

Information Sheet on Ramsar Wetlands (RIS) – 2006-2008 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 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
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.

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

December 10, 2006

3. Country:

Republic of Kazakhstan

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.

NAURZUM LAKE SYSTEM

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:

or

If the site boundary has changed:

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

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

Vector format shape file

Projection: Gauss- Kruger

Datum: Pulkovo 1942

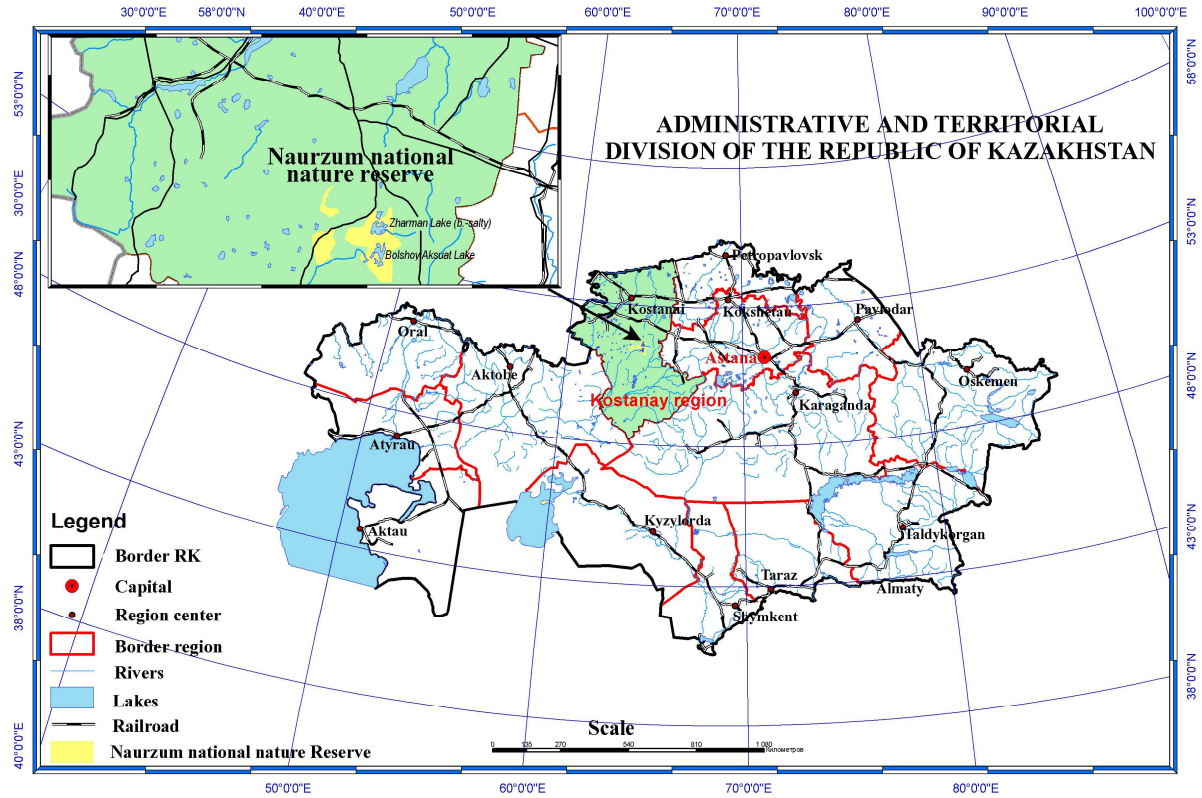
Spheroid Krassovsky 1940

b) Describe briefly the type of boundary delineation applied:

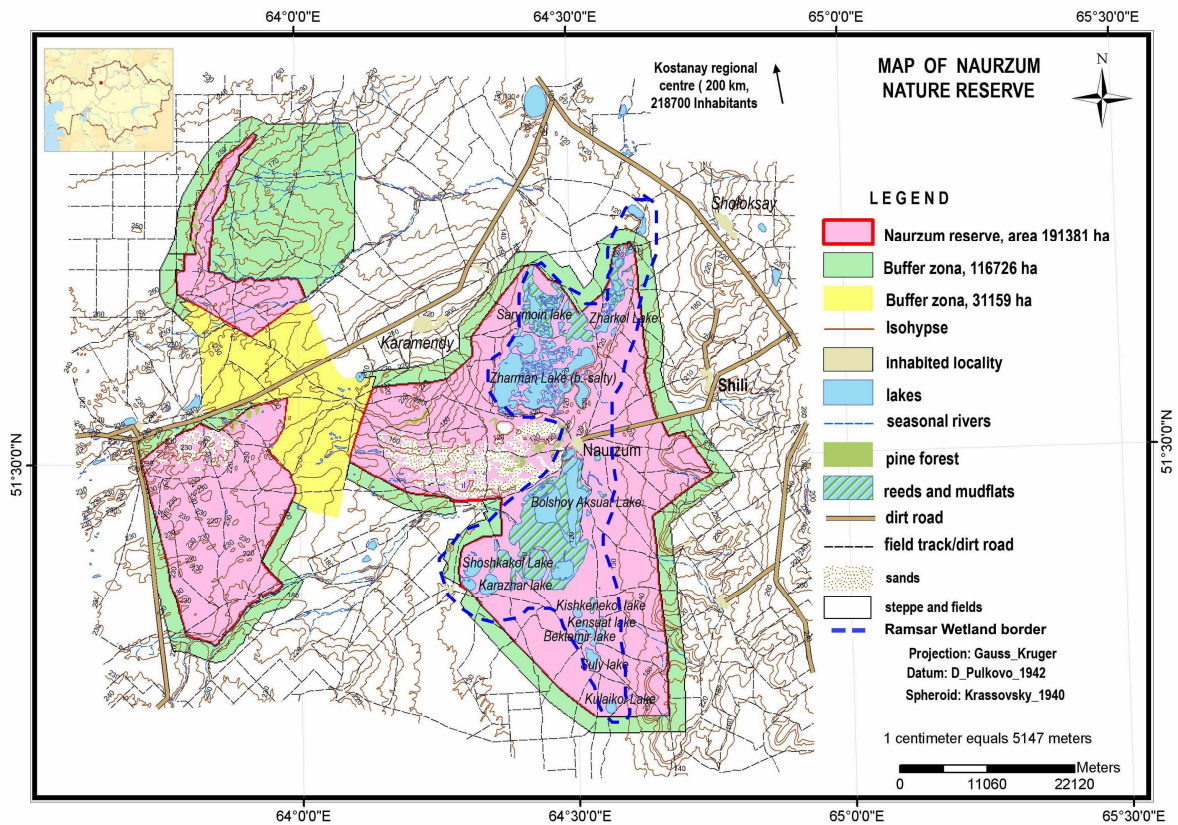
e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The whole wetland is located within the borders of Naurzum State Nature Reserve (central part), clearly indicated on the territory by plough land, border posts and signs.

Location map of the site within the territory of site in Kazakhstan



Ramsar site boundary of the reserve



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.

