Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

- 1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands.* Compilers are strongly advised to read this guidance before filling in the RIS.
- 2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
- 3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

Names and addresses of the compiler of this form:

Mr. Uisuk JUNG Deputy Director, Nature Policy Division, Nature Conservation Bureau, Ministry of Environment, Gwacheon city, Gyeonggi-do, Republic of Korea 427-729 Tell: +82-2-2110-6736, Email: junguisuk@korea.kr

Mr. Hong-Suk KOH Policy Coordinator, National Wetlands Centre Ministry of Environment Gwacheon city, Gyeonggi-do, Republic of Korea 427-801 Tell: +82-2-509-7965, Email: ecologist@korea.kr

Mr. Dong-Chan YANG Officer, Han River Project Headquarters Seoul Metropolitan Government Seoul, Republic of Korea 133-100 Tell: +82-2-3780-0764, Email: torrent@seoul.go.kr

2. Date this sheet was completed/updated:

12 January 2012

3. Country:

Republic of Korea



4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Han River-Bamseom Islets

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):
a) Designation of a new Ramsar site ☑; or
b) Updated information on an existing Ramsar site □

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged: \Box

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately \Box ; or
- ii) the boundary has been extended \Box ; or
- iii) the boundary has been restricted** \Box

and/or

If the site area has changed:

i) the area has been measured more accurately ; or ii) the area has been extended ; or iii) the area has been reduced**

** **Important note**: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site:

Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) a hard copy (required for inclusion of site in the Ramsar List): \Box ;

- ii) an electronic format (e.g. a JPEG or ArcView image) \square ;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables \Box .

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The Ramsar Site (Bamseom islets) has been designated as "Ecosystem and Landscape Region for Conservation" by Seoul Metropolitan Government. Within the boundaries of the site, there are no human-made structures at all such as road, trails, or human settlements. A bridge passes through the western islet on Han River (21 m high above the islet surface) - one of 27 bridges crossing Han River.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

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.

Central Point: N 37° 32' 20.64" E 126° 55' 40.80"

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

Bamseom islets are wetlands of Han River (i.e., riverine wetland): The wet landmasses are situated in the two districts of Yeoido-dong and Dangin-dong in central Seoul, South Korea. The nearest human settlement is located approximately 200 m north to the site along the shoreline of the river (refer to the site map).

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

Average around 5 m above sea level

11. Area: (in hectares)

27.3ha (0.273km²)

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Bamseom is a pair of similar sizes sandy islets located in the Han River in central Seoul, South Korea. They are the last representative of the naturally occurring riverine islands that used to be found in the Han River in the Seoul region since all other similar islands have been altered by human settlement or activities. The islets rises, on average, to 5 m above sea level and depending on seasonal water levels and amounts of rainfall, they can be fully or partly submerged for periods of days and weeks. At lower river levels, areas of fringing seasonal marshland is exposed.

The islets play a critical role in contributing to the fish diversity of "Eastern Yellow Sea Drainage" biogeographic ecoregion by providing a spawning and a nursery ground especially for Korean indigenous fish species. These include the Korean striped bitterling (*Acheilognathus yamatsutae*), Korean spined bitterling (*Acanthorhodeus gracilis*), and Korean oily shiners (*Sarcocheilichthys nigripinnus morii*). The waters between upper and lower Bamseom Islets are shallow and have a mild flow velocity, creating a primary spawning ground for fishes of the Han River.

The higher parts of the islets is dominated by Korean willows (*Salix koreensis*), whilst *Miscanthus sacchariflorus* (Maxim.) dominates at mid-elevations and common reeds (*Phragmites communis*) at the lower ground.

The site is a unique urban wetland that provides a wintering habitat for many common waterfowls whilst in the summer, the islets are a breeding ground for a number of species such as spotbilled ducks (*Anas poecilorhyncha*) and the black-crowned night herons (*Nycticorax nycticorax*). (new text) Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.



