

# 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 and Mrs E.  
Javzansuren

EAAF SITE CODE FOR OFFICE USE ONLY:

Institution/agency: Mongolian Ornithological Society and  
Uvs Lake Protected Area Administration

Address: Astra Building -1148, Sukhbaatar District,  
Ulaanbaatar, Mongolia and Ulaangom sum, Uvs province

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Telephone: 976-90112244; 976-99180148; 976-  
77460148; 976-70452184

Fax numbers:

Email address: [info@mos.mn](mailto:info@mos.mn);  
[mongolianbirds@mail.com](mailto:mongolianbirds@mail.com); [nawawen@gmail.com](mailto:nawawen@gmail.com);

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

02 April 2016

**3. Country \*:**

Mongolia

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

Uvs Lake

**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](#).

[Uvs Lake](#)

[\[https://www.google.com/maps/d/viewer?mid=1E\\_3vb-ay4VNHqUr\\_i7gZTonheHI\]](https://www.google.com/maps/d/viewer?mid=1E_3vb-ay4VNHqUr_i7gZTonheHI)



**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.

50°18'50.0" N, 92°43'08.8" E

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

759 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.

5,418 km<sup>2</sup> or 541,800 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.

Uvs Lake is one of the largest saline lakes in Mongolia and is a unique wetland in the Great Lakes Depression. With its reed beds and freshwater river deltas it provides significant nesting and resting areas for numerous migratory species. The Uvs lake basin is in the Altai-Sayan part of the 200 eco-regions identified by the WWF that should be protected internationally. The Lake Basin has the unique feature of representing the country's entire natural zones and geographical belts from wetlands to high mountain glaciers. Also, the basin is one of the largest centers of Euro-Asian biodiversity.

**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.

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: The wetland supports globally and regionally threatened species, Swan Goose *Anser cygnoides*, Relict Gull *Larus relictus*, Falcated Duck *Anas falcata* and White-headed Duck *Oxyura leucocephala* (Gombobaatar et al. 2011).

Criterion 5: It regularly supports over 29,000 water birds (Batchuluun et al. 2012).

Criterion 6: Uvs Lake wetland support 1% of the individuals of Great Cormorant *Phalacrocorax carbo* (5.6%, 6,822 individuals) and Eurasian Spoonbill *Platalea leucorida* (1.3%, 149 individuals) (Batchuluun et al. 2012).

- b. The staging criteria as applied under the Asia - Pacific Migratory Water bird Conservation Strategy. That is:

- i. The wetland supports 0.25% of global individuals in a population of the following species in single season: Great Cormorant (5.6%, 6,822 individuals), and Mongolian Gull *Larus mongolicus* (0.6%, 9,111 individuals) (Batchuluun et al. 2012).
- ii. It supports over 6,000 Great Cormorant and 9,000 Mongolian Gull at one time during migration (Batchuluun et al. 2012).

## 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:

- W -- **Shrub-dominated wetlands**; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils.
- Q -- **Permanent saline/brackish/alkaline lakes.**
- 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.
- L -- **Permanent inland deltas.**
- M -- **Permanent rivers/streams/creeks**; includes waterfalls.
- N -- **Seasonal/intermittent/irregular rivers/streams/creeks.**

## 12. Jurisdiction \*:

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

Uvs Lake Protected Area Administration, Ulaangom Sum of Uvs Province of the Ministry of Environment, Green Development and Tourism

## 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 P. Tsogtsaikhan, a focal point of EAAFP of the Ministry of Environment, Green Development and Tourism and Mr Ankhbayar, Director of Uvs PA.

Tel: 976-99075559

Email: [tsogtsaikhan@mne.gov.mn](mailto:tsogtsaikhan@mne.gov.mn)

Local Governor, Ulaangom sum, Uvs Province

In collaboration with

Mongolian Ornithological Society

Dr. Sundev Gombobaatar

Tel: 976-90112244; 976-99180148; 976-77460148

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.

Barter, M. 2002. *Criteria for identifying the presence of Internationally Important numbers of a species. Shorebirds of the Yellow Sea: Importance, threats and conservation status*. Wetlands International Global Series 9, International Wader Studies 12, Canberra, Australia. p.8-10.

Baasanjav G., and Tsend-Ayush Ya. 2001. *Fish of Mongolia*, Ulaanbaatar, Mongolia. p. 69-74. (in Mongolian).

