



# Ramsar Information Sheet

Published on 23 November 2016

## Ukraine

### Sim Maiakiv Floodplain



Designation date	24 December 2013
Site number	2273
Coordinates	47°26'17"N 35°02'41"E
Area	2 140,00 ha

## Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

## 1 - Summary

### Summary

The Sim Maiakiv (Seven Lighthouses) site is located on the territory of Zaporizhzhia Oblast (Province) in the steppe zone of Ukraine, downstream of the Dnipro River at the lower reaches of the tributary the Mayachka River. The uniqueness of the territory lies in the fact that on a relatively small area, there are heterogeneous habitats, including unique complexes not typical for the south of Ukraine, like the karsts system in Sarmatian limestone. It is known only for mountainous regions, and is absolutely not typical for flat steppe areas. The deep tertiary arroyo with a small steppe river Mayachka largely forms the unique habitats, including floodplain forests, wet meadows and reed beds at the site of its confluence with the Kakhovka Reservoir. Since the wetlands area is surrounded by agricultural landscape only, the wetland is a unique refugium of biodiversity for the whole steppe region. Here, throughout the study, we have identified 137 species of birds, 24 species of mammals, 11 species of algae, 12 species of fungi, 47 species of fishes, 690 species of insects. The shallow waters of the Kakhovka Reservoir are located on the strategically important migration routes for many waterfowl bird species. The accumulation of benthos on large tertiary arroyo drift attracts a lot of birds not only during migration, but in the post-breeding period. The accumulation of water flowing in the Maiachanska arroyo along sinkholes and underground cavities systems forms a certain level of ground water, which is very important for the needs of local communities. The shallow waters of the Kakhovka Reservoir and river Maiachka are also a natural watering place required to maintain local livestock complex and contribute substantially to local economy.

## 2 - Data & location

### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

##### Compiler 1

Name	Viktor Busel
Institution/agency	National Nature Park
Postal address	37 Shevchenko Str., v. Skelky, Vasylivskyi rajon, Zaporizka Oblast, Ukraine, 71640
E-mail	hram@ukrpost.ua
Phone	+38061 756 65 78
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#### 2.1.2 - Period of collection of data and information used to compile the RIS

From year	2010
To year	2015

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Sim Maiakiv Floodplain
Unofficial name (optional)	Заплава Сім маяків (Zaplava Sim mayakiv)

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<1 file(s) uploaded>

#### Boundaries description (optional)

The Sim Maiakiv (Seven Lighthouses) site is located on the territory of Zaporizhzhia Oblast (Province) in the steppe zone of Ukraine, downstream of the Dnipro River at the lower reaches of the tributary the Mayachka River within the boundaries of the National Nature Park "Velyky Luh" .

### 2.2.2 - General location

a) In which large administrative region does the site lie?	Zaporizhska Oblast
b) What is the nearest town or population centre?	Dniprorudne

### 2.2.3 - For wetlands on national boundaries only

- a) Does the wetland extend onto the territory of one or more other countries? Yes  No
- b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes  No

### 2.2.4 - Area of the Site

Official area, in hectares (ha):	2140
Area, in hectares (ha) as calculated from GIS boundaries	2141.19

### 2.2.5 - Biogeography

#### Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Steppic

[Other biogeographic regionalisation scheme](#)

According to physical and geographic zoning of Ukraine, the wetlands belong to Kinsko-Yalynska low-lying area of the Left Bank Dnipro-Azov north-steppe region of northern steppe subzone (National Atlas of Ukraine, 2008). According to the biogeographic zoning of Ukraine (Udra, 1997) the wetland belong to the Prykahovsko-Molochanskyi biogeographic region of the Lower Danube-Black Sea-Azov subprovince of the Pontic province of the steppe zone of Ukraine.

