

Information Sheet on Ramsar Wetlands  
(RIS)

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

1. Date this sheet was completed/ updated:

31 October 2002

2. Country: BULGARIA

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Designation date

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Site Reference Number

3. Name of wetland:

VAYA LAKE

4. Geographical coordinates:

42° 30' N; 27° 25' E

5. Elevation:

0,1 to 0,2 m a.s.l.

5. Area:

2899,9 ha

7. Overview:

The largest Bulgarian lake. One of the four wetlands of the Bourgas complex, surrounding town of Bourgas. A natural liman, connected to the Black Sea by a canal. The lake is associated with marshy areas, the largest reedbeds in this country. Length of 9.6-km, with max width of 4.7 and min of 2.3 km. The rocky north and south coasts are higher than the east and west ones. The lake bottom is uniform, filled and leveled with liquid gray-black mud, rich in large, rough detritus. The thickness of the mud is significant, reaching 17 m in the central parts of the lake. Polymictic basin. Eutrophication of the lake waters occurred, especially in its western part. The Lake is of significantly high importance for the wintering, breeding and migrating birds along European's second largest migration route "Via Pontica."

8. Wetland Type

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

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

human- made: **1** • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

Please now rank these wetland types by listing them from the most to the least dominant:

J - 1 - M

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9. Ramsar Criteria:

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8

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Please specify the most significant criterion applicable to the site: 6

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10. Map of the site included? YES

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11. Name and address of the compiler of this form:

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12. Justification of the criteria selected under point 9, on previous page.

**Criterion 2**

Lake Vaya supports the following number of rare and endangered plant and animal species:

5 globally threatened bird species, included in the IUCN list - Pygmy Cormorant (*Phalacrocorax pygmeus*), Dalmatian Pelican (*Pelecanus crispus*), Red-breasted Goose (*Branta ruficollis*), White-headed Duck (*Oxyura leucocephala*), Ferruginous Duck (*Aythya nyroca*),

87 species of birds are listed under SPEC.

In the IUCN Red List are included 5 invertebrate species, 4 species of fish, 4 species of amphibians, 3 species of reptiles and 3 mammals which inhabit Lake Vaya.

10 higher plant species are included in the Bulgarian RDB, one of them – *Corispermum nitidum* - is included in the European Red Data Book.

#### Criterion 4

Lake Vaya is of significant importance as a staging area for Dalmatian Pelican (*Pelecanus crispus*) and White Pelican (*Pelecanus onocrotalus*) during migration. The lake is much important place for the wintering populations of Dalmatian Pelican (*Pelecanus crispus*), Pygmy Cormorant (*Phalacrocorax pygmeus*) and especially for White-headed Duck (*Oxyura leucocephala*) in the Eastern Mediterranean region.

Lake Vaya is of crucial importance as wintering haunt for Red-breasted Goose (*Branta ruficollis*) during very cold winters, when the majority of the wintering population of the species from the northern Black Sea coastal wetlands Duran-Kulak and Shabla (the main wintering places) is moved and concentrate here.

Situating at the westernmost point of the Black Sea coast on the “Via Pontica” Western Black Sea Flyway, the lake is extremely important as a place for concentration of a number of waterfowl, raptors and passerines.

#### Criterion 5.

Lake Vaya regularly covers Ramsar Criterion supporting more of 20 000 wintering waterbirds (Tabl.1.).

**Tabl. 1. Wintering waterfowl with number which exceeds the Ramsar Criterion of 20 000 ind., by years (on the base of BSBCP “Bourgas Wetlands” Project Waterbird Monitoring Data).**

Year	Ramsar Criterion	1997	1998	1999	2000	2001	2002
Total Waterbirds	20 000	56 724	36 062	52 838	66 934	14 227	4 104

Total migrating waterbird numbers is up to 94 800 ind.

#### Criterion 6

Lake Vaya supports regularly more of 1% of the population for 9 migrating/wintering species: *Phalacrocorax carbo*, *Phalacrocorax pygmeus*, *Pelecanus crispus*, *Egretta alba*, *Anser albifrons*, *Anas chyeata*, *Aythya ferina*, *Aythya fuligula* and *Oxyura leucocephala* (Tabl. 2).