51°12'-51°47' north latitude, 64°17'-64°36' east longitude

Wetland centre: 51° 32' north latitude, 64° 26' east longitude;

Smal Aksuat Lake – N 51° 30' 190" E 64° 28' 598" ; Big Aksuat - 53° 30' 110" 64° 30' 289" ;
Karazhar - 51° 30' 273" 64° 30' 285" ; Chushkali - 51° 21' 128" 64° 18' 411" ; Lebedinyi -
51° 30' 110" 64° 30' 289" ; Suli - 51° 17' 422" 64° 31' 096" ; Kulagol - 51° 12' 543"
64° 32' 513" ; Zharkol - 51° 38' 457" 64° 32' 725" ; Kemel - 51° 21' 469" 64° 26' 059"

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.

Naurzum district of Kostanai region, Kazakhstan; 200 km to the south from the administrative centre of the region, i.e. Kostanai city.

Within the wetland borders there is no population; 4540 people live in the administrative centre of Naurzum district, i.e. Karamendy village, which is located at a distance of 12 km from the nearest lake of the Lake System.

Geographically the wetland is located in the central part of Turgay depression to the south of Tobol-Ishim watershed.

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

Minimal height of the territory – 115.4 m above sea level, maximal – 120.1 m.

11. Area: (in hectares)

The total area of the wetland is 139714 ha

The area of the wetland including the lake hollows with pre-shore eco-systems and areas between the lakes, makes up 85000 ha. The area of the very lakes reaches 38000 ha, but depending on the status of water cut the water area changes within significant limits. Here is the area of the largest lakes at the average level of their water cut: Aksuat lake – 12300 ha, Sarymoin – 7870; Zharkol – 1264, Presnoye – 650, Shoshkaly – 510, Kemel – 371, Karazhar – 362 ha. The length of the Wetland from the north to the south is about 60 km.

The Central part of Naurzum reserve, which contains the wetland, occupies 139714 ha.

12. General overview of the site:

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

This is a system of large and small lakes, including all number of water basins by hydrochemical composition of water and character of overgrowing – from fresh till bitter-salty ones. This territory is widely represented by various types of steppe, pine and parvifoliate forests; saline soil and dark alkaline soil as well as inundable meadows and complexes of desert types of vegetation are also widely spread here. The most characteristic feature of lakes of this region as well as of arid territories in the whole, is a cyclic hydrologic regime, where periods of water filling and drying up interchange every 12-15 years. During the years of water filling Naurzum lakes become a region of mass nesting and moulting for water birds and wetland birds: *Anseriformes*, *Rallidae*, *Podicipediformes*, *Laridae*, *Pelecaniformes* - White (*Pelecanus onocrotalus*) and Dalmatian Pelican (*Pelecanus crispus*), *Ciconiiformes* and *Limicolae*. Being located on the way of one of the biggest flyways, Naurzum Lake System serves as a place for long stops for hundred thousands birds during migration period. Here such rare and disappearing bird species as Lesser White-fronted Goose (*Anser albifrons*), Red-breasted Goose (*Branta ruficollis*), Siberian Crane (*Grus leucogeranus*), Whooper Swan (*Cygnus cygnus*), Bewick's Swan (*Cygnus bewickii*) and Velvet Scoter (*Melanitta fusca*) make their stops. The territory maintains the sustainable existence of the largest in Kazakhstan nesting groups of White-tailed eagle (*Haliaeetus albicilla*),

Imperial eagle (*Aquila heliaca*), and also of Golden eagle (*Aquila chrysaetos*) and Saker falcon (*Falco cherrug*).

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.

1 • 2 • 3 • 4 • 5 • 6 • 7 8 • 9

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. Naurzum Lake System is a classic example of water basins of arid and sub-arid regions (Asian steppes) characterized by cyclic hydrologic regime. This unique nature mechanism is determined by perennial climatic cycles of watering and ensures duration of lake eco-system existence. Periodical drying up of undrained lake hollows prevents them from fast salting and silting. Naurzum lakes have been one of those objects on study basis of which special features of hydrologic regime of lakes of arid and sub-arid territories of Central Asia, regular patterns of eco-system change, including the animal population in accordance with the periodicity of watering, and the significance of this phenomenon were established. Despite the significant anthropogenic transformations of steppe landscapes in the second half of the twentieth century the wetland was in the position close to natural and still keeps to a cyclic hydrologic regime.

Criterion 2. Naurzum Lake System with adjacent parts of steppes and island forests ensures the existence of 20 bird species belonging to the category of vulnerable or endangered ones. A whole number of vulnerable and endangered species is more or less connected with lake and adjacent eco-systems. Naurzum maintains the existence of the largest in Kazakhstan nesting groups of Imperial eagle (*Aquila heliaca*) (40 pairs), White-tailed Sea Eagle (*Haliaeetus albicilla*) (20-22 pairs), Saker falcon (*Falco cherrug*) (16-18 pairs) and Pallid harrier (*Circus macrourus*); this is one of those few places famous for permanent nesting of the Sociable Lapwing (*Vanellus gregarius*). Here a large population of Little bustards (*Tetrax tetrax*) (600-800), Black-winged Pratincole (*Glareola nordmanni*) and Demoiselle Crane (*Anthropoides virgo*) live. Among wetland birds Dalmatian and White Pelican (*Pelecanus crispus* & *P. onocrotalus*) and White-headed Duck (*Oxyura leucocephala*) nest here in favorable years (from the point of ecological conditions), at the period of fly-by the Siberian Crane (*Grus leucogeranus*), the Lesser White-fronted Goose (*Anser erythropus*) and the Red-breasted Goose (*Branta ruficollis*) make their stops here. Island forests are located at the very south of the plain Kazakhstan and they are the most vulnerable to influence of negative factors.

Table 1

Criterion 2.

Species identified as vulnerable, endangered or critically endangered under national endangered species legislation/programs and international frameworks

N	English Name	Scientific Name	IUCN Status	CITES Status	CMS	National Status
1	White Pelican	<i>Pelecanus onocrotalus</i>	LC		I/II	I
2	Dalmatian Pelican	<i>Pelecanus crispus</i>	VU	I	I/II	II
3	Whooper Swan	<i>Cygnus cygnus</i>	LC		II	II
4	Bewick's Swan	<i>Cygnus columbianus</i>	LC		II	V
5	Lesser White Fronted Goose	<i>Anser erythropus</i>	VU		I/II	II
6	Red-breasted Goose	<i>Branta ruficollis</i>	EN	II	I/II	II