### 3 - Why is the Site important?

#### 3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided

The site plays an important ecological role in filtering water by water-marsh vegetation and in reducing the speed in the lower reaches of the Mayachka river, which contributes to water purification. The wetlands area is also important for maintaining the hydrological condition of the local groundwater because it serves as drainage for rainwater and melted water during the year. In this process, karst system located in the lower part of the Maiachanska arroyo is of great importance, which is a natural protection against the water erosion of the alluvial clays of coastal area of the Kakhovka Reservoir. The Maiachanska arroyo shoal acts as a natural filter in the accumulation of rainwater that contributes to the formation of water horizon that creates a drinking water reserve for local citizens. The river has very variable water regime, the major part of the bed dries in the summer. In the lower reaches, a certain amount of water that supports the stable existence of a floodplain meadow and forms a section of wetland with reed beds is maintained. Throughout the year, the river is fed by a number of natural springs located at the level of the aquifer, which in the dry season is of critical value as a place for watering animals and birds of the local fauna.

Other ecosystem services provided

The right slope of the arroyo forms vast karsts which are a unique phenomenon in the steppe zone of Ukraine. The shallow areas of the Kakhovka Reservoir with their pebble and sandy beaches form a vast territory, convenient, primarily as a forage base for birds during spring and autumn migrations. The extensive storm erosion has formed the coastal cliffs and slopes with Sarmatian limestone, which are attractive as a nesting site for many species of birds and insects. The area of wetlands is of great economic importance to agriculture and the development of the region as a whole. The adjacent agricultural landscapes depend on the stability and quality of water in the shallow areas of wetlands, from where the water for their irrigation is taken. The Mayachka River, especially its lower part, is valuable for the development of the livestock industry, as in fact it is the only watering site, and its meadow part, with moderate grazing, can be a convenient and cost-effective pasture for the nearby settlements. The reservoir coastal areas rich in benthos are important for fisheries, as well-warmed water of the Mayachansky Gulf shallows are the place for feeding many species of fish. On the slopes of the riverbed, there are bog willow plantings which are used in basket weaving by the local population, now it is one of the few places in the lower Dnipro where the traditions of this cultural heritage are preserved.

Other reasons

Wetlands include typical systems of the floodplains of the steppe zone of Ukraine: permanent rivers and streams, freshwater lakes, oxbowlakes, swamps and shallow waters. The uniqueness of wetlands is based on the specific combination of forests with shrubs and water-marsh vegetation. The karst formations can serve as a large reserve for parent colonies of some species of bats and insects. The wetlands area is the most attractive in terms of migration, since the shallow part of the Kakhovka Reservoir is located on one of the largest transcontinental migration routes of the Eastern Europe. In contrast to the surrounding areas, lower reaches of the major tertiary arroyo contribute to the accumulation of benthos, so shallow water of the wetlands is attractive to birds, primarily as a food supply. Every year, the birds stay here for a long rest and feeding. During seasonal autumn migrations in this area, there are large concentrations of waterfowl and shorebirds.

- Criterion 2 : Rare species and threatened ecological communities









- Criterion 3 : Biological diversity

Justification

At the wetland, there are 326 plant species, including 318 higher vascular, and 11 algae species. During the investigations, on the wetland territory, we observed 137 species of birds, 24 species of animals, 47 species of fish, 690 species of insects. The wetlands area has great potential in maintaining wetland birds of the following species: Podiceps cristatus, Anas platyrhynchos, Fulica atra, Gallinula chloropus, Acrocephalus schoenobaenus, Acrocephalus agricola, Acrocephalus palustris, Acrocephalus arundinaceus. The wet areas with grassy vegetation are important for the protection of the local populations of Himantopus himantopus and Vanelus vanellus. In the lower reaches of the river Mayachka, there is a large colony of Ardea purpurea where about 100 pairs of birds nest annually; this is the biggest colony of this species throughout the territory of the Kakhovka Reservoir coast. In terms of its characteristics the area of wetlands is represented by several types of habitats that are most important in biodiversity conservation of the Lower Dnipro. We should note the area of the floodplain forest which is located in the lower reaches of the river Mayachka. This is an old black poplar forest with well manifested under wood - one of the few remaining sections flooded area which was flooded during the creation of the Kakhovska Hydropower station. In the coastal zone in the territory of wetland, there is a wet meadows site which is periodically flooded in the spring floods of the river Mayachka. The area of wetlands is important in maintaining the meadow biotope which has almost completely disappeared in the surrounding areas of the Kakhovka Reservoir. We should also note a large area of reed beds with alternating shrub vegetation in the wetland territory. This type of habitat is typical of the small rivers in the south of Ukraine, but it is important in maintaining species diversity of water birds, as a nesting place and, above all, molting place for ciconiiformes and anseriformes. On the territory of wetlands the presence of well-defined karsts with specific well-defined sinkholes and siphons, which is absolutely not typical not only for the valley of the Dnipro, but also for the whole flat part of the south of Ukraine. The presence of this unique geological monument maintains a great diversity of species of bats, and not only during the migration process, but also as a place for permanent residence during wintering, and especially for the parent colonies. This area is also attractive for some species of birds using the caves and grottos as a place for nesting or as a temporary shelter during the autumn and winter.

























