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 Tsendgombo

Institution/agency: Mongolian Ornithological Society and Onon and Bali PA

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EAAF SITE CODE FOR OFFICE USE ONLY:

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

2. Date this sheet was completed *:

04/02/2016

3. Country *:

Mongolia

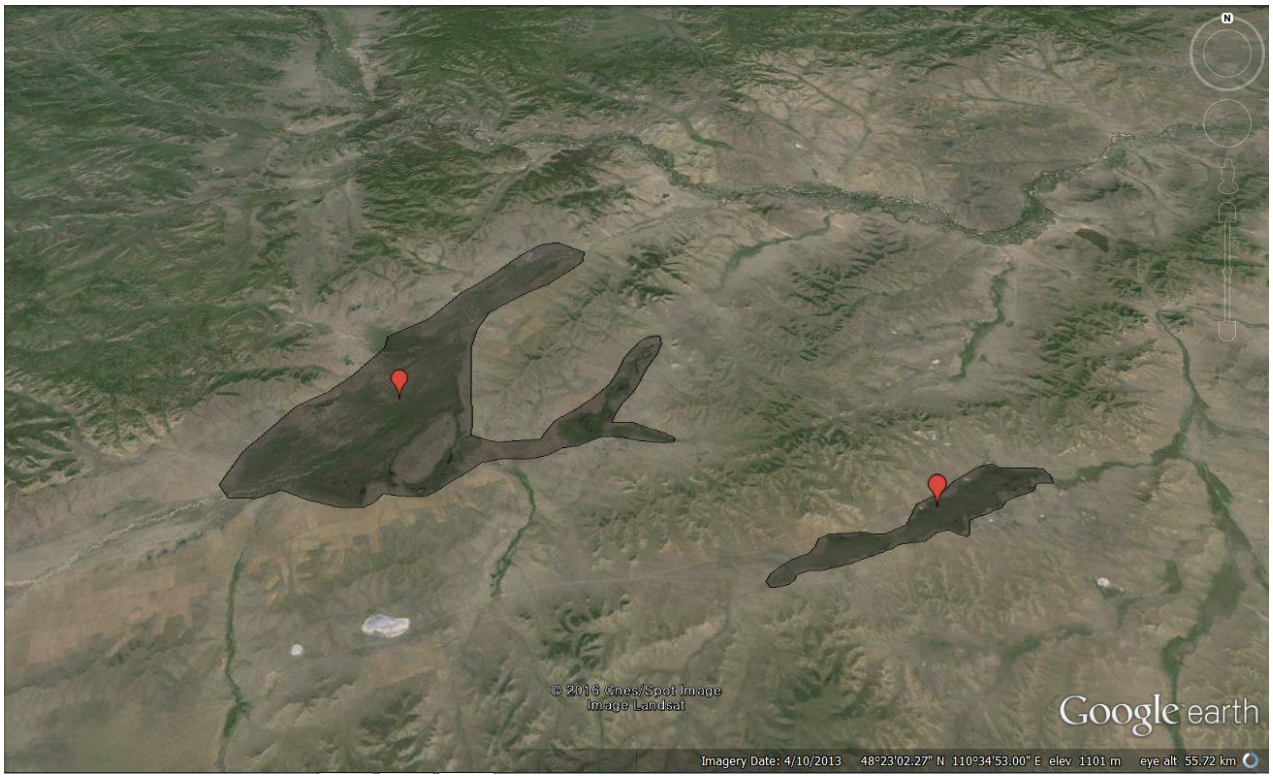
4. Name of the Flyway Network site *:

Khurkh-Khuiten River Valley

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.

Khurkh Khuiten River Valley



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.

Khurkh River Valley: 48°22'28.2"N 110°21'32.5"E

Khuiten River Valley: 48°17'15.9"N 110°50'17.9"E

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

Khurkh-Khuiten River valley**:** 1000-1100 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.