**Tabl. 2. Species which number covers the Ramsar Numerical Criteria for Lake Vaya (on the base of the Waterbird Monitoring Data of “Bourgas Wetlands” Project, BSBCP, 1996 – 2001).**

#### MIGRATING / WINTERING SPECIES - AVERAGE (1996-2001) NUMBER

N	Species	Ramsar criterion (1 %)	Numbers (ind.)	% of the biogeographic population
1.	<i>Phalacrocorax carbo</i>	1000	1200 – 7700	1,2 – 7,7%
2.	<i>Phalacrocorax pygmeus</i>	250	700 – 7300	2,8 – 29,2%
3.	<i>Pelecanus crispus</i>	25	100 – 381	4 – 12,9%
4.	<i>Egretta alba</i>	120	300 – 650	2,5 – 5,4%
5.	<i>Anser albifrons</i>	6500	39000 - 80000	6 – 12,3%
6.	<i>Anas chyeata</i>	4500	1000 –6800	0,2 – 1,5%
7.	<i>Aythya ferina</i>	10000	13000 -16800	1,3 – 1,7%
8.	<i>Aythya fuligula</i>	6000	5500 –6800	0,9 – 1,1%
9.	<i>Oxyura leucocephala</i>	115	170 – 2230	1,5 – 19,4 %

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#### 13. General location:

Lake Vaya is situated in the southeast of Bulgaria, on the western Black Sea coast. The lake is located near the town of Bourgas, in direct proximity to the Constantza-Istanbul international E-87 motorway. Town of Bourgas (220,000 inhabitants) is a District Center.

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## 14. Physical features:

### Origin

The lake is of natural origin (an open liman of Pleistocene origin). Lake Vaya is separated from the Black sea by a large sand strip, built over nowadays by city suburb. A canal in the eastern part connects the lake with the Black Sea.

### Geology

Lake Vaya belongs to Bourgas Synclinorium, of the Srednogorie Tectonic Zone. The zone is created of uppercretaceous sediments and volcanogenous elements, put on the background of the Strandja Tectonic Zone. There are two structure plans of the Srednogorie Zone in tectonic aspect – the mid-alpine, connected with the uppercretaceous rocks, and the late alpine, connected with the neotectonic development of the region. The negative seashore movements in the newer geological periods are formed the dead river valleys, limans and lagoons of the Black Sea coast. These movements continue, with less than 1 mm sinking in the region of Bourgas. On the base of litostratigraphy, the uppercretaceous sediments and volcanogenous elements are differentiated into two groups: Group of Michurin (voulcanogenous) and Group of Bourgas (predominantly voulcanogenous). The quaternary sediments are of Holocene origin.

The lake bottom is almost completely uniform, filled and leveled with liquid gray-black mud, rich in large, rough detritus. The thickness of the mud is significant, reaching 17 m in the central parts of Vaya.

### Soil type

Alluvial and Deluvial Fluvisols soils along the lakeshore.

### Water quality

Rozhdestvensky (Rozhdestvensky, 1957; 1962; 1964; 1967; 1980; 1981) has largely investigated the hydrochemistry of Lake Vaya since 1948 up to 1985. Data for the hydrochemistry of the lake, taken last decades (and continuing) into two sampling sites – relatively in the west and east part, are available from the Database of Unite of the Waters, Regional Inspectorate of Environment – Bourgas. In 1999, 2000 and 2001 samples have been taken and analyzed by “Bourgas Wetlands Project” team (BSBCP) with purposes of the Interim Management Plan.

The salinity of the lake changes seasonally, with a maximum of about 200 mg/l Cl<sup>-</sup> in August-early September. For the period of 1948-1962 the absolute fluctuations of the Cl<sup>-</sup> are within 2,60 - 24,96 ‰. The salinity for the period of 1968-1970 is 1,63 ‰. For the period of 1971-1982 the salinity is 0,75 ‰. In 1980s, of the large stock of freshwater, coming from the Town Plant Station, the general salinity of the lake is decreased. In 2001, after cleanups of the canal (with help of BSBCP), the salinity is in increase again (of the seawaters entering easier into the lake). The alkalinity is on average 5.45-6.70 mg-equiv/l; pH is 8.9-9.5. Water acidity is relatively high - monthly, seasonal and yearly changes depends on the quantity and the quality of the water inflow, the evaporation, the influence of the bottom mud, blooms and rotting. In general, winter-spring and summer-autumn maximums predominate. In summer and at the beginning of autumn, in some cases O<sub>2</sub> deficit is recorded. The temperature of the lake waters undergoes heavy seasonal fluctuations (up to 32°C). Most winters, the lake is frozen for a periods of 5-10 days.