Criterion 4 : Support during critical life cycle stage or in adverse conditions
















### 3.2 - Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Astragalus cornutus</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	listed in the Red Data Book of Ukraine - rare	
<i>Astragalus dasyanthus</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
<i>Caragana scythica</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
<i>Colchicum bulbocodium</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
<i>Ornithogalum boucheanum</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	listed in the Red Data Book of Ukraine - NE	
<i>Stipa zaleskii</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	listed in the Red Data Book of Ukraine - NE	
<i>Tulipa suaveolens</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	
<i>Tulipa sylvestris</i> 		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	

The site is characterized by specific floodplain vegetation, which is generally unusual for the arid regions of southern Ukraine, but typical for the floodplain systems of large rivers of Ukraine.  
 The site is a system of water courses with a developed vegetation, especially the dendroflora of marsh and steppe adjacent parts are very rich. These are the unique model complexes, typical for flood plains of the steppe zone of Ukraine: permanent rivers and channels, freshwater lakes, freshwater marshes and shallow, freshwater forested wetlands. The rare feature of the site is a specific combination of woodlands with thickets of shrubs and water-bog vegetation.

### 3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
<b>Birds</b>																		
CHORDATA / AVES	 <i>Alcedo atthis</i>	Common Kingfisher	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	170	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>	IUCN Red List Europe - VU, Bem – II	The wetlands area is of major importance, as high reservoir slopes create good conditions for species nesting.
CHORDATA / AVES	 <i>Anas penelope</i>	Eurasian Wigeon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	500	2010-2015			<input type="checkbox"/>	<input type="checkbox"/>		Migrants in the last decade of the autumn.
CHORDATA / AVES	 <i>Anser anser</i>	Greylag Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		The conservation status of the territory contributes to the conservation of Anser anser populations in the region as the area of wetlands is one of the few places for accumulation in after-nesting period.
CHORDATA / AVES	 <i>Asio flammeus</i>	Short-eared Owl	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Bem - II; CITES - II; listed in the Red Data Book of Ukraine - LC	
CHORDATA / AVES	 <i>Aythya ferina</i>	Common Pochard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2500			VU 	<input type="checkbox"/>	<input type="checkbox"/>		Large concentrations of migrants during the autumn.
CHORDATA / AVES	 <i>Aythya fuligula</i>	Tufted Duck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2500	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		Large concentrations of migrants in the last decades of the autumn.
CHORDATA / AVES	 <i>Aythya nyroca</i>	Ferruginous Duck	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35	2010-2015		LC 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Bem - III; CMS - II; listed in the Red Data Book of Ukraine - VU	
CHORDATA / AVES	 <i>Bucephala clangula</i>	Common Goldeneye	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1200	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		Large concentrations of migrants in the last decades of the autumn.
CHORDATA / AVES	 <i>Coracias garrulus</i>	European Roller	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	70	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Bem – II; listed in the Red Data Book of Ukraine - EN	post-breeding migration
CHORDATA / AVES	 <i>Falco cherrug</i>	Saker Falcon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	listed in the Red Data Book of Ukraine - VU	Two birds annually nest in the floodplain forests, for another pair the area is the forage base within the nesting territory.
CHORDATA / AVES	 <i>Himantopus himantopus</i>	Black-winged Stilt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Bem - II; CMS - II; listed in the Red Data Book of Ukraine - VU	Throughout the year, on the wetland territory, there are at least 20-30 individuals for which sandy and pebble beaches on the coast are serve as convenient forage base, the annual nesting of 2-3 pairs on the coastal scree and stone promontories was noted.
CHORDATA / AVES	 <i>Ichthyaeetus ichthyaeetus</i>	Pallas's Gull	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	120	2010-2015			<input type="checkbox"/>	<input type="checkbox"/>	Bem – III; CMS – II (only West Eurasian); listed in the Red Data Book of Ukraine - EN	post-breeding migration
CHORDATA / AVES	 <i>Mergellus albellus</i>	Smew	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	300			LC 	<input type="checkbox"/>	<input type="checkbox"/>		Migrants in the last decades of the autumn.