N	English Name	Scientific Name	IUCN Status	CITES Status	CMS	National Status
7	Ferruginous Duck	<i>Aythya nyroca</i>	NT		I/II	III
8	White-headed Duck	<i>Oxyura leucocephala</i>	EN	II	I	I
9	White-tailed Sea Eagle	<i>Haliaeetus albicilla</i>		II	I/II	II
10	Imperial Eagle	<i>Aquila heliaca</i>	VU	I	I/II	III
11	Golden Eagle	<i>Aquila chrysaetos</i>		II	II	III
12	Great Spotted Eagle	<i>Aquila clanga</i>	VU	II	I/II	
13	Steppe Eagle	<i>Aquila nipalensis</i>		II	II	V
14	Pallid Harrier	<i>Circus macrourus</i>	NT	II	II	
15	Red-footed Falcon	<i>Falco vespertinus</i>	NT	II	II	
16	Saker Falcon	<i>Falco cherrug</i>	EN	II	II	I
17	Siberian Crane	<i>Grus leucogeranus</i>	CR	I	I/II	I
18	Common Crane	<i>Grus grus</i>		II	II	III
19	Demoiselle Crane	<i>Anthropoides virgo</i>		II	II	V
20	Little Bustard	<i>Tetrax tetrax</i>	NT	II		II
21	Black-winged Pratincole	<i>Glareola nordmanni</i>	NT		II	
22	Sociable Lapwing	<i>Vanellus gregarius</i>	CR		I/II	I
23	Pallas's Gull	<i>Larus ichthyaetus</i>				II
24	Saiga	<i>Saiga tatarica</i>	CR	II	II	II

Criterion 3. The territory maintains landscape and biologic biodiversity that is unique for the steppe zone, including 687 species of higher plants, 10 species of fish, 3 species of amphibians and reptilians, 291 bird species, including 158 nesting and 45 animal species, and also contains almost all types of habitats that can be found in the region.

There are 4 species of endemic plants are available here: Kyrgyz birch (*Betula kirghisorum*), Kustanai astragalus (locoweed) (*Astragalus kustanaicus*), Kyrgyz thyme (*Thymus kirgisorum*), dolichocarpous toadflax (*Linaria dolichocarpa*),

Criterion 4. In periods of watering Naurzum Lake System has a great significance as a place of mass moulting of many kinds of ducks and swans, gathering here not only from the Northern Kazakhstan but also from neighboring regions of the Western Siberia. Being located on the way of one of the biggest flyways, Naurzum Lake System serves as a place for long stops for hundred thousands birds during migration period. Here such rare and disappearing bird species as Lesser White-fronted Goose (*Anser erythropus*), Red-breasted Goose (*Branta ruficollis*), Siberian Crane (*Grus leucogeranus*), Whooper Swan (*Cygnus cygnus*), Bewick's Swan (*Cygnus bewickii*) and Velvet Scoter (*Melanitta fusca*) make their stops. The territory maintains the sustainable existence of the largest in Kazakhstan nesting groups of White-tailed eagle (*Haliaeetus albicilla*), Imperial eagle (*Aquila heliaca*), and also of Golden eagle (*Aquila chrysaetos*) and Saker falcon (*Falco cherrug*).

In dry, droughty periods separate reservoirs of Naurzum Lake System keep their water, thus, providing an opportunity for water animals to survive in unfavorable conditions and places of stops for migratory birds as well as supporting the existence of big hoofed mammals: Eurasian Elks (*Alces alces*), Roe Deer (*Capreolus pygargus*) and Eurasian Wild Pig (*Sus scrofa*).

The following rare species can be seen nesting: White (*Pelecanus onocrotalus*) and Dalmatian Pelican (*Pelecanus crispus*), Whooper Swan (*Cygnus cygnus*), White-headed Duck (*Oxyura leucocephala*), Pallas's gull (*Larus ichthyaetus*), Sociable Lapwing (*Chettusia gregaria*).

Criterion 5. Naurzum Lake System maintains the existence of great number of water fowl especially in periods of flooding. About 46000 ducks and geese were recorded by on-ground method at two lakes in June – beginning of July, 1966. 40,600 individuals were recorded at three lakes in July, 1971, 26000-30000 – in 1988-1993. According to avia-records (Vinogradov, Auezov, 1995) a total population of water fowl (swans, geese, ducks and coots) at all the lakes reached 40200 individuals in August 1985, 237 thousand – 1987, 160,4 thousand – in 1988. 28,5 thousand of waterfowl were recorded by on-ground method at 30% of the wetland area in 2002. There were more than 26 thousand ducks, geese, coots and swans (Gordiyenko, 1978) at two lakes with the total area of 1800 ha in September of the dry year, 1977. During the autumn flight in 1966-1967 the population of geese made up from 100-150 up to 500 thousand individuals (Solomatin, 1968, 1971), and 250-300 thousand – in 1993-95. After depression had ended up in 2002 the following data was recorded: in 2003 – 21,2 thousand individuals, in 2004 – 34 thousand individuals, in 2005 – about 60 thousand individuals.

Table 2 **Criterion 5.**

N	English Name	Scientific Name	Number of individuals (min-max)	Season Recorded e.g. winter, migration, breeding season
1	Red-necked Grebe	<i>Podiceps grisegena</i>	280-2400	Breeding
2	Great Crested Grebe	<i>Podiceps cristatus</i>	90-4000	Breeding
			244-741	Migration
3	Dalmatian Pelican	<i>Pelecanus crispus</i>	351-462	Summer (non breeder), migration
4	White Pelican	<i>Pelecanus onocrotalus</i>	320-500	Breeding 1993-1997, summer, migration
5	Whooper Swan	<i>Cygnus cygnus</i>	178-3380	Autumn migration 1986-2007
			150-600	Moulting
6	Greylag Goose	<i>Anser anser</i>	3106-20000	Autumn migration 1986-2007
			2000-8000	Moulting 1986-2007
7	White-fronted Goose	<i>Anser albifrons</i>	3000-70000	Autumn migration 1986-2007
8	Lesser White Fronted Goose	<i>Anser erythropus</i>	окт.49	Autumn migration 1986-2007
9	Red-breasted Goose	<i>Branta ruficollis</i>	149-2500	Autumn migration 1986-2007
10	Gadwall	<i>Anas strepera</i>	1500-2000	Moulting 1986-2007
			1142-7466	Autumn migration 1986-2007
11	Pintail	<i>Anas acuta</i>	1500-12000	Moulting 1986-2007
12	Wigeon	<i>Anas penelope</i>	1500-4000	Moulting 1986-2007
13	Common Pochard	<i>Aythya ferina</i>	8000-10000	Moulting J1986-2007
14	Tufted Duck	<i>Aythya fuligula</i>	1562-9238	Autumn migration 1986-2007
15	Coot	<i>Fulica atra</i>	6000-8000	Breeding 1986-1996
			4605-9355	Autumn migration 2005-2007
16	Black-winged Pratincole	<i>Glareola nordmanni</i>	50-300	Breeding 1999-2004
17	Black-tailed Godwit	<i>Limosa limosa</i>	321-1800	Autumn migration 1986-2007

N	English Name	Scientific Name	Number of individuals (min-max)	Season Recorded e.g. winter, migration, breeding season
18	Eurasian Curlew	<i>Numenius arquata</i>	4619	Autumn migration 2007