In some cases sea water from the Black Sea inflow into the lake through the canal and change the salinity, especially in the eastern part of the lake.

### Water depth

The lake is shallow, with an insignificant depth of 0.5-1.2 m overall, reaching 1.8 m in some places in mid lake.

### Catchment area

Lake Vaya is 20 million m<sup>3</sup> in volume, with a surface area of 27. 6 km<sup>2</sup>. The catchment area (1,050 km<sup>2</sup>) includes the valleys of three rivers: Aytoska (32 km), Chakarliyska (25 km) and Sanar-dere (12 km), all of which flow into the westernmost part of Lake Vaya. Their water debit is small, significantly influenced by the rainfall. The inflow

of fresh water in summer cannot compensate for the evaporation. During prolonged dry seasons some of these rivers may dry out.

### Climate

Lake Vaya is in the Climate Region of Bourgas Valley, Black Sea Climate subdivision of the Continental - Mediterranean Division. Black Sea plays significant role on the climate features in a narrow stripe along the seacoast, with width of 20-40 km. The average annual rainfall for the country is 698, while for the area of Lake Vaya - 543 mm. Max rainfall is in Jun and Nov, min - in Aug and Sep. The average annual temperature is 12,7°C (average 10,5°C for the country). Winter is mild, with average Jan temperature of 1.5–2.5 °C. The average Jul temperature is 22.5-23.5 C. Most typical wind for the region is the summer is the breeze, with average 13-15 days in Jun / 18-21 in Jul and Aug. Northwestern and the northern winds are typical in winters.

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### 15. Hydrological value:

The direct hydraulic connection between the Black Sea, the coastal water horizons and Lake Vaya ensures active exchange between the sea and freshwater waters, thus supporting the maintenance of water quality and preventing large areas of Bourgas Valley of flood.

The lake is of significant value for sediment trapping. The mud reaches 17 m in depth in the central parts of the lake.

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### 16. Ecological features:

The following main habitats are represented (CORINE Biotopes code):

- 1.) Lake connected with the sea (code 21.2);
- 2.) Eutrohpyc lake, Subemergent vegetation (*Potamogeton pectinatus*) - code 22.13;
- 3.) Communities of *Salix cinerea* (wooded part along the SW coast) - code 44.162;
- 4.) Open shallow waters with marsh vegetation along the banks (mainly *Typha angustifolia*, *Phragmites communis* – Corine 53.132; 53.111, etc.). Large areas in the western part of the are covered by *Phragmites communis*, *Typha angustifolia*, *T. latifolia*, etc.
- 5.) Floating vegetation (code 22.41);
- 6.) Wet meadows and halophytic grass formations (dominated by *Puccinellia convoluta*), mesoxerothermic grass vegetation (mainly of *Poa bulbosa*, *Lolium perenne*, etc.);
- 7.) Agriculture and arable lands in the surroundings.

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### 17. Noteworthy flora:

No special investigations on the flora of the lake and the surroundings are conducted.

Of the rare and endangered species, included in the RDB of Bulgaria the following 10 have been recorded: *Silene euxina*, *Polygonum heuffelii*, *Acanthus spinosus*, *Heptaptera triquetra*, *Erodium boefferianum*, *Halimone portulacoides*, *Halimone pedunculata*, *Gypsophila trichotoma*, *Limonium gmelini*, *Phalaris tuberosa*, *Saccharum ravennae*.

Of the European threatened species *Corispermum nitidum* is recorded.

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### 18. Noteworthy fauna:

**Invertebrates:** Ivanov *et al.* (1964) records over 60 invertebrate species for lake Vaya. Of conservation value are the following IUCN Red List species: *Carabus intricatus*, *Hirudo medicinalis*, *Lycaena ottomanus*, *Maculinea arion*, *Proserpinus proserpina*,

**Fishes.** The quantity and quality composition of the fish temporarily inhabited the lake, was different in the different years. Until the 1970s, the fish fauna consisted of 35 species, most of marine origin. Subsequently, with the changes in the hydrological regime and water quality, the majority of the marine species has disappeared.

Recent ichthyofauna consists of 11 fish species (on the results of 1999-2001 survey under BSBCP's "Bourgas Wetlands" Project).

