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 | Site Reference Number

2. Date this sheet was completed/updated:
20 November 2007

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.

KOIBAGAR -TYUNTYUGUR LAKE SYSTEM

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

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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:

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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): ✓;

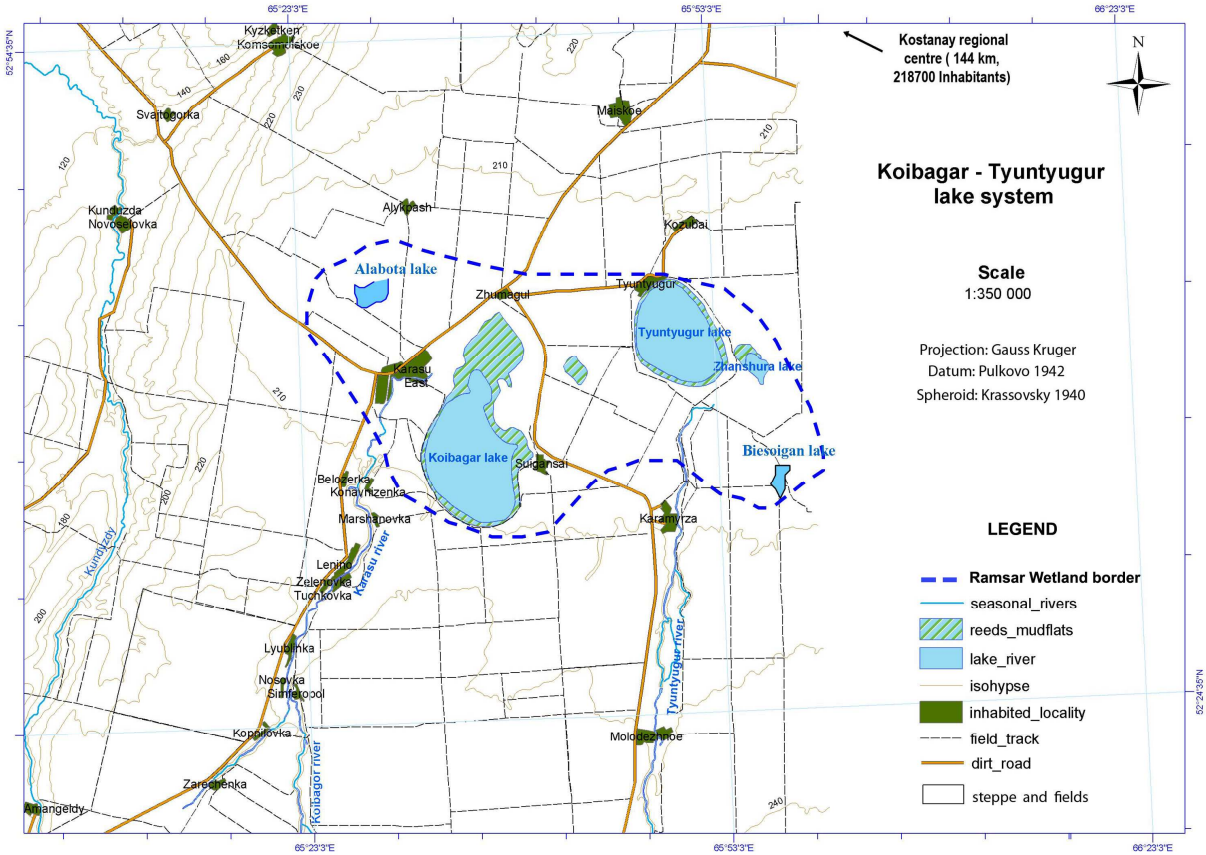
ii**) an electronic format** (e.g. a JPEG or ArcView image) ✓;
electronic format in PDF

iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** ✓.
Vector format shape files
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 boundaries of the wetland are defined mainly by the line of the slopes of Tyuntyugur depression, comprising the lakes and the slopes of lake hollows.


ADMINISTRATIVE AND TERRITORIAL
DIVISION OF THE REPUBLIC OF KAZAKHSTAN
Koibagar - Tyuntyugyr
lake system
Petropavlovsk
Kokshetau
Oral
Pavlodar
Astana
Aktobe
Kostanay region
Karaganda
Oskemen
Atyrau
Aktau
Kyzylorda
Almaty
Taraz
Shymkent
Legend
Border RK
Capital
Region center
Border region
Rivers
Lakes
Railway
SCALE
30°0'0"E
40°0'0"E
60°0'0"E
80°0'0"E
90°0'0"E
100°0'0"E
53°0'0"N
58°0'0"N
43°0'0"N
48°0'0"N
38°0'0"N
38°0'0"N
50°0'0"E
70°0'0"E


Kostanay regional
centre (144 km,
218700 Inhabitants)
N
Koibagar - Tyuntyugur
lake system
Scale
1:350 000
Projection: Gauss Kruger
Datum: Pulkovo 1942
Spheroid: Krassovsky 1940
LEGEND
Ramsar Wetland border
seasonal_rivers
reeds_mudflats
lake_river
isohypse
inhabited_locality
field_track
dirt_road
steppe and fields
Alabota lake
Tyuntyugur lake
Zhanshura lake
Biesoigan lake
Koibagar lake
Karasu East
Tyuntyugur
Zhumagul
Suidansai
Karamyrza
Marshanovka
Belogorka
Konavizenka
Lenina
Zelenovka
Tuchkovka
Lyublinka
Nosovka
Simferopol
Koporkovka
Zarechenka
Arhangeldy
Molodezhnoe
Svanetgorka
Kyzketken
Komsomolskoe
Maiskoe
Kundyzda
Novoselovka
Alykkash
Kozubai
Karasu river
Koibagor river
Tyuntyugur river
65°23'3"E
65°53'3"E
66°23'3"E
52°54'35"N
52°24'35"N

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.

Koibagar - N 52°36", E 065°35", Tyuntyugur - N 52° 42", E 065°52, Alabota - N 52° 43", E 065° 23"', Zhanshura - N 52°40", E 065°56", Bie-Soigan - N 52°35", E 066°00", **centre about N 52°39', E 065°45'**

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.

Administratively Koibagar - Tyuntyugur lake group is situated in Karasu District of Kostanay Region, at a distance of 140 km southeast from administrative center of the region – Kostanay city. The district center Karasu village is located at the mouth of the river with the same name at a distance of 3 km from Koibagar Lake. In radius of 30 km in the lake area there are 18 villages with the population of 13941 people; one of them is located at the shore of Tyuntyugur Lake.