Criterion 6. Naurzum Lake System is critically important for disappearing white crane – Siberian Crane (*Grus leucogeranus*), in the period of autumn migration up to 100 % species of the Western (Ob) population make their stops here for the period of up to 3-4 weeks. Besides, in 2003-2005 no less than 5% of the Siberian-Caspian population of Bewick's Swan (*Cygnus columbianus*), up more than 25 % of the North Europe-West Siberia population of Lesser White-fronted Geese (*Anser erythropus*) and in some years (2003) more than 5% of the population of Red-breasted Geese (*Branta ruficollis*) made their stops here as well. In favorable years from the point of ecological conditions the level of 1 % of population has been increased for Dalmatian Pelican (*Pelecanus crispus*) of South.-West/Central-South Asia (nesting – up to 42 pairs, staging and flying-by – 400) and White Pelican (*Pelecanus onocrotalus*) (nesting – up to 250, staging and flying-by – 150-300). No less than 1 % of the total population of Sociable Lapwing (*Vanellus gregarius*) is nesting in the wetland region. Some other species exceed 1% threshold also in certain years

Table 3 **Criterion 6.**

N	English Name	Scientific Name	Subspecies/Population (if applicable)	Count (min-max)	1% Threshold
1	Black-necked Grebe	<i>Podiceps nigricollis</i>	West-Central-South Asia	129-838	250
2	Red-necked Grebe	<i>Podiceps grisegena</i>	West Asia-Caspian	280-2600	150
3	Great Crested Grebe	<i>Podiceps cristatus</i>	West Asia-Caspian	344-4000	100
4	White Pelican	<i>Pelecanus onocrotalus</i>	East Europe-West Asia	320-500	270
5	Dalmatian Pelican	<i>Pelecanus crispus</i>	S.-West/Central-South Asia	187-462	75
6	Great Egret	<i>Egretta alba</i>	SW Central Asia	96-500	250
7	Whooper Swan	<i>Cygnus cygnus</i>	West-Central Siberia-Caspian	178-3380	200
8	Greylag Goose	<i>Anser asner</i>	West Siberia rubrirostris	3106-20000	2500
9	White-fronted Goose	<i>Anser albifrons</i>	North&West Siberia	3000-70000	150
10	Lesser White Fronted Goose	<i>Anser erythropus</i>	North Europa-West Siberia	602560	100
11	Red-breasted Goose	<i>Branta ruficollis</i>	World population	149-2500	385
12	Shelduck	<i>Tadorna tadorna</i>	West Asia-Caspian	150-1200	800
13	Gadwall	<i>Anas strepera</i>	West Siberia-S.-W. Asia	1142-7466	1300
14	Northern Pintail	<i>Anas acuta</i>	West Siberia, -S.-W. Asia	587-12000	7000

15	Common Pochard	<i>Aythya ferina</i>	West Siberia-S.-W. Asia	1685-10000	3500
16	Tufted Duck	<i>Aythya fuligula</i>	West Siberia-S.-W. Asia	1562-9238	2000
17	White-headed Duck	<i>Oxyura leucocephala</i>		12-100	75
18	Siberian Crane	<i>Grus leucogeranus</i>	West Siberia	1-3	1
19	Sociable Lapwing	<i>Vanellus gregarius</i>	South-E. Europe & West Asia	14-30	8
20	Eurasian Curlew	<i>Numenius arquata</i>	South-E. Europe & South -West Asia	350-4619	1000

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:

Province of Pontic steppes of Palearctic region

b) biogeographic regionalisation scheme (include reference citation):

Scheme of M. Udvardy (M.D. Udvardy, 1975)

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 and geomorphology. The wetland is located in the central part of Turgay depression which is a plain 30-50 km wide with average actual elevation of 120-125 m above sea level. From the west and east the depression has well-defined cleves rising up to the level of plateau with actual elevation of 200-250 m. The bottom of the depression is formed with upper-quaternary fluviolacustrine sandshale sediments, the depth of which reaches 60 m.

Soil. This territory is referred to Kazakhstan arid steppe province with dark chesnut and chesnut soils. Low geomorphologic levels of the bottom of Turgay depression and lake hollows are characterized with meadow alkaline soils and complexes of steppe dark alkaline soil with chesnut alkaline and meadow alkaline soils on salinized clays and heavy loams.

Hydrology. The wetland consists of 14 big lakes with the area of from 190 ha up to 12300 ha and 12 lesser ones divided by Naurzum pine forest into two groups. When the water level goes down, the part of the lakes breaks down creating several reservoirs. When the water level rises up, they link each other by flows (channels) and shallow-water overflows, and at maximum filling a number of lakes merge into one reservoir with the area of 20360 ha. All the lakes are of suffusion origin and have snowmelt flood type of inflow.

Shores are flat, usually overgrown with thick reed from all the sides or shore ledges of 1-2.5 m high forming well-defined hollows. Depths at the average level of filling make up from 1 up to 2 m, maximum – up to 3.5 m, and at high level – up to 4 m. Bottom subsoils are silty, uliginous, up to 0-0.5 m deep, the bottom is rarely compacted and step-like.

Water mineralization in lakes has perennial and seasonal fluctuations from 0.45 up to 19 g per litre, in a few lakes - 47.5 g/litre. By salt composition it is mostly referred to chlorid class of sodium group, less frequently to sulphate class. In wet periods the water of some lakes is alkaline, of hydrocarbonate class; but when the level falls down it becomes chlorid.

Smaller rivers flowing into Naurzum lakes have seasonal but very short-term wash-off. In the lower part of their beds there are small broads, constantly retaining water. In the estuary part the beds are not expressed and form estuary water meadows.

Fluctuations of water level in Naurzum lakes restored since 1902 (Voronov, 1947 ; Cheltsov-Bebutov, 1954 ; Kuznetsov, 1960) were characterized by interchange of shallow-water periods covering 5-10 years, and wet ones lasting for 2-5 years that altogether form cycles. For the last 30 years two such cycles have been observed. 1975-1980 was a droughty period. 1981-1995 was characterized mainly by high or average level of filling, 1996-2001 – low or very low one, and a number of lakes dried up completely. In spring, 2002 a new cycle of watering started, and high floodwater repeated in 2005.

High floods are observed when there is a combination of a number of conditions: high pre-winter soil soaking, large supplies of snow and rapid snow melt in springtime.

Climate. The territory is referred to a zone with a half-dry continental type, cold winter, hot summer and strong winds. Average annual sum of rainfall is 233mm.

17. Physical features of the catchments area:

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

Geology and geomorphology. The wetland is located in the central part of meridian Turgay depression that crosses Turgay plateau from the north to the south connecting Western-Siberian and Turan lowland. The region is characterized by the plain flattening step-like relief consisting of a few geomorphologic levels from the plateau surface with elevation heads of 250-320 m until flat plains of the wide (30-50 km) bottom of Turgay depression, with elevation of 115-120 m above sea level.

The depression is made up by strong streams of flood and glacier waters of Siberia flowing to the south into Turan lowland and was formed in a few stages; its washout lasted during all medium and upper Pleistocene in periods of maximal glacier melting when sub-lake reservoirs of the Western Siberia have been extremely expanding.