Khurkh River valley: 274 km^2 or 27,400 ha
Khuiten River valley: 42.7 km^2 or 4,270 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 Khurkh-Khuiten river valley is situated in a wide valley of steppe-mountains of the Khurkh and the Khuiten rivers. In both river valleys there are many small to large lakes with bare shores and gravelly edges as well as ponds and pools with reed beds. These habitats are important as breeding, resting and feeding sites for migratory wetland birds. The large open valleys of the Khurkh and Khuiten rivers provide habitat for 6 species of cranes, ducks, and geese. These birds rest and gathering here during the autumn migration. Several hundred cranes, ducks, and geese gather and feed in the wheat fields along the river valleys.

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 threatened species such as Siberian, Hooded and White-naped Cranes, Swan Goose and Great Bustard. Also there is Asian Dowitcher (Gombobaatar et al. 2011).
11 species listed in the Red Book of Asia (2001); 6 species listed in the "CITES" Appendix I (Convention on International Trade in Endangered Species of wild fauna and flora); 24 species listed in the "CITES" Appendix II (CITES Handbook, 2001); Also, 3 species listed in the Appendix I and 25 species in Appendix I of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) (Ramsar Information Sheet, 2003).

Criterion 6: The following bird species supported by the wetland represent 1% or more of the relevant biogeographic population: Swan Goose 600 (1%), Whooper Swan 300 (1%), Bean Goose 1,934 (4.7%), Ruddy Shelduck 1, 570 (3.8%), White-naped Crane 465 (9.6%), Eurasian Crane 361 (3.2%), Demoiselle Crane 1,000 (1.1%) (Ramsar Information Sheet, 2003).

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.

N -- **Seasonal/intermittent/irregular rivers/streams/creeks**.

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.

W -- **Shrub-dominated wetlands**; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils.

12. Jurisdiction *:

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

Bayan-Adraga, Binder, Batshireet and Umnudelger sum of Khentii aimag (province).
Onon-Balj National Park Administration, Dadal Sum of Khentii province. Ministry of Nature, Environment 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.

Local Governor, Bayan-Adraga, Binder, Batshireet and Umnudelger sum of Khentii aimag (province).

In collaboration with
Mongolian Ornithological Society and Onon-Balj National Park Administration, Dadal sum of Khentii province
Dr. Sundev Gombobaatar and Tsendgombo
Tel: 976-99180148
E-mail: 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.

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)

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

Baasanjav G. 2001. *Species composition and ecology of fish in the Dornod Mongolia*. Ulaanbaatar, Mongolia. P.64-69.

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.

Biodiversity assessment and conservation planning in Mongolia. 2002. Ulaanbaatar, Mongolia.

Bold, A. 1990. *Ecological and geographical basis for the conservation and sustainable use of aviafauna of Monglia.* (Dr.Sc. thesis). P. 502.

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. 847-856 pp. (in English)

Convention on International Trade in Endangered Species of Wild Fauna and Flora. 2001.. Ulaanbaatar. 284 pp.

Goroshko, O.A. 2001. Swan Goose in the Eastern Transbaikalia and Mongolia. *CASARCA Bulletin of the Goose, Swan and Duck study group of Northern Eurasia.* 7:68-98.

Goroshko, O.A., Tseveenmyadag. N. 2002*. Status and Conservation of cranes in Daurian Steppes (Russia and Mongolia). Abstracts of the International Crane Workshop.* August 9-10. Beijing, China. p.5-7.

Goroshko, O.A., Tseveenmyadag, N. 2003. *Status of population of White-naped Crane in Mongolia in 1999 and 2000. The ornithological observation in Siberia and Mongolia*. Ulan-Ude. Buryat State University Press. Vol.3:92-115.

Environmental Laws of Mongolia. 1999. Ulaanbaatar, Mongolian.

Fomin, V. E., Bold, A. 1991. *Bird Catalogue of Mongolia.* Nauka, Moscow. p. 39.

Kozlova, E.V. 1930. *The birds of southwest Transbaikalia, northern Mongolia and central Gobi.* Leningrad pp.356.

Leme, J. 1966. *Essentials of biogeography*. Moscow.

Munkhbayar, Kh., Munkhbaatar, M. and Ariunbold, J. 2001. *Amphibians and Reptiles in the Eastern Mongolia. Ecosystem of Eastern Mongolia.* Ulaanbaatar. P.70-79.