Geographically the wetland area is related to the southern part of Ubagan - Ishim watershed. The lake hollows are located at the foot of a slightly outlined ledge in the central part of Tyuntyugur plateau.

10. Elevation: (in metres: average and/or maximum & minimum)
The minimum height of the territory is – 200 m above sea level, and maximum height is – 210 m.

11. Area: (in hectares)

The total area of the wetland within the boundaries comprising lake hollows with shoreline ecosystems and the areas between the lakes is 58,000 ha. The area of the lakes with a high water level is 22,433 ha, including Koibagar Lake – 9600 ha, and Tyuntyugur Lake - 5430 ha.

The total area is 58,000 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.

The wetland includes five large fresh water lakes with a flood type of filling and cyclic hydrological regime. When the water level is maximal, Koibagar, Tyuntyugur and Zhanshura lakes become a whole part. The character of being overgrown by thick bulrush typical for the steppe zone is changing in some lakes depending on the water level, from bank massifs of a border and mosaic type to plains. The lakes are the places of mass nesting and moulting of water and wetland birds. In the period of seasonal migrations it is the most important place of concentration of *Anseriformes, Rallidae, Limicolae* and other wetland birds including rare and endangered species.

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 2:

Koibagar – Tyuntyugur Lakes contain 13 bird species on the IUCN Red List, including 2 species – Siberian Crane (*Grus leucogeranus*) and Sociable Lapwing (*Vanellus gregarius*) in the category «Critically

Endangered» and 1 species (White-headed Duck *Oxyura leucocephala*) – in category «Endangered». National Red Book includes 15 species (Table 1).

Table 1 **Criterion 2.**

N	English Name	Scientific Name	IUCN Status	CITES Status	CMS	National Status
1	Dalmatian Pelican	*Pelecanus crispus*	VU	I	I/II	II
2	Whooper Swan	*Cygnus cygnus*			II	II
3	Bewick's Swan	*Cygnus columbianus*			II	V
4	Lesser White Fronted Goose	*Anser erythropus*	VU		I/II	II
5	Red-breasted Goose	*Branta ruficollis*	VU	II	I/II	II
6	Ferruginoius Duck	*Aythya nyroca*	NT		I/II	III
7	White-headed Duck	*Oxyura leucocephala*	EN	II	I	I
8	White-tailed Sea Eagle	*Haliaeetus albicilla*		II	I/II	II
9	Imperial Eagle	*Aquila heliaca*	VU	I	I/II	III
10	Great Spotted Eagle	*Aquila clanga*	VU	II	I/II	
11	Pallid Harrier	*Circus macrourus*	NT	II	II	
12	Red-footed Falcon	*Falco vespertinus*	NT	II	II	
13	Siberian Crane	*Grus leucogeranus*	CR	I	I/II	I
14	Common Crane	*Grus grus*		II	II	III
15	Demoiselle Crane	*Anthropoides virgo*		II	II	V
16	Little Bustards	*Tetrax tetrax*	NT	II		II
17	Black-winged Pratincole	*Glareola nordmanni*	NT		II	
18	Sociable Lapwing	*Vanellus gregarius*	CR		I/II	I
19	Pallas's Gull	*Larus ichthyaetus*				II

Criterion 4. Koibagar - Tyuntyugur lake system is of great importance for waterbird species (*Anseriformes*) in all periods of their biological cycle, including – the most vulnerable one – during moulting. In favorable ecological conditions in 1997- 1998 from 100 to 200 thousand birds moulted at Koibagar and Tyutyugur lakes (according to assessment of S. Yerohov). In the beginning of June 2000 at Koibagar Lake *Anseriformes* were dominated by Common Pochards (*Aythya ferina*) and Red-crested Pochards (*Aythya rufina*) - 13.7 %, Mallard (*Anas platyrhynchos*) - 5.7 %, Garganey (*Anas querquedula*) - 3.9 %, Gadwall (*Anas strepera*) - 2.9 % and Greylag Goose (*Anser anser*) - 2.9 %. At Tyuntyugur Lake the most numerous species were drakes of Northern Shovelers (*Anas clypeata*) - 24.5 %, the Greylag Geese (*Anser anser*) - 13.8 %, Mallards (*Anas platyrhynchos*) - 11.8 %, Garganeys (*Anas querquedula*) - 5.5 %, Gadwalls (*Anas strepera*) - 2.1 % and Eurasian Wigeons (*Anas penelope*) - 1 %. The total number of *Anseriformes* on both lakes was 30-50 thousand, 4 - 5 thousands of them were Greylag Geese (*Anser anser*). At open shores of Tyutyugur there were 12- 15 thousand of northern sandpipers (Little Stint *Calidris minuta*, Dunlin *Calidris alpina*, Ruff *Philomachus pugnax*).

Koibagar Lake never dries up and serves as a place of survival of waterbirds in dry periods.

In the period of autumn passage the number of waterbirds in some years is not less than 500,000 specimens, of which concentration of geese in the second half of the 1990s was up to 170 thousand of specimens.

A wide spectrum of biotops and favorable sheltering and feeding conditions make the lakes attractive for bird **moulting**. Species composition is changing due to different ecological conditions. In 1998 at Koibagar Lake there were mainly Greylag Geese (*Anser anser*), Northern Shovelers (*Anas clypeata*), Gadwalls (*Anas strepera*) and Common Pochards (*Aythya ferina*).

Table 2 **Criterion 5.**

N	English Name	Scientific Name	Number of individuals (min-max)	Season Recorded e.g. winter, migration, breeding season
1	Greylag Goose	*Anser anser*	1,108-35,932	Autumn migration 1996-2007
			4,000-5,000	Moulting June 2000
2	White-fronted Goose	*Anser albifrons*	1,727-87,000	Autumn migration 1996-2007
3	Lesser White Fronted Goose	*Anser erythropus*	63-2,030	Autumn migration 1996-2007
4	Red-breasted Goose	*Branta ruficollis*	7,200 -13,561	Autumn migration 2005-2008
5	Mallard	*Anas platyrhynchos*	22,000	Autumn migration 1997
			3,540-5,900	Moulting June 2000
6	Pintail	*Anas acuta*	19,000	Autumn migration 1997
1	Shoveler	*Anas clypeata*	7,350-12,250	Moulting June 2000
7	Tufted Duck	*Aythya fuligula*	11,099	Autumn migration 2005
2	Coot	*Fulica atra*	44,827	Autumn migration 2005
8	Glareola nordmanni	*Black-winged Pratincole*	50-300	Breeding 1999-2004