Batnasan, N. 1998. *Hydrological systems, water regime and natural development of Great Lakes in Gobi Desert region*. Ph.D. Dissertation in Hydrological Science, Ulaanbaatar. pp. 263 (in Mongolian)

Batnasan, N. 2002. *Water regime of large lakes in Mongolia*, In the Extended Abstract Volume "Mongolia and Korea first joint Seminar on Environmental Change of North East Asia", 13-14 September, 2002, Ulaanbaatar, Mongolia p. 9-11. (in English)

Batchuluun, D., Tseveenmyadag, N., Bodisaikhan, Kh. and Dashnyam, Sh. 2012. *Report on Avian influenza surveillance study in 2009-2011*. Ulaanbaatar, Mongolia. p.148-150. (in Mongolian and English)

Bold, A. 1990. *Ecological and geographical basis for the conservation and sustainable use of avifauna of Mongolia*. (Dr.Sc. dissertation). 502 pp. (in Russian)

Bold, A., Tseveenmyadag, N. 1991. *The Uvs lake is the place of rare birds*. Global change and Uvs nuur. Thesis of the Presentations on international scientific conference Ulaanbaatar-Ulaangom. 1991. P. 9-10.

Bold, A., Tseveenmyadag, N. 1991. *The ornitofauna of the Uvs nuur Depression*. Global change and Uvs nuur. Thesis of the Presentations on international scientific conference Ulaanbaatar-Ulaangom. 1991. P. 10-12.

CITES handbook. 2001. Ulaanbaatar, Mongolia. 284 pp. (in Mongolian)

Delany, S. 2006. *Waterbird Population Estimates*, Fourth edition. Wetlands International.

Dulmaa, A., and Nansalma, B. 1977. *Biological investigations on some lakes of the Mongolian People's Republic*. Academy of sciences. Ulaanbaatar, Mongolia. (in Mongolian)

Fomin B. E., Bold A. 1991. *Bird Catalogue of Mongolia*. Moscow. (in Russian)

Gombobaatar, S. (compiler), Brown, H.J., Sumiya, D., Tseveenmyadag, N., Boldbaatar, Sh., Baillie, J.E.M., Batbayar, G., Monks, E.M., Stubbe, M. (editors). 2011. *Summary Conservation Action Plan for Mongolian Birds. Regional Red List Series Vol. 8*. Zoological Society of London, Mongolian Ornithological Society and National University of Mongolia. (in English)

Leme, J. 1966. *Essentials of biogeography*. Moscow. (in Russian)

Mongolia. 1999. *Statistical Book-2000*. Ulaanbaatar, Mongolia.

Piechoki R. 1968. Beitrage zur Avifaune der Mongolei. Teil I. *Non-Passeriformes*. *Mitt. Zool. Mus.* Berlin. Bd. 44. Heft. 2: 149-292.

Piechocki, R., Stubbe, M., Uhlenhaut, K., Sumjaa, D. 1981. *Beitrage zur Avifauna der Mongolei*. *Mitt. Zool. Mus.* Berlin Bd. 57. Ann. Orn. 5: 71-128.

Shiirevdamba, Ts. (editor). 1997 and 2013. *Mongolian Red Book*. Ministry for Nature and the Environment of Mongolia. Ulaanbaatar, Mongolia.

Sushkin, P.P., 1925. *Zoological regions of the Middle Siberia and adjusant territories of Mountain Asia and a historical experiments on fauna of the Palearctical Asia*. *Byull. Mosk. Obshch. Ispyt. Prir. Otd. Biol.* 34: 7-76. (in Russian)

*Threatened birds of Asia* 2001. Birdlife International Red Data Book. 2001. Cambridge, UK: Birdlife International. Part A, B.

Tserensodnom, J. 1971. *Mongolian lakes*, "Ulsiin Hevlel" Publishing, Ulaanbaatar. (in Mongolian)

Tserensodnom, J. 2000. *Catalogue of Mongolian Lakes*. "Shuvuun saaral" Publishing. Ulaanbaatar, Mongolia. p.51. (in Mongolian).

Tugarinov, A.Ya. 1916. *Materials for ornithofauna of north-western part of Mongolia* (Tannu-Ola Mountains and Uvs lake). *Ornith. Info.* 2: 77-90 and 3: 140-154. (in Russian)

Tugarinov, A.Ya. 1929. *Northern Mongolia and birds of this country*. (Report of a zoological expedition to the northern part of Mongolian in 1929). Leningrad. p. 145-230. (in Russian)

Tugarinov, A.Ya. 1932. *Birds of East Mongolia on the results of the 1928 year expedition in Procs of Mongolian Commission*. Acad. Sci. Publ. House, Leningrad (1): 46 pp. (in Russian)

Voronov, A.G. 1963. *Biogeography* (based on biology). Moscow. (in Russian)

Voronov, A.G., Drozdov, N.N., and Myalo, E.G. 1985. *Biogeography of the world*. Moscow. (in Russian)

Wetlands International. 2002. *Waterfowl Population Estimates*-Third Edition. Wetlands International Global Series No12. Wageningen, The Netherlands.

Zabelin, V.I. 1993. *Investigation for the bird species list of the Uvs Lake's depression. Environmental protection and man. Materials for the 3rd scientific and practical conference of the republic.* Kizil. p. 71-73. (in Russian)

### **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 largest lake in Mongolia in terms of surface area, with a length of 84 km and a width of 79 km, and an average depth of 11.9 m. Maximum depth is 20 m. The lake water has an average salinity of 12.6 g/l with variations in some areas due to excessive precipitation and evaporation. Its pH is about 9 and ionic composition includes Na<sup>+</sup>, Cl<sup>-</sup>, SO<sub>4</sub><sup>-</sup>, Mg<sup>++</sup>, Ca<sup>++</sup>, HCO<sub>3</sub><sup>-</sup>, CO<sub>3</sub><sup>-</sup> and K<sup>+</sup>. Transparency ranges between 0.3 m-6.0 m. During the last years, water level is rising (about 1.5 m from 1980s to 1990s) due to global warming and influence of glacier melt in the high mountains (Batnasan, 1998 & 2002). The Uvs Lake basin has an extreme continental climate, located in the center of the Central Asian anticyclone. Annual mean air temperature in the Uvs Lake basin is -3.7°C to -4.4°C, coldest in January (-49.6°C) and the warmest in July (36.6°C). Precipitation is highest in June to August, but overall low during the year (205 mm). The water temperature reaches 23-25°C near the banks in July, 18-20°C in the center. The winters are long and cold and keep the Uvs Lake covered with ice from mid of November until mid of May. Ice cover is week and the center of the lake is sometimes not frozen.

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

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

Total catchments area is 71,100 km<sup>2</sup> (Tserensodnom, 2000). The lake is surrounded by desert steppe landscape. Lake Basin is surrounded by the Mongolian Altai in the west, the Tagna Mountain in the north, the Khangai Mountain range in the east and the Khan-Khukhii Mountain in the south. The lake has no outlets and main tributary rivers are Tes, Nariin and Kharkhiraa, which originates from the Khangai and Kharkhiraa-Turgen Mountains. The rivers cover a vast area of marsh in the northeast and west of the lake. The lake is located in a basin with large areas of sand dunes at the northern most limit of the Gobi region (semi-arid zone). The valley of the Tes and Nariin rivers north of the Lake is salty and humid. The soil base is saline, and the next layer is salty brown soil. Some brown soil has spread over the area of the rivers that flow from the Kharkhiraa, Turgen and Tagna



mountains. Climate is extreme continental, coldest in January reaching below -50°C, and hot summer with maximums reaching up to 50°C. This area is known as coldest place in Mongolia.

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

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

Uvs lake belongs to the Internal Drainage basin in Mongolia and is therefore of fundamental importance for the ground water recharge of the area.

### **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.

Major habitats of Uvs Lake PA are arid steppe vegetation in open lake valley, saline and salt marsh, fresh water marsh, and open valleys of wide tributaries. Willow and young deciduous trees and extensive reed areas grow along freshwater Tes and Torkhilog rivers. The lake is surrounded by open wide shores.

### **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 is a lack of detailed information on the flora in the wetland. However, in the Uvs lake basin almost all kinds of vegetation of the moderate belt can be found: steppes and swamps, meadows and salty soils, bushes and agricultural lands, as well as communities of salt-tolerant and xerophytes in clay, stony and sandy deserts, forest-steppes on mountain slopes, various forests, and, higher - mountainous tundras and bare rocks.

### **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)

Endemic fish species, such as Warpachowsk (*Oreoleuciscus pewzowi*), Potanin's osman (*Oreoleuciscus potanini*), Small osman (*Oreoleuciscus humilis*) and Mongolian grayling (*Thymallus brevirostrus*) are found in Uvs lake and inflowing rivers. Introduced Muskrat (*Ondatra zibethicus*) as well as reintroduced Eurasian Beaver (*Castor fiber*) and native Roe Deer (*Capreolus pygargus*) and Grey Wolf (*Canus lupus*) inhabit in the lake vicinity. So far, 261 bird species of birds have been recorded in Uvs Lake and its surroundings; 46 species are resident, 144 breeding visitors, 25 passage migrants, 10 winter visitors, 9 vagrants and 27 uncertain (Tugarinov, 1916; Piechoki, 1968; Piechocki et al. 1981; Fomin and Bold, 1991; Bold and Tsevenmyadag, 1991; Zabelin, 1993). A total of 52 species of birds of the Uvs Lake are protected by Mongolian Law, Mongolian Red Book (1997 and 2003), and 5 species are of very rare and 11 species of rare status according to the Mongolian Law on Fauna (Environmental Laws of Mongolia, 1999).

## 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:

Seven sum administrations are located in the Uvs Lake basin. Local herders breed free ranging livestock. Tourism is not well developed yet. The main natural resources of Uvs Lake are mineral water, fish and waterfowls. The area has one of the largest variety of ethnic groups that form a multicultural society in the region.

**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 used by local government

b) In the surrounding area:

The wetland and the surrounding areas are state owned. The management of the entire wetland and the surrounding areas belong to Uvs Nuur Strictly Protected Area operated by the Ministry of Environment, Green Development and Tourism, Mongolia.

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

a) Within the Flyway Network site:

There are 5 sums' local nomadic families that live along the lake basin all year around. The families mainly use some parts of the wetland for pasture land and livestock watering.

b) In the surroundings/catchment:

Within the surrounding wetland, the area is mainly used for livestock pasture land. There is very small scaled irrigation for agriculture use along the Kharkhiraa, Turgen and Sagil rivers.

### **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

b) In the surrounding area:

No systematic surveys have been conducted on the wildlife and plants to determine the ecological character of the wetland and its surroundings. Livestock grazing always existed within the wetland. Small scaled logging for fuel along the river bank and overgrazing of livestock negatively influence ecological characters. Local nomadic families make hay for winter use of livestock along the Tes and Nariin river valleys in autumn. An increase in livestock number might cause habitat degradation and disturbance to breeding and migrating waterbirds.

### **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.

As a result of extensive field survey results in the Uvs Lake basin, Uvs Lake Basin Strictly Protected Area was established in 1993, covering 4 specific areas (Uvs Lake, Mountains Turgen and Tsagaan Shuvuut, and sand dune Altan Els), which cover 712.5 thousand hectares. Furthermore, it was registered by UNESCO as biosphere reserve in 1998.

**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?

Protected area administration and staff have completed the Uvs lake management plan. Protected area staff have been implementing field surveys, capacity building and awareness programmes in accordance with the management action plan.

**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.

General plan and actions on the trans-boundary protected areas with the Russian government are ongoing.

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

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

There is no field research station within the wetland. Field surveys on morphology, geology and general characteristic of the lakes were conducted by Tserensodnom (1971 & 2000) and Dulmaa and Nansalmaa (1977). Results and conclusion of the Mongolian-Russian joint complex biological expeditions that were carried out by the joint team were written in proceedings and other references during the 1980s and 1990s (Global change and Uvs Nuur, 1999).

**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 no educational facilities, e.g. visitor centers, observation hides etc. However, there are some general information booklets on Uvs Lake Basin SPA. Management action plan was implemented in 2010-2015 by the SPA Administration Office..

**29. Current recreation and tourism:**

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

A recreational area has been set up on the SW of the lake for camping, picnic and swimming. When funding is secured, bird watching towers will be built. This lake has very good potential to attract bird watching tours.

**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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
commercial and industrial areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
tourism and recreation areas	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
marine and freshwater aquaculture	<input checked="" 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 checked="" type="checkbox"/>
mining and quarrying	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
renewable energy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Transportation and service corridors</b>			
roads and railroads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
utility and service lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
shipping lanes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
flight paths	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>Biological resource use</b>			
hunting and collecting terrestrial animals	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
gathering terrestrial plants	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Human intrusions and disturbance</b>			
recreational activities	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Natural system modifications</b>			
fire and fire suppression	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>
<b>Invasive and other problematic species and genes</b>			
invasive non-native/alien species	<input checked="" 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"/>
<b>Pollution</b>			
household sewage and urban waste water	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
industrial and military effluents	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
agricultural and forestry effluents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
garbage and solid waste	<input type="checkbox"/>	<input checked="" 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"/>
<b>Geological events</b>			
volcanoes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
earthquakes/tsunamis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Information Sheet on EAA Flyway Network Sites

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:

- c. 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.
  
- d. The staging criteria as applied under the Asia - Pacific Migratory Waterbird Conservation Strategy. That is:
  - iii. 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.
  - iv. 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.