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.

1. Name and address of the compiler of this form:

Mr. Masahiko Yoshii

Hokkaido Regional Environment Office of Ministry of the Environment Sapporo Daiichi-godochosha 4F Kita 8-jyo Nishi 2-chome, Kita-ku Sapporo-shi, Hokkaido JAPAN 060-0808 Tel 011-299-1954; Fax011-736-1234 e-mail : REO-HOKKIDO@env.go.jp

2. Date this sheet was completed/updated: June 11, 2012

3. Country: Japan

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.

Onuma

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 **Z**; or



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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:

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): \blacksquare ;

ii) an electronic format (e.g. a JPEG or ArcView image)

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 boundary overlaps that of special district the Class 1, Onuma Quasi National Park.

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.

Approximate centre of the site: $41^{\circ}59'16.18''N$, $140^{\circ}40'28''E$ Onuma (centre) : 140° 41' 7"E, 42° 00' 57.3"N Konuma (centre) : 140° 39' 29.7"E, 41° 58' 25"N Junsainuma (centre): 140° 37' 50.4"E, 41° 59' 14.1"N

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.

The Onuma lake is situated in the centre of the Oshima Peninsula, which is located in the south east of Hokkaido, the northernmost of the Japanese islands. This site is in Nanae-cho, Kameda-gun which is about 25km north of Hakodate City, a nucleated city in the south eastern Hokkaido.

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

130m

11. Area: (in hectares)

Onuma : 616ha Konuma : 484ha Junsainuma : 136ha

Total : 1,236ha

12. General overview of the site:

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

The Onuma lake is located roughly in the centre of the Oshima Peninsula. The said area consists of the Onuma, Konuma, Junsainuma lakes surrounded by mountains such as Komagatake (elevation 1,133m), an active volcano and Sawaradake (elevation 1,113m). These are dammed lakes formed by damming up the rivers by the great eruption of Mt. Komagatake in 1640. At the same time, more than 120 islands called "Nagareyama" which were produced by lava flow were formed within the ponds, creating a variety of landscapes of unique appearance.

In addition, volcanic vegetation influenced by the volcanic Komagatake and forests of deciduous broad-leaves trees mainly composed of *Fagus crenata* (Beech) are characteristics of this site. This area is a very important wetland where *Gallinula chloropus* (Common Moorhen), Fulica *atra* (Black coot), *Rallus aquaticus* (Water Rail) and ducks inhabit the waterside every year. As these forests are comparatively well conserved, a number of wild animals are observed including migratory birds which use there as an important point for migration. For this reason, in 1952, this site is designated as the only wildlife protection area under prefectural management.

Furthermore, this site is listed in "500 Important Wetlands in Japan" because of its richness in diversity as shellfish species deriving from boreal regions (*Sphaerium miyadi*) and from Honshu (*Inversuinio jokohamensis*), mainland of Japan, coexist in this wetland.

13. Ramsar Criteria:

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

The site has a unique wetland landscape in the Manchu-Japanese Mixed Forest biogeographic region. This is because the three lakes that make up the site were formed after the eruptions of the nearby Mt. Komagatake, in 1640 which dammed a river that used to flow below. Seen on the surface of the lakes are 126 large and small islands called "Nagareyama" that are of volcanic origin (larva cones). Surrounding the lake is a low moor.

After the volcanic eruption, vegetation slowly colonized the site and the forest is now dominated by *Fagus crenata*, of which the site is the northern most limit. The site is also know for the diversity of shellfish species from the boreal regions and from Honshu (mainland Japan).

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: Manchu-Japanese Mixed Forest

b) biogeographic regionalisation scheme (include reference citation):

Udvardy, M. D. F. (1975). A classification of the biogeographical provinces of the world. IUCN.

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.

Geology: The Onuma, Konuma, Junsainuma lakes and their surroundings are covered by the eruptions of Mt.Komagatake and alluvial floodplain deposits are developed consisting mainly of sand and peat. Lithofacies composing small islands are hypersthene, and angular gravels and volcanic sand of normal pyroxene andesites.