The number of wetland birds at the lakes of the system exceeds 20 thousand of specimens in all seasons. Species composition is changing depending on changing of ecological conditions. In the beginning of May 1997 Koibagar Lake was dominated by Tufted Duck (*Aythya fuligula*), Shoveler (*Anas clypeata*), Coot (*Fulica atra*), Common Pochard (*Aythya ferina*), Garganey (*Anas querquedula*), Common Goldeneye (*Bucephala clangula*), of sandpipers – Ruff (*Philomachus pugnax*); in May 1998 Greylag Geese (*Anser anser*), Shovelers (*Anas clypeata*), Gadwalls (*Anas strepera*), Common Pochards (*Aythya ferina*) prevailed. At Tyuntyugur and Zhanshura lakes in spring 1997 the most numerous species were Goldeneyes (*Bucephala clangula*), Great Crested Grebes (*Podiceps cristatus*), Garganeys (*Anas querquedula*), Shovelers (*Anas clypeata*), Wigeons (*Anas penelope*), Pintails (*Anas acuta*) and Mallards (*Anas platyrhynchos*), but the number of Ruffs (*Philomachus pugnax*) was the greatest. Moulting concentrations in 1997-1998 included 100-200 thousand of birds (according to assessment of S. Yerohov). Concentration of birds in the beginning of June 2000 at Koibagar Lake *Anseriformes* were dominated by Common Pochards (*Aythya ferina*) and Red-crested Pochards (*Aythya rufina*) – 13.7 %, Mallard (*Anas platyrhynchos*) – 5.7 %, Garganey (*Anas querquedula*) – 3.9 %, Gadwall (*Anas strepera*) – 2.9 % and Greylag Goose (*Anser anser*) – 2.9 %. At Tyuntyugur Lake the most numerous species were drakes of Shovelers (*Anas clypeata*) – 24.5 %, the Greylag Geese (*Anser anser*) – 13.8 %, Mallards (*Anas platyrhynchos*) – 11.8 %, Garganeys (*Anas querquedula*) – 5.5 %, Gadwalls (*Anas strepera*) – 2.1 % and Wigeons (*Anas penelope*) - 1 %. The total number of *Anseriformes* on both lakes was 30- 50 thousand, 4 - 5 thousands of them were Graylag Geese. At open shores of Tyutyugur there were 12- 15 thousand of northern sandpipers (Little Stint *Calidris minuta*, Dunlin *Calidris alpina*, Ruff *Philomachus pugnax*).

In the period of autumn passage the number of waterbirds in some years is not less than 500,000 specimens. The maximal concentration of geese in the second half of the 1990s reached 170 thousand of birds. In September 2005 about 45 thousand of coots (*Fulica atra*) were recorded.

Table 3 **Criterion 6.**

N	English Name	Scientific Name	Subspecies/Population (if applicable)	Count (min-max)	1% Threshold
1	Greylag Goose	*Anser anser*	West Siberia rubrirostris	1,108-35,932	2,500
2	White-fronted Goose	*Anser albifrons*	North & West Siberia	1,727-87,000	3,650-7,150
3	Lesser White Fronted Goose	*Anser erythropus*	North Europe-West Siberia	63-2,030	110
4	Red-breasted Goose	*Branta ruficollis*	World population	7,200 -13,561	385

N	English Name	Scientific Name	Subspecies/Population (if applicable)	Count (min-max)	1% Threshold
5	Mallard	*Anas platyrhynchos*	West Siberia & S.-W. Asia	22,000	80
6	Northern Pintail	*Anas acuta*	West Siberia, S.-W. Asia & N.-E. Asia	19,000	11,800
7	Tufted Duck	*Aythya fuligula*	West Siberia	11,099	4,000
8	Siberian Cranes	*Grus leucogeranus*	Western	2	1

The lakes of the system are key places for stopping over of Red-breasted Geese (*Branta ruficollis*). During autumn passage in 1996-2000 the number of them reached 65 thousand birds, at that period that was about 83% of the whole population (Yerohov, Berzovikov and others, 2000; Березовиков, 2002; Markkola, Pynnonen, Tolvanen, .Veersaly & Yerohov. 1998; Tolvanen & Pynnonen, 1998; Tolvanen, Litvin & Lampila, 1999; Tolvanen, Eskelin, Aarvak, Eichhorn, Oien, & Gurtovaya, 2000). In 2005-2007 up to 13561 specimens were recorded, that was also a considerable part of the population – 35.2%.

The lakes are of great importance for the Lesser White-fronted Goose (*Anser erythropus*) – in the period of autumn migration, in 1996-2000 up to 18.5% of the population stopped there, in 2005-2007 – more than 1% of the population. In 1992 and 2006 stops of a pair of Siberian Cranes (*Grus leucogeranus*) were recorded at the lakes, being not less than 10% of the Ob (Western) population.

The limit of 1% of the population is exceeded by the number of autumn concentration of Greylag Geese (*Anser ascer*) (in 1996-2000 up to 36,000, in 2005-2007 – up to 10752), White-fronted Goose (*Ancer albifrons*) (1996-2000 – 87000, 2005-2007 – 14639), Mallard (*Anas platyrhynchos*) (22,000 – 1997), Northern Pintail (*Anas acuta*) (19000 – 1997) and Tufted Duck (*Aythya fuligula*) (Table 3).

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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 Pontian steppes in Pale-arctic area

b) biogeographic regionalisation scheme (include reference citation):

Scheme of M.D. Udvardy, 1975

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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 geomorthology. The Tyuntyugur hollow is situated at the foot of a slightly outlined ledge, separating the surface formed at the low-Pleistocene loams of the Zhunshilic part from the one stretching to the North of the lower plain formed by flood-glacier sediments of the Upper Pleistocene. This territory is an accumulative slightly waved plain with an alluvial cover.

The origin of the lake hollows of Koibagar – Tyuntyugur system is not known, most likely, according to the time period, it is related to the last break-through of flood-glacier waters to the South, into Aral-Caspian basin.

Soils. The soil cover of Tyuntyugur hollow is represented by meadow-black-soils and meadow soils, at some places by saline soils. Southern black soils are distributed on surrounding plains.

Hydrology. Alabota, Koibagar, Tyuntyugur, Zhanshura and Biyesoigan lake group was a whole water surface of a large lake relatively not long ago, in the historical time (Natural Zoning, 1960). Currently Koibagar, Tyntyugur and Zhanshura lakes are connected only in spring and only when the water level is high.

The total area of the lake is 22,433 ha, of which Koibagar – 9600 ha, Tyuntyugur – 5430 ha, Alabota – 3639 ha, Zhanshura – 1570 ha, Biyesoigan – 2194 ha. A great catchment area and a relatively developed river network provides two major lakes of the system – Koibagar and Tyuntyugur – with more stable hydrological regime, in comparison with other water bodies of the region, Koibagar doesn't dry up even in dry periods with minimal water flows. Alabota, Zhanshura and Biyesoigan shallow lakes, filled only in the years with a high water level, dry up regularly.

For the last 15 years the water level in the lakes of Koibagar - Tyuntyugur system has been fluctuating considerably. Hydrological regime of the lakes in the second half of the 1990s, after full filling up in 1992-1996, was characterized by gradual decrease of water levels. By autumn 1998 Alabota, Zhanshura and Biyesoigan completely dried up. In subsequent years, there were practically no spring high waters in the area and the hollows of the lakes remained dry. Koibagar and Tyuntyugur lakes by 2001 were in the phase of depression – costal reeds became mostly completely dry. In spring 2002 a new cycle of filling up started: Koibagar and Tyuntyugur lakes were considerably filled up, the water level of Zhanshura, Biyesoigan and Alabota lakes increased. Subsequent 2003-2006 were dry again, and the water level in the lakes decreased. However, in 2007 there was a great flood, and the lakes of the system were considerably filled up.

Climate. The climatic characteristics of the area is influenced by near location of the Kokshetau highlands, and due to this, in comparison with the rest territory of the subzone of mixed-grass – feather-grass steppes, there is the greatest amount of precipitation, lower temperatures and a shorter frost-free period. The average annual air temperature is 1.5 C. The average temperature in July is 20- 21C, in January - 18- 19C, with the absolute minimum of -43C. The frost-free period lasts for 110 -120 days. The snow cover remains at the average for 150 days from 11 April to 9 November, the maximum height of it in the middle of March reaches 20- 30 cm. High water, when the lakes are considerably filled, occurs in the period of 8- 12 years. The summer is moderately dry and hot with often strong winds. The annual precipitations are from 300 to 350 mm, about 65% of which fall in warm season.

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17. Physical features of the catchment area:

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

Geology and geomorthology. The wetland is situated on the surface of Tyuntyugur plateau in the southern part of Ubagan - Ishim watershed. A flat accumulative - alluvial and nearly not cut surface of the plateau has absolute height within 200-250 m above sea level. In the North the plateau gradually turns to Kustanay plain with prevailing marks of 170-190 meters. Tyuntyugur hollow with the lake hollows of Koibagar - Tyuntyugur system is formed by not cut sediments of quarternery period. Several terraces of different levels are located on its surface. The major part is occupied by a flat upper terrace formed by loams. The lower terrace is a flood plain low area in the central part of the hollow, stretched in nearly latitude direction. Each of five lakes has a narrow flood plain representing a coastal part denuded at decrease of the water level.

Soils. The region is located at the border of black soils and dark chestnut soils. Zonal types of soils are clay and heavy-loamy southern black soils in complex with meadow soils, southwards from the lakes there are carbonate soils.

Hydrography. Ubagan-Ishim interfluvial territory is an area without flows. However, in its southern part there is a rather developed river network. It is drained by three short seasonal rivers: Karasu with Koibagar tributary, and also Shigensay and Tyuntyugur Rivers. All of them have a meridian direction from the South to the North and supply the lakes of Tyuntyugur hollow with water. The longest of them is the Tyuntyugur River – about 95 km. Flows occur in spring time, chains of stretches of up to 2.5 meters deep remain in Karasu and Tyuntyugur rivers in summer. Tyuntyugur hollow includes 5 large lakes: Alabota, Koibagar, Tyuntyugur, Zhanshura and Biyesoigan. The rest part of the plateau is practically deprived of surface waters, except small seasonal water bodies. The total area of catchment basin of Koibagar - Tyuntyugur lake system is about 675000 ha.

Ground waters on Tyuntyugur plateau are located in loams of Pliocene sediments at the depth from 10 to 25 meters and they are highly mineralized – from 4 to 5 grams per liter.

Climate. The region is related to the Western-Siberian climatic area of a moderate zone with sharp continental climate characterized by great contrasts of summer and winter temperatures: the average temperature in July is within 21-22°C, in January -17-18°C. Moisture content is unstable, the amount of precipitations is fluctuating from 300 to 350 mm, about 65 % of them fall in warm seasons. In winter, in the conditions of a flat relief and strong winds precipitations are redistributed over the territory.

18. Hydrological values:

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

The Koibagar-Tyuntyugur Lake system has very important significance for support of ecosystem of flooded wet meadow, which is most productive grassland in the steppe zone.

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.

O – occupy 60-70% of wetland area, P – 28-35%, 4, N, Tp, 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.

Koibagar Lake is situated in a deep hollow with high cut ravines and shoreline precipices – along the western and the southern shores their height is 5-6 m, at some places up to 10 m, along the eastern and the northern shores it is 3-4 meters. The maximal length of the lake from the North to the South is 17.8 km, width – 9.1 km, the length of the coast line is 49.2 km, the area is 96 km^2. The bottom of the lake is flat with prevailing depths of 1,3-1.5 m, maximum 2.2 meters. Along the shore line the lake is surrounded by thick reeds (*Phragmites australis*) of mosaic type stretching up to 400-500 meters. There are also thick *Typha angustifolia, T. laxmanii* a, *Scirpus lacustris, Sc. tabernaemontani*, areas of reeds and areas with prevalence of *Typha angustifolia*, *Bolboshoenus maritimus, Alisma plantago-aquatica, A. gramineum, Butomus umbellatus*, and also reeds with *Scolochloa festucaceae* in the coastal part and with *Saussurea amara* and *Sonchus arvensis* along the shore. Groups of *Senecio arcticus* are typical. The shallowest areas are overgrown with *Alisma plantago-aquatica* and *Butomus umbellatus*. The central stretch is open, with curtains of sparse *Phragmites australis*, and a number of islands appear in the middle of it at considerable drying up.

The water surface of small inner stretches in reeds is covered by groups of *Potamogeton pectinatus, P. lucens, P. perfoliatus, P. pusillus*; also *Ceratophyllum demersum, C. submersum, Polygonum amphibium, Myriophyllum spicatum, Utricularia velgaris, Stratiotes aloides* grow there. When the water level is high, *Lemna trisulca* develops rapidly at well warmed places. Thick *Chara intermedium, Ch.contraria Ch. Vulgaris* are common there.