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence <sup>1)</sup>	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / AVES	<i>Mergus merganser</i> 	Common Merganser	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1200	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		Large concentrations of migrants in the last decades of the autumn.
CHORDATA / AVES	<i>Otus scops</i> 	Eurasian Scops Owl	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Bern – II; CITES – II; listed in the Red Data Book of Ukraine - LC	post-breeding migration
CHORDATA / AVES	<i>Podiceps cristatus</i> 	Great Crested Grebe	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5000	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>		Large concentrations of migrants during summer and autumn.
CHORDATA / AVES	<i>Podiceps grisegena</i> 	Red-necked Grebe	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>		The birds are dispersed throughout the autumn, with a total of up to 3,000 individuals. At the beginning of the winter up to freeze-up, Podiceps grisegena gather into large flocks of 300-500 individuals before flying to more southern regions (Busel, 2014).
CHORDATA / AVES	<i>Stemula albigifrons</i> 	Little Tern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	200	2010-2015		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Bern - II; CMS - II; listed in the Red Data Book of Ukraine - LC	
CHORDATA / AVES	<i>Streptopelia turtur</i> 	European Turtle Dove; European Turtle-Dove	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	90	2010-2015		VU 	<input type="checkbox"/>	<input type="checkbox"/>	Bern - III; CMS - II	
CHORDATA / AVES	<i>Tadorna ferruginea</i> 	Ruddy Shelduck	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Bern - II; CMS - II; listed in the Red Data Book of Ukraine	post-breeding migration
CHORDATA / AVES	<i>Vanellus vanellus</i> 	Northern Lapwing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	70	2010-2015		NT 	<input type="checkbox"/>	<input type="checkbox"/>	Bern-III; CMS-II; AEW	

1) Percentage of the total biogeographic population at the site

The Red Book of Ukraine (2009) includes 10 wetland avifauna species, of which *Coracias garrulus* and *Larus ichthyaetus* are endangered species. Since the middle of the XX century, the catastrophic decline in *Coracias garrulus* in the steppe zone of Ukraine has been observed. One of the major reasons is the destruction of wetland floodplains of the Lower Dnipro. The area of wetlands is now the only place of the dendrophilous type of habitat for this species throughout the Lower Dnipro. The loess slopes, which are important for the birds not only as the nesting areas, but also as forage base, are of great importance in maintaining a stable population (Busel, 2014).

The shallow part of the wetland reservoir is one of the main places for the after-nesting accumulation of young *Larus ichthyaetus*, according to the 2015 data, there were at least 120 birds, on the basis of these figures, the area is visited by birds that nest not only in the valley of the Dnipro, but also in the neighboring areas of the northern Black Sea. The category of rare species of the Red Book of Ukraine (2009) includes *Sterna albigifrons*, *Asio flammeus*, *Otus scops*, of which *Sterna albigifrons* can be observed only in the post-breeding period in the amount of up to 200 individuals. In meadows, 2 pairs of *Asio flammeus* nest.

Floodplain forests are important for maintaining the stability of the *Otus scops* population, as large tertiary arroyos and in particular the area of wetlands is a place of dense nesting (up to 20 individuals) in a small area of these birds. The category of vulnerable species of the Red Data Book of Ukraine (2009) on the territory of wetlands includes 5 types - *Tadorna ferruginea*, *Aythya nyroca*, *Falco cherrug*, *Himantopus himantopus*, and *Haematopus ostralegus*.

