

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: Mr. B. Buyantsog and Dr. Gombobaatar
Sundev

EAAF SITE CODE FOR OFFICE USE ONLY:

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Ulaanbaatar, Mongolia and Undurkhangaigai sum, Uvs
province

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2. Date this sheet was completed *:

02 April 2016

3. Country *:

Mongolia

4. Name of the Flyway Network site *:

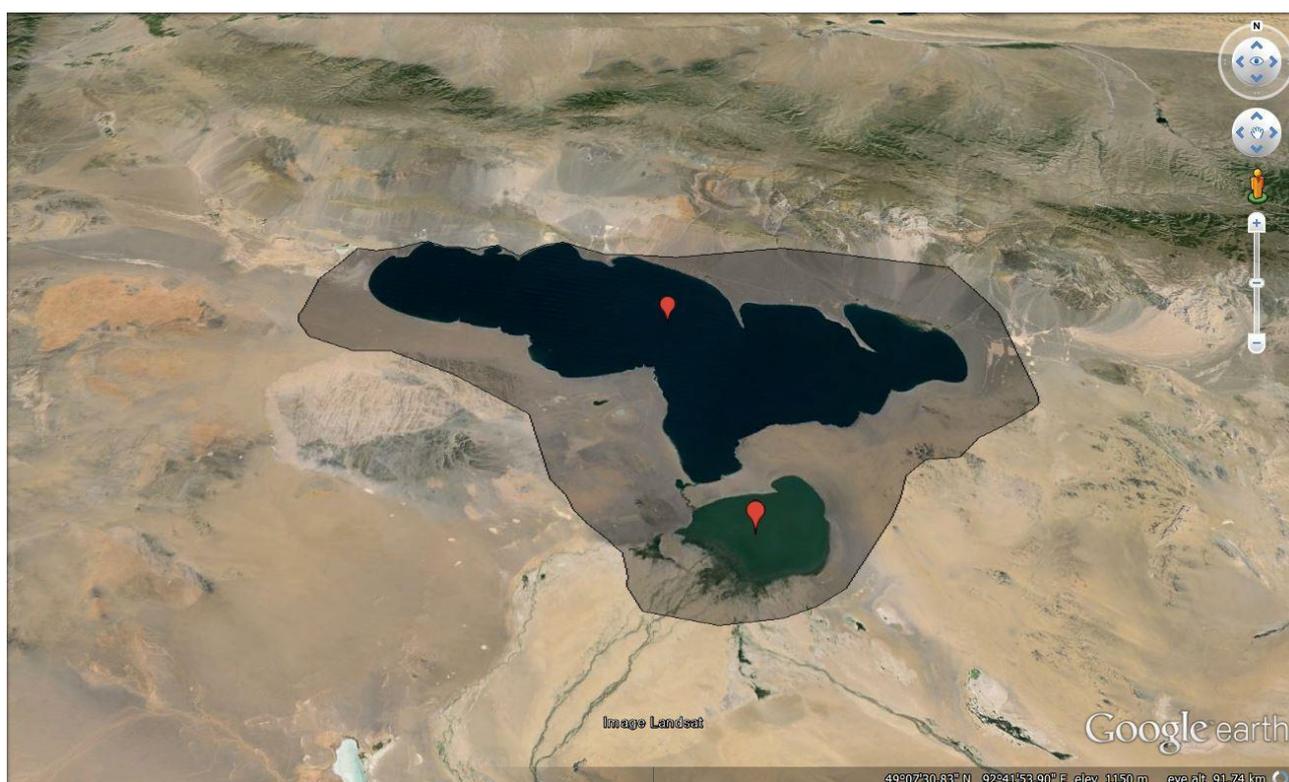
Khyargas-Airag Lake

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](#).

[Khyargas-Airag Lake](#)

[https://www.google.com/maps/d/viewer?mid=1X60VJ_1GsUCsB2RXq5I3NAbIFXg]



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.

Khyargas Lake: 49°11'26.4"N, 93°19'24.1"E

Airag Lake: 48°53'50.0"N, 93°26'29.3"E

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

Khyargas Lake: 1,035 m a.s.l

Airag Lake: 1,030 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.

Khyargas-Airag Lakes: 3,210km² or 321,000 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.