14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 1. (new text)

Bamseom Islets are representative of naturally occurring riverine islands of the Han River, and they are the last remaining example of such islands in the Seoul region which have not been altered by human settlement. Depending on seasonal water levels and amounts of rainfall, the islets vary from being fully or partly submerged for periods of days and weeks, to - at lower river levels - having areas of fringing seasonal marshland.

Criterion 8. (new text)

The islets play a critical role in contributing to the fish diversity of "Eastern Yellow Sea Drainage" biogeographic ecoregion by providing a spawning and a nursery ground especially for Korean indigenous fish species such as Korean striped bitterling (*Acheilognathus yamatsutae*), Korean spined bitterling (*Acanthorhodeus gracilis*), and Korean oily shiners (*Sarcocheilichthys nigripinnus morii*). The waters between upper and lower Bamseom Islets are shallow and have a mild flow velocity, creating a primary spawning ground for fishes of the Han River.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Eastern Yellow Sea Drainages

b) biogeographic regionalisation scheme (include reference citation):

Freshwater Ecoregions of the world (<u>www.feow.org</u>)

16. 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.

Topography

Bamseom is a pair of islets with similar sizes: the western islet (also known as lower Bamseom) and the eastern islet (upper Bamseom). The upper Bamseom is slightly higher in elevation than lower Bamseom, and during the ebb tide, submerged sediments between the two islets exposes themselves to the atmosphere, and thus this causes forming one unified islet temporarily. Average water depth of the wetlands is about $0.5 \sim 2$ m depending on precipitation and water discharge released from upriver through "Paldang dam" c.a. 31 km east from the islets. The dam was built up in 1974 to help with the mitigation of flooding troubles, procurement of water resource, and hydroelectric power generation. The islets have been totally submerged virtually every a few years owing to summer flooding of Han River. With its adjacent tidal influence in Han Estuary and a deeper water level, downriver of Bamseom islets gets through a diverse water fluctuation than near Bamseom islets.

Geology and Pedology

The soil texture of Bamseom is consisted primarily and mostly of sands and silts. However, the accumulated amount of silts has been increasing over time, which is attributed to the higher rate of sediment inputs from upriver compared to erosion.

The amount of organic matter in soils has varied slightly with the location from which soil samples were collected. On average, upper Bamseom had 3.64 organic matter percent (OM %), and lower Bamseom's OM % was 3.41. Soil pHs were 6.04 on the upper Bamseom and similarly 6.14 on the lower Bamseom. There were no significant differences in soil pH and OM % among plant populations.

Water quality (December 2011, Average annual value for 2011)

	DO (mg/l)	рН	NO ₃ - N(mg/l)	NH ₃ - N(mg/l)	PO ₄ - P(mg/l)	T-P (mg/l)	T-N (mg/l)
December	12.5	7.8	2.82	0.93	0.18	0.22	4.46
Ave. Ann.	11.3	7.9	2.51	0.70	0.12	0.18	4.07

Unfortunately, we do not have "salinity" measured within or around Han River - Bamseom Islets

Climate (average from 1971 to 2000) Average annual temperature: 12.2°C Average annual precipitation: 1,344.3mm Average annual wind velocity: 2.4m/s

17. Physical features of the catchment area:

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

The surface area of the catchment covers 26,218.6 km². The catchment region is under East Asian Monsoon climate with a wet, rainy summer and a cold, dry winter. Fundamental rocks of the catchment area constitute granite, schist, and gneiss. Granite and gneiss usually are predominant in upriver watershed while alluvial and diluvial layers spread out more in downriver watershed. Deteriorated water clarity and severe alluvial deposits in downriver riverbeds during a heavy rainfall are mainly attributed to such a geologic character in the Han River watershed.