Geomorphology : This area is a plateau more than above 100 m sea level. The Onuma, Konuma and Junsainuma lakes are connected by the waterways called "sebatto" (literally meaning narrow doors). Surrounded by the mountains, Mt. Komagatake (elevation : 1,133m), a composite volcano in the north, Mt.Yokotsudake (elevation : 1,167m) in the south, and Mt.Kijibikiyama (elevation : 683m) in the west stand respectively. 126 of big and small islands, unique volcanic geographic features are seen dotted on the water surface.

Origins : Natural. This is a dammed lake, dammed up by the eruptions of Mt.Komagatake in 1640.

Hydrology: Main inflowing rivers are Shukunobe River in the west of Onuma, Karima River in the south east, and Ikusa River in the south. From the outlet named Choshiguchi which is situated in the east of the Onuma lake, the flow out to Orito River is normally stopped but from Konuma side, it flows out for the electric power generation use and agricultural use.

Water quality: at Onuma

pH : 7.3 Cl- : 12.8mg/L Alkali : 0.473meq/L DO :11.2mg-O₂ /L $\begin{array}{l} COD: 4.1mg\text{-}O_{2\,/L} \\ TOC: 2.7mg\text{-}C/L \\ TN: 0.5mg\text{-}N/L \\ TP: 0.038mg\text{-}P/L \\ Chl\text{-}a: 14.6\mu g/L \end{array}$

Water depth: at Onuma, average 6.4 m, maximum 13.6m,

: at Konuma, average 2.3 m, maximum 5m,

: at Junsainuma, average 3m, maximum 5.4m

Water fluctuation: There is a diversion dam at Konuma for electric power generation (Hokkaido Electric Power Co., Ltd.). It is also used as agricultural water by the land improvement district in the Oshima Plain. For that reason, in Omuna and Konuma, water level is controlled and in Junnsainuma, there is no control of water level.

General climate :

Annual precipitation: 1097.3mm, annual mean temperature: 8.1degrees Celsius, fluctuation of monthly mean temperature: minus 3.2 to 20.9degress Celsius. These data are observed at the observation points in the forest relatively near Onuma and the data pertain to 2002-2010 average.

17. Physical features of the catchment area:

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

Surface area: 196.50 square km

General geology and geomorphological features: This area is a plateau surrounded by the mountains of which Mt. Komagatake is marked as distinguished. A number of "Nagareyama" (small lava cones) which pertain to the eruption of Mt. Komagatake are observed dotted on the water surface and it is one of the characteristics of the landscape. Small islands seen within the lakes are top parts of these "Nagareyama" shown on the water surface.

General soil types: sandy soil and peaty soil

General climate :.

Annual precipitation : 1097.3 mm, annual mean temperature : 8.1 degrees Celsius, fluctuation of monthly mean temperature : minus 3.2 to 20.9 degress Celsius. X These data are observed at the observation points in the forest relatively near Onuma and the data pertain to 2002-2010 average.

18. Hydrological values:

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

As mentioned, because this area itself is a dammed lake established by the eruptions of Mt. Komagatake, it is utilized for the purpose of flood control. Accordingly, it is a type of reservoir.

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/coastal: ABCDEFGHIJKZk(a)Inland:LMN \bigodot \bigcirc PQRSpSs \fbox \fbox TsUVaVtWXfXpYZgZk(b)TsUVaHuman-made:123456789Zk(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.

O, Tp

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.

In terms of vegetation, this area belongs to the northern beech (*Fagus crenana*) forest zone and incident to beech trees, *Pterocarya rhoifolia* (Japanese Wingnut), *Eleutherococcus sciadophylloides, Viburnum furcatum*, etc. are often observed. The undergrowth is commonly *Sasa kurilensis*.

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*.

Nuphar pumilum, VU*1, Vu*2 Sparganimu erectum (Bur Reed), NT*1, R*2 Utricularia aurea (Bladderworts), NT*1, R*2 Potamogeton alpinus(Alpine Pomdweed), VU*1 Ceratophyllum demersum (Coon's Tail), R*2 Pogonia japonica (Japanese Pegonia), NT*1, Vu*2 Pogonia minor, En*2 Glaudicium palmatum (Japanese Wood Poppy), Vu*2 Persicaria amphibian (Water Smartweed), Vu*2

 Note : *1 Red List of Threatened Wildlife of Japan, Ministry of the Environment CR : Critically Endangered, EN : Endangered, VU : Vulnerable, NT : Near Threatened *2 Red List of Threatened Wildlife of Hokkaido, Hokkaido Prefectural Government En : Endangered, Vu : Vulnerable, R : Rare

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 supplied as supplementary information to the RIS*.