The bottom of Turgay depression is a flat plain made up of upper-quaternary fluviolacustrine sandshale sediments, the depth of which reaches 60 m. Steep slopes of the eastern plateau characterized by strong unevenness jut into the hollow in a way of protrusions divided by deep cloughs. In the bottom part they turn into low fluviolacustrine terraces of the Turgay depression bottom and lake hollows (swales). To two thirds and more of their height the slopes are made up of marine clays of Chegan formation. The major part of their surface is covered with sandy-loam sediments. The very plateau is covered all over from the top with a coat of induviate loess-like clayey soil. Beds of the lakes are developed in upper Pleistocene polygenetic sediments, making a through hollow. At the end of ice period (beginning of Golocene) the surface developed on aleuritic-sandy flood-glacier sediments was heavily eroded by wind erosion. By means of moved sand material the massifs of Aeolian sands dividing such lakes as Sarymoin, Zharkol and Aksuat lake system were formed.

Relief differentiation determines various shapes of dry steppe landscapes. The plateau is represented by sheep's fescue and mat-grass steppes. Ground waters come out to the surface in many places in the upper part of slopes on the border of Olegocene continental sands with Chegan clays. They give life to separate pine-birch forest stands and shrubs. Motley-grass and sandy mat-grass steppes prevail on the level of denudationic and accumulative sand plains. Due to the deposit of mineralized ground waters being close to the surface to a different extent the hydromorphic landscapes represented by dark alkaline soil and saline soil complexes, meadows and steppe formations of a different type have been formed on fluviolacustrine terraces of the depression bottom.

Soils. The territory of the region is referred to Kazakhstan dry steppe province of dark chesnut and chesnut soils and is characterized by a significant diversity of the soil cover. Dark chesnut loamy and clay-loamy soils, mainly carbon-bearing, sometimes alkiline ones prevail on flat watersheds surrounding Turgay depression. The level of denudationic accumulative sabulous plains are represented by dark chesnut sandy and sabulous soils, while under the forest vegetation of Naurzum pine forest the

soddy and pine-forest soils are developed. Meadow alkaline soils and complexes of steppe dark alkaline soil with chesnut alkaline and meadow alkaline soils on the salinized clays and clay loams are specific for low geomorphologic levels of the bottom of Turgay depression and the lake hollows.

Hydrographic. The water collection basin of Naurzum lake system is located on the flat latitudinal watershed. That is why the river network is weakly developed here, closed and does not have a constant drainage. Slightly sloping latitudinal valleys of three big rivers, i.e. Dana-Bike, Naurzum-karasu and Ulken-Karayelga, jut into Turgay depression from the west. The rivers divide the plain with knaps and ravines. Their length is 58-85 km. During the period of spring flood the beds of these rivers are filled with water that reaching lakes is widely spread over in the pre-estuary part, thus creating shallow firths. In summer the water is retained only in small parts of riverbeds in a way of separate water places and stretches, while cough-grass meadows appear on the place of firths. Steep eastern borders of Turgay depression are much more drained – every 8-12 km they are separated by short river gullies 10-30 km long, which also have the lagitudinal direction. At headwaters and when entering the depression they look like deeply incised riverbeds with a chain of stretches, pre-estuary parts, closer to lake hollows are poorly incised. Sometimes they have only a stripe of shrubs or are completely flattened out and during the flood period the water spreads over with its wide front on lowered parts of the steppe called ‘bidayak’s (shallow intermittent lakes). In Turgay and Sypsnyngush depressions there is a great number of internal-drainage fresh and salty lakes having the character of flat plate-like hollows that rarely exceed 2,5-3 m. Lakes of the region do not practically have the seepage flow and fully depend on the capacities of spring floods.

Climate. It is referred to a half-dry continental type. The territory of the region is included into Western-Siberian climatic region of the Variable Zone and is known for greater droughtiness and continentality among other regions of dry steppe zone of Kazakhstan, which is determined by its position in orographic corridor between South Ural and Kazakh Upland.

Average annual air temperature is +2.4°C, with the duration of frost-free period from 130 up to 140 days. Summer is dry and hot, there are strong winds and dry storms very often. The average temperature in July is 24.2°C, average maximal temperature is 28°C. Winter is frosty and with snowstorms. Average temperatures in January are -18°C and lower, while the absolute minimum is – 45.7°C.

Stable snow covering remains from the end of November or the first decade of December until the end of March or beginning of April, its depth reaches 20-30 cm. Snow melting starts at sub-zero temperatures under influence of the sun radiation. During this period 25-35% of winter snow supplies gets melted.

Moisture provision is unstable, the average sum of rainfall per year makes up 233 mm, more than 70 % of rainfall occurs during the warm period of the year. Repeated droughts are typical here. The value of sum evaporation changes throughout a year within great limits of 20-30 mm in winter up to 500-600 mm in summer.

18. Hydrological values:

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

The lakes have significant importance for sustaining the level of ground waters in the region of Naurzum pine forest that provides conditions for its growth. The existence of eco-systems of wet water meadows being the most productive grass communities also depends on the wetland status.

Fluctuations of water level in Naurzum lakes restored since 1902 (Voronov, 1947 ; Cheltsov-Bebutov, 1954 ; Kuznetsov, 1960) were characterized by interchange of shallow-water periods covering 5-10 years, and wet ones lasting for 2-5 years that altogether form cycles. For the last 30 years two such cycles have been observed. 1975-1980 was a droughty period. 1981-1995 was characterized mainly by high or average level of filling, 1996-2001 – low or very low one, and a number of lakes dried up completely. In spring, 2002 a new cycle of watering started, and high floodwater repeated in 2005.

High floods are observed when there is a combination of a number of conditions: high pre-winter soil soaking, large supplies of snow and rapid snow melt in springtime.

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: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp • Ts • U • Va •
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • 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.

P, R, Ts, Ss, N, O, 2

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.

Within the wetland borders the following types of habitats are pointed out: fresh and sub-saline lakes with wide reed bushes and abundant submerged vegetation - 20-21 thousand ha (61 species recorded, 43 – nesting), sores and salty lakes – about 9 thousand ha (10-15 species), open lakes shores (47 species, 8-9 nesting), swampy water meadows (shallow waters overgrown with carex and cough grass) and water meadows – 7-8 thousand ha, river beds and artificial ponds. Local habitats are small swamps in places of egress of fresh ground waters with elements of boreal flora.

Thick reed bushes of border and border-curtain type with a wide central broad (reach) or of mosaic type with lots of smaller broads (reaches). Bulb-bulrush and reed bushes (*Phragmites australis*, *Bolboshoenus maritimus*) also take a significant area. There are bushes of hornwort (*Ceratophyllum demersum*) and pond grass (*Potamogeton*). The colony of cattail (*Typha angustifolia*) and club-rush (*Scirpus lacustris*) are typical for shallow waters mostly in parts flooded in springtime, at external edge of reed bushes. Dry bottoms get overgrown with pigweeds (*Chenopodiaceae*) and water pepper (*Polygonum hydropiper*).

Low terraces of fresh lake hollows are occupied with different kinds of crop and crop-carex (*Cyperaceae*) meadows, some places also have reed and bulrush alternating with absinthial and potassnik (*Kalidium schrenkianum*) communities. Raw crop meadows get waterlogged in wet years. Significant areas are occupied with halophytic vegetation, mainly (glasswort (*Salicornia europaea*), Sea Lavender (*Limonium suffruticosum*), portashnik (*Kalidium schrenkianum*), halophyte shrub (*Halocnemum strobilaceum*), Ofaiston (*Ofaiston monandrum*), Halimione Bgorodavchataya (*Halimione verrucifera*), sometimes with reed. Single trees of Russian olive (*Elaeagnus angustifolia*) sometimes forming entire bushes, and blocks of tamarisk (*Tamarix ramosissima*) grow in some areas along the coastline of the lakes.