We should highlight the breeding population of *Tadorna ferruginea* for which the wetland area is actually a reserve of nesting birds. As of 2015, at least 6 pairs nest here, and about 30 single individuals reside. The shallow part of the reservoir is important for growing of young birds of this species in summer and autumn. In the last decade of the summer, on the sandy and pebbly beaches, we can observe large flocks of waders numbering up to 700 individuals. Since in the Kakhovka Reservoir, wave erosion leads to the destruction of the sandy beaches, the wetland area is one of the few places in the region where the birds can stay for a long time during the migration process.



## 3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Fraxineto (excelsioris)-Quercetum (roboris) cotinoso (coggygriae)-poosum	<input checked="" type="checkbox"/>	The community of floodplain forests is characterised by an overstorey of <i>Quercus robur</i> L., <i>Fraxinus excelsior</i> L., <i>Populus alba</i> L., <i>Populus nigra</i> L., <i>Salix alba</i> L., <i>Ornithogalum boucheanum</i> (Kunth) Aschers., <i>Equisetum fluviatile</i> L., <i>Plantago major</i> L.	It is rare according to the Green Data Book of Ukraine
Quercetum (roboris) cotinosum (coggygriae)	<input checked="" type="checkbox"/>	The community of floodplain forests is characterised by an overstorey of <i>Quercus robur</i> L., <i>Fraxinus excelsior</i> L., <i>Ptelea trifoliata</i> L., <i>Verbascum phoeniceum</i> L., <i>Galium ruthenicum</i> Willd.	It is rare according to the Green Data Book of Ukraine
Stipeta lessingiana	<input checked="" type="checkbox"/>	Species of community: <i>Stipa lessingiana</i> Trin. et Rupr., <i>Veronica steppacea</i> Kotov, <i>Salvia nutans</i> L., <i>Salvia pratensis</i> L., <i>Festuca valesiaca</i> Gaud., <i>Euphorbia seguierana</i> Neck.	It is rare according to the Green Data Book of Ukraine
Stipeta ukrainica	<input checked="" type="checkbox"/>	Species of community: <i>Stipa ukrainica</i> P.Smirm., <i>Poa bulbosa</i> L., <i>Astragalus henningii</i> Klok., <i>Medicago romanica</i> Prod., <i>Galium ruthenicum</i> Willd., <i>Poa angustifolia</i> L., <i>Bellevalia sarmatica</i> Woronow.	It is rare according to the Green Data Book of Ukraine

## 4 - What is the Site like? (Ecological character description)

### 4.1 - Ecological character

The site is a deep tertiary arroyo with a small steppe river Mayachka which has formed the unique habitats, including floodplain forests, wet meadows and reed beds at the site of its confluence with the Kakhovka Reservoir. Since the wetlands area is surrounded by agricultural landscape only, wetland is a unique place of flora and fauna concentration, as well as a biodiversity reserve for the whole region. Accumulation of water flowing in the Maiachanska arroyo along sinkholes and underground cavities systems forms a certain level of ground water, which is very important for the needs of local people. Shallow waters of the Kakhovka Reservoir and river Maiachka are also a natural watering place required to maintain local livestock complex. The surrounding farmland is dependent on irrigation, which is carried out from the shallow part of the Kakhovka Reservoir. Violation of these processes can lead to the degradation and salinity of the black soil (chornozem) from adjacent areas. Timely inclusion of the area in the Ramsar List will help to maintain the species diversity of flora and fauna in the region, as well as contribute to the development of the agricultural sector. The environmental components, including wetland vegetation presented by a complex of wetland and floodplain vegetation: water, coastal water, marsh, meadow, shrub and forest vegetation. The main type of vegetation of the area is the floodplain forests (located in the lower reaches of the river Maiachka), coastal water and meadow lands. The main dominants of the floodplain forest are white willow (*Salix alba*), white poplar (*Populus alba*) and black poplar (*Populus nigra*). Shrubs are represented by the groups of invasive bush (*Amorpha fruticosa*), almond willow (*Salix triandra*), salt cedar (*Tamarix ramosissima*). Meadows occupy lower parts in center of the islands – real with the domination of couch grass (*Elytrigia repens*), sedge (*Carex acutiformis*), meadow fescue (*Festuca pratensis*); marshy - with the dominance of *Glyceria arundinacea*, black bent (*Agrostis gigantea*), pond sedge (*Carex riparia*). Among the aquatic vegetation, the main formations are formed by *Potamogeton* (*Potamogeton* sp.). Vegetation of the shallow waters of the Kakhovka Reservoir is mostly represented by the large scale formations of reed (*Phragmites australis*) and narrowleaf cattail (*Typha angustifolia*).