(Birds)

Haliaeetus albicilla albicilla (White-tailed Eagle), EN*1, LC*2, national endangered species*3, En*4

Haliaeetus pelagicus pelagicus (Steller's Sea Eagle), VU*1, VU*2, national endangered species*3, En*4

Accipiter gentilis fujiyamae (Northern Goshawk), NT*1, LC*2, national endangered species *3, Vu*4

Drycopusmartius martius (Black Woodpecker), VU*1, LC*2, Vu*4

Mergus albellus (Smew), Vu*4

Anser albifrons frontalis (Greater White-fronted Goose), NT*1, R*4

Coturnix japonica (Japanese Quail), NT*1, R*4

Halcyon coromanda major (Ruddy Kingfisher), R*4

Tetrastes bonasia vicinitas (Hazel Grouse), LC*2, R*4 Dendrocopos minor anurensis (Lesser Spotted Woodpecker), R*4

(Fish) *Pungitius tymensis*, R*4

(Insects) Copris ochus (Homed Dung Beetle), VU*1, R*4

(Shellfish)

Shellfish species deriving from boreal regions (*Sphaerium miyadi*) and from Honshu (*Inversuinio jokohamensis*), mainland of Japan, coexist in this wetland.

Birds Cygnus olor (Mute Swan)

Reptile Rana catesbeiana (Bullfrog) Rana rugosa (Wrinkled Frog)

Fish Carassius cuvieri (Gengoro-buna) Cyprius carpio (Asian Carp) Pseudorasbora parva (Stone Moroko)) Carassius auratus langsdorfii (Gin-buna)

Insect Trypoxy dichotoma septentrionalis (Beetle)

Plant Bidens frondosa (Stickyright) Rudbeckia laciniate (Cutleaf coneflower) Conyza canadeasis (Canadian fleabaue) Plantago lanceolata (Bbuckhorn plantain) Hypochoeris radicata(Catsear) Robinia pseudoacacia(False Acacia) Solidago gigantean Aiton var. leiophylla Fern (Late goldenrod)

Note :

*1 Red List of Threatened Wildlife of Japan, Ministry of the Environment. CR : Critically Endangered, EN : Endangered, VU : Vulnerable, NT : Near Threatened *2 IUCN Red List of Threatened Species. VU : Vulnerable, LC : Least Concern *3 Law for the Conservation of Endangered species of Wild Fauna and Flora, Designated national endangered species *4 Red List of Threatened Wildlife of Hokkaido, Hokkaido Prefectural Government. En :

Endangered, Vu : Vulnerable, R : Rare

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:

Onuma lake area though situated in Hokkaido, is in the vicinity to Honshu, the mainland of Japan, and records from comparatively old times still remain. Especially, the Japanese garden like landscape formed by Mt.Komagatake and small islands "Nagareyama" represent an excellent scenic beauty and according to "Hokuyu Journal" written in 1810, the beauty of this area was described as stunning.

In Onuma lake area, *Hypomesus nipponensis* (Japanese Smelt), *Cyprinus carpio* (Common Carp), and *Carassius carassius* (Crucian Carp) are fish catches. In Junsainuma, "Junsai", *Brasenia schreberi*, is collected. (Economically, *Brasenia schreberi*, Water Shield, has been cultivated as a vegetable in China and Japan.) Sightseeing boats, boating and canoeing are touristic activities but small in scale respectively. At Ono Plain, it is used for agricultural water.

As mentioned before, citizens in Hakodate are in close contact with this area and it seems that they have been considering it as their garden in a sense rather than the great nature. Accordingly, that is to say, as it has been considered as their own garden, the area has been kept clean and undestroyed. This is a case not very often seen in the natural parks in Hokkaido as well as in Japan.