Marsh vegetation (Glasswort (*Salicornia europaea*), Clubne-kamish Morskoy (*Bolboshoenus maritimus*), Sveda Stelyuschaya (*Suaeda prostrate*), Sveda Rozhkonosaya (*S. corniculata*) prevails around salty lakes in combination with halophytic meadows and blocks of tamarisk bushes and Nitraria (*Nitraria shoberi*).

A complicated dynamics of vegetation determined by changes of lake watering is observed for water areas as well as for the coastline part.

Of other habitat types the major area is occupied by steppe formations. On the high terrace of the bottom of Turgay depression a complex of steppe vegetation is widely distributed, i.e. absinthial and crop (sheep fescue) communities, sometimes in combination with cough-grass meadows and reed bushes in lower areas. Big areas are occupied by communities of silver sagebrush (*Atriplex cana*) and complexes of Levant Wormseed (*Artemisia pauciflora*), silver sagebrush (*Atriplex cana*), Russian wildrye (*Psathyrostachys juncea*) as well as steppe halophytic motley grasses (quackgrass (*Elytrigia repens*), Kolosnyak Vetvisty – (*Leymus ramosus*), tuberous Jerusalem sage (*Phlomis tuberosa*), Sea Lavender (*Limonium gmelinii*). On the border with Naurzum pine forest motley-grass and sandy mat-grass steppes are broadly distributed.

Forest types of habitats are represented by pines of Naurzum pine forest and birch and pine forest outliers at places of outflow of ground waters along the plateau slopes.

On the plateau surface crop and crop - absinthial (Kovil Lessinga (*Stipa lessingiana*), Kovil Sareptskiy (*S. sareptana*), Volga fescue (*Festuca valesiaca*), Solonechnik Tatarskiy (*Galatella tatarica*), Polin Selitryanaya (*Artemisi nitrosa*), Romashnik (*Pyrethrum achilleifolium*) steppes, sometimes with bushes (Iberian spirea (*Spiraea hypericifolia*) prevail.

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.*

The Flora of Naurzum is specific for its exclusive diversity, there are 687 species of vascular plants and also 4 species of epibiotic plants: feather grass (*Stipa pennata*), cheegrass (*Achnatherum splendens*), white water lily (*Nymphaea candida*), Nitraria (*Nitraria shoberi*). Availability of elements both the northern boreal (eastern marsh fern (*Thelypteris palustris*), Strausnik Vostochniy (*Matteuccia orientalis*), Adder's-mouth Orchid (*Malaxis monophyllos*), Common hop (*Humulus lupulus*), Dutch Rush (*Equisetum hiemale*), lesser paniced sedge (*Carex diandra*), Slender cottongrass (*Eriophorum gracile*), marsh grass of Parnassus – (*Parnassia palustris*), Bay Willow (*Salix pendandra*), purple loosestrife (*Lythrum salicaria*), and the southern (the Russian olive (*Elaeagnus angustifolia*), Oriental virginsbower (*Clematis orientalis*) flora is typical. On the southern border of the area there are: Strausnik Vostochniy (*Matteuccia orientalis*), common juniper (*Juniperus communis*), rock red currant (*Ribes saxatile*), Alpine aster (*Aster alpinus*), Altai aster (*A. altaicus*). 44 species are related to wild congeners of cultivated plants (Ivaschenko, 1982), 4 species are included into the national Red Book: Kyrgyz birch (*Betula kirghisorum*), roundleaf sundew (*Drosera rotundifolia*), Mugodzhar jurinea (*Jurinea mugodsharica*), tulip species (*Tulipa schrenkii*).

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.*

Bird fauna includes 291 species, including 158 nesting ones. The most diverse group is wetland birds among which 111 species are recorded, out of them one species is – Loon (*Gaviiformes*), 4 – Grebes (*Podicipediformes*), 3 – Pelicans and Cormorants (*Pelecaniformes*), 8 – Herons & Ibises (*Ciconiiformes*), 1 – Flamingos, 29 species of Swans, Geese & Ducks (*Anseriformes*), 3 species – Cranes (*Gruidae*), 7 – Rails & Crakes (*Rallidae*) and 55 – Waders, Gulls & Terns (*Charadriiformes*).

Depending on the status of watering the species composition and the population of waterfowl and wetland birds changes significantly. Optimal conditions for nesting are created on the second or third year after watering – with creation of extensive floods and shallow waters and development of pre-shore vegetation. In 1980-1990s at the middle level of the lakes' filling the total population of *Anseriformes* at nesting made up 1-1.4 thousand pairs. The most numerous were Common Pochard (*Aythya ferina*) - 650-1000 pairs, Gadwall (*Anas strepera*) - 150-200 pairs, Pintail (*Anas acuta*) - 80-

120, Mallard (*Anas platyrhynchos*) - 130-150, Garganey (*Anas querquedula*) - 50-100 pairs, Shoveler (*Anas clypeata*) - 60-80, Greylag Goose (*Anser anser*) - 100-320, Mute Swan (*Cygnus olor*) - 25-40. Mass nesting species are Grebes – in 1972-76 their population fluctuated from 1,3 up to 3,3 thousand pairs, major part represented by the Great-crested Grebe (*Podiceps cristatus*) and Red-necked Grebe (*Podiceps grisegena*), less number – by the Black-necked Grebe (*Podiceps nigricollis*). The population of coots (*Fulica atra*) fluctuated from 700 up to 2,800 pairs. Among gulls the most numerous are Yellow-legged Gull, Black-headed Gull and Little Gull (*Larus. cachinnans*, *L. ridibundus*, *L. minutus*). In 1981-1996 mass invasion of southern species occurred, Great Egret (*Egretta alba*) started nesting here, at the end of 1980s – beginning of 90s their population reached 570 specimens during after-nesting period on Naurzum lakes. Since 1981 Dalmatian Pelicans, and since 1984 White Pelicans (*Pelecanus crispus*, *P. onocrotalus*) emerged. The nesting of Little Tern (Gordiyenko, 1987) and Gull-billed Tern (*Sterna albifrons*, *Gelohelidon nilotica*) and Spoonbill (*Platalea leucorodia*) was recorded.

Birds not only from numerous small lakes of the steppe zone but also from Western Siberia concentrate on Naurzum lakes as well as on other big reservoirs of the region in favourable periods. In 1971 more than 40 thousand ducks and 300-600 Greylag Geese (*Anser anser*) (Gordiyenko, 1980) came to the lakes of the reserve to moult. In 1988-93 at the end of June-July about 6-8 thousand Greylag Geese, up to 20 thousand ducks (Pintail *Anas acuta*, Widgeon *A. penelope*, Gadwall *A. strepera*, Garganeys *A. querquedula*, Mallards *A. platyrhynchos*), 4-4,5 thousand Coots (*Fulica atra*) were registered. Mass moulting of Mute Swans (*Cygnus olor* from 600 up to 1.500) and Whooper Swans (*Cygnus cygnus*) – 600-1200 birds was observed.