18. Hydrological values:

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

Han River is a critical drinking and urban water resource supporting Seoul metropolitan citizens. In terms of hydrology, Bamseom may have affected water velocity of Han River because water flow velocity of the river ranges between 1.80 and 2.50m/s as measured away from Bamseom, but declines to 1.04 and 1.50m/s near Bamseom. Due to the resistance of Bamseom to current, sedimentation has taken place around Bamseom by trapping sediments and accompanying nutrients.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/co	oasta	1:	A •	В•	С•	D•	E •	F•	G•	Н•	I •	J•	K •	Zk(a)
Inland:	L	•	<u>M</u> •	N •	0•	Р•	Q۰	R•	Sp•	Ss•	Тр	$\underline{Ts} \bullet$	U •	Va•
	Vt	•	W •	Xf•	Xp•	Υ•	Zg•	Zk(b)					

Human-made: $1 \cdot 2 \cdot 3 \cdot 4 \cdot 5 \cdot 6 \cdot 7 \cdot 8 \cdot 9 \cdot Zk(c)$

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

M, Ts

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Based on a 2006~2007 comprehensive survey,

Flora

A botanical survey undertaken by Seoul Metropolitan Government has reported a total of 178 vascular plants species including aquatic plants. The representative species were Korean willows (*Salix koreensis*), pussy willows (*Salix gracilistyla*), common reeds (*Phragmites communis*), mugworts (*Artemisia selengensis*), hops(*Humulus japonicus*), reed canary grass(*Phalaris arundinacea*), silver banner grass (*Miscanthus saccharifloru*) and bulrush (*Scirpus radicans Schkuhr*). Korean willows grow widespread all the time in higher elevation. *Miscanthus sacchariflorus* (Maxim.) dominate in the mid-point of height in the islets whereas bottomland soils are occupied by common reeds (*Phragmites communis*). Mugwort favouring heavy moisture flourishes in May during a rainfall season, and its widespread growth began to decline in June; eventually is replaced by other herbaceous populations such as hops (*Humulus japonicas*). When severe floods occur, the higher survival rates of mugwort (*Artemisia selengensis*), water pepper (*Persicaria hydropiper*) and northern marsh yellowcress (*Rorippa islandica*) populations overrides other plant populations on the islets. At the time, Korean willow populations also die back and subsequently decline in size. In the context of biodiversity maintenance on a longer timeframe, water fluctuation and flooding help enhance plant diversity by inhibiting expansion of predominant species and allowing for inflow of new seeds into the islets.

Mammals

There have not been resident mammals recorded on the islets. A few rodent caves have been found, but it is presumed that rodents were accidently swept away by flooding currents to reach the wetlands especially during heavy storms.

Birds

A total of 47 bird species are identified on the site, and the wetlands are an important wintering habitat for many waterfowls, such as pintails (*Anas acuta*), pochards (*Aythya farina*), common teal (*Anas creca*) and mallards (*Anas platyrhynchos*). Especially in summer, the islets are a breeding ground for seasonal birds, such as black-crowned night herons (*Nycticorax nycticorax*), grey herons (*Ardea cinerea*), spotbills (*Anas poecilorhyncha*), mallards (*Anas platyrhynchos*), great reed warblers (*Acrocephalus orientalis*) and vinous-throated parrotbill (*Paradoxornis webbianus*). Pheasants (*Phasianus colchicus*), Rufous turtle doves (*Streptopelia orientalis*), Black-billed magpie (*Pica pica*) and Eurasian Tree Sparrow (*Passer montanus*) have been common terrestrial species found across the seasons.

In addition, the wetlands allow seasonal migratory birds such as Spot-billed Duck (*Anas poecilorhyncha*) and Black-crowned Night Heron(*Nycticorax nycticorax*) to sustain its populations by utilizing nesting and rearing capacity that the wetlands offer. In the 2006 - 2007 survey, the counts and percentages of the populations of these two species were 545 (15.88%) and 124 (3.61%) respectively occupying the first and the second highest portions of total 3432 populations counted. (new text)

Fish

There are 39 fish species recorded around Bamseom, including the representative species such as steed barbels (*Hemibarbus labeo*), ussurian bullheads (*Leiocassis ussuriensis*), mandarin fish (*Siniperca scherzen*),

skygazers (*Erythroculter erythropterus*) and goby minnows (*Pseudogobio esocinus*). Of these, the endemic fishes were 4 species: Korean striped bitterling (*Acheilognathus yamatsutae*), Korean spined bitterling (*Acanthorhodeus gracilis*), the oily shiner (*Sarcocheilichthys variegatus microoculus*), and Korean oily shiners (*Sarcocheilichthys nigripinnus morii*). The ecotone between upper and lower Bamseoms is well-developed and home to a wide variety of aquatic flora. The waters between upper Bamseom and lower Bamseom are shallow and have a mild flow velocity, creating a primary spawning ground for fishes of Han River.

