

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.

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

Full name: Gombobaatar Sudev and Mrs.
D.Erdenechimeg

EAAF SITE CODE FOR OFFICE USE ONLY:

Institution/agency: Mongolian Ornithological Society and
Khar-Us Lake Protected Area Administration

Address: Astra Building -1148, Sukhbaatar District,
Ulaanbaatar, Khar-Us Lake Protected Area Administration
in Khovd town of Khovd province

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Email address: info@mos.mn;
mongolianbirds@mail.com; nawawen@gmail.com;

2. Date this sheet was completed *:

02 April 2016

3. Country *:

Mongolia

4. Name of the Flyway Network site *:

Khar-Us 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](#).

Khar-Us Lake

[https://www.google.com/maps/d/viewer?mid=1uP7tMFskIHZQF6ZopCeQ_qUjSgo]



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.

48° 11' 36.8" N, 92° 43' 38.5" E

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

1,160 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.

4,387 km² or 438,700 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.

Khar-Us lake wetland was designated as National Park by Mongolian government in 1997. The National Park territory covers all wetlands and marshlands including large lakes such as Khar-Us, Khar, and Durgun. The lakes are situated 20 km east of Khovd town which is an administrative centre of the region. Khar-Us lake is a freshwater lake and fed by the Khovd, Buyant and Tsenkher rivers. There are over 20 islands and islets in the lake. The lake freezes from November until April. Khar and Durgun Lakes belong to Khar-Us wetland system surrounded by the Mongol-Altai mountains. Vast reed beds and numerous water plant communities offer various habitats for a large number of waterfowl. It is a regular breeding and summering sites for 9 regionally and 4 globally threatened waterbirds. Three endemic fish species occur in the lake.

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 threatened species such as Pallas’s Fish Eagle *Haliaeetus leucoryphus* (VU), Dalmatian Pelican *Pelecanus crispus* (VU), and Swan Goose *Anser cygnoid* (VU), Common Pochard *Aythya ferina* (VU), White-headed Duck *Oxyura leucocephala* (EN), and near threatened Falcated Duck *Mareca falcata* (Gombobaatar et al. 2011).
 - Criterion 5: The wetland supports about 22,400 water birds (Batchuluun et al. 2012).
 - Criterion 6: It supports 1% global population of the Great Cormorant *Phalacrocorax carbo* (3%, 3,612 individuals), Eurasian Spoonbill *Platalea leucorodia* (2.5%, 274 individuals) and Red-crested Pochard *Netta rufina* (3.5%, 4,406 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 (2.5%, 3,041 individuals), Eurasian Spoonbill (1.9%, 203 individuals), Red-Crested Pochard (3.4%, 4,232 individuals), Ruddy Shelduck *Tadorna ferruginea* (0.8%, 505 individuals), Gadwall *Mareca strepera* (0.4%, 3,354 individuals) and Common Pochard *Aythya ferina* (VU) (0.29%, 1,219 individuals) (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:

- L -- **Permanent inland deltas.**
- M -- **Permanent rivers/streams/creeks;** includes waterfalls.
- O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.
- Q -- **Permanent saline/brackish/alkaline lakes.**
- 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.

12. Jurisdiction *:

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

Khavd-Uul National Park Administration, Khovd town, Khovd Province at 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

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Local Governor, Jargalant sum, Khovd Province

In collaboration with

Mongolian Ornithological Society

Dr. Sundev Gombobaatar

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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.

Baasanjav, G. 1998. *Study on the biology and ecology of fishes in some larger lakes in the Great Lakes Basin*. WWF Mongolia. (In Mongolian)

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)

Braunlich, A. 1995. *Report on the first WWF Expedition to the Great Lakes Basin, Western Mongolia, May - July 1995, and preliminary recommendations for the establishment of a new protected area*. WWF Mongolia.

Blauford, 1875. *Khar Us Lake National Park*, Khovd Province. WWF Mongolia (in Mongolian).