The wetland is located on the way of one of the most intense flyways of waterfowl in Eurasia, including geese (Greylag, White-fronted, Lesser White-fronted and Red-breasted geese) the geography of which covers the territory of Scandinavia in the west up to Taimyr in the east.

A few endangered species of Birds of Prey are trophically closely connected with the wetland: the biggest population of Imperial Eagle (*Aquila heliaca*) – about 40 pairs, White-tailed Sea Eagle (*Haliaeetus albicila*) – 20-22 pairs, Pallid Harrier (*Circus macrourus*), Saker Falcon (*Falco cherrug*) – 16-18 pairs. A big diversity (29 species of *Falconiformes* and 7 species of *Strigiformes*) and a high population of Birds of Prey is one of the characteristic features of Naurzum. In autumn an important resource species, i.e. Black Grouse (*Lyrurus tetrix*) is living on the pre-shore shrubs. Little Bustard (*Tetrax tetrax*) – 450-800 specimens- is typical for slopes of the lake hollows.

In IUCN list there are 23 species of birds including two species of the category “Critically Endangered” and 3 species – of “Endangered” category.

Among fish fauna there are 11 species, 7 of them are native. The most widespread and numerous are Crucian Carp and Goldfish (*Carassius carassius*, *Carassius auratus*), which are well adapted to cyclic fluctuations of lake watering. Tench (*Tinca tinca*), Perch (*Perca fluviatilis*), Pike (*Esox lucius*), Roach (*Rutilus rutilus*) and Lake Minnow (*Phoxinus phoxinus*) live in lakes only in years of the highest water filling getting there from rivers via floods. The rest 4 kinds recorded in the wetland reservoirs were introduced into ponds located on the water collection area.

Mammal fauna includes 45 species. For many the wetland is either a main habitat or very important one in critical periods. Out of precious resource species Wild Boars (*Sus scrofa*) live here constantly, and in drought years the wetland sustains the existence of Elks (*Alces alces*) and Roe Deer (*Capreolus pygargus*). At the beginning of 1990s Saiga antelope (*Saiga tatarica*) has been pasturing in steppes around lakes until the crash of its population. Along the shores of the lake hollows a higher density of Badger (*Meles meles*), Red Foxe (*Vulpes vulpes*) and many other species of rodents can be observed including typical steppe species like corsac (*Vulpes corsac*) and marmot (*Marmota bobac*). Some species live in Naurzum at the southern borders of the area - Lynx (*Lynx lynx*), Elk (*Alces alces*), Harvest Mouse (*Micromys minutus*), Root Vole (*Microtus oeconomus*), Northern hedgehog (*Erinaceus europaeus*), Large-toothed Souslik (*Spermophilus fulvus*).

The fauna of reptiles and amphibians is meager due to cold winter and unstable hydrologic lake regime, thus consisting of only 6 species.

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:

The reserve plays an important role for awareness raising on nature conservation and environmental education of the population. On the lakes' territory and in their neighborhood there are archeological monuments of Paleolith and the Bronze Age. The role of the reserve as a regional centre for investigations of nature complexes and development of nature-protection projects is significant.

Water meadows at the lower stretches of lower stream rivers are referred to the most productive hay-making lands.

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:

On the territory of Wetland there are several archeological monuments of Paleolithic and the Bronze Age that is an evidence of exclusively favorable natural conditions of this territory: steppe and meadow pastures with plenty of fish and fowl in the lakes and forests

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:

The territory of Naurzum State Nature Reserve is referred to the category of lands of specially protected territories and is a state property.

b) in the surrounding area:

State-owned. Within the protected zone of Naurzum Reserve with the total area of 116726.5 ha some part of it, i.e. 13242.9 ha, is at the long-term rent of small (peasants') farms while on the rest of the territory of the catchment basin with the total area of about 450000 ha – they have almost 112500 ha (25%) at long-term rent. The rest of the lands are referred to the category of reserves (stock).

25. Current land (including water) use:

a) within the Ramsar site:

The wetland is located on the territory of the reserve where any economic activity and presence of people is prohibited, except the reserve workers and limited scientific-cognitive excursions.

b) in the surroundings/catchment:

Within the protected zone of the reserve hunting and any economic activity negatively affecting the status of eco-systems is prohibited. Parts of land given to small (peasants') farms that make up 11.3% of the whole area of the protected zone are used for cattle pastures and hay making.

On the rest of the territory of the water collection basin with the total area of about 450000 ha, plough lands used for growing grains occupy about 54000 ha (12%), while 58500 ha (13%) are assigned as pastures and hayfields, and the rest of the lands are not used or used only partially in years of droughts for hay-making.

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 the influence of negative factors performed directly within the wetlands is brought to minimum and only fires still have the vital importance.

b) In the surrounding area:

Main factors negatively affecting the wetlands are: plowing of high watersheds and their flat slopes (i), regulation of water flows by dams and dikes (ii), fires (iii) and, maybe, climatic changes.

Watersheds' plowing reduces the surface wash-off in the period of snow melting, especially in years with little resource of moisture in the soil. Plough lands make up about 12% of the territory but occupy higher levels of the water collection area.

In the years of operation of collective farms a great number of dams and dikes was built on three main seasonal rivers feeding (flowing into) Naurzum Lake System, for irrigation of meadows. At the moment there are 15 dams with the total water capacity of more than 7 million m³ that 2-3 times increases the capacity (bulk) of some Naurzum lakes. Negative influence of dams is expressed in two ways: in shallow and dry periods the major part of the surface wash-off is blocked by dams in spring and drying of the lake hollows happens much faster (i), in years of increased humidity and large capacity of the surface wash-off the ground dams are washed away and silting of river-beds takes place. (ii).

Last years fires became a main factor of negative influence on natural eco-systems of the region. Every year they spread out on larger steppe areas and conquer vegetation along the riverbeds and lake hollows. Annual destruction of the vegetation changes its character and directly affects the animal population.

Influence of climatic changes is open to question and requires special study.

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 wetland is a part of Naurzum State Nature Reserve - supreme category of specially protected territories of Kazakhstan.

On 7 July 2008 by the decision of the World Heritage Committee in Quebec Naurzum Reserve as the cluster of one object under title "Steppes and lakes of Northern Kazakhstan" (Sary-Arka) was included into the list of World Cultural and Natural Heritage.

In 2007 the Naurzum Reserve was included into the Western/Central Asian Site Network for Protection of Cranes and Other Globally Endangered Wetland Bird Species, organized within the framework of the "Memorandum of Understanding on Siberian Crane Range Countries" under the Bonn Convention.

In 2008 there was finalized the procedure of including of the Naurzum Reserve in the list of Important (key) Bird's Areas of Kazakhstan.