### 4.2 - What wetland type(s) are in the site?

#### Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
E: Sand, shingle or pebble shores		1	1500	Representative
Zk(a): Karst and other subterranean hydrological systems		2	25	Unique

#### Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		2	150	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		2	220	Rare
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		3	25	Unique

#### Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
2: Ponds		3	40	
6: Water storage areas/Reservoirs		1	1500	

#### Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
dry meadow, artificial forest	205

#### (EOD) Habitat connectivity

The area has got mosaic structure with high level of habitats connectivity. It is the core zone of the regional ecological network.

### 4.3 - Biological components

#### 4.3.1 - Plant species

##### Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Bellevalia speciosa</i>		Mentioned in the List of rare species of Zaporizhia oblast
<i>Hyacinthella leucophaea</i>		Mentioned in the List of rare species of Zaporizhia oblast
<i>Phragmites australis</i>		
<i>Potamogeton lucens</i>		
<i>Potamogeton natans</i>		
<i>Potamogeton perfoliatus</i>		
<i>Salix alba</i>		
<i>Salix fragilis</i>		

##### Invasive alien plant species

Scientific name	Common name	Impacts
<i>Amorpha fruticosa</i>	Indigobush Amorpha;Bastard Indigo;False Indigo	Actually (minor impacts)
<i>Conium maculatum</i>		Actually (minor impacts)

#### 4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Accipiter gentilis</i>	Northern Goshawk	25	2010–2015		
CHORDATA/AVES	<i>Accipiter nisus</i>	Eurasian Sparrowhawk	50	2010–2015		
CHORDATA/AVES	<i>Anas acuta</i>	Northern Pintail	80	2010–2015		
CHORDATA/AVES	<i>Anas clypeata</i>	Northern Shoveler	50	2010–2015		
CHORDATA/AVES	<i>Anas crecca</i>	Eurasian Teal;Green-winged Teal	50	2010–2015		
CHORDATA/AVES	<i>Anas platyrhynchos</i>	Mallard	150	2010–2015		
CHORDATA/AVES	<i>Anas querquedula</i>	Garganey	400	2010–2015		
CHORDATA/AVES	<i>Anser albifrons</i>	Greater White-fronted Goose	300	2010–2015		
CHORDATA/AVES	<i>Ardea alba</i>	Great Egret	20	2010–2015		
CHORDATA/AVES	<i>Ardea cinerea</i>	Gray Heron;Grey Heron	150	2010–2015		
CHORDATA/AVES	<i>Ardea purpurea</i>	Purple Heron	100	2010–2015		
CHORDATA/AVES	<i>Botaurus stellaris</i>	Eurasian Bittern	15	2010–2015		
CHORDATA/AVES	<i>Buteo buteo</i>	Common Buzzard	25	2010–2015		
CHORDATA/AVES	<i>Buteo lagopus</i>	Roughleg;Rough-legged Buzzard;Rough-legged Hawk	70	2010–2015		
CHORDATA/AVES	<i>Circus aeruginosus</i>	Western Marsh Harrier	20	2010–2015		
CHORDATA/AVES	<i>Cygnus olor</i>	Mute Swan	50	2010–2015		
CHORDATA/AVES	<i>Egretta garzetta</i>	Little Egret	30	2010–2015		
CHORDATA/AVES	<i>Ixobrychus minutus</i>	Little Bittern	50	2010–2015		
CHORDATA/AVES	<i>Nycticorax nycticorax</i>	Black-crowned Night Heron;Black-crowned Night-Heron	200	2010–2015		
CHORDATA/AVES	<i>Phalacrocorax carbo</i>	Great Cormorant	1000	2010–2015		
CHORDATA/AVES	<i>Podiceps nigricollis</i>	Black-necked Grebe;Eared Grebe	50	2010–2015		
CHORDATA/AVES	<i>Tachybaptus ruficollis</i>	Little Grebe	400	2010–2015		