Ramsar Information Sheet. 2003. Ulaanbaatar, Mongolia.
Red Data Book of Mongolia. 1997. Ministry of Nature and Environment. Ulaanbaatar, Mongolia.

Simon, D. 2006. *Waterbid Population Estimates*. Fourth edition. Wetland International.

Stepanyan, L.S. 1990. *Conspectus of the ornithological fauna of the USSR.* Nauka, Moscow.

Tseveenmyadag, N. 1998. Waterbirds of Eastern Mongolia. *Proceedings of the International Workshop on Wetland conservation in Mongolia and North-East Asia.* Ulaanbaatar, Mongolia. p.149-156.

Tseveenmyadag, N. 2003. *The birds of Onon-Baljin National Park of the Mongolia. The ornithological observation in Siberia and Mongolia*. Ulan-Ude. Buryat State University Press. Vol.3:80-91.

Tserensodnom, J. 2000. *Catalogue of Mongolian Lakes.* Shuvuun saaral, Ulaanbaatar, Mongolian. P.51

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.

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.

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

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

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.

As far as geological composition concerned, the mountains surrounding the valleys are composed of residue stones such as sand and shock stones from Permian and Jurassic geological ages. The river valley is composed of sand and gravel. Khuiten river basin contains number of large lakes: Ulaan Undur, Khulst, and Ulaan toirom. Bayanburd and Binder Lakes and Khurkh river are located in the Khurkh river valley. The hydrological condition of these lakes has not been studied. It has a high density of ground water network. The Khurkh river is one of the largest tributaries of Onon river that flows along with enormous small rivers. The Khurkh river is is 190 km long with a catchment area of 6,150 km2. The Khurkh river is fed by the Shuusiin, Zuun Bayan, and Bayngol rivers; and the Uliastai and Melkhiitiin bulag springs. The area also contains Ulaan Toirom, Ulaan Unduriin, Bayanburd, Khulst, Burd, Khulstiin Burd Lakes, and Khulst toirom. The river valley is 15-20 km wide along the mid and end portion, and completely separated from the forests and flow to the steppe and ended in small lakes in the valley. The mineralization content in the Khurkh river is as low as the Onon river. The mineralization is 273.4 mg/l. The Khurkh river valley is distributed by permafrost and underground water resources play important role in feeding the lakes. Floods happen during the times when mountain snow melts and rainfalls during late spring (Ramsar Information Sheet, 2003).

16. Physical features of the catchment area:

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

Khurkh-Khuiten river basin surrounds mountains including Ereen tolgoi, Ulaan, Delger mountains, Burgast tolgoi, Binderya and Baga Delger mountain, Burgast tolgoi, Baynburd ovoo, Melhiitiin

mountain, Tsagaan tolgoi. The northern part of Khuiten river valley bordered with mountains and hills: Shine bulag, Uzuur tolgoi, Ulaan Under Tolgoi, Tasarhai tolgoi and Buural tolgoi. Those medium height mountains contain slopes, small breaking rock and boulders. Along the Khurkh river, there is a 10km wide valley. The climate is semi-dry cold. Winter and summer are cool, with high precipitation and snowfall. Mean annual temperature is –0.5 oC. Mean annual precipitation is 400-500 mm. Mean warm season temperature is 19.6 oC, while –16.3 oC mean cool season temperature. Ice forms from November to April. Wind speed in the valleys between the mountains is not high, mostly below 1-2.6 m/sec, with the highest speed of 10-14 m/sec. Snowfall reaches to 5-12 cm. Snow starts falling from November and melts from April. Seasonal and permafrost exists in the surrounding wetlands in the river basin and mountain slopes. Black, black brown and brown soils dominated in the area and valley and marshy soils are commonly distributed as well (Ramsar Information Sheet, 2003).

17. Hydrological values:

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

These wetlands belong to the Pacific Ocean Drainage Basin in Mongolia, which is covering mostly eastern part of Mongolia. The wetland has 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.

Vegetation is dominated by steppe plant species and forests in northern slopes of the mountains. The river basin is located near Khentii mountain and Mongol Daguur steppe mountain forest steppe zone.