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

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

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

The Management Plan for the Naurzum Reserve was developed in 2007 on the basis of “Regulations on Naurzum State Nature Reserve” and in accordance with “Materials on forest organization”, approved by the Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan and International experts and it is being realized

An agreement for Naurzum lake system to solve the issues related to wetlands and water resources management has been prepared and submitted to the regional Basin Council.

d) Describe any other current management practices:

Protection. All the territory is divided into sections. Protection of the wetland territory is carried out by two-level character: by inspectors living at cordons (borders); each of them has an assigned land section, sizes of which are set up according to norms approved by the Forestry and Hunting Committee (i), and by inspectors of the mobile patrol group inspecting the territory in accordance with the plan or on more dangerous directions (routes) depending on the situation (ii).

Fire-prevention protection includes a constant (on-going) monitoring of the territory, preparation and keeping fire-prevention facilities all set, formed fire-brigade and treatment of fire-prevention separation places. Monitoring of the territory is implemented by specially hired personnel, from fire towers. In periods of increased fire danger (after thunderstorms, in cases of appearing centres of fire on the neighboring territory) flying around the territory is done. When extinguishing large centres a voluntary fire-brigade formed from citizens of Karamendy village as well as equipment and firemen from other districts are attracted in coordination with the district Akimat.

With the frameworks of the project UNEP/GEF “Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Waterbirds in Asia” the work on introducing suggestions on sustainable use/management of surface waters of Naurzum district, with the priority of provision Naurzum lakes with water, into the plan of management of water resources of Kostanay region and preparation of basin agreement, is done.

28. Conservation measures proposed but not yet implemented:

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

The creation of a Biosphere Reservat with Naurzum Reserve as a Core area for sustainable management and using of nature resources on the territory of Basin of Naurzum Lakes surrounding the Reserve. This idea was discussed in Naurzum district and supported by Naurzum akimat and local Stakeholders

29. Current scientific research and facilities:

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

Employees of the scientific department of Naurzum Reserve conduct scientific research in accordance with the approved plan of scientific research works. The monitoring of biodiversity as well as of changes of the lake level and other nature processes, are executed with the frameworks of the constant theme “Chronicle of the Nature” under the program and methods same for all the reserves of Kazakhstan.

Since 2005 observations of the flyways of waterbirds within UNEP/GEF “Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Waterbirds in Asia” project were made. Studies with international cooperation were and a field research station was established in Karamendy village in 2006.

With the frameworks of the RSPB project a character of spreading and population of the sociable lapwing was studied in Naurzum and the adjacent districts.

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.

Within the staff of the reserve there is a department on eco-education and awareness raising and also a museum of nature. Annotated lists of vertebrates "Fauna of Naurzum Reserve" (2002) and a leaflet "Naurzum State Nature Reserve" (2004) have been established.

In the frames of the UNEP/GEF Project «Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Migratory Water birds in Asia», together with the Naurzum reserve administration the following measures for public awareness on a global significance of the Wetlands sites of the reserve were held:

- Strategy on socio - economy development of project sites has prepared
- Project Strategy and Action Plans on Education, Public Awareness and Development of Staff Capacity has prepared
- WEB-site for public awareness was created <http://www.scwpkaz.kepter.kz/>
- "Ak - Tyrna" and "Ak - Niet" resource- informational centers were created and equipped
- 20 kind of Education modules and training tool kits on Wetlands biodiversity and endangered species has been prepared.
- Action Plan on seminars, education and public awareness has been prepared and realized
- The calendars (2000), 4 000 booklets on the on Wetlands biodiversity and endangered species has been prepared.
- Crane Day on the target territory of the project has been conducted in 2006-2008, more 13600 children per year participated
- Data on GIS coverage for game site was prepared in 2006-2007.
- Two Atlases on biodiversity, landscapes, ecosystem, soil, vegetation in GIS were developed and distributed for school libraries and for agencies.
- A cycle of school lessons was conducted by trained teachers from 2006 to 2009.
- District and regional ecological conferences and workshops for librarians were organized.
- Training guides (400 copies) and 5 versions of banners (20 copies) for schoolchildren of primary and middle forms were copied and distributed for schools, libraries and the resource centre.
- A basic training guide "Importance of the Conservation of the Most Significant RK Wetlands Biodiversity" was distributed for schools, libraries and the resource centre.

A cycle of training workshops in proper identification of especially protected wetland bird species of Kostanay region including game project site was organized for inspectors and the members of the society of huntsman and fishermen within the framework of GEF/UNEP/ICF "Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Waterbirds in Asia" project implementation **from 2006 to 2008** in Kostanay region.

The program on Environmental Education (2005-2009) for teachers, students, 3-4, 5-8 and 9-11 forms of general schools, lectures of higher educational institutions and inspectors of protected territories has been developed within the framework of Kazakhstan Coordination Unit of **GEF/UNEP/ICF** "Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Waterbirds in Asia" International Project.

Since 2005 schoolchildren of site villages have been involved in the annual celebration of "Crane Day" organized under the aegis of the UNEP/GEF project «Development of flyways and wetlands for conservation of Siberian Crane and other waterbirds in Asia»

In 1999- 2008 TV programs on wetlands in the Kostanai oblast were organised. Several booklets on "Key Wetlands of the Northern Kazakhstan" (2005-2009)

The book on the "Most Significant Wetlands of the Northern Kazakhstan" (within the boundaries of Kostanay and the western part of the North-Kazakhstan regions) were published (Moscow: Russian University, WWF, edition 5, 2002).

In 2007-2008., within the framework of UNEP/GEF/ICF “Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Waterbirds in Asia” regional project, a training program on education, public awareness raising, alternative livelihoods, including development of ecotourism, is being realized in the surrounding areas of the wetland.

31. Current recreation and tourism:

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

According to the legislation of the Republic of Kazakhstan only limited scientific-cognitive tourism on specially selected areas not mastering precious parts of eco-system is permitted in reserves. For this objective 6 ecologic routes are developed in the reserve, nevertheless, currently the development of tourism is restrained by the lack of infrastructure.

Every year an ecological camp for school-children is conducted.

A small private hotels, opened in the frame of UNEP/GEF/ICF “Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Waterbirds in Asia” regional project, and a café do not provide enough level of service in Karamendy village. In average about 100 people visit the reserve per year.

In the frames of the UNEP/GEF Project the Regional Strategy on ecotourism has prepared.

32. Jurisdiction:

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

Kazakhstan, Kostanay region, Naurzum district

E-mail: naurzum_zapoopt@mail.ru

Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan

010000, Astana city, 35/2 street, Ministry House,

entrance №5, 6 floor, office 608

Tel.: +7(7172)742834

Secretary: +7(7172) 743326

e-mail: mussabayev@minagri.kz

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.

Forestry and Hunting Committee, Ministry of Agriculture, the Republic of Kazakhstan., Abay avenue, 25 Astana, tel/fax (3172) 32-82-40

Chief of the Department on Regulation and Control in the Field of Conservation, Reproduction and Fauna Management, B.Z. Duisekeyev

Chief of the Department on Regulation and Control in the Field of Hunting and Especially Protected Territories, K.G. Ustemirov

Operative agency: Kostanay Territorial Agency for Forestry and Hunting. Gagarin str. 85, Kostanay.

E-mail: leskst@mail.ru

34. Bibliographical references:

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

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