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 **D** 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:

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National land : 1,177ha Public land : 59ha Private land : 0ha (less than 1ha)

b) in the surrounding area:

National land: the Forestry Agency Municipal land: Hokkaido Prefecture Municipal land: Nanaetown

Private land

25. Current land (including water) use:

a) within the Ramsar site:

Water for agriculture, water for power generation, tourism (sightseeing boat, cycling, fishing, camp etc.), ecotourism, fisheries (*Hypomesus nipponensis Cyprinus carpio*, and *Carassius* sp).

b) in the surroundings/catchment:

Natural forests, secondary forests, grasslands, natural grasslands, farmlands, golf links, camp sites, parks, seminar house, cattle sheds

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:

(Past)

Eutrophication caused by miscellaneous waste water of the Onuma urban district (Present) Eutrophication caused by agriculture and stockbreeding effluent

b) in the surrounding area:

(Present)

Invasion of alien species Eutrophication caused by agriculture and stockbreeding effluent

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.

Onuma Quasi-National Park, Class 1, Special District, 1,236ha (National Parks Law) Such activities as erecting structures, collecting pebbles, increasing or decreasing water levels and water quantity, and reclamation require permission from the prefectural governor of Hokkaido. In addition, as the Ramsar site, this area is will be also designated as the "designated wetland" by the ordinance for enforcement of the Natural Parks Law regulated in the article 11-3, item 3. Consequently, regarding the approval and authorization in context of the regulation by the ordinance for enforcement of the Natural Parks Law, article11-3, item 3,4,5, additional discussions from the Prefectural governor of Hokkaido to the Minister of the Environment is to be held. In 1922, because of this beautiful scenery, Hokkaido Onuma Park was established and further on July 1, 1958, it is designated as the first quasi-national park in Hokkaido.

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 \checkmark ; III \Box ; IV \Box ; V \Box ; VI \Box

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

Whole area in the Special Protection Area of Wildlife Protection Area and the part of the area in the Wildlife Protection Area, both designated by Hokkaido prefecture.(1,236ha)

d) Describe any other current management practices:

Project for the utilization of self-purification of Onuma lakes (responsible organization : Nanae-cho, assisted by Ministry of the Environment).

At usable fallow fields in object regions, conducting the enhancement of self-purification such as planting reeds, installation of permeable materials, improvement of filed underground distributing pipes, verifying the benefits of the self-purification functions, with the use of fallow fields and forest areas, intended to improve the water quality of the Onuma lakes.

Development project for agriculture promotion facilities etc. (project for environmental improvement of livestock wastewater). Responsible organization : Nanae-cho, assisted by Hokkaido Prefecture).

Intended to improve the water quality in Onuma, waste water treatment facilities for rinse water used for milking etc. from the animal quarters are to be improved.

Onuma environmental improvement project (responsible organization: Hakodate construction management division, Oshima promotion bureau, Hokkaido Prefecture). Bank protection works and restoration for the destroyed parts and measures for shore protection for the islands.

Project for preservation of water quality at Oshima and Onuma (responsible organization : environmental living section, Oshima promotion bureau, Hokkaido Prefecture). Intended to improve the water quality of Onuma, which exceeds the environment standard, measures for the preservation water quality is to be conducted. Instalment of carbon fibres and bank protection works by emergency employment measures are carried out.

Plan for soil-erosion control works of Ikusa River (responsible organization: Hakodate construction management division, Oshima promotion bureau, Hokkaido prefecture). Planning stage.

Extermination of alien species for the recovery of vegetation (responsible organization : Natural Parks Foundation, Onuma Branch). For the extermination of alien species, *Rudbeckia laciniata* is eradicated regularly surrounding Onuma areas.

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.

None

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.