Li, D. Z. W. and Mundkur, T. 2007. *Numbers and distribution of waterbirds and wetlands in the Asia-Pacific region*. Wetlands International.

Davies, J. 1989. Mongolian People's Republic. p.1-30 in Scott, D.A. 1989. *A directory of Asian wetlands*. IUCN. Gland, Switzerland and Cambridge, U.K.

Dulmaa, A. 1973. Zur Fischfauna der Mongolei - *Mitt. Zool. Mus. Berlin*, Bd. 49 Hilbig, W. & Z.

Liegl, C. 1998. *Waterfowl in Khar-Us Lake National Park and at Airag Lake (Western Mongolia)*. Report on two Expeditions in June and September 1998. WWF Mongolia.

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)

Shar, S. & D. Batkhuu .1998. *A Survey Report on a Census of the Wild Boar (Sus scrofa nigripes)*.

Schamsran. 1977. Notes about the vegetation of South KharUs Lake. *Scientific proceedings of the Institute of Botany*. Mongolian Academy of Science. (in Mongolian)

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

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 area is situated in the large valley of the Great Lake Depression surrounded by mountain ranges - Mongol-Altai mountain range in the west, Sayan Mountains in the north, Khangai Mountain range in the east and Gobi-Altai in the south. These mountains range up to 3,000 and 4,000 m a.s.l. There are four large lakes (two separated Khar-Uus, Khar, and Durgun lakes) in the Khar-Uus lake vicinity. The elevation of the lakes is relatively lower than surrounding mountains and ranges between 1,000 and 1,200 m a.s.l. The main water inflow comes from large permanent mountain rivers (Khovd and Buyant rivers) in the Mongol-Altai. The rivers drain into Khar-Uus Lake. There is only one river Chono Kharaikh outflows from the lake. The Durgun is a saline lake joins with fresh water Khar Lake. The lakes are shallow with from 4.5 m for Khar-Uus Lake, 7 m for Khar Lake and 27 m for Durgun Lake in maximum.

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 lakes' water level slightly changes throughout the year depending on where rainfall is the highest in August to September (Braunlich 1995). Average air temperature is relatively low. January is the coldest month and air temperature reaches -30°C (average -25.5°C) and July is the warmest (average temperature 19.1°C). During the cold and long winter, the lakes are covered by thick ice from mid-November until April. Precipitation is low throughout the year (annual average in Khovd town 122 mm) and most of it falls during summer between June and August.

17. Hydrological values:

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

Khar-Uus, Khar and Durgun Lakes are situated in the Internal Drainage Basin which means no outflow from the lakes to other countries. The lakes and their wetlands are one of the important ground water recharge sources for the region.

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.

These freshwater large lakes are shallow and are covered by floating and submerged vegetation (*Nymphaea* spp., *Nuphar* spp., *Potamogeton* spp.). Large marshes along lake shores are patchily surrounded by tall reed beds (*Phragmites*). These marshes and reedbeds play a significant role for migratory birds during breeding, summering, and wintering seasons.

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)

This lake system is unique because of rare plants including *Nymphaea candida* and *Cynomorium songaricum* grow here. These plants are assessed as rare and are listed in the Mongolian Red Book (2013).

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)

The area is the only known breeding site for Dalmatian Pelican (*Pelecanus crispus*) in Mongolia. Due to hunting pressure for traditional use of its beak, as well as the effects of drought and livestock disturbance, the number of breeding pelicans has been decreasing in the area for the last decade. However, recent findings show that the number of breeding individuals of the species is stabilising and breeding attempts are recorded (WWF unpublished).

Among mammals Wild Boar (*Sus scrofa nigripes*) is a threatened species in Mongolia and listed in the Mongolian Red Book (1997 and 2013) as rare. This subspecies of Wild Boar only inhabits the reedbeds of Khovd River. A total of 40 to 60 individuals of the subspecies were found in the area in 1997.

Five fish species endemic to Mongolia are found in the lake system: Mongolian Grayling (*Thymallus brevirostris*), Dwarf Altai Osman (*Oreoleuciscus humilis*) and Altai Osman (*Oreoleuciscus potanini*).