Khyargas and Airag Lakes are located in the desert steppe zone of the Khyargas Lake Depression in the west. These two neighboring lakes are connected by a **deep and wide channel**. **The site consists of the** connecting channel between the lakes, wet meadows of Zavkhan River delta, and the surrounding sparsely vegetated semi-desert landscape. Khyargas-Airag Lake is frozen from mid-November until April. It is an important stopover site for breeding migratory birds, particularly the Dalmatian Pelican (*Pelecanus crispus*). Additionally, it is an important area for the globally vulnerable Swan Goose (*Anser cygnoid*) and Relict Gull (*Larus relictus*). Local herders seasonally reside in the lake's vicinity. Several endemic fish species occur here.

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 water birds. That is:

Criterion 2: The wetland supports globally Vulnerable species such as Swan Goose, Dalmatian Pelican, Common Pochard and Relict Gull. Also it supports Falcated Duck (*Mareca falcata*) which is globally Near Threatened (Gombobaatar et al. 2011).

Criterion 5: It regularly supports over 30,000 water birds (Batchuluun et al. 2012).

Criterion 6: The Airag Lake regularly supports 1% of individuals of Great Cormorant (*Phalacrocorax carbo*) (3.9%; 4,670 individuals), Eurasian Spoonbill (*Platalea leucorodia*) (6.9%; 739 individuals), Whooper Swan (*Cygnus cygnus*) (1.4%; 502 individuals) and Ruddy Shelduck (*Tadorna ferruginea*) (1.5%; 893 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 the global population of the following species in single season: Great Cormorant (1.7%; 2005 individuals), Eurasian Spoonbill (4.7%; 500 individuals), Greylag Goose (*Anser anser*) (0.27%, 368 individuals), Whooper Swan (0.84%, 300 individuals), Ruddy Shelduck (1.35%, 811 individuals) Mallard (*Anas platyrhynchos*) (0.31%, 6729 individuals), Gadwall (*Mareca strepera*) (0.45%, 3484 individuals), and Common Pochard (*Aythya ferina*) (0.64%, 2680 individuals) (Batchuluun et al. 2012).
- II. It supports 6,700 Mallard at one time during autumn migration in 2010 (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.
- N -- **Seasonal/intermittent/irregular rivers/streams/creeks**.
- O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow 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.

12. Jurisdiction *:

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

Khyargas Lake National Park Administration, Zavkhan (Dzavkhan) Sum of Uvs 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.

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Mongolian Ornithological Society

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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. (in English)

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

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

Dulmaa, A. 1973. Zur Fischfauna der Mongolei. *Mitt. Zool. Mus. Berlin*, Bd. 49.

Gombobaatar, S. Monks, E.M. (compilers), Seidler, R., Sumiya, D., Tseveenmyadag, N., Bayarkhuu, S., Baillie, J. E. M., Boldbaatar, and Sh., Uuganbayar, Ch. (editors). 2011. *Regional Red List Series Vol.7. Birds*. Zoological Society of London, National University of Mongolia and Mongolian Ornithological Society. 1036 pp. (in English)

Gombobaatar, S. and Monks, E. M. (compilers), Brown, H.J., Sumiya, D., Tseveenmyadag, N., Boldbaatar, Sh., Baillie, J.E.M., Batbayar, G., Monks, E.M., Stubbe, M. (editors). 2011a. *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)

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.

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.

Kyargas and Airag Lakes are situated at northern part of the Great Lakes Depression. They are surrounded by the Mongol-Altai mountain range in the west, the Sayan Mountains in the north, the Khangai Mountain range in the east and the Gobi-Altai in the south. The mountains rise up to 3,000 and 4,000 m a.s.l., while the elevation of the basin ranges from 1,000 and 1,200 m a.s.l. Average air temperature is low: the coldest month is January (mean monthly temperature -25.5°C in Khovd city) and the warmest is July (mean $+19.1^{\circ}\text{C}$, Khovd city). In winter, the lake is covered by thick ice starting from mid November till April.