Other plants and animals

Bamseom has 18 benthic invertebrate species and 44 terrestrial insect species recorded and below are the verified benthic invertebrate species that inhabit the islets. Of terrestrial insect species, Diptera, Homoptera, and Lepidoptera are the most abundant taxonomic groups. Soft-shelled turtles (*Trionyx sinensis*), and Reeve's turtles (*Geoclemys reevesii*), have been found within the proposed Ramsar Site. The exotic Red-eared sliders (*Trachemys scripta elegans*) are also recorded.

Annelida: Chaetogaster limnaei, Limnodrilus gotoi, Limnodrilus sp.1, Neanthes japonica Mollusca: Physa acuta, Limnoperna fortune, Anodonta woodiana, Anodonta arcaeformis, Corbicula fluminea Arthropoda: Eriocheir sinensis

Aquatic Insects: Cercion calamorum, Cercion hieroglyphicum, Stylurus annulata, Chironomidae sp.1. sp2. Sp3. Sp4. Sp6

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) 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 RIS.*

Along the shorelines of both upper and lower Bamseom, Korean Willow trees aged between 4 to 7 years have provided a breeding nest for black-crowned night heron (*Nycticorax nycticorax*) populations.

Eighteen invasive plant species have been identified. In particular, *Sicyos angulatus L., Ambrosia artemisifolia L., and Humulus L.* have been proved to be detrimental to the islets ecosystem by inhibiting the growth of other plant species.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS*.

The islets provide a breeding and staging ground to sustain 10 endangered species especially on a route of East Asian-Australasian Flyway. Species level classification was based on the threatened species list created by Korean Ministry of Environment, and the titles of "Natural Monuments" have been endorsed by Cultural Heritage Administration of Korea.

23. Social and cultural values:

a) Describe if the site has any general social 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:

Bamseom has high social and cultural values. The wetlands have been named as such because it was viewed as a chestnut *(Bam)* from Wau Mountain in the Mapo district of Seoul. They are also nationally renowned as one of the eight grand views of Mapo by tourists. Until 1968, the population on the islets had been 594 consisting of 62 families. Their primary means of making a living included fishing, ferriage (boat-making), goat-grazing, the harvesting of mulberry trees, as well as growing medicinal herbs (licorice roots) and peanuts. For the past centuries, the remarkable boat-making and repairing skills by Bamseom's

residents were very popular across the regional societies even at a long distance up to the upriver regions of Danyang and YoungWeol, and the downriver region of Ganghwa Island, and finally, Seohae (West Sea).

Albeit the islet residents permanently were forced to leave Bamseom in February 1968 because of the Yeoido island development project, a ritual called "Bamseom Bugundanggut" has been taking place every 2nd of January by local residents to wish for the wellbeing, the better communication and cooperation among the people. In December 2004, the ritual was registered as Seoul's Intangible Cultural Asset and has been continuing to thrive today. This cultural event has supported the expansion of people's interests in Bamseom from a broad range of the regional community sectors.

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?

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:

24. Land tenure/ownership:

a) Within the Ramsar site: Owned by the Korean Government (Nature Policy Division - Ministry of Environment)

b) In the surrounding area: Lands along the river: Private ownership (except roads and parks)

25. Current land (including water) use:

a) Within the Ramsar site: Academic research and environmental conservation activities

b) In the surroundings/catchment: Most of catchments of Han River are heavily urbanized.