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)

The following plant species are included in the Mongolian Red Book (1997): Marsh Saxifrage (*Saxifraga hirculus*), Pink Peony (*Paeonia anomala*), White Peony (*Paeonia lactiflora*) and Common Valerian (*Valeriana officinalis*). Dominant plant species are: Siberian Larch (*Larix sibirica),*

Betula platyphylla, Carex lanceolata, Vicia venosa, V.unijuga, Rhododendron dauricum, Carex lanceolata, Pteridium aguilinum, Fragaria orientalis, *Poa attenuata, Festuca lenensis, F.sibirica, Helictotrichon schellianum, Carex pediformis, Filifolium sibiricum, Scabiosa comosa*, *Salix ledebouriana, Geranium pratense, Sanguisorba officinalis, Agropyron repens*.

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)

54 species of mammals from 6 orders are recorded in the site. Among them Daurian Hedgehog (*Erinaceus dauricus*) is listed in the Mongolian Red Book (1997), Gray Wolf (*Canis lupus*), Eurasian Lynx (*Lynx lynx*), Manul (*Felis manul*) are listed under the Appendix II of CITES (2001). There are 167 species of birds of 91 genera from 37 families of 15 orders, inhabiting the Khurkh-Khuiten Valley. Out of the total species, 26 species are resident, 141 bird species migratory, *9*2 breeding visitor, 35 species passage migrant, 3 winter visitor and 11 species are of uncertain status (Fomin and Bold, 1991; Tseveenmyadag, 1998; Tseveenmaydag, 2002; Tseveenmyadag, 2003; Tseveenmyadag et al. 2000).

The basin is an important habitat for a variety of fish species: Haitej sculpin (*Mesocottus haitej),* Khadary whitefish (*Coregonus chadary*) that are found only in this basin (Baasanjav, 2001; Baasanjav and Tsend-Ayush, 2001). Taimen (*Hucho taimen)* and Lamprey (*Lampertra japonica).* Siberian Salamander (*Salamandrella keyserlingii)* and Asiatic Grass Frog (*Rana chensinensis)* are amphibian species found in the basin that are listed in the Mongolian Red Book (1997).

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:

There is no information on social and cultural values. However, the wetland has some potential for eco-tourism and scientific research.

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 and b) In the surrounding area:

Due to drought during the last years, the area has been shrinking, which became a major ecological concern. Generally, dozens of livestock graze along the valley all year around, resulting in overgrazing of pastures, as well as pollution of wetlands. No negative activities are being carried out, except pasture land use.

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.

No conservation measures are being taken at present time.

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?
No.

d) Describe any other current management practices:

26. Conservation measures proposed but not yet implemented:

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

In the future, the following actions are needed to be taken in this area: scientific research on natural condition, biodiversity, including birds; protection of marshes; biotechnical action to create a suitable condition for breeding birds. The wetlands and the surrounding areas are included in one of the selected areas (potential places) of natural importance in Mongolia to be considered for protection in future (Biodiversity assessment and conservation planning in Mongolia, 2002).

27. Current scientific research and facilities:

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

No specific research project is implemented. Joint crane research between the USA and Mongolia has been running on cranes and other waterbirds.

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.

No specific project is proposed.

29. Current recreation and tourism:

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

Currently, there are no tourist camps and sanatoriums. Only in summer bird watchers drive through the area. Sport fishing is of very limited scale.

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	☐	☐	☐
commercial and industrial areas	☐	☐	☐
tourism and recreation areas	☐	☐	☒
Agriculture and aquaculture			
annual and perennial non-timber crops	☐	☐	☐
wood and pulp plantations	☐	☐	☐
livestock farming and ranching	☒	☒	☒
marine and freshwater aquaculture	☐	☐	☐
Energy production and mining			
oil and gas drilling	☐	☐	☐
mining and quarrying	☐	☐	☐
renewable energy	☐	☐	☐
Transportation and service corridors			
roads and railroads	☒	☒	☒
utility and service lines	☐	☐	☐
shipping lanes	☐	☐	☐
flight paths	☐	☐	☐
Biological resource use			
hunting and collecting terrestrial animals	☐	☐	☐
gathering terrestrial plants	☐	☐	☐
logging and wood harvesting	☐	☐	☐
fishing and harvesting aquatic resources	☐	☐	☐
Human intrusions and disturbance			

recreational activities	☐	☐	☐
war, civil unrest and military exercises	☐	☐	☐
work and other activities	☐	☐	☐
Natural system modifications			
fire and fire suppression	☒	☒	☒
dams and water management/use	☐	☐	☐
other ecosystem modifications	☐	☐	☐
Invasive and other problematic species and genes			
invasive non-native/alien species	☐	☐	☐
problematic native species	☐	☐	☐
introduced genetic material	☐	☐	☐
Pollution			
household sewage and urban waste water	☐	☐	☐
industrial and military effluents	☐	☐	☐
agricultural and forestry effluents	☐	☐	☐
garbage and solid waste	☐	☐	☐
air-borne pollutants	☐	☐	☐
excess energy	☐	☐	☐
Geological events			
volcanoes	☐	☐	☐
earthquakes/tsunamis	☐	☐	☐
avalanches/landslides	☐	☐	☐
Climate change and severe weather			
habitat shifting and alteration	☐	☐	☒
droughts	☐	☒	☒
temperature extremes	☐	☒	☒
storms and flooding	☐	☒	☒

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

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

(From the Partnership Text)

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

a. Convention on Wetlands (Ramsar, Iran, 1971) criteria for internationally important sites for migratory waterbirds. That is:

   Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.

   Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.

   Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.

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

   i. A staging site should be considered internationally important if it regularly supports 0.25% of individuals in a population of one species or subspecies of waterbirds on migration.

   ii. A staging site should be considered internationally important if it regularly supports 5,000 or more waterbirds at one time during migration.

c. Under exceptional circumstances a site can be nominated if it supports migratory waterbirds at a level or stage of their life cycle important to the maintenance of flyway populations. Justification of such nominations will be considered by the Partnership on a case by case basis.

Annex 2: Ramsar Classification System for Wetland Type

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

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

Marine/Coastal Wetlands

A -- **Permanent shallow marine waters** in most cases less than six metres deep at low tide; includes sea bays and straits.

B -- **Marine subtidal aquatic beds**; includes kelp beds, sea-grass beds, tropical marine meadows.

C -- **Coral reefs**.

D -- **Rocky marine shores**; includes rocky offshore islands, sea cliffs.

E -- **Sand, shingle or pebble shores**; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks.

F -- **Estuarine waters**; permanent water of estuaries and estuarine systems of deltas.

G -- **Intertidal mud, sand or salt flats**.

H -- **Intertidal marshes**; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.

I -- **Intertidal forested wetlands**; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.

J -- **Coastal brackish/saline lagoons**; brackish to saline lagoons with at least one relatively narrow connection to the sea.

K -- **Coastal freshwater lagoons**; includes freshwater delta lagoons.

Zk(a) – **Karst and other subterranean hydrological systems**, marine/coastal

Inland Wetlands

L -- **Permanent inland deltas**.

M -- **Permanent rivers/streams/creeks**; includes waterfalls.

N -- **Seasonal/intermittent/irregular rivers/streams/creeks**.

O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.

P -- **Seasonal/intermittent freshwater lakes** (over 8 ha); includes floodplain lakes.

Q -- **Permanent saline/brackish/alkaline lakes**.

R -- **Seasonal/intermittent saline/brackish/alkaline lakes and flats**.

Sp -- **Permanent saline/brackish/alkaline marshes/pools**.

Ss -- **Seasonal/intermittent saline/brackish/alkaline marshes/pools**.

Tp -- **Permanent freshwater marshes/pools**; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season.

Ts -- **Seasonal/intermittent freshwater marshes/pools on inorganic soils**; includes sloughs, potholes, seasonally flooded meadows, sedge marshes.

U -- **Non-forested peatlands**; includes shrub or open bogs, swamps, fens.

Va -- **Alpine wetlands**; includes alpine meadows, temporary waters from snowmelt.

Vt -- **Tundra wetlands**; includes tundra pools, temporary waters from snowmelt.

W -- **Shrub-dominated wetlands**; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils.

Xf -- **Freshwater, tree-dominated wetlands**; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils.

Xp -- **Forested peatlands**; 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 charcter with significant, ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

VI Protected area with sustainable use of natural resources

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