*Anguilla anguilla* is listed in the RDB of Bulgaria; and is included in the IUCN 2000 Red List, as well as *Sygnathus abaster* and *Atherina boyeri*.

The following species are listed under the Bern Convention: *Pungitius platygaster*, *Neogobius fluviatilis*, *Proterorhinus marmoratus*.

**Amphibians and Reptiles.** Of the rare and threatened species of amphibians 4 species of the IUCN Red List are recorded: *Triturus cristatus*, *Triturus vulgaris*, *Bombina bombina* and *Hyla arborea*.

3 species of reptiles - *Testudo graeca*, *Testudo hermanni* and *Emys orbicularis* are included in the IUCN Red List, while 2 species - *Ophisaurus apodus* and *Elaphe longissima* are included in the RDB of Bulgaria.

7 species are included in the Annexes of the Bern Convention - *Testudo graeca*, *Testudo hermanni*, *Emys orbicularis*, *Ophisaurus apodus*, *Coluber jugularis*, *Elaphe longissima* и *Vipera ammodytes*.

**Birds.** The bird fauna of Lake Vaya is of international importance. 260 species are recorded, 8 of them are globally threatened: *Phalacrocorax pygmeus*, *Pelecanus crispus*, *Branta ruficollis*, *Aythya nyroca*, *Oxyura leucocephala*, *Milvus milvus*, *Falco naumanni* and *Crex crex*. 70 breeding species. 84 species are listed under the SPEC category; more than 60 species are included in the RDB of Bulgaria. Lake Vaya is extremely important staging site for the birds migrating along the Black Sea coast. It is a site of international importance for wintering waterfowl, regularly supporting 60,000-100,000 waterbirds. The lake is especially important as a wintering habitat for several globally threatened species: *Phalacrocorax pygmeus* (1200-7000), *Pelecanus crispus* (up to 381 wintering individuals regularly recorded), *Branta ruficollis* and *Oxyura leucocephala*, the latter with over 2000 individuals recorded regularly in recent years. The lake provides important wintering grounds for *Anser albifrons* (regular wintering between 39 000 – 80 000), *Branta ruficollis*, *Aythya ferina* and *Aythya fuligula*. It is a breeding site for *Aythya nyroca* and *Anas strepera*.

**Mammals.** 29 species recorded. *Lutra lutra* and *Martes martes* are listed in the RDB of Bulgaria;

4 species - *Lutra lutra*, *Micromys minutus*, *Nannospalax leucodon* and *Myotis myotis* are included in the IUCN Red List.

3 species - *Canis aureus*, *Lutra lutra*, *Felis silvestris* are CORINE.

2 species - *Myotis myotis* and *Nyctalus noctula* are included in Annex II of the Bern Convention.

**Social and cultural value:** (e.g. fisheries production, forestry, religious importance, archeological site, etc.)

The lake is important for fishery: *Carassius gibelio* and *Cyprinus carpio* are the species of economic value today. In the past, because the ecological conditions were unstable, fisheries' yields varied. Until 1956 of primary value for fishing are *Mugilidae* species, as well as *Neogobius* and *Gobius* species, *Atherina pontica*. Then, the lake was stocked regularly with Carp (*Cyprinus carpio*), which is the main species of value for this period. In periods of high salinity, Carp was not presented in the lake and the fishery yield did not usually exceed 380 tonnes. Up to 30 t/year of prawn *Leander adspersa* were also caught in the past.

Nowadays the most economically valuable species is *Carassius gibelio* – with a catch of c. 300 t/year. Since 2001 catch of *Mugil cephalus* is in increase, after clean-up of the canal.

For more than 30 years, a fishfarm industry was developed, just on the border of the western part of the lake. Since last 5 years operations in the fishfarm have been abandoned. Starting from summer 2001 certain pools has been granted on lease and stocked with fish, mainly Carp.

An orthodox monastery "St. Bogoroditza" is placed near the south shore of the lake, and play important role for the people of District of Bourgas. There are a number of archeological records, from the ancient times, roman, Greek and medieval times.

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## 20. Land tenure /ownership of:

a) The lake itself is exclusive state property.

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“Vaya” Protected Area is situated on the land of Dolno Ezerovo and Gorno Ezerovo villages, Bourgas District. The protected area includes:

Terrestrial part: state lands of the land-partitioning plan of the villages Dolno Ezerovo and Gorno Ezerovo – total area 195,354 ha; Aquatic part (184 ha) - state property.

b) surrounding area are municipal and private (arable lands, grasslands, etc.).