16. Physical features of the catchment area:

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

Zavkhan and Hungui rivers from Khangai mountain feed Airag Nuur (Airag Lake). The lake is connected with the large saline Khyargas Lake by a wide and deep channel. The maximum depth of Airag Lake is about 10 m, while Khyargas Lake is up to 80 m. Water level of the lakes changes in short period because muddy oxbows can be filled by rain water in few hours. High precipitation occurs from June to August, however it is overall very low - annual precipitation in Khovd town (about 150 km SW of Airag Lake) is 122 mm on average.

17. Hydrological values:

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

Khyargas and Airag Lakes belong to an internal drainage basin and are therefore of fundamental importance for 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.

The marshes are dominated by *Phragmites* community. Floating and submerged vegetation is sparse. Semi-desert plant communities are around the lakes.

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)

Some rare xerophytic plants grow in the surrounding semi-arid steppe.

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)

Several regionally threatened fish species inhabit the site, such as Mongolian Grayling (*Thymallus revirostris*), Lake Osman (*Oreoleuciscus angusticephalus*) and Small Osman (*O. humilis*). Rare mammals, such as Goitered Gazelle (*Gazella subgutturosa*) (VU), Mongolian Gazelle (*Procapra gutturosa*) and Thick-tailed Pygmy Jerboa (*Salpingotus crassicauda*) (DD) occur near this wetland.

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 a high value for tourism, scientific research, water supply and fishing. Primarily use of the wetland is pasture by local herder families. Very small scale fishing activities exist in the lakes.

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:
State owned but used by local government

23. Current land (including water) use:

- a) Within the Flyway Network site:
State owned but used by local government

- b) In the surroundings/catchment:
State owned but used by local government

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

Local herders livestock graze in the wetlands all year around. The increasing number of livestock in the area in recent years is causing habitat degradation and disturbance to breeding birds. Khyargas-Airag Lake is under Mongolian governmental protection therefore no activity of mining and other natural resource extraction in commercial manner exists at the site.

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.

Khyargas Lake National Park was established by the Mongolian government in 2000.

- 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?

They have management plan only for Khyargas Lake.

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.

Short term bird and plant surveys were conducted by contracted organizations.

27. Current scientific research and facilities:

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

Irregular bird counts have been conducted. Scientific research on wildlife is urgent.

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.

None.

29. Current recreation and tourism:

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

Remoteness of the area from Ulaanbaatar or other large cities keeps away a utilization of the wetland for recreation and tourism. There are no tourist camp and other accommodation facilities yet.

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)?

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	Historically	Currently	Potentially
Residential and commercial development			
housing and urban areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
commercial and industrial areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
tourism and recreation areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Agriculture and aquaculture			
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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
marine and freshwater aquaculture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy production and mining			
oil and gas drilling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mining and quarrying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
renewable energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transportation and service corridors			
roads and railroads	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
utility and service lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shipping lanes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
flight paths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biological resource use			
hunting and collecting terrestrial animals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
gathering terrestrial plants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
logging and wood harvesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fishing and harvesting aquatic resources	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Human intrusions and disturbance			
recreational activities	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
war, civil unrest and military exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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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:

- 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:

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

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

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

Annex 2: Ramsar Classification System for Wetland Type

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

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

Marine/Coastal Wetlands

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

Inland Wetlands

- L -- **Permanent inland deltas.**
- M -- **Permanent rivers/streams/creeks**; includes waterfalls.
- N -- **Seasonal/intermittent/irregular rivers/streams/creeks.**
- O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.
- P -- **Seasonal/intermittent freshwater lakes** (over 8 ha); includes floodplain lakes.
- Q -- **Permanent saline/brackish/alkaline lakes.**
- R -- **Seasonal/intermittent saline/brackish/alkaline lakes and flats.**

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

Note: “**floodplain**” is a broad term used to refer to one or more wetland types, which may include examples from the R, Ss, Ts, W, Xf, Xp, or other wetland types. Some examples of floodplain wetlands are seasonally inundated grassland (including natural wet meadows), shrublands, woodlands and forests. Floodplain wetlands are not listed as a specific wetland type herein.

Human-made wetlands

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

Annex 3: IUCN Protected Areas Categories System

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

Ia Strict Nature Reserve

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

Ib Wilderness Area

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

II National Park

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

III Natural Monument or Feature

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

IV Habitat/Species Management Area

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

V Protected Landscape/ Seascape

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

VI Protected area with sustainable use of natural resources

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