A narrow low terrace of the lake hollow is occupied by meadows, mainly with various *Elytrigia repens* and *Calamagrostis epigeios*, at drier places there are usually *Leymus ramosus* meadows. At some places thick *Artemisia procera* grow there. The upper terrace is characterized by complex steppe vegetation with *Festuca valesiaca, Galatella villosa, Festuca valesiaca, Artemisia schrenkiana, Tanacetum achilleifolium, Psathyrostachys juncea, Kochia prostrata* associations. On the slopes of the original shore there are fragments of thick bushes of *Rosa cinnamomea, Lonicera tatarica, Rubus caesius*

with cereal grass cover of *Calamagrostis epigeios, Elytrigia repens, Poa stepposa,* groups of *Glycyrrhiza uralensis, Artemisia dracunculus, Fragaria viridis* and with meadow-steppe and steppe mixed –grasses.

Tyuntyugur Lake has an area of 54.3 km^2. The northern shore of the hollow is precipitous with the height of 4- 5 m, the western and the eastern shores - 1- 1.5 m, in the south the shores are low and sloping. The lake is surrounded by thick reeds from 40 to 100 m. The whole water area is characterized by rarely located mosaic thick reeds, only in the northeastern part of the lake there is no water-surface vegetation. Associated plants are the same like at Koibagar Lake: *Typha angustifolia*, *Scirpus tacustris* and *S. tabernaemontani*, *Alisma plantago-aquatica* and *Butomus umbellatus*. Shallow waters in the southern part of the lake are overgrown with *Stratiotes alodes, Potamogeton lucens* and *P. perfoliatus*, which form vast thick vegetation areas, at low depth of 0.2 – 0.3 m the area is occupied by *Potamogeton pusillus, Myriophyllum spicatum, Ceratophullum submersum, Lemna trisulca* (Zelinskiy, 1910). Between thick air-water vegetation *Polygonum amphibium Sparganium stoloniferum* grow. Plunged water vegetation – *Potamogeton lucens* and *P. perfoliatus* often form vast floating surface, on which grebes and turns make their nests. In the southern part of the lake there is a number of large bays and coastal spits of land that creates comfortable sheltering conditions for birds. A considerable part of the coast line, especially at drying up, is characterized by mud shallows places, and there area small islands.

The shoreline of reeds is characterized by moisture plants *Typha angustifolia,* species of Genus *Juncus, Bolboeshoenus*. Reeds are alternating with curtains of *Scirpus lacustris* and often they are edged with associations with domination of *Heleocharis*. Further there is a belt of low *Juncus gerardii* and *Carex secalina* meadows. Closer to the shore there is a strip of *Artemisia procera*.

Great areas around Tyuntyugur and in a low flood plain area between the lakes are occupied by coach meadows, sometimes with plenty of *Glycyrrhiza uralensis* and with *Artemisia procera*. In the southwestern part of the hollow meadows are represented by *Alopecurus pratensis, Carex disticha, Juncus gerardii, Calamagrostis epigeios* with reeds. An edge part of a low flood plain area is occupied by *Puccinellia hauptiana* associations with spots of *Artemisia nitrosa*. At the edge of the original shore there are complexes of *Artemisia nitrosa,* typchak and *Psathyrostachys juncea* associations.

Zhanshura Lake, with the area of 1,570 ha and the depth up to 1.6 m 80- 90% is covered by border-mosaic thick reed and *Typha angustifolia,* at drying up it is completely overgrown with reeds. The shallowest lakes are **Alabota** (3,639 ha) and **Biyesoigan** (2,194 ha) – their depth does not exceed 0.8 m, when there is no high spring water, they rapidly dry up. 90 % of the water area and more is covered with thick reeds. The lakes are surrounded by a belt of meadows, mainly by coach ones.

On the plains surrounding the Tyuntyugur depression, before the development of virgin lands there were mainly mixed-grass – feather-grass – red-feather-grass steppes (*Stipa zalesskii, St. lessingiana, Festuca valesiaca, Salvia stepposa, Seseli ledebourii*). Currently, they are practically completely plowed for wheat crops, where geese and some duck species feed in autumn. This is an additional factor attracting ducks and especially geese to the lakes in the periods of migration.

In the area of the wetland in radius of 30 km from Koibagar and Tyuntyugur lakes, there are 18 populated areas with the population of 13,941 people, 2 of them with the population of 818 people are located at the shore of Koibagar and Tyuntyugur lakes.

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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 lakes support existence of wet water meadow ecosystems, which are the most productive grass associations in the steppe zone.

Mixed-grass – red-feather-grass – feather-grass (*Stipa lesingiana, St. Zalesskii, Herbae stepposa*) steppes surrounding the lakes have been practically fully transformed into agricultural lands. On small fragments, which remained along the roads and ravines *Ornithogalum fisherianum, Tulipa bibersteiniana* and *T. patens* grow. Of 29 species of macrophytos there are two relict species - *Lemna trisulca* and *Utricularia vulgaris*. In the lower Tyuntyugur *Nuphar luteum* grow, in the coastal area - *Scirpus lacustris, Typha angustifolia,* on the banks there are *Salix cinerea, S. viminalis*.

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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.*

There are up to 95 species, including *Podicipediformes* - 4, *Pelecaniformes* - 3, *Ciconiiformes* - 5, flamingo - 1, *Anseriformes* - 29, *Limicolae* - 35, *Rallidae*- 6, *Laridae* - 12. The most important commercial species are geese - 2 species, ducks - 7 species and coots, the total number of which in the period of autumn migration is 500,000.

39 species of water and wetland birds are registered at **nesting grounds**. The proportion of different groups and species is changing every year according to dynamics of lakes for many years. Separate lakes also have significant differences caused by peculiarities of ecological conditions (depth, the speed of becoming shallow, the character of overgrowing and others).

Of *Anseriformes* 16 species nest here: Mute Swan (*Cygnus olor),* Greylag Goose (*Anser anser*), river ducks and divers. The most favourable conditions for them are, when the lake water level is average. The number of usual species there includes Greylag Goose, Mallard (*Anas platyrhyncha),* Gadwall (*A. strepera*), Garganey (*A. querquedula*), Common Pochard (*Aythya ferina*), Tufted Duck (*Aythya fuligula*), a rarer specie is Shoveler (*Anas clypeata*), Pintail (*A. acuta*), Red-crested Pochard (*Netta rufina*), White-headed Duck (*Oxyura leucocephala*), probably nests there.