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## 21. Current land use:

a) include fishery, sand-extraction, hunting in the non-protected area.

b) extraction, agriculture, stockbreeding, fishfarming, hunting; Industrial zone, Refinery, Power station, sea and ground transport agencies, a number of factories; suburbs.

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

a) at the site:

The most important changes in the state of the lake are result of the construction of a huge Refinery Factory few km NW of the lake, in the beginning of 1960s. This had seriously polluted the lake waters as well a thick part of the bottom mud: in those early stages of the Refinery, the wastewater were entering into Lake Vaya directly through the River of Aytoska, because of lack of Plant Station. Created roads in SE part of the lake have blocked the natural connection of Lake Vaya with the neighboring Lake Mandra.

The state of the lake marked significant changes in the 1970s, caused by:

1. An about 5 km in length road has been created in NE part of the lake, so that parts of the lake were embankment an filled with soil, and the North Industrial Zone of town of Bourgas was near by. This has been led to a number of wastewaters stocked directly to the lake;

2. A large dumpsite area just on the northern shore was established; wastes came from the Oil Factory.

2. Construction of the Bourgas’ Waste Water Treatment Station has led to significant change of the hydrological regime and the physic-chemical characteristics of the lake. The huge stock of freshwater flowing into the lake changed significantly the state of the waters, respectively the lake fauna and flora.

3. After construction of a fish farm of about 100 ha and digging of new basins in the western part of the lake, most of the *Himantopus himantopus*, *Glareola pratincola* and *Recurvirostra avosetta* habitats are destroyed.

4. Fishing activities and unregulated hunting have pursuit the large mixed colony of herons, spoonbills, pygmy cormorants and glossy ibises.

b) around the site - current concerns:

Private **Fishfarm**. Some of the fishfarm pools in the western part of the lake in the summer of year 2001 are given under the rent, especially for Carp breeding. Some of the dikes surrounding the pools are bit disturbed.

**Seawater canal** in the eastern part of Lake Vaya, connecting it to the Black Sea is in need of future clearing project pointed to deepen it for fish migration, for the reestablishment of the native fish and other animal fauna. Partial clearings of the canal with the support of “Bourgas Wetlands” Project (BSBCP) has been run in summer 2001, which immediately led to reestablishment of *Mugil cephalus* in the Lake.

**Water regulation** and balance is required for the fishery and habitat maintenance, as well as for the richness of the biodiversity. Discussion has begun about joint water balance management of the fishpond pools in the protected area “Vaya”, especially to attract breeding waterbirds. Of the highly cost water supply, nowadays the majority of fishpond’s pools stay dry. The only freshwater entering the lake was by the rivers flowing in the west part of the lake, but after creating the Town Plant Station, the most of the freshwater stock of the lake is mainly of such origin.

**Solid Wastes** are found throughout the region, especially along the northern lakeshore. Recently, the Bourgas Community cleanup activities are increased. Warning information sine boards have been put in the most fragile and pressed places along the lakeshore.

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**Waste Waters** from the northern and south Industrial zones of town of Bourgas enter into the lake through the Purification Station. Of special concern is certain quantity of wastewater from the suburbs of Gorno Ezerovo and Dolno Ezerovo, as well as from some factories of the town of Bourgas.

**Oil Pollution.** The stability in the west part of the lake is threatened of possible accidental damages in the oil tubes, passing near by the west shore of the lake.

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### **23. Conservation measures taken:**

The west of the lake has been designated as a protected site – The Western Part of Lake Vaya (State Gazette No. 101/1973), with a total area of 75 ha. In 1997 (after proposal made by BSBCP), by Decree RD 405 of the MoEW, the protected site was enlarged to a total of 379.354 ha. Under the Law for the Protection of Nature, “Vaya” Protected Area is defined as an area of international importance, with the aim of preserving it as a wetland and habitat as defined by the Ramsar Convention (State Gazette No. 122/1997). An Interim Management Plan is prepared (BSBCP). Artificial platforms to attract pelicans for breeding have been built in the reed-beds of the Protected Area (BSBCP). Clean-ups of the canal connected the lake with the Black sea have been organized, and are continuing. Signs have been set up to mark Vaya “Protected Area” (BSBCP).

Lake Vaya is of international importance and has been designated as IBA and CORINE site.

