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## WORLD HERITAGE NOMINATION – IUCN TECHNICAL EVALUATION

### SARYARKA - STEPPE AND LAKES OF NORTHERN KAZAKHSTAN (KAZAKHSTAN) – ID No. 1102 Rev

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**Background note:** This nomination was previously submitted under all four natural criteria for consideration at the 27<sup>th</sup> session of the World Heritage Committee (Paris, 2003). It was put forward as a serial nomination of three sites: Naurzum State Nature Reserve (87,700 ha), Sarykopa Wildlife Reserve (82,500 ha), and Korgalzhyn State Nature Reserve (258,947 ha). Following IUCN's recommendation, the World Heritage Committee decided to defer the nomination (Decision 27 COM 8C.6) and at the same time requested IUCN to undertake a thematic study for Central Asia, which was completed in 2005. The revised nomination has been submitted under criteria (ix) and (x) only and includes two of the three components previously nominated, excluding Sarykopa (and adopting a different spelling, Korgalzhyn, for one of the other components).

#### 1. DOCUMENTATION

- i) **Date nomination received by IUCN:** April 2007
- ii) **Additional information officially requested from and provided by the State Party:** IUCN requested supplementary information on 15 November 2007 after the field visit. The State Party response was received by email on 30 November 2007.
- iii) **UNEP-WCMC Data Sheet:** 9 references (including nomination)
- iv) **Additional literature consulted:** Aitzhanov, M. (1998) **Creating a Biosphere Reserve: Opportunities for the Tengiz Lakes, Kazakhstan.** In: Dömpke, S. and Succow, M. (eds.) *Cultural Landscapes and Nature Conservation in Northern Eurasia*, NABU, Bonn, pp.261-264; Dugan, P. et al. (eds) (1993) **Wetlands in Danger: A Mitchell Beazley World Conservation Atlas.** Mitchell Beazley and IUCN, London; Forestry and Hunting Committee (2006) **Management Plan of Korgalzhyn State Nature Reserve.** Ministry of Agriculture of the Republic of Kazakhstan; IUCN-WCPA (2000) **Proceedings of the Seminar on the Protection and Conservation of Grasslands in East Asia.** Grasslands Task Force, IUCN-WCPA, Gland, Switzerland; Kovshar, A.F. (ed.) (2000) **The Key Wetlands of the North Kazakhstan.** Tethys, Almaty; Krever, V. et al. (eds) (1998) **Biodiversity Conservation in Central Asia: An Analysis of Biodiversity and Current Threats and Initial Investment Portfolio.** WWF, Moscow; Magin, C. (2005) **World Heritage Thematic Study for Central Asia: A Regional Overview.** IUCN, Gland, Switzerland; Magin, C. and Chape, S. (2004) **Review of the World Heritage Network: Biogeography, Habitats and Biodiversity.** UNEP-WCMC and IUCN, Cambridge, UK; Schielzeth, H. et al. (2008) **Waterbird population estimates for a key staging site in Kazakhstan: a contribution to wetland conservation on the Central Asian flyway.** *Bird Conservation International*, 18: 71-86; Tolvanen, P., Aarvak, T. and Bragina, T. (2001) **Conservation work for the wetlands and monitoring the autumn staging of Lesser White-fronted Goose in the Kustanay region, north-west Kazakhstan.** *WWF Finland Report*, 13: 30-33; Vlasov, A. (2002) **Preserving the steppes of Russia, Ukraine and Kazakhstan.** *Russian Conservation News*, 29: 20-21; Yerokhov, S. (2001) **Overview of Undertaken Measures on Migratory Waterfowls Conservation in Kazakhstan.** In: Issue 3/4 of the Northeast and East Central Asia National Biodiversity Strategies and Action Plans Newsletter, Biodiversity Planning Support Programme UNEP/UNDP.
- v) **Consultations:** 6 external reviewers. Extensive consultations were undertaken during the field visit with local experts and relevant officials from national and local governments, conservation project staff, and field experts from a range of national and international conservation organisations.
- vi) **Field visit:** Chris Magin, September-October 2007
- vii) **Date of IUCN approval of this report:** April 2008

## 2. SUMMARY OF NATURAL VALUES

Saryarka - Steppe and Lakes of Northern Kazakhstan is a serial property comprising two protected areas: Naurzum State Nature Reserve and Korgalzhyn State Nature Reserve. The total area of the proposed property is 450,344 ha, composed of a cluster of three areas which are the core areas of Naurzum and a single area of Korgalzhyn, as shown in Table 1. The nomination also specifies buffer zones for all the elements of the nominated property which are in total 211,147.5 ha and include an eco-corridor linking the three elements of Naurzum. The buffer zones are not part of the nominated property but contribute to the effective protection and management of its values and integrity.

Naurzum and Korgalzhyn include two groups of fresh and salt water lakes which lie on a watershed between rivers flowing north to the Arctic and south into the Aral-Irtysh basin. They lie within a temperate Eurasian steppe grassland extending from the Black Sea to the border of China; a huge area of more than 3,000 km from west to east and more than 500 km from north to south. The Eurasian steppe extends over the northern half of Kazakhstan, bounded by coniferous taiga forests to the north and semi-deserts to the south. The climate of the reserves is strongly continental, with hot dry summers and cold winters with relatively small amounts of snow.

Naurzum lies at an altitude between 200-350 m and is located about 220 km south of the city Kostanay in the Turgai depression, a 25-30 km wide valley. The floor of the depression consists of former river and lake terraces, now dotted with an intricate chain of winter-flooded lakes. The Naurzum State Nature Reserve consists of three strictly protected core areas, surrounded by buffer zones and linked together by an ecological corridor. The largest part, the Naurzum–Karagay cluster, surrounds the Naurzum

wetland complex of over a dozen named lakes with a total wetland area of 40,000 ha. About 30 km to the northwest is an area of steppe with patches of forest and striking outcrops of red, yellow and white clay hills (the Tersek-Karagay cluster), and about 20 km to the west is another area of high quality steppe (the Sypsyn–Aebu cluster). In some extreme years many of the lakes dry out, allowing the algae and many of the mineral nutrients to blow away into the surrounding steppe, forcing the whole aquatic ecosystem to re-establish itself again with the commencement of the next wetting phase of the cycle.

Korgalzhyn lies at an altitude between 300-400 m and is located about 120 km south-west of the capital Astana. It is 350 km to the east of Naurzum and lies in a former lake-bottom depression in the Kazakh Rolling Hills. The Korgalzhyn State Nature Reserve consists of the vast Korgalzhyn-Tengiz lake system, an inward-draining complex of marshes, and freshwater and saltwater lakes of fluctuating water level, fed by the permanent Nura and intermittent Kulanuptes rivers. The total wetland area in the nature reserve is an estimated 200,000 ha, surrounded by steppe. Lake Tengiz is the largest lake at 159,000 ha, but can shrink to 113,000 ha after drought. It is saline with a thick silt lake bottom and surrounded by wide mudflats. The Nura River delta, when flooded, becomes a huge shallow lake - Lake Korgalzhyn (47,100 ha), a labyrinth of myriad channels lined with *Phragmites* reeds. Most of the watercourses and lakes are shallow, saline and seasonal. The groundwater is also saline but there are some freshwater springs. The diverse flora and fauna of the wetlands has evolved in phase with wetting/drying cycles.

The wetlands of Saryarka are an important crossroads of Central Asian migratory flyways. Waterfowl from as far away as Italy and Finland in the west to Yakutia in the east, and from the Arctic in the north and Australia to the south, rely on wetlands in Kazakhstan for nesting,

**Table 1:** Core areas of the nominated property and their buffer zones

Name of the area	Province	Size (ha)	
		Core areas	Buffer zones
Naurzum State Nature Reserve – Naurzum–Karagay Cluster	Kostanai	139,714	36,287.7
Naurzum State Nature Reserve – Sypsyn–Aebu Cluster	Kostanai	38,720	11,624
Naurzum State Nature Reserve – Tersek-Karagay Cluster	Kostanai	12,947	37,655.8
Naurzum State Nature Reserve – Eco-corridor linking the above clusters	Kostanai	-	31,159
Korgalzhyn State Nature Reserve	Akmolinsk and Karaganda	258,963	94,421
<b>Total</b>		<b>450,344</b>	<b>211,147.5</b>

moulting and feeding habitat during the migration seasons. The lakes of Korgalzhyn provide feeding grounds for up to 15-16 million birds, including flocks of up to 2.5 million geese. After rains, these lakes support 350,000 nesting waterfowl, while the Naurzum lakes support up to 500,000 nesting waterfowl. In total, 351 bird species have been recorded (112 breeding and 239 migratory) within the nature reserves. Lake Tengiz is the world's most northerly breeding site for greater flamingo, numbering up to 10,000 pairs.

Globally threatened species that occur in Saryarka include the Siberian white crane (three birds were observed in 2001, one bird at Naurzum in 2007), slender-billed curlew (historical records) and white-headed duck (which nests in the area), lesser white-fronted goose, red-breasted goose, Dalmatian pelican, Pallas's fish eagle, greater spotted eagle and Eastern imperial eagle, lesser kestrel, corncrake, great bustard and sociable lapwing. Migrating birds including widgeon, mallard, pochard, red-crested pochard, ruff, and coot pass through in huge numbers. Korgalzhyn is the largest inland staging site of the red-necked phalarope in the world, and several hundred thousand may be present.

Saryarka also contains significant areas of steppe: 120,000 ha of which is reported as unploughed or "virgin" steppe - especially in the western part of Naurzum. The nominated property has nearly 770 species of plants, a third of Kazakhstan's plant species and over half of the region's steppe flora. Naurzum is the most botanically diverse part of the nomination, with approximately 600 plant species. It is a zone of ecological transition where the northern *Pinus sylvestris* forest reaches its southernmost limit and meets the semi-arid desert flora at its northernmost extent. Naurzum also contains a variety of steppe types including feather-grass dominated dry steppe and sandy scrub steppe with almond, cherry, and juniper shrubs. The discontinuous forest/steppe edge is a very important habitat for raptors, many of which nest in the pine trees, close to plentiful prey in the steppe landscape. The property contains 70% of the Falconidae order in Kazakhstan, 28 species in total, with 18 species (including Eastern imperial eagle, golden eagle, white-tailed eagle and steppe eagle) nesting within the site. It also contains one of the few stable populations of saker falcon in Kazakhstan.

Many of the 53 mammal species in the nominated property are steppe rodents such as Bobak marmot, sousliks, ground squirrel, lemmings and the vulnerable steppe pika. Larger mammals include carnivores such as lynx, wolf, red fox, corsac fox, badger and Siberian polecat. Ungulates are represented by moose, roe deer, wild boar and small numbers of the critically endangered Saiga antelope. The property also contains 10 reptile and amphibian species, 16 fish species and over 1,000 invertebrate species.

### 3. COMPARISONS WITH OTHER AREAS

Saryarka is located towards the eastern edge of the Pontian Steppe Biogeographical Province which covers some 1.9 million km<sup>2</sup>. The Mongolian-Manchurian Steppe lies to the east of the Pontian Steppe and extends from Mongolia into northern China. The landscape is very similar to the Pontian Steppe, but ecologically it is quite distinct, and is often referred to as the "Eastern Steppes". These come under the influence of the Asian monsoon rainfall in summer, whereas Saryarka is in the "Western Steppes" influenced by the Atlantic Ocean.

There are a number of other notable steppe and wetland protected areas within and neighbouring this region; however, little information is available on many of the region's protected areas. IUCN carried out its comparative analysis based on its 2005 Thematic Study for Central Asia, considering both the steppe and wetland values for which Saryarka is nominated.

Saryarka's steppe values are compared with other key sites in Table 2. The nominated property contains over 200,000 ha of Central Asian steppe, more than half of which is pristine, and which is part of the temperate grassland biome that is currently poorly represented on the World Heritage List. No other steppe reserves of comparable size to Saryarka exist in Kazakhstan or elsewhere in the "Western Steppes". The few reserves that do include substantial areas of natural steppe, including the larger Uvs Nuur Basin World Heritage property, lie further east in the "Eastern Steppes", a different biogeographic province. Saryarka's steppe areas provide a valuable refuge for over half the species of the region's steppe flora, a number of threatened bird species and the critically endangered Saiga antelope, a once abundant species now much reduced across its range by poaching pressure.

Saryarka's wetland values are compared with other key sites in Table 3. In terms of bird diversity, the nominated property harbours a similar number of species to other areas in the wider region, including similar species of threatened waterfowl and raptors. However, Saryarka differs in the vast numbers of birds it supports, and also in terms of its high level of integrity. Saryarka's wetland areas are of outstanding importance for migratory waterbirds, including substantial populations of globally threatened species, as they are key stopover points and crossroads on the Central Asian flyways. Reviews of the present and previous nomination indicate that Saryarka can be considered as including the most important wetland areas in Central Asia.

## 4. INTEGRITY

### 4.1 Legal status

Korgalzhyn and Naurzum State Nature Reserves have benefited from long-term legal protection as strict nature reserves (IUCN Protected Area Management Category Ia). Naurzum was created in 1931 and enlarged in 1998 and 2004. In the last enlargement, a 2 km buffer zone and an ecological corridor was established to connect the three strictly protected areas of the reserve. Korgalzhyn was created in 1968. Soon afterwards, all settlements and farms were moved beyond the reserve's boundaries, and a reed factory was closed. From 1974 the fishing industry was closed and a 2 km buffer zone was established. Originally, the area of the reserve was 177,200 ha, including 147,600 ha of lakes, but the reserve was enlarged twice to a total area of 258,963 ha.

All land in the core areas of Korgalzhyn and Naurzum is state owned and no permanent settlements are allowed. No uses of wild animals and plants are allowed and there is limited visitor access to the property. The land in the buffer zones is mostly state property and consists of agricultural and reserve lands. The agricultural lands are partly used by local farmers. Any actions to cause substantial changes of the natural conditions are prohibited within the buffer zones, which are controlled by the reserve administrations. In the buffer zones (including the Naurzum eco-corridor) hunting is forbidden throughout the year and the only agricultural activities allowed are herding and hay cutting. The latter is only permitted outside the breeding season of ground-nesting species such as black and white-tailed larks, but in any case is usually done in wetter basins of long grass which are not areas suitable for nesting birds. Ploughing is not permitted. Ranger stations situated in both Korgalzhyn

**Table 2:** Key similarities and differences between Saryarka and other steppe sites

Name of the area	Details
Tian Shan Zhongbu Gongnaisi Grassland Nature Reserve (China)	Mongolian-Manchurian Steppe. Steppe grassland protected area (66,667 ha). Different biogeographic province to Saryarka.
Xilinguole Grassland Nature Reserve (China)	Mongolian-Manchurian Steppe. Large steppe grassland protected area (1,078,600 ha) which encompasses two salt lake systems. Different biogeographic province to Saryarka.
Hortobágy National Park - the Puszta (Hungary)	Pannonian Steppe. Cultural landscape World Heritage property (74,820 ha) that includes seasonal salt marshes along the flood plains of ancient rivers. Conservation importance for some threatened species that also occur in the Kazakh steppe. However, it is a man-made or secondary steppe and therefore not comparable to the natural steppe and wetlands of Saryarka. Different biogeographic province to Saryarka.
Eastern Mongolian Steppe (Mongolia)	Mongolian-Manchurian Steppe. Designated as a Strict Protected Area (IUCN Protected Area Management Category Ib) in 1992 (570,374 ha). Different biogeographic province to Saryarka.
Nomrog Strict Protected Area (Mongolia)	Mongolian-Manchurian Steppe. Grassy steppe in a different biogeographic province to Saryarka and much further east. With 31,205 ha also much smaller than Saryarka.
Uvs Nuur Basin (Mongolia, Russian Federation)	Mongolian-Manchurian Steppe. Natural World Heritage property (1,068,853 ha) that is made up of twelve protected areas representing the major biomes of eastern Eurasia including desert, steppe, forest, mountain and wetland ecosystems One of the best remaining natural steppe landscapes of Eurasia, but in a different biogeographic province to Saryarka.
Orenburgsky State Nature Reserve (Russian Federation)	Pontian Steppe. Forest protected area (21,653 ha) with some steppe; however, the area is relatively small and fragmented and large herbivores are lacking.
Central Chernozem State Biosphere Reserve (Russian Federation)	Pontian Steppe. Meadow steppes with a high floristic diversity. Protects some of the last remaining undisturbed steppe remnants in Europe surrounded by intensive agricultural land. With 6,287 ha core area (including 3,300 ha undisturbed steppes in five separate sections) much smaller than Saryarka.
Askaniya Nova Biosphere Reserve (Ukraine)	Pontian Steppe. Feather grass steppe. With 33,307 ha (11,054 ha core area) much smaller than Saryarka.
Chernomorskiy Biosphere Reserve (Ukraine)	Pontian Steppe. Located on the coast of the Black Sea. Includes three Ramsar sites. Coastal and forest steppe in contrast to the open grass steppe of Saryarka. With 70,509 ha core area (of which 56,361 ha is marine) smaller than Saryarka.
Luganskiy State Nature Reserve (Ukraine)	Pontian Steppe. Very small and fragmented at only 1,607 ha in area and split into three separate parts.

and Naurzum are allowed to use the vicinity of their station to have a garden, keep a working horse and some cattle for subsistence.

#### 4.2 Boundaries

The nominated property contains high quality steppe and lake habitats that are essential for the long term conservation of its biological diversity and each of its two component areas is of sufficient size to maintain associated biological and ecological processes. All access points into the core areas are signposted and major routes are guarded by fixed ranger posts. The State Party plans to extend the core area of Korgalzhyn by the end of 2008. The expanded area will include additional steppe and wetland areas.

The buffer zones have been delimited by ploughing a strip of steppe a few metres wide, which acts as a visual and physical barrier and a firebreak. The buffer zones are by law a minimum of 2 km in width, but can be larger where necessary. Planning is under way to extend the buffer zone around Korgalzhyn by 211,700 ha, as a basis for establishing a UNESCO Biosphere Reserve. In addition, there is interest in gaining protected area status for a further one million hectares of the area known in Kazakhstan as the "hunger steppe" - semi-desert steppe to the southwest

of Lake Tengiz (around Lakes Kipshak and Kirey) in Karagandinski oblast, an area which historically has been a significant Saiga antelope habitat. IUCN notes that this extension is important to threatened species such as the Saiga antelope and great bustard, which require large areas of steppe to maintain viable populations.

#### 4.3 Management

The staffing levels at Korgalzhyn and Naurzum are excellent and give both sites high levels of protection and law enforcement. The armed rangers use motor vehicles, motorbikes, boats and horses to carry out patrols, and incidents of poaching are extremely rare. The nominated property benefits from international support, including from UNDP, GEF, RSPB and WWF, and has a high level of political backing. In the past the reserves suffered from under-funding, but budgets have been increased ten-fold in the past five years, and levels of equipment and motivation are high. A comprehensive management plan for Korgalzhyn was developed in 2006, with input from international experts, and a management plan for Naurzum was approved in November 2007.

At present there are few visitors to the property but tourism is likely to increase in the future and needs

**Table 3:** Key similarities and differences between Saryarka and other wetland sites

Name of the area	Details
Lakes of the Lower Turgay and Irgiz (Kazakhstan)	Large group of lakes. Good example of wetland on the edge of an arid zone (the Kyzyl-Kum Desert). Very important moulting place for many species of waterfowl. Up to 1.5 million migrating waterfowl and waders have been recorded in favourable years. Placed on the Ramsar Convention's Montreux Record of priority sites for conservation action in 1993 due to barrages upstream which cut water supply.
Ural River Delta (Kazakhstan)	Little information on the area is available. Has been estimated to support up to 25 million migratory birds. Has no national protected area status and is not a Ramsar site.
Uvs Nuur Basin (Mongolia, Russian Federation)	Inscribed on the World Heritage List in 2003 (1,068,853 ha). Includes three wetland sites and Uvs Nuur Lake itself - the largest saline lake in the western Mongolian steppe (335,000 ha). 368 bird species recorded, including a number of internationally important species. Although Uvs Nuur Lake is larger than Lake Tengiz (Saryarka), it is less important for migrating wildfowl and has simpler hydrology.
Danube Delta (Romania)	Inscribed on the World Heritage List in 1991 (547,000 ha). Only natural World Heritage property in the Pontian Steppe - is larger than the wetland area of Saryarka but is comparable in terms of bird diversity (312 species recorded). In winter, Danube Delta supports large numbers of waterfowl comparable to Saryarka, but waterbird numbers are now only a fraction of what they once were. Natural integrity compromised since beginning of 20 <sup>th</sup> century, mainly through conversion to agricultural land, engineering works and pollution.
Chany Lakes (Russian Federation)	Ramsar site. 364,848 ha of lacustrine systems characteristic of the western Siberian forest-steppe. Supports large breeding and migrating populations of waterbirds, often numbering more than 20,000 birds, including globally threatened species.
Tobol-Ishim Forest-Steppe (Russian Federation)	Ramsar site. 1,217,000 ha of the forest-steppe zone of the Western Siberian Plain in the West Eurasian Taiga biogeographic province. Important for migrating and breeding populations of birds. Mosaic of wetlands within the forest-steppe supports a rich and significant diversity of habitats and species, including globally threatened birds.
Volga River Delta (Russian Federation)	Ramsar site. 66,816 ha of the 650,000 ha are strictly protected as a State Nature Reserve. Very important wildlife habitat with high natural integrity, supporting 5-7 million birds during the spring and autumn migration.

to be well planned and managed. Small-scale accommodation facilities are being developed within Korgalzhyn but there are no facilities in Naurzum. A large section of the Korgalzhyn administrative centre is being re-developed as an environmental education and interpretation centre.

The wetlands of the Sarykopa Wildlife Reserve (Sary-Kopinskiy State Nature Protection Area) lie about 100 km south of Naurzum. They are not included in the present nomination, but the area is currently treated as part of the Naurzum State Nature Reserve for management purposes, and its international significance is recognized. The State Party plans to upgrade Sarykopa by 2008 into a State Nature Reserve, as previously recommended by IUCN in 2003, with a core area of about 300,000 ha. Sarykopa was included in the original nomination and has potential as a future extension to the presently nominated property.

#### 4.4 Threats and human use

Economic transition over the last decade has had a huge impact on agriculture in Kazakhstan as a whole. The Naurzum region was previously a large producer of grain and livestock but the area under wheat is now less than 50% of a decade ago and livestock numbers are less than 10% of former levels. The region is one of the poorest in Kazakhstan, with high unemployment. There are currently no plans for the economic development of the region and depopulation is likely to increase. This is likely to decrease human pressures on the nominated property.

The continued viability of the Lake Tengiz ecosystem depends upon the maintenance of the hydrological regime, primarily the inflows from the Nura River. A canal was built in 1974 to divert water from the Nura to the Ishim River. This was closed in 1977 because of fears of mercury pollution from discharges into the Nura from chemical plants at Temirtau. Since 1990 the water quality of the Nura has improved significantly, due to the decline of industrial production and irrigated agriculture, and emission of mercury has stopped completely. The Government of Kazakhstan in cooperation with the World Bank is implementing a US \$40 million project to clean up mercury from the Nura (2003-2009). An improved enforcement of existing environmental regulations is likely to lead to the reduction of other pollutants. The State Party also extended the remit of the Nura River Basin Management Authority in 2003, and the Korgalzhyn State Nature Reserve is now represented on its Board.

A limited number of alien species have become established in Saryarka. Muskrat became established in 1944 but is not considered a threat to the ecology of the wetlands. Common carp, carp-bream and pike-perch have also been introduced to the lakes but have

not had a significant adverse effect on the native fish species.

The critically endangered Saiga antelope is a key species for steppe ecosystems in Central Asia, and its grazing previously had a key role in maintaining the ecosystems. The population collapsed by 95% in only 15 years due to uncontrolled poaching across its range. There does not currently appear to be any potential for a single Central Asian protected area to secure the future of the Saiga because it undertakes seasonal migrations over huge distances. However, Saryarka protects some habitat and calving grounds that are regularly used by the most threatened population of Saiga, which is at the northern limit of its range. Since 2003 the State Party has already extended the core area of Naurzum to include an additional 103,681 ha of steppe, and is in the process of adding another large amount of pristine steppe to the western side of Korgalzhyn. Both Korgalzhyn and Naurzum will constitute core protected zones within the new Altyn Dala (Golden Steppe) Conservation Initiative which aims to restore the Betpak-Dala Saiga population and conserve steppe and semi-desert habitats in Central Kazakhstan covering 3-4 million ha.

In summary IUCN considers that the property meets the necessary conditions of integrity as set out in the Operational Guidelines.

## 5. ADDITIONAL COMMENTS

### 5.1 Justification for serial approach

When IUCN evaluates a serial nomination it asks the following questions:

#### a) What is the justification for the serial approach?

Korgalzhyn and Naurzum State Nature Reserves lie in the same biogeographic province and protect high quality steppe and lake habitats. They contain outstanding wetlands within the Eurasian region and are key stopover points and crossroads on the Central Asian flyways. The serial approach is justified by the significant complementary nature conservation values of the two reserves.

#### b) Are the separate components of the property functionally linked?

The primary functional linkage relates to the extensive complementary protection they provide to high quality steppe and lake habitats within the same biogeographic province. The specific ecological linkages between Naurzum and Korgalzhyn are not strong due to the distance between them (350 km), although some birds probably do migrate between the two reserves.

**c) Is there an overall management framework for all the components?**

An Integrated Management Plan for the entire nominated property has been developed and submitted to the Ministry of Natural Resources and Environmental Protection for adoption. The government has also committed resources for its effective implementation.

IUCN concludes that the serial approach put forward is justified in this case.

## 6. APPLICATION OF CRITERIA

The property has been nominated under criteria (ix) and (x). IUCN considers that the nominated property meets criteria (ix) and (x) based on the following assessment:

### Criterion (ix): Ecological and biological processes

The property contains substantial areas of steppe and lakes with largely undisturbed associated biological and ecological processes. The seasonal dynamics of the hydrology, chemistry and biology of the lakes, with the diverse flora and fauna of the wetlands have evolved through complex wetting and drying cycles, and are of global significance and scientific interest. The wetlands of Korgalzhyn and Naurzum State Nature Reserves are key stopover points and crossroads on the Central Asian migratory bird flyways and are of outstanding importance for migratory waterbirds on their way from Africa, Europe and South Asia to their breeding places in Western and Eastern Siberia. The property also contains over 200,000 ha of Central Asian steppe, more than half of which is pristine, and which is part of the temperate grassland biome that is currently poorly represented on the World Heritage List.

IUCN considers the nominated property meets this criterion.

### Criterion (x): Biodiversity and threatened species

Korgalzhyn and Naurzum State Nature Reserves protect large areas of natural steppe and lake habitats that sustain a diverse range of Central Asian flora and fauna and support vast numbers of migratory birds, including substantial populations of many globally threatened species. The Korgalzhyn-Tengiz lakes provide feeding grounds for up to 15-16 million birds, including flocks of up to 2.5 million geese. They also support up to 350,000 nesting waterfowl, while the Naurzum lakes support up to 500,000 nesting waterfowl. The property's steppe areas provide a valuable refuge for over half the species of the region's steppe flora, a number of threatened bird species and the critically endangered Saiga antelope, a once

abundant species much reduced across its range by poaching pressure.

IUCN considers the nominated property meets this criterion.

## 7. RECOMMENDATIONS AND STATEMENT OF OUTSTANDING UNIVERSAL VALUE

IUCN recommends that the World Heritage Committee adopt the following decision:

*The World Heritage Committee,*

1. *Having examined Documents WHC-08/32.COM/8B and WHC-08/32.COM/INF.8B2,*
2. *Inscribes Saryarka - Steppe and Lakes of Northern Kazakhstan, Kazakhstan, on the World Heritage List on the basis of criteria (ix) and (x);*
3. *Adopts the following Statement of Outstanding Universal Value:*

### **Values**

*Saryarka - Steppe and Lakes of Northern Kazakhstan protects substantial, largely undisturbed areas of Central Asian steppe and lakes in the Korgalzhyn and Naurzum State Nature Reserves. The property's wetland areas are of outstanding importance for migratory waterbirds, including substantial populations of globally threatened species, as they are key stopover points and crossroads on the Central Asian flyways. The property's steppe areas provide a valuable refuge for over half the species of the region's steppe flora, a number of threatened bird species and the critically endangered Saiga antelope.*

Criterion (ix) – Ongoing biological and ecological processes: *The property contains substantial areas of steppe and lakes with largely undisturbed associated biological and ecological processes. The seasonal dynamics of the hydrology, chemistry and biology of the lakes, with the diverse flora and fauna of the wetlands have evolved through complex wetting and drying cycles, and are of global significance and scientific interest. The wetlands of Korgalzhyn and Naurzum State Nature Reserves are key stopover points and crossroads on the Central Asian migratory bird flyways and are of outstanding importance for migratory waterbirds on their way from Africa, Europe and South Asia to their breeding places in Western and Eastern Siberia. The property also contains over 200,000 ha of Central Asian steppe, more than half of which is pristine, and which is part of the temperate grassland biome*

that is currently poorly represented on the World Heritage List.

Criterion (x) – Biological diversity and threatened species: Korgalzhyn and Naurzum State Nature Reserves protect large areas of natural steppe and lake habitats that sustain a diverse range of Central Asian flora and fauna and support vast numbers of migratory birds, including substantial populations of many globally threatened species. The Korgalzhyn-Tengiz lakes provide feeding grounds for up to 15-16 million birds, including flocks of up to 2.5 million geese. They also support up to 350,000 nesting waterfowl, while the Naurzum lakes support up to 500,000 nesting waterfowl. The property's steppe areas provide a valuable refuge for over half the species of the region's steppe flora, a number of threatened bird species and the critically endangered Saiga antelope, a once abundant species much reduced across its range by poaching pressure.

### **Integrity**

The property contains high quality steppe and lake habitats that are essential for the long term conservation of the region's biological diversity and each of its two component areas is of sufficient size to maintain associated biological and ecological processes. Korgalzhyn and Naurzum State Nature Reserves have benefited from long-term legal protection as strict nature reserves. Korgalzhyn is completely surrounded by a buffer zone, while Naurzum consists of three strictly protected areas, each surrounded by a buffer zone and linked together by an ecological corridor. The reserves are complementary in their values despite the 350 km distance between them. The property's core zones and buffer zones, which are not part of the inscribed property, are adequately demarcated in the field.

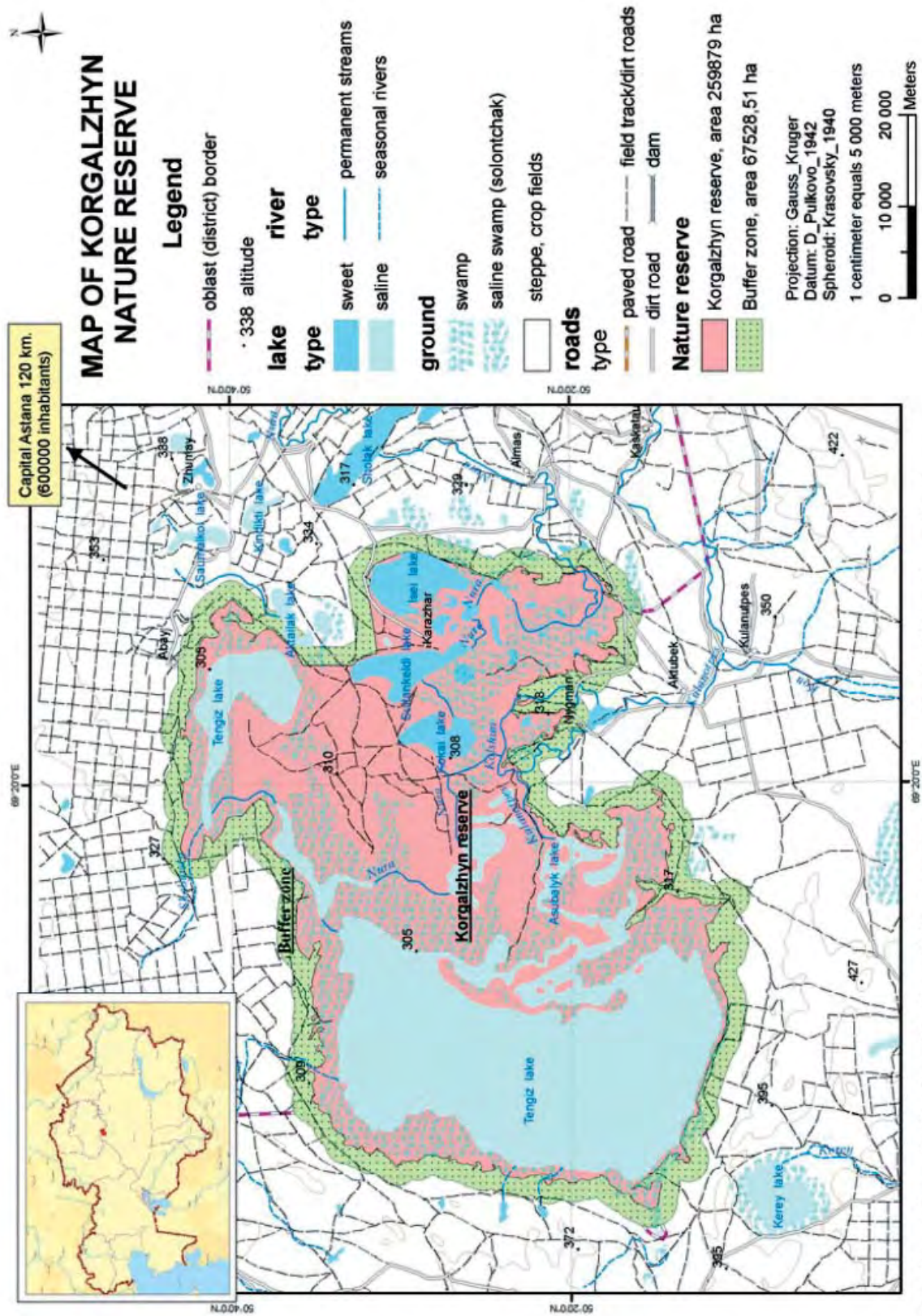
### **Requirements for Protection and Management**

The property has effective legal protection, is currently well managed and benefits from strong support and funding from the government and international partners. An integrated management plan has been developed for the property and the government has committed human and financial resources for its effective implementation. All land in the reserves is state owned and no permanent settlements are allowed. No uses of wild animals and plants are allowed and there is limited visitor access to the property. At present there are only few visitors to the property but tourism is likely to increase in the future and needs to be well planned and managed. Another key management priority is the maintenance of the hydrological regimes on which the viability of the property's wetland ecosystems depend, in the case of Lake Tengiz primarily the inflows from the Nura River.

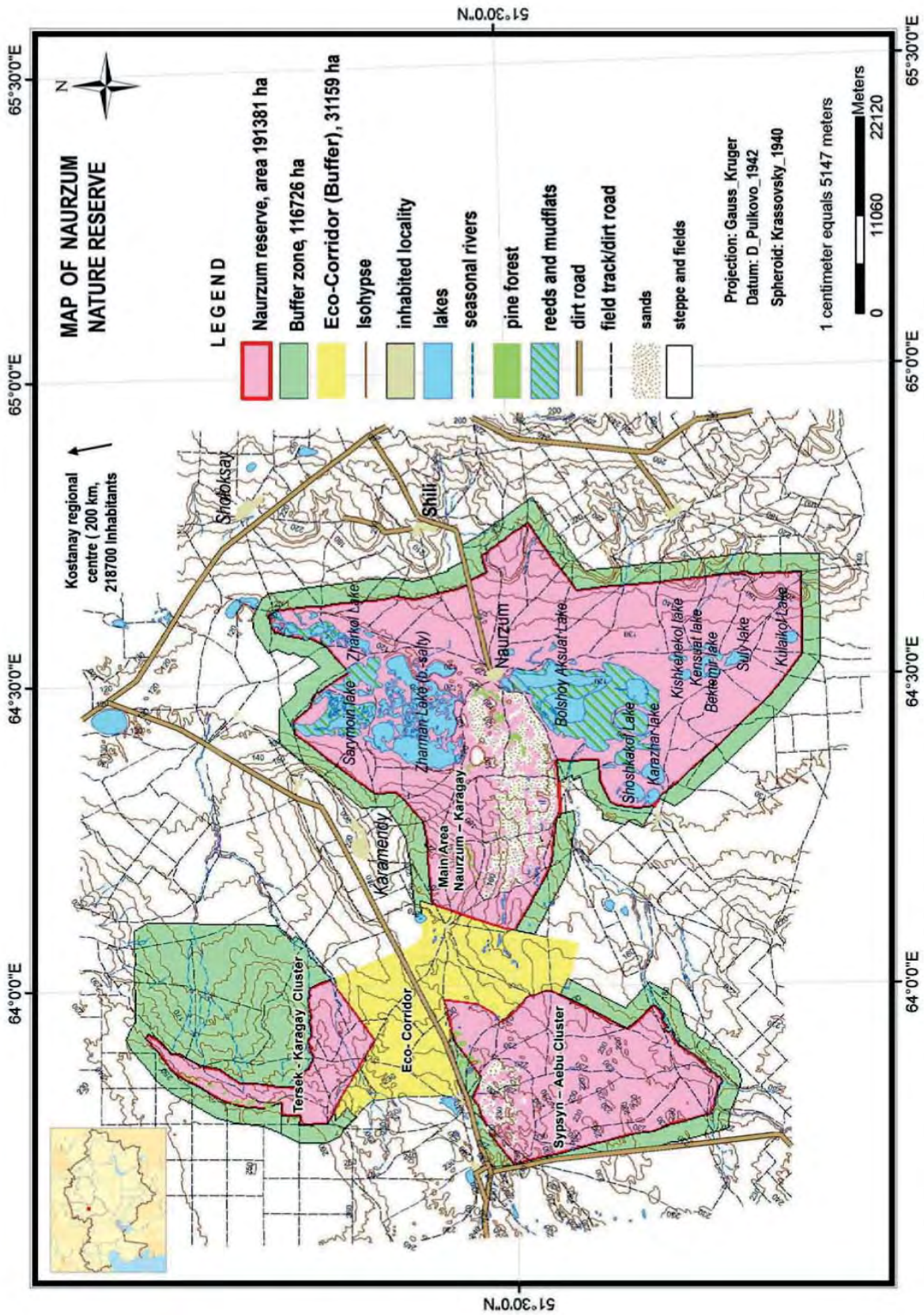
4. Commends the State Party and its national and international partners for their work in extending the Naurzum State Nature Reserve and also addressing the other issues raised in IUCN's evaluation of the original nomination submitted in 2002;
5. Further commends the State Party and its international partners for their initiatives to secure habitat for the critically endangered Saiga antelope, in particular through the Altyn Dala Conservation Initiative; and encourages the State Party to consider further extensions of the World Heritage property to contribute toward enhanced protection of this flagship steppe species and related steppe values;
6. Further encourages the State Party, given the extent and dynamics of the Central Asian Steppe ecosystem, to expedite planned extensions of the property including the additional area of Korgalzhyn State Nature Reserve and an upgraded Sarykopa Wildlife Reserve as they would add considerable value and increase the functional linkages of the serial property;
7. Recommends the State Party dismantle and remove as soon as possible disused and dilapidated equipment and structures from Naurzum State Nature Reserve to improve its aesthetic appeal, particularly around Naurzum village.



Map 1: Location and boundaries of the nominated property: Korgalzhyn State Nature Reserve



Map 2: Location and boundaries of the nominated property: Naurzum State Nature Reserve



Map 3.) Map of the Naurzum State Nature Reserve (see also Map 35.), (Author Telnov Vladimir)