices:

None

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

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

Regional protected area process in ongoing.

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

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

The Mongolian Ornithological Society has been implementing the bird monitoring activities in the area since 2012 by the support of Asian Waterbird Conservation Fund, WWF Hong Kong.

**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.

Local herders live around the site. Planned to develop a birding site at the area.

**29. Current recreation and tourism:**

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

Private companies and NGO's bring birders to the site every summer and disturb threatened species at the area.

**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 checked="" type="checkbox"/>	<input checked="" 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>			

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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"/>

**Transportation and service corridors**

roads and railroads	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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"/>

**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 checked="" 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 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"/>
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industrial and military effluents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
agricultural and forestry effluents	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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"/>
excess energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Geological events**

volcanoes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
earthquakes/tsunamis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
avalanches/landslides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Climate change and severe weather**

habitat shifting and alteration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
droughts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
temperature extremes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
storms and flooding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

- Intensive development of local livestock overgrazing
- Recent intensive activities of birding at the site

## **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;** peatswamp 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 recognised 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**

## Information Sheet on EAA Flyway Network Sites

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