Onuma shizen fureai center (centre for the experience of the nature) : a facility to offer information regarding the nature in Onuma Management body : Natural Parks Foundation, Onuma Branch

Park Information Onuma : an existing facility to offer information regarding the Onuma Park in general

Management body : Natural Parks Foundation, Onuma Branch

Onuma International Communication Plaza : an existing facility to offer information regarding the Onuma Park in general including experiences of activities etc. in a natural environment etc. Management body : Nanae Onuma international tourism convention association

Onuma International seminar house : There are promenades. Management body : Nanae-cho

Onuma furusato-no-mori (hometown forests) nature school : a facility for environmental education

Management body : Specified non-profit corporation Onuma and Komagatake furusato-zukuri (hometown) centre

International Work Camp : It is to invite volunteers all over the world and environmental conservation activities in Onuma are carried out. Management body : Hokkaido International Foundation

Oshima Onuma youth environment summit : Young people in Oshima district in Hokkaido learn about the environment of Onuma and propose policies regarding environmental conservation to Nanae-cho. Management body : Hakodate campus, Hokkaido University of Education

31. Current recreation and tourism:

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

At Onuma Koen Station, next to the nearest station to the Onuma lake, Japan Railways, "Onuma International Communication Plaza" which assumes the role of the information centre for Onuma tourism, is installed. At this facility, outdoor experience programmes such as walking trails, horse riding, and canoeing are introduced and the information on the animals and plants that can be observed in Onuma, are offered.

In addition, surrounding "Onuma shizen fureai center" (centre for the experience of the nature) which is located between Onuma and Konuma, Onuma lakeside walking trails which extend about 2km in all are provided. There is a walking trail also at the Onuma International seminar house at the west side of the lake, enabling to enjoy bird watching activities.

Annual tourists in Onuma are about 2,000,000, remaining at the same level for these few years, though there were 2,970,000 tourists in 1991 which is marked as the peak period. As for stay-type guests, there is a tendency to decrease since a drop below 300,000 in 1993. Annual stay-type guests in 2007 are 97,670, transit-type guests outnumbering stay-type guests.

32. Jurisdiction:

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

Territorial jurisdiction Hokkaido Prefecture

Functional jurisdiction Onuma Quasi-National Park (Hokkaido Prefecture)

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. Masahiko Yoshii Hokkaido Regional Environment Office of Ministry of the Environment Sapporo Daiichi-godochosha 4F Kita 8-jyo Nishi 2-chome, Kita-ku Sapporo-shi, Hokkaido JAPAN 060-0808

Tel 011-299-1954 Fax011-736-1234 e-mail : REO-HOKKIDO@env.go.jp

34. Bibliographical references:

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

- Environment Agency, 1993, "The Fourth National Survey on the National Environment Report on Lake and Marsh"
- Environment Agency, 1995, "The Fifth National Survey on the National Environment Report on Wetland"
- National Park Association of Japan, 1987, "Report on the Basic Survey of Onuma Quasi-National Park"

Hokkaido Prefecture, 2002, "Plan for the designation of wildlife protection area by Hokkaido Prefecture, Plan for the designation of Onuma special protection area of wildlife protection area by Hokkaido Prefecture"

- Hokkaido Prefecture, 2006, "Report on the review of the project in associating with wild animals like in Hokkaido"
- Nature Conservation Bureau, Ministry of the Environment, 2002, "500 Important Wetlands in Japan"

Hokkaido Institute of Environmental Sciences, 2005, "Lake and marsh in Hokkaido" revised

- Ministry of the Environment, 2002, revised, "Threatened Wildlife of Japan-Red Data Volume-2.Birds
- Ministry of the Environment, 2003, revised, "Threatened Wildlife of Japan-Red DataVolume-4.Pisces-Brackish and Fresh Water Fishes"

Environment Agency, 2000, revised, "Threatened Wildlife of Japan-Red Data Volume-8.Vascular Plants I"

Ministry of the Environment, 2006, revised, "Threatened Wildlife of Japan-Red Data Volume-5.Insects"

- Hokkaido Prefecture, 2001," Threatened Wildlife of Hokkaido, Hokkaido Prefecture, Red Data Book"
- Research Network on Natural History, 2000, "Minami Hokkaido" (Southern Hokkaido), 2009, Oshimangraphy
- Department of Botany, School of Agriculture, Hokkaido University, 1961, Iconography of Vegetation of the National Forests in Japan (VII), "Riparian trees in the northern part of *Fagus crenata* forest zone"
- Kuromatunai Natural Science Research Grant Committee, "Buna" (Fagus crenata) Centre Award research report 2001, "Is Fagus crenana moving to the north?"