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:

The area has high social values for tourism, recreation, research, education, water supply, fishing and grazing. An important cultural value of the area is a high variety of different ethnic groups living together. Sacred places (small hills and sacrifice places) and archaeological sites (stone carving and deer stone near Teel river) are found in the area. Illegal fishing by local people in small scale in this protected area has been rarely recorded. For recent years, local people have been celebrating the “Ice Festival” in the lake in winter.

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 governor

- b) In the surrounding area:
State owned but used 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

b) In the surrounding area:

One hydroelectric power plant was established on the Chono Khariakh River which is the junction channel between Khar-Us Lake and Khar Lake. The construction of the dam has already affected local fish species, bats and some breeding birds along the river. However, some areas of the dam are situated outside of the protected area. The number of livestock has drastically increased in recent years. Overgrazing is a problem along the shorelines and for the reed beds of the wetland as well as in the surrounding areas.

In 1967, the Muskrat (*Ondatra zibethica*) was introduced to Khar-Us Lake for fur production. Since then it has spread widely throughout the whole area and the species regularly destroys parts of the reed beds.

Drought and reed fires have been frequent in the last few years. The impact of these factors on breeding birds in reed beds and marshy wetlands is very serious.

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.

The National Park was established in 1997. According to the Mongolian Law on Protected Areas, the National Park is the second highest protection category. The park administration has five full-time employees. Five rangers in the five surrounding sums (local administrative unit) were provided with some field equipment (horses, binoculars, information material about the legal status etc.) to patrol the site. These rangers had training in enforcement of environmental legislation and police for the last few years. In 2003, the project “Conservation and Sustainable Use of Biodiversity, Water Ecosystem, and Resources of Altai Sayan Eco-region” was implemented in Khar-Us Lake and Durgun hydroelectric power station with the technical support of the WWF Programme Office. The Flyway Network Site boundary is almost the same as that of the protected area.

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?:

Yes

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

There is a 5-year management plan for the protected area. Protected area administration follow the management plan for all actions and activities in the park.

d) Describe any other current management practices:

1. Research
2. Reinforcement of police and laws on nature conservation
3. Education and public awareness etc.

26. Conservation measures proposed but not yet implemented:

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

National park staff have been organizing a public awareness program in the protected area. An information center was established at the national park administration building in Khovd town. The park administration began to sign agreements with herdsmen on pasture use. At present, WWF Mongolia is trying to raise funds for a comprehensive environmental impact assessment of the hydroelectric power plant in planning at Chono Khariakh River.

27. Current scientific research and facilities:

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

No systematic biodiversity survey has been organized. However, a botanical survey, a survey of zooplankton, a census of wild boar and an Asian Waterbird Census have recently been carried out. There is no special research facility in the national park. Khovd University at Khovd town trains biologists.

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.

Several training sessions have been carried out since the park established for park administration staff (PRA training and public awareness) and rangers. The park administration is collaborating with NGOs and projects run training courses for biology teachers of the five selected sum in recent years and community meetings are held concerning pasture, fire and protection regimes for the protected area for local herders.

29. Current recreation and tourism:

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

Due to the remoteness of the area from Ulaanbaatar, lack of infrastructure, and abundant mosquitoes in June - August, extensive tourism activities have not been developed in the wetland area. Only one tourist camp is under construction on the western shore of the lake. A small bird observation tower was built on the western bank of the lake. A very small number of guided tourists from Ulaanbaatar visited the area for a short while in May to September. Tourists are interested in the beauty of the landscape, bird watching and very rarely sport fishing.

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

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

Biological resource use

hunting and collecting terrestrial animals	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
gathering terrestrial plants	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

Human intrusions and disturbance

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

Natural system modifications

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

Invasive and other problematic species and genes

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

Pollution

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 type="checkbox"/>
agricultural and forestry effluents	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
garbage and solid waste	<input checked="" 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"/>

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

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:
 - ii. 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.
 - iii. 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.