26. 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 Ramsar site:

Currently there are no on-going or planned developmental activities that have a negative impact on the wetland's ecological characters. However, invasive species such as red-eared sliders (*Trachemys scripta elegans*), hops (*Humulus scandens*), Ragweeds (*Ambrosia trifida for. Integrifolia* (Muhl.) *Fernald*), and one-seeded burcucumber (*Sicyos angulatus*) have been disturbing ecological communities in the wetland. Especially,

one-seeded burcucumbers (*Sicyos angulatus*) has grown widespread under Korean Willows trees, and Ragweeds (*Ambrosia trifida for. Integrifolia* (Muhl.) *Fernald*) have extended widely over the sediment-rich areas with high nutrient levels.

b) In the surrounding area:

Waste inflows after river flooding have damaged temporarily on the survival rates of biological communities in the islets, although the deteriorated rates have been returned to a normal state soon. Also, traffic noises, exhaust gas from automobiles over the bridge or some other types of airborne pollution can be considered to pose a serious potential threat on the communities. However, there has been no clear evidence so far that those factors adversely have affected the islets on a longer timeframe.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar 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 proposed Ramsar site's boundary coincides exactly with the delineation of "Ecosystem and Landscape Region for Conservation (ELRC)" designated by Seoul Metropolitan Government (Aug. 1999). The Government has since 1999 designated seventeen conservation-worthy habitats of Seoul as "Ecosystem and Landscape Region for Conservation". The lawful designation was based on "Natural Environmental Conservation Act of Korea" and Bamseom was the first among Seoul's 17 ELRCs. There is no international designation other than the aforementioned recognition of the habitat at a national level.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia \Box ; Ib \Box ; II \Box ; III \Box ; IV \Box ; V \Box ; VI \Box

c) Does an officially approved management plan exist; and is it being implemented?:

Not applicable

d) Describe any other current management practices:

Water patrols are mandated to monitor the proposed site on a daily basis. Annually, alien animal and plant species that threaten the ecosystem have been removed as a contribution to rehabilitation practice. Each year, during the bird breeding season (before the month of April), intensive environmental cleanliness efforts by Seoul Metropolitan Government has been made to maintain the populations.

28. Conservation measures proposed but not yet implemented: e.g. management plan in preparation; official proposal as a legally protected area, etc.

None

29. Current scientific research and facilities:

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

The proposed site is physically accessible when scientific research is needed. Every five years, formerly established ecological monitoring activities led by the Government have been carried out to pay attention to ecological changes of the site. Within the site monitoring facility or field research station does not exist.

As Ecosystem and Landscape Region for Conservation, Bamseom is monitored for any (potential) negative changes, observing Article 14 of Korea's Natural Environment Conservation Act. On an annual

basis, Seoul Metropolitan Government monitors general ecological changes occurred within Han River including Bamseom, and has been continuing to establish management plans if necessary.

30. 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.

"Bamseom Migratory Birds Watching Station" is located on Yeoi Island, c.a. 0.6 km south from Bamseom. In the field station, binoculrs, telescopes, and information booklets including electronic display system of ecological information including waterbirds help to observe wintering migratory birds in the proposed Ramsar site.

31. Current recreation and tourism:

31. Current recreation and tourism:

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

Not applicable

32. Jurisdiction:

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

Territorial jurisdiction:

Department of Nature Policy - Seoul Metropolitan Government

Functional jurisdiction:

Han River Project Headquarters- Environment Division, Seoul Metropolitan Government

33. 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. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Mr. LEE Jong-Hyeok Director, Environment Division, Han River Project Headquarters, Seoul Metropolitan Government Han River Project Headquarters Address: 642-25, Seongsu-dong 1-ga, Seongdong-gu, SEOUL, KOREA 133-923 Telephone: +82-2-3780-0782

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

- 1) Ecological Monitoring and Management Plan of Han River-Bamseom Ecosystem and Landscape Region for Conservation (2004) & (2007), Seoul Metropolitan Government
- 2) Han River Ecosystem Survey and Analysis (2002), Seoul Metropolitan Government
- 3) Islands of Han River (2009), Yun Jin-Young et al, Mati Books
- 4) Water Information System (2012), Ministry of Environment (National Institute of Environmental Research)
- 5) Wetlands and Environments (2004), Kim Gwi-Gon, Academy Books
- 6) Report on Environmental Monitoring of Wetlands Protected Areas (2009), Ministry of Environment