Information Sheet on Ramsar Wetlands

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties

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2. Country:

UKRAINE

3. Date:

April 7, 2003

4. Name of the Ramsar site:

Big Chapelsk Depression

5. Map of the Ramsar site:

a) hard copy

yes

b) digital (electronic) format

raster

6. Geographical coordinates:

46°29' N 33°51' E

7. General location:

Khersonska Oblast (Kherson Region), Chaplynskyi Rayon (Chaplynka District), the town of Askania-Nova (3.5 thousand inhabitants); 50 km south-east of the town of Nova Kahovka (60 thousand inhabitants) and about 100 km east of the

administrative center of the region, Kherson (about 400 thousand inhabitants).

8. Elevation:

24 m; 26.5 m – 19.8 m

9. Area:

2,359 ha

10. Overview:

The wetland site "Big Chapelsk Depression" was established in a steppe shallow depression (such depressions are called *pod* in Ukrainian). Area of water of the Big Chapelsk Depression fluctuates from 4 to 1300 ha with periodicity of 12 years, depending on precipitation (snow and rain) as well as partly on artificial filling from artesian wells. Tens thousands, and in single years hundreds of thousands of birds stay here during their autumn and spring migrations. Among them there are White-fronted Goose *Anser albifrons* (30–500 thousand individuals), Crane *Grus grus* (10–42 thousand individuals), Red-breasted Goose *Branta ruficolis* (150-300 individuals), Ruddy Shelduck *Tadorna ferruginea* (500-1 200 individuals). Birds feed on agricultural lands and areas of steppe during the daytime, and at night come back to the depression for rest. Non-freezing lakes (permanently supplied by fresh water from artesian wells) of the local Zoo provide the wintering opportunities for up to 40 thousand individuals of White-fronted Goose *Anser albifrons,* 5-16 thousand individuals of Mallard *Anas platyrhinchos* and others. The site is located in the core area of the Askania-Nova Biosphere Reserve.

11. Ramsar Criteria:

2 3 4 5 6

12. Justification for the application of each Criterion listed in 11. above:

(2) The following species included in the Annex 1 of the European Bird directive **are** present in large number at the site**:** Crane *Grus grus,* Red-breasted Goose *Branta ruficolis,* Ruddy Shelduck *Tadorna ferruginea,* Black-winged Stilt *Himantopus himantopus.*

(3) The site is the only one Ukrainian ecotope of *Damasonium alisma* Mill. (*Alisma damasonium* L.). In spring, rare Scythian tulip *Tulipa scythica* Klok. et Zoz blossoms here. In the central part of the depression with permanent waters, such endemic species occur as *Achillea euxina* Klok., *A. inundata* Kondr*., A. micranthoides* Klok., *Galatella novopokrovskii* Zefir., *Phalacrachena inuloides* (Fisch. ex Schmalh.) Iljin*, Polygonum scythicum* Klok., *Psammophiliella stepposa* (Klok.) Ikonn., *Scleranthus syvaschycus* Kleop., *Elythrigia pseudocaesia* (Pacz.) Prokud., *Phlomis scythica* Klok. et Shost*., Tulipa scythica* Klok..

(4) Tens thousands, and in single years hundreds of thousands of birds stay here during their autumn and spring migrations. Among them there are White-fronted Goose *Anser albifrons*, Crane *Grus grus*, Red-breasted Goose *Branta ruficolis*, Ruddy Shelduck *Tadorna ferruginea*. Birds feed on agricultural lands

and areas of steppe during the daytime, and at night come back to the depression for rest. In the eastern part of the site, artificial non-freezing ponds of the Askania-Nova Zoo (13 ha) is located, being the places of concentration for thousands of migratory birds, especially in winter. The Biosphere Reserve "Askania-Nova", including the Big Chapelsk Depression, belongs to 138 most valuable areas of Ukraine, which were defined for the Important Bird Area Programme.

(5) Considerable numbers of Crane *Grus grus* (6 000 – 42 000 individuals), Red-breasted Goose *Branta ruficolis* (150-300 individuals), Ruddy Shelduck *Tadorna ferruginea* (550-1 170 individuals), White-fronted Goose *Anser albifrons* (from 20 000 to 100 000 and more individuals) and number of other rare and widespread waterfowl gather here during autumn and spring migrations.

(6) The site supports during migrations more than 1% of the individuals in the population of the species below:

_ from 20 000 to 100 000 and more individuals of White-fronted Goose *Anser albifrons*

_ from 6 000 – 42 000 individuals Crane *Grus grus*

_ from 550-1 170 individuals of Ruddy Shelduck *Tadorna ferruginea*

13. Biogeography:

Biogeographical region on the map of the Emerald Network of Europe: Steppe

According to geobotanical zoning of Ukraine: Black Sea (Pontic) Steppe Province of the European-Asian Steppe Region.

14. Physical features of the site:

The area of the site is a shallow depression 4 km wide and 6 km long, which formed as a result of numerous transgressions of the ancient seas and transformation of loess layers.

Southern chernozem and dark-chestnut soils, and in depressions – gley meadow soils, are characteristic for the Site.

The Big Chapelsk Depression belongs to the continental region of the temperate climate. Because of that hot dry summers and mild unstable winters are characteristic for the depression area. An average air temperature is 9.5^{o} C (extremities ranging from -32^{o} C to +40.3^{o} C). Average annual precipitation is 400 mm, with its minimum of 164 mm in 1943 and the maximum of 703 mm in 1997.

The depression is filled by water from melted snow and rains. The lake at the central part of the depression never dries up due to additional water coming from the artesian wells during the last hundred years. Temporary streams and depressions are formed after thaw of snow and during heavy rains in spring. The water level in the depression fluctuates from 0.7 to 1.2 m.

15. Physical features of the catchment area:

The Big Chapelsk Depression and slopes around it, from which water flows to depression are the catchment areas. The whole catchment area does not exceed 70 km^2. Artesian wells are additional sources of water for the depression.

16. Hydrological values:

There are no outlets of the underground sources within the site. The flood control measures are not necessary because the flooding usually does not affect areas outside the depression. Deep deposition of underground waters is characteristic for this region. The first aquifer (water-bearing horizon) is located at the depths from 18 to 30 m, the following aquifer (artesian) in Pontic porous limestone below 45 m.

17. Wetland Type:

P 2 N Ts

18. General ecological features:

The wetland vegetation with domination of *Lemna minor* is characteristic for the site. Temporary communities with meadow-swamp herbaceous plants, namely *Festuca* + *Phalacrachena inuloides* and monodominant fescue communities are formed on drying areas.

19. Noteworthy flora:

In the steppe valley near the depression (aquatic area), the following hygrophilous grasses dominate: *Agropyron repens, Bromopsis inermis*, *Poa angustifolia*, and *Beckmannia eruciformis*, as well as species of sedges.

20. Noteworthy fauna:

Crusian *Carassius carassius* L., frog *Rana ridibunda* Pallas and grass-snake *Natrix natrix* L. inhabit here.

21. Social and cultural values:

The “Askania-Nova” Zoo and the Dendrological Park (Arboretum) are located near the site. The Zoo was established in 1874; it is specialized in breeding of hoofed animals of steppes, savannas, deserts and mountain regions (about 900 heads of cattle), waterfowl and other rare birds (17 species of the Red Data Book of Ukraine) of the Steppe zone (totally there are 78 bird species and 34 mammal species). The Arboretum includes over 1000 species and forms of trees.

Within steppe areas of the Reserve, there are 17 monuments of the ancient Polovtsian tribes (stone sculptures), which lived there in the X century.

22. Land tenure/ownership of:

site:

Lands of state ownership are transferred to the Administration of the Friedrich Faltz-Fein Biosphere Reserve "Askania-Nova” of the Ukrainian Academy of Agricultural Sciences (there is the Certificate on the right of permanent land use).

surrounding area:

Other lands of national ownership, which are transferred to permanent use to the Biosphere Reserve "Askania-Nova" (within the core area), the Institute of Livestock Breeding of the Steppe Region "Askania-Nova", the Institute of Oil Crops of the Ukrainian Academy of Agricultural Sciences, as well as lands of private ownership (agricultural lands) within the buffer zone and the zone of anthropogenic landscapes.

23. Current land (including water) use:

(a) site:

The area of the site is a part of the core area of the Biosphere Reserve "Askania-Nova". According to the national legislation, research, bird′s monitoring and nature conservation measures are implemented. Visits to the site require special permissions according to quotas approved by the Ministry of Environment and Natural Resources of Ukraine.

surroundings/catchment:

Research, nature conservation activities; visiting the Zoo "Askania-Nova", Arboretum and steppe areas by the ecological trails of the Biosphere Reserve; agricultural activities (crop raising, haymaking and grazing) on private lands and lands of the Institute of Livestock Breeding of the Steppe Region "Askania-Nova" and the Institute of Oil Crops.

24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

at the site:

Cyclical, with the periodicity of 12 years, decrease of the water content, which influence distribution patterns of the wetland fauna, is characteristic for the site. There exists also the factor of disturbance for birds because of scientific research, excursions, etc. Re-acclimatized species of ungulates on neighboring areas also have some adverse influence.

around the site:

Hunting; plowing up of balkas (ravines), with which water flows down into the site.

25. Conservation measures taken:

The Biosphere Reserve "Askania-Nova" (33 397.60 ha) was created according to the Decree of the President of Ukraine of 26 November 1993 No. 563/93 on the base of the Nature Reserve, which was established already in 1898. The site is located in the reserve zone (core area) of the Biosphere Reserve.

Biological and landscape diversity management is conducted according to the Law of Ukraine "On the Nature Reserve Fund of Ukraine" (1992), the Regulations (By-

law) on the Biosphere Reserve “Askania-Nova” (1994).

26. Conservation measures proposed but not yet implemented:

It is planned to develop a management plan for the territory and protection of natural complexes and sites of the Biosphere Reserve “Askania-Nova” in 2003-2004. The special management plan on wetlands of international importance will be developed.

Also it is planned to develop measures on decrease of the influence of hunting pressure outside the Biosphere Reserve, and to develop tools and mechanisms of compensations to landowners for any damage to crops caused by migratory birds, including such rare species as Crane and Ruddy Shelduck.

27. Current scientific research and facilities:

The Biosphere Reserve “Askania-Nova”, in which subordination the site is, is a scientific research institution of the Ukrainian Academy of Agricultural Sciences. The Institute of Agroecology and Biotechnology of the Ukrainian Academy of Agricultural Sciences is the scientific curator of the reserve. In the staff of the Reserve there are 20 scientific officers working in the Laboratory of Biomonitoring and Reserved Steppe, the Laboratory of Conservation of Wildlife Diversity Conservation, and the Laboratory of Dendrological Park (Arboretum). Among main research directions there are the following: monitoring for the state of biological and landscape diversity in the frameworks of the annual Program on Chronicles of Nature; studies of ecology of rare and threatened species, theirs breeding in captivity and under semi-captivity conditions, reintroduction and restoration; introduction of trees in arid regions.

28. Current conservation education activities related to communications, education and public awareness (CEPA) related to or benefiting the site:

In the Administration of the Biosphere Reserve “Askania-Nova” there is the Environmental Public Outreach Sector, which acts as the regional center for environmental education. Considerable part of the environmental education activities is carried out through excursions in the Zoo “Askania-Nova” and the Dendrological park, and ecological paths (trails) also. Sightseeing excursions in a horse carriage are organized to the Big Chapelsk Depression. Besides, the schoolboys of the town of Askania-Nova (about 300 persons) are involved in cooperation. Each year the informational leaflets and periodical booklets are published.

29. Current recreation and tourism:

Totally about 60 thousand tourists visit the Zoo “Askania-Nova”, the dendrological park of national importance, and areas of the reserved steppe in the Biosphere Reserve “Askania-Nova”. At the same time, visiting of the Big Chapelsk Depression is limited – up to 500 tourists per year.

30. Jurisdiction:

Territorially lands of the site are subordinated to the State Administration of

Chaplynskyi Rayon (Chaplynka District) of Khersonska Oblast (Kherson Region).

Functionally the Site is under the subordination of the Biosphere Reserve "Askania-Nova".

31. Management authority:

Administration of the Friedrich Faltz-Fein Biosphere Reserve "Askania-Nova"

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32. Bibliographical references:

1. Chronicle of Nature: Biosphere Reserve 'Askania-Nova' – 19 volumes (1983 - 2001).
2. Red Data Book of Ukraine: Flora - 1996, 608 p.; Fauna - 1994, 464 p. - Kyiv: Ukrainian Encyclopaedia.
3. Reserves and National Nature Parks of Ukraine. – Kyiv: Vyshcha Shkola (Higher School), 1999. – 230 p.