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts
CHORDATA/MAMMALIA	<i>Nyctereutes procyonoides</i>	Raccoon dog	Potentially

### 4.4 - Physical components

#### 4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dwa: Humid continental (Humid with severe, dry winter, hot summer)

The wetland climate is temperate continental, closer to the continental - with moderately cold winters with frequent thaws, hot and dry summer. The average temperature range is + 9.7oC. The average July temperature is + 24.5 oC, January: -0.8 oC. Maximum summer temperatures usually occur in August and reach +40 + 42 oC and winter temperatures in February -25 -30 oC. The first frosts occur in the last days of October, the last - in the first days of April. However, from year to year, variability of frosty and no-frost periods is quite high. The winter on average lasts 64 days, spring - 77 days, summer - 148 days, autumn - 69 days. The winter is short with little snow (sometimes without snow). The snow cover lasts for an average of 30 days for year, the maximum height is 14 cm. During the whole winter there is at least 40 days with temperatures up to + 14 oC.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The wetlands are located in the basin of the the Dnipro River, as they are located in a floodplain river bed of the river border. The lower reaches of the Maiachanska arroyo is part of the water catchment of the basin and is also part of the basin within the boundaries of the lower reaches of the Dnipro River.

4.4.3 - Soil

- Mineral
- Organic
- No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes  No

4.4.4 - Water regime

Water permanence

Presence?
Usually permanent water present

Source of water that maintains character of the site

Presence?	Predominant water source
Water inputs from surface water	<input checked="" type="checkbox"/>
Water inputs from groundwater	<input type="checkbox"/>

Water destination

Presence?
Feeds groundwater
To downstream catchment

Stability of water regime

Presence?
Water levels largely stable

(ECD) Connectivity of surface waters and of groundwater  The groundwater and surface waters are connected, however the connection scope never been investigated.

(ECD) Stratification and mixing regime  The stratification and mixing regime are changeable, but never been studied.

4.4.5 - Sediment regime

- Significant erosion of sediments occurs on the site
- Significant accretion or deposition of sediments occurs on the site
- Significant transportation of sediments occurs on or through the site
- Sediment regime is highly variable, either seasonally or inter-annually
- Sediment regime unknown

4.4.6 - Water pH

- Acid (pH<5.5)
- Circumneutral (pH: 5.5-7.4 )
- Alkaline (pH>7.4)
- Unknown

4.4.7 - Water salinity

- Fresh (<0.5 g/l)
- Mixohaline (brackish)/Mixosaline (0.5-30 g/l)

- Euhaline/Eusaline (30-40 g/l)
- Hyperhaline/Hypersaline (>40 g/l)
- Unknown

Please provide further information on salinity (optional):

Wetland belongs to fresh waters with low salinity. In the shallow part of the Kakhovka Reservoir, the salinity is registered in the range 0.05-0.1 g/l, in the lower reaches of the river Maiachka - up to 0.5 g/l.

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic
- Mesotrophic
- Oligotrophic
- Dystrophic
- Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar  ii) significantly different  site itself:

- Surrounding area has greater urbanisation or development
- Surrounding area has higher human population density
- Surrounding area has more intensive agricultural use
- Surrounding area has significantly different land cover or habitat types

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Drinking water for humans and/or livestock	High
Fresh water	Water for irrigated agriculture	High
Wetland non-food products	Other	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	High
Pollution control and detoxification	Water purification/waste treatment or dilution	High
Hazard reduction	Flood control, flood storage	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	High
Recreation and tourism	Picnics, outings, touring	High
Recreation and tourism	Nature observation and nature-based tourism	High
Spiritual and inspirational	Cultural heritage (historical and archaeological)	High
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Major scientific study site	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Soil formation	Sediment retention	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes  No  Unknown

4.5.2 - Social and cultural values

- i) the site provides 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) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland
- iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples
- iv) 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

<no data available>

#### 4.6 - Ecological processes

<no data available>

## 5 - How is the Site managed? (Conservation and management)

### 5.1 - Land tenure and responsibilities (Managers)

#### 5.1.1 - Land tenure/ownership

##### Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Provincial/region/state government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

The area of wetlands is located within the territory of the National Natural Park "Velykyi Luh" which has documents confirming the right to permanent use (land certificates), the area of shallow waters of the Kakhovka Reservoir is included in the economic zone of the National Natural Park "Velykyi Luh" and it is owned by the state.