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### **24. Conservation measured proposed but not yet implemented:**

The interim Management plan is prepared (Bulgarian-Swiss Biodiversity Conservation Program), and after needed field investigations in 2002, it is expected to be finished at end of the year. Management plan outline to be submitted to regional government body in accordance with legislation. Funds for preparing of such a plan is coming mostly by the Bourgas Wetland Project-BSBCP, but further ones will be of need for its implementation.

The “Bourgas Wetland” Project-BSBCP is working with the Municipality of Bourgas, Division of Ecology for better management of the lake.

The artificial platforms should continue to be managed with the aim of attracting pelicans to breed (BSBCP). Reed-bed management is required (especially in the western part of the lake).

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### **25. Current scientific research and facilities:**

Within the frameworks of BSBCP last 4 years scientific researchers on phyto- and zooplankton, benthic fauna, ichthyology and ornithology have been carried out. Bourgas Wetlands Waterbird Database (BWWD) is created and data stored each 15/30 days since 1996. Water chemistry samples are taken and analyzed regularly. Special surveys on Pygmy Cormorant, White-headed Duck and Dalmatian Pelican run within an aim National Action plans to be prepared and updated.

There is no field station, but small private base on the northern shore is used as a directed point for the field investigations as well as for the conservation measures.

The hide, created near the pelican platforms allowed a number of scientific researches on waterbirds of Lake Vaya.

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### **26. Current conservation education**

No visitors’ center. Information panels (8) are put along the protected area for the last 3 years (BSBCP “Bourgas Wetlands” Project). Facilities for visiting the pelican’s platforms are created within the framework of Bulgarian - Swiss Biodiversity Conservation Program: an wooded tunnel of about 130 m in the reedbeds reach a wooded hide for watching waterbirds and the platforms. Reaching the beginning of tunnel is allowed by boat, with the nearest point village of Dolno Ezerovo.

There are information posters specifically for Lake Vaya and the pelicans, as well as for the neighboring wetlands, which are distributed to schools, centers, hunting societies, etc. Leaflets (two-colored) on some of the world threatened waterbirds in Lake Vaya - White-headed Duck, Pygmy Cormorant, Dalmatian Pelican, are issued (“Bourgas Wetlands” Project, BSBCP). A poster, published within international Balkan Project (BirdLife) on White-headed Duck and Pygmy Cormorant is published in Greece and distributed within the area of Lake Vaya.



Local NGO's ("Bourgas Wetlands" Project of BSBCP, BSPB, Green Balkans - Bourgas, develop educational programs in local schools and within the local hunting and fishery societies A special attention is given to increase knowledge of the local people (especially fisherman and hunters) on the threatens to the globally threatened waterbird species.

"Bourgas Wetlands" Project run students camp and brigade each summer at Lake Atanasovsko and recently in Lake Vaya. Members of the project, universities, NGO's, present lectures on wetlands and their life during 20-days camps.

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### **27. Current recreation and tourism:**

The hide, created near the pelican platforms allowed a limited and regulated number of visitors and birdwatchers. The majority of groups come in spring and autumn. Reaching the hide is allowed by boat, with village of Dolno Ezerovo. Nature Conservation Center "Poda" is few km in SE direction of the lake. Lake Vaya is used for national and international student voluntary holiday brigades in aug/sep (prolonged about 15-20 days) organized by "Bourgas Wetlands Project". 30-60 volunteers participate in average. Birdwatching tours regularly visit Lake Vaya; watching birds by boating is available.

Fishing and hunting is allowed According to the Protected Site legislation, except within the Protected Area in the west part of the lake.

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### **28. Jurisdiction:**

a) Territorially. Lake Vaya is under the jurisdiction of the Bourgas District Authority – the Governor of Bourgas District, as well as under the obligations of the Municipality of Bourgas, for the surrounding areas.

b) Functionally. Ministry of Environment and Waters – Sofia, represented with the Regional Inspectorate for Environmental Protection and Waters (RIOSW) – Bourgas; 8000 Bourgas, "Batak" St; Executive Agency for Fishing and Aquacultures.

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### **29. Management authority:**

1. Regional Inspectorate for Environmental Protection and Waters (RIOSW) – Bourgas;
2. Address: 8000 Bourgas, 67 "Perushtitza" Str., Bulgaria.
3. Municipality of Bourgas, Bourgas – 8000.
4. Governor of the District of Bourgas, Bourgas – 8000.

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