A background nesting species is Coot (*Fulica atra*). Of other *Rallidae* Common Moorhen (*Gallinula chloropus*), Little Crake (*Porzana parva*) and Baillon's Crake (*Porzana pusilla*) also nest there. Grebes are usual there: Great Crested Grebe, Red-necked Grebe and Black-necked Grebe (*Podiceps cristatus, P. griseigena, P. nigricollis*). A small number of *Ciconiiformes* are represented by two species – Great Bittern (*Botaurus stellaris*) and Grey Heron (*Ardea cinerea*). Probabaly, there are nesting grounds of Little Bitten (*Ixobrychus minutus*) and Great Erget (*Egretta alba*).

On floating places and islands there are colonies of *Laridae.* The most common of them is Black-headed Gull (*Larus ridibundus*), White-winged and Common Terns (*Chlidonias leucoptera, Sterna hirundo*). Other species: Little Gull, Yellow-legged Gull and Common Gull (*Larus minuta, L. cachinans, L. canus*), Black and Little Terns (*Chlidonias niger, Sterna albifrons*).

A wide spectrum of biotops and favorable sheltering and feeding conditions make the lakes attractive for bird **moulting**. In 1997- 1998 according to assessment of S. Yerohov from 100 to 200 thousand birds moulted at Koibagar and Tyutyugur lakes. Species composition is changing due to different ecological conditions. In 1998 at Koibagar Lake there were mainly Greylag Geese (*Anser anser*), Shovelers (*Anas clypeata*), Gadwalls (*A. strepera*) and Common Pochards (*Aythya ferina*).

In the period of migration the wetland lakes are the ones of the key places for stopping over for water and wetland birds in the region. During spring migration there are mainly *Anseriformes* – more than half of the total number of birds. In the beginning of May among the ducks there is the following proportion: Goldenye (*Bucephala clangula*) - 34.2%, Wigeon (*Anas Penelop*e)- 32.9%, Tufted Duck (*Aythya fuligula*)- 20.2%, Common Pochard (*Aythya ferina*)- 19.6%, usually there is Gadwall (*Anas strepera*) - 11.3%, Common Teal (*Anas crecca*) - 11.9%, the number of Mallards (*Anas platyrhynchos*), Shovelers (*Anas clypeata*) and Red-crested Pochards (*Aythya rufina*) is small. Later the number of Garganeys (*Anas querquedula*) and Shovelers (*A. clypeata*) increases. Of other groups there are usually grebes and gulls, including Black-headed Gull (*Larus ridibundus*) - 10.1%. Sandpipers are represented by Lapwings (*Vanellus vanellus*), Curlews (*Numenius arquata, N. phaeopus*), Godwits (*Lomosa limosa, L. lapponica*) and others. There is mass migration of northern sandpiper species; the most numerous are Dunlin (*Calidris alpina*), Little Stint (*Calidris minuta*), Curlew Sandpiper (*Calidris ferruginea*), Ruff (*Phylomachus pugnax*) and Red-necked Phalarope (*Phalaropus lobatus*). Spring migration of geese is of transit character, a considerable number of them stay for rest and feeding in the fields, where there is much water at that time and then they fly further. On the three lakes- Koibagar, Tyuntyugur and Biyesoigan in the beginning of May 1997 the number of geese was about 15 thousand: 12267 of White-fronted Geese (*Anser albifrons*), 665 Lesser White-fronted Geese (*Anser erythropus*), 1193 Red-breasted Geese (*Branta ruficollis*) and several hundreds of Greylag Geese (*Anser anser*) (P.Tolvanen & P.Pynnonen, 1998).

The period of autumn passage lasts for more than 2 months. Greylag Geese (*Anser anser*) begin concentrating already in the middle-end of August, in the middle of September the first flocks of White-fronted Geese (*Anser albifrons*) appear and the last ones fly away in the beginning of November. The greatest passage occurs in the first half of October. In 1996-1999 the recorded number at that period was from 48 to 80 thousand, of which 57,6-70.3 % - White-fronted Geese(*Anser albifrons*), 7.3-21.1 % - Greylag Geese (*Anser anser*), 0.07-0.9 % - Lesser White-fronted Geese (*Anser erythropus*) and 20.5-22.3

% Red-breasted Geese (*Branta ruficolis*) (P.Tolvanen, K.Litvin & P.Lampila, 1999; P.Tolvanen, T.Eskelin, T.Aarvak, G.Eichhorn, I.Oien, & E.Gurtovaya, 2000). On October 4-8, 1997 at the lakes there were about 170 thousand geese. The greatest concentration of geese in different years occurs at Tyuntyugur - Zhanshura, Koibagar, Biyesoigan lakes. Totally, several hundred thousand of geese fly there – and according to some data about half a million. The number of ducks is the same. In the beginning of October 1997 more than half of the number was Mallard (*Anas platyrhynchos*) and Pintail (*A. acuta*), there was a great number of Common Teals (*A. crecca*), Tufted Ducks (*Aythya fuligula*) and Wigeons (*Anas penelope*), usual species were Garganey (*A. querquedula*), Gadwall (*A. strepera*), Common Pochard (*Aythya farina*), Common Goldeneye (*Bucephala clangula*), in some years- Smew (*Mergus albellus*). Of other groups there is a great number of coots (*Fulica atra*) – on some lakes up to 21 %, and also grebes. Swans are dominated by Whooper Swans (*Cygnus cygnus*).

Shoreline areas and cereal meadows with high grasses are inhabited by Moorhens (*Gallinula chloropus*), Reed Bunting (*Emberiza schoemiclus*), Bearded Reedling (*Panurus biarmicus*), Bluethroat (*Luscinia svecica*), Yellow Wagtail (*Motacilla flava*), Common Stonechat (*Saxicola torquata*), there is a great number of quails (*Coturnix coturnix*). The predatory birds present are Montagu's Harrier (*Circus pygargus*) and Short-eared Owl (*Asio flammeus*). The fauna of the areas surrounding the lakes is not of great diversity. The common species are Skylark (*Alauda arvensis*) and Tawny Pipit (*Anthus campestris*), sometimes there are Wheater (*Ocnanthe ocnanthe*), and rarely there are Black Larks (*Melanocorypha yeltoniensis*), Grey Partridges (*Perdix perdix*). Near the villages there is a great number of Rooks (*Corvus frugilegus*) and Common Starlings (*Sturnus vulgaris*), in precipices there are nesting Sand Martin (*Riparia riparia*).

On the territory of the wetland there are nesting grounds of up to 15 species includes in the **Red Data Book of Kazakhstan**. Nesting species - Whooper Swan (*Cygnus Cygnus*), Common Crane (*Grus grus*), probably White-headed Duck (*Oxyura leucocephala*) (**IUCN**) and Ferruginoius Duck (*Aythya nyroca*)(**IUCN**). The species stopping over during migration – Whooper Swan, Bewick's Swan (*Cygnus bewickii*), Red-breasted Goose (*Branta ruficolis*) (**IUCN**), Lesser White-fronted Goose (*Anser erythropus*) (**IUCN**), Common Crane, White-tailed Eagle (*Haliaeetus albicilla*) and Imperial Eagle (*Aquila heliaca*) (**IUCN**). In summer sometimes there are groups of wandering Dalmatian Pelicans (*Pelecanus crispus*) (**IUCN**) and White Pelicans (*Pelecanus onocrotalus*), also Whooper Swans, Pallas's Gulls (*Larus ichthyaetus*), Great flamingos (*Phoenicopterus roseus*) were recorded. Demoiselle Cranes (*Anthropoides virgo*), Little Bustards (*Tetrax tetrax*) (**IUCN**) and Sociable Lapwings (**IUCN**) (*Chettusia gregaria*), were recorded and probably nest in the surrounding areas of the lakes, Red-footed Falco (*Falco vespertinus*) nest in woodland belts. Except mentioned species, there are more birds included in **IUCN lists**; in lake hollows there are nesting grounds of single pairs of Pallid Harrier (*Circus macrourus*), at the shore of Tyuntyugur – Black-winged Pratincoles (*Glareola nordmanni*), flying Great Spotted Eagles (*Aquila clanga*) also were recorded. Three sightings of the Siberian Crane (*Grus leucogeranus*) at Alabota and Zhanshura lakes are known.

Ichthyofauna includes 8-10 species: golden and silver European carps (*Carassius carassius, C. auratus*), roaches (*Rutilus rytilus*), Dace (*Leuciscus leuciscus*), in the years with a high water level Perch (*Perca fluviatilis*), Pike (*Esox lucius*), Lake Minnow (*Phoxinus percnurus*), Common Carp (*Cyprinus carpio*), Tench (*Tinca tinca*) and Bream (*Abramis brama*) inhabit the lakes. There were efforts on introduction of ripus, but the result was not known. There are no species which need conservation. The most diverse and stable ichthyofauna is in Koibagar Lake, in Alabota, Zhanshura and Biesoigan lakes in the periods with high water level there are only two carp species.

Of amphibians and reptiles there are only species usual for this region: Moor Frog (*Rana arvalis*), Common Spadefoot (*Pelobates fuscus*), Green Toad (*Bufo viridis*), Sand Lizard (*Lacerta agilis*) and Meadow Viper (*Vipera ursini*).

Mammals include not less than 30 species. The most numerous are rodents. Among hydrophyle species there is European Water Vole (*Arvicola terrestris*) and Muskrat (*Ondatra zibetica*), probably that there is Eurasian Water Shrew (*Neomis fodiens*). The following species inhabit the shoreline and meadows: Wood Mouse (*Apodemus sylvaticus*), Narrow-skulled Vole (*Microtus gregalis*), Root Vole (*Microtus oeconomus*), Common Hamster (*Cricetus cricetus*), Harvest Mouse (*Micromys minutus*), Northern Hedgehog (*Erinaceus europaeus*), Pygmy Shrew (*Sorex minutes*); in the steppes Common Vole (*Microtus arvalis*), Steppe Lemming (*Lagurus lagurus*), Northern Mole-vole (*Ellobius talpinus*), Stripped Hairy-footed hamster (*Phodopus sungorus*), Eversmann's hamster (*Allocricetulus eversmanni*), Russet suslik (*Spermophillus major*), at some places there are marmots (*Marmota bobac*). Sometimes

there is Great Jerboa (*Allactaga major*) and Long-eared hedgehog (*Erinaceus auritus*). European hares (*Lepus europaeus*) are very common, while Alpine hares (*Lepus timidus*) inhabit the coastal zone of the lakes and the rivers valleys. Predatory animals are widely distributed – Badger (*Meles meles*), Stoat (*Mustela erminea*), Weasel (*Mustela nivalis*), Steppe polecat (*Mustela eversmanni*), Corsac (*Vulpes corsac*), Red Fox (*Vulpes vulpes*), Wolf (*Canis lupus*). Wild boar (*Sus scrofa*) inhabited the lakes in the past.

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:

Koibagar and Tyuntyugur lakes are of great significance for commercial fishing. Commercial fishing lasts the whole year round; many amateur fishermen come for fishing in winter. In the periods of migration the surrounding fields are popular for hunting geese – not only Kazakhstan hunters, but also people from adjoining areas of Russia come here.

Since all lands on plateau surface are used for wheat cultivation, the territories of the lake hollows are main pastures for the livestock of the local population and farmers. Water coach meadows are productive haymaking 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:

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:

State owned. However, the lands around the lakes, even the coast ledges, are distributed between land users (rural community enterprises, ltd. companies and etc.) with the right on land lease for agricultural development (wheat cultivation, husbandry). The territory of the wetland under Karasu hunting enterprise is delivered to "Karasu – Ozen" ltd. for land lease for development of hunting activity. "Karasu – Ozen" ltd. also deals with commercial fishing at Koibagar Lake, at Tyuntyugur Lake – Society of Hunters and Fishermen.

b) in the surrounding area:

State owned. The lands around the lake hollow are in long-term land lease for rural community enterprises and ltd. companies.

25. Current land (including water) use:

a) within the Ramsar site:

Before the crisis in the 1990s the lake resources were intensively used. The water from Koibagar and

Tyuntyugur lakes was used for irrigation and technical needs of the enterprises and the population. In 1999 the total amount of water use was 17.7 thousand cubic metres. Before the beginning of the 1990s, in winter time the reed was scythed and used for construction of farms, sheep-folds and houses. A great number of state farm livestock grazed in the lake hollows, and at the shores there were cattle-breeding farms, in summer time shepherd's sites with enclosures for the livestock were located there. The water meadows in lake flood plains were used as hay lands. In the 1990-es, when the state farms were closed, the livestock was liquidated, and the farms were left and destroyed. However, after 2000 the number of livestock began rapidly increasing, and therefore the pastures and hay lands were used again.

Tyuntyugur Lake and especially Koibagar Lake are valuable commercial fishing water bodies. Even in the depressive years with low water level, there were groups of tens of fishermen carriages (in 1999 at Koibagar Lake there were 15 fishermen teams). In the middle of the 1990s the annual average catch of fish was about 900 centners. It was caught mainly by fixed nets and with use of motorboats. In the 1990s the lakes of Tyuntyugur hollow were the best in the oblast for hunting geese. In autumn 1998 at Koibagar and Tyntyugur lakes, according to official data 2365 head of waterbirds were shot. A network of automobile asphalt roads is well developed in the area that provides access to the lakes at any season.

b) in the surroundings/catchment:

The territory of the Tyuntyugur plateau is within the number of main grain production areas of Kostanay Oblast. Southern black soil and relatively great amount of precipitation allow for great and stable crops there. Already by 1960, mainly only parts of low flood plains remained not ploughed; in 1990 75% (from 70 to 80% and more) of Tyuntyugur plateau was ploughed. In the surrounding lake areas the major part of ploughed lands is located closely to hollow slopes.

The remained lands are used for pasturing and haymaking. Mainly they are narrow river valleys, sais and lake hollows.

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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 main factor is considerable commercial fishing load on the Tyuntyugur and Koibagar lake water areas and hunting. Especially great negative impact on birds during nesting and migration is made by wide use of motorboats. Constant disturbance results in decrease of the number of birds and breeding grounds, there are cases of bird death (grebes, divers and coots) in fishing nets. Poaching, including with use of motor boats on the water area, remains an urgent problem.

Considerable threat to the lake ecosystems is made by dry grass burning in the fields in autumn, which quite often expands to thick bulrush; also fires are caused by hunters.

In the past these factors were supplemented by trampling by cattle and scything of coastal vegetation, pollution by pesticides and manure. Trampling of coastal vegetation resulted in reduction of the area of nesting grounds and destruction of eggs in nests. In the last years the number of livestock heads is increasing and pasturing in coastal ecosystem – key nesting grounds of river ducks and some sandpipers, including Black-winged Pratincole – is expanding, and probably this problem will become urgent soon.

b) in the surrounding area:

Considerable impact on hydrological regime of the lakes was made by plowing of catchment areas, and probably by climate change. Ploughing of lands decreases the flow in the period of snow melting, especially in the years with little amount of moisture in soil. In connection with restoration of sowing lands, after the crisis at the end of XX century and intensification of agriculture, the pollution of the lakes by fertilisers and toxic chemicals is increasing. The degree of impact on hydrological regime of the lakes, made by dams, located at the rivers supplying the lakes, has not been assessed.

Special studies on possible impact of climate change on hydrological regime of the lakes should be made.

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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 has no status of a special protected area and it is included into a hunting enterprise under a specialized commercial organization with a right on land lease. Along with that, Koibagar - Tyuntyugur lake system is included into the national list of objects of environmental protection having special ecological, scientific and cultural significance (Resolution of the Government of RK #416 dated 05.03. 2005), and the list of water objects of natural-reserve fund of RK (Resolution #932 dated 09.28. 2006). The legislation of the Republic of Kazakhstan implies a special regime of use of such objects with a priority of ecosystem conservation, including – organization of especial protected territories.

In 2001 according to the proposal of the working group within WWF project and the order of Kostanay Oblast Territorial Department on Forestry and Bioresources (# 12 dated 03.14. 2001 г.), the water bodies are included into the list of the most significant wetlands of the region; hunting on the water area and a 500-meters strip around Tyuntyugur Lake was banned. However, this norm is of not obligatory character, since the lakes is the territory of a hunting enterprise.

In 2007 the lakes were 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.

Since 2005 the territory of the wetland has been one of 4 project sites under UNEP/GEF/ICF "Development of a Wetland Site and Flyway Network for Conservation of the Siberian Crane and Other Waterbirds in Asia". Within the framework of project implementation, in 2007 the lakes were included into the Western/Central Asian Site Network for Protection of Cranes and Other Globally Endangered Wetland Bird Species.

in 2008 justification on establishment of a zakaznik have been prepared.

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?:

No

d) Describe any other current management practices:

Until 2006 the protection was provided by two staff inspectors of oblast society of hunters and fishermen. After delivery of it to a hunting enterprise - by inspectors of a leaseholder organization, the number of which is determined in accordance with the state norms.

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28. Conservation measures proposed but not yet implemented:

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

Various versions on establishment of a zakaznik were proposed by the specialists of the Institute of Zoology of Kazakhstan in the middle of the 1990s, but none of them have been realized. In 2006 the proposal on establishment of a zakaznik was included in the scheme of ecological networks within the framework of "Econet – Central Asia" GEF/UNEP/WWF regional project, delivered to the Forestry and Hunting Committee of MA RK.

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29. Current scientific research and facilities:

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

In the period of virgin land development the lakes were studied by specialists (geographers, botanists, geo-botanists, hydrologists, soil scientists) of a number of complex expeditions (Muravlev, 1956, 1960). For the last 30 years no target scientific studies have been made there. Since autumn 1996 a Finland WWF working group on *Anser etythropus*, specialists of the Institute of Zoology of Kazakhstan and the Naurzun Reserve monitor the number of *Anseriformes* in the period of seasonal migrations (Yerohov ,1999; S.N. Yerohov, N.N. Berezovikov, E.N. Kellomyaky, N.L Ripatty, 2000; Tolvanen & Pynnonen, 1998 and others). In 2000 the staff of the Naursum Reserve and the Institute of Botany within the framework of the working group financed by WWF project on development of the network of protected wetlands in Kostanay

Oblast, identified the composition and the number of waterbirds in the period of nesting and molting, described vegetation and the condition of lakes (Bragin, Yerohov, 2002).

Since 2005 monitoring of lake and migratory waterbirds was started 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" project.

An ecosystem, soil, Flora and Fauna GIS maps of Tyuntyugur-Zhanshura lake territory were prepared under the same project.

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.

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 goal of the training: improvement of the skill of ranges, huntsmen and inspectors at the project sites in the field of identification especially protected, globally threatened wetland birds species of the project sites, informing about the activity under the project, global significance of the project sites, preventive measures and ways of identification of animals taken by avian flu. Informational materials on 46 protected species were prepared.

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.

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31. Current recreation and tourism:

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

Currently it is absolutely not developed. Surrounding fields are popular places for amateur hunting for many Kazakhstan and Russian hunters. It is perspective for ecotourism development in the area. The lakes are accessible in spring and autumn.

32. Jurisdiction:

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

Kazakhstan, Kostanay Oblast, Karasu District

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.

"Karasu-Ozen" TOO, Shkolniy per. 2, Karasu vil., Kostanay Oblast, Tel.: 8 (714-52) 21-5-33. Almat Zhanabilyevich Tursunov.

Supervising body: Kostanay Territorial Department on Forestry and Hunting, Kostanay city, Gagarin str. 85.
E-mail: leskst@mail.ru

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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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