#### 5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

National Nature Park "Velykyi Luh"

Provide the name and title of the person or people with responsibility for the wetland:

Tamara Yosipenko, director

Postal address:

37, Shevchenka Str., selo Skelki,  
Vasylivskiy rajont, Zaporizhzhia oblast,  
71640, Ukraine

E-mail address:

grandmeadow@ukrpost.ua

## 5.2 - Ecological character threats and responses (Management)

### 5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

#### Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Housing and urban areas	High impact	High impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

#### Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	High impact	High impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

#### Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Annual and perennial non-timber crops	High impact	High impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

#### Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Roads and railroads	Medium impact	Medium impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Utility and service lines (e.g., pipelines)	Low impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	Low impact	Low impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fire and fire suppression	Medium impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

#### Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	unknown impact	unknown impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Agricultural and forestry effluents	Medium impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Geological events

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Avalanches/landslides	Medium impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	Low impact	Low impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please describe any other threats (optional):

Biological resource use: Moderate grazing goats and cows carried out on the meadows.  
 Climate change and severe weather: The reduction of river flow and water level decrease.

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Nature Park	Velykyi Luh		partly

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Implemented
Habitat manipulation/enhancement	Implemented
Hydrology management/restoration	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented
Control of invasive alien plants	Implemented
Control of invasive alien animals	Implemented

Human Activities

Measures	Status
Regulation/management of recreational activities	Implemented
Research	Implemented



### 5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes  No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes  No

### 5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

### 5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Water quality	Proposed
Plant community	Implemented
Plant species	Implemented
Animal species (please specify)	Implemented
Birds	Implemented

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

1. Udra I.Kh. Biogeographic zoning of Ukraine // Ukr. Geography magazine. – 1997. – №4. – C. 28-34. [In Ukrainian] [In Ukrainian]
2. Red Data Book of Ukraine. Flora / edited by Y.P. Didukh. – K.: Hlobalkonsaltynh, 2009. – 900 p. [In Ukrainian]
3. Red Data Book of Ukraine. Fauna / edited by I.A. Akimov. – K.: Hlobalkonsaltynh, 2009. – 600 p. [In Ukrainian]
4. Chronicle of Nature: National Nature Park "Velykyi Luh" – 2010-2015. [In Ukrainian]
5. Busel V.A. Rare birds of headwaters of the Kakhovka reservoir / V.A. Busel // Materials of the nationwide Ukrainian Scientific Conference (21-22 August 2014). - Dniprorudne, 2014. – C. 77–85. [In Ukrainian]
6. Busel V.A. Breeding birds of prey National Nature Park "Velykyi Luh" / V.A. Busel // Regional aspects of floral and faunal studies. - Chernovtsy, 2014. – C.147–151. [In Ukrainian]

#### 6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<no file available>

<no data available>

#### 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Sim Maiakiv - Black-crowned Night Heron ( Viktor Busel , 04-04-2013 )



Sim Maiakiv ( Viktor Busel , 18-04-2012 )



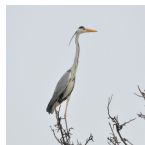
Sim Maiakiv ( Viktor Busel , 01-11-2011 )



Sim Maiakiv ( Viktor Busel , 23-10-2011 )



Sim Maiakiv ( Viktor Busel , 19-06-2011 )



Sim Maiakiv - Grey Heron ( Viktor Busel , 24-04-2014 )



Sim Maiakiv ( Viktor Busel , 14-05-2007 )



Sim Maiakiv ( Viktor Busel , 13-05-2007 )



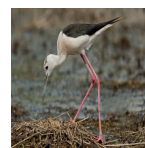
Sim Maiakiv ( Viktor Busel , 11-06-2010 )



Sim Maiakiv ( Viktor Busel , 26-04-2012 )



Sim Maiakiv ( Viktor Busel , 20-05-2014 )



Sim Maiakiv - Black-winged stilt ( Viktor Busel , 14-06-2015 )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation