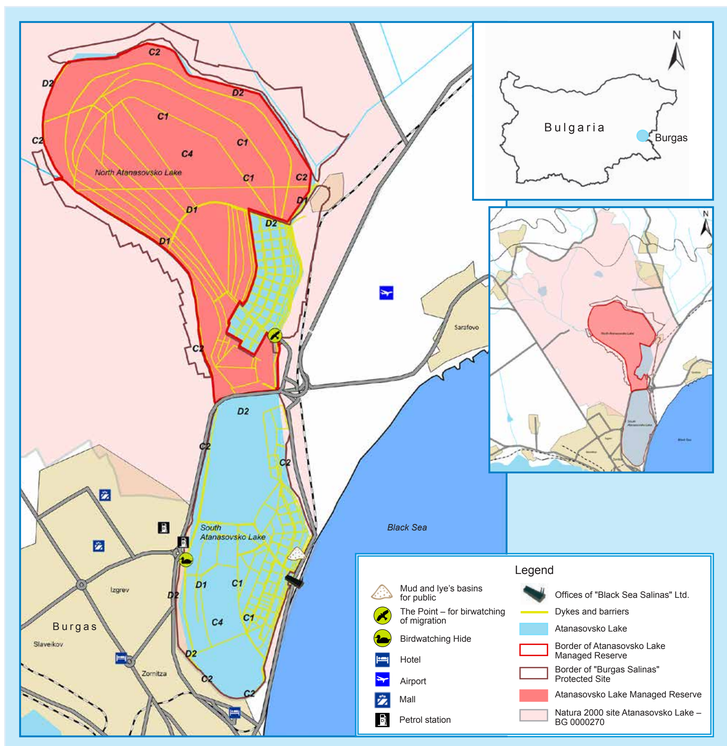
The Management of Atanasovsko Lake – complex measures for sustainable development and long-term favorable conservation status

Atanasovsko Lake – Location and characteristics

With surface of 7200 ha and situated in the northeast part of Burgas, it is one of three lakes from the Burgas wetlands complex. The lake has very specific conditions – combination of basins with different salinity – from typical for the sea water 18 ‰ to hyperhaline water with 300 ‰, as well as freshwater pools with hygrophytes. Some of the most rare and threatened habitats are represented here. Atanasovsko Lake is located at the Via Pontica migration flyway.



Conservation status and treats

Atanasovsko Lake is one of the sites with highest conservation value in Bulgaria and definitely has great EU importance as rare ecosystem type and habitat for protected species.

Because of the nature value and vulnerability of the ecosystems in Atanasovsko Lake several territories with different regimes of management and protection are defined. The north part of the lake is Managed reserve (IUCN V category), and the south part together with a belt of about 200 m around the northern part is protected site (IUCN V and/or V category). The whole lake and a big part of the surrounded area are included in Natura 2000 site under Bird and Habitat Directives. The lake is Ramsar site, Corine site and IBA according the criteria's of BirdLife International. Atanasovsko Lake is a salinas for production of this indispensable nature resource – the salt by applying the traditional methods and techniques of production, harvesting and processing.

The main treats for the lagoon are:

- Habitats loss, degradation or direct destruction.
- Disturbances during the birds breeding period, noise pollution from the nearby airport, pollution from pesticides and fertilizers, discharge of polluted water and waste, air emissions, etc.
- Changes of the hydrological and hydrochemical conditions caused by destruction of water management facilities;
- Predation and poaching – direct threat to the populations of species of conservation importance and intervention in the natural processes occurring in the lake;
- Investment interests for building and construction associated with the rapid and unregulated development of mass tourism along the whole coastal strip with the associated hotels and infrastructure - threats which destroy habitats and species, cause fragmentation, and isolation

Salt of Life Project

It is a 6 years long project (2012 - 2018) for the urgent restoration and long-term conservation of the coastal lagoon Atanasovsko Lake. The project is implemented by the Bulgarian Biodiversity Foundation with the partnership of the Bulgarian Society for the Protection of Birds and Black-sea Salinas Ltd. The Salt of Life project is financed by LIFE+ Programme of EU.

The project targets the hyperhaline lagoon Atanasovsko lake unique with preserved traditional form of salt production and one of the most rare and vulnerable Bulgarian ecosystems - Coastal lagoon. It is one of the most important bird areas in Bulgaria, where 318 bird species were observed of all 413 bird species occurring in Bulgaria.

Conservation activities

The project actions address directly all confirmed threats to the Atanasovsko Lake lagoon that contribute to the long-term decline of the priority habitat 1150*, comprising 20.6% of the total Lake area or 1,485 ha. Some 40% of the lagoon section (or 594 ha) suffers negative trends hence unfavourable conservation status, which will be eventually enhanced with the proposed project.

Activities for restoration of roosting and breeding sites for priority bird species by dykes and barriers repair as facilities for salt production infrastructure. Creation of artificial islands for breeding and roosting of bird species.

Restoration of 8,500 m of wooden barriers and 12000 m earth dykes will result in sustaining the water regime, improved conditions for the phytoplankton, zooplankton and zoobenthos.

Till the end of the project around 140 m^2 new sites for breeding and roosting of the key bird species of the lagoon – Collared Pratincole (*Glareola pratincola*), Kentish Plover (*Charadrius alexandrinus*), Avocet (*Recurvirostra avosetta*), Black-winged Stilt (*Himantopus himantopus*), Little Tern (*Sterna albifrons*), Common Tern (*Sterna hirundo*), Gull-billed Tern (*Gelochelidon nilotica*) and Sandwich Tern (*Sterna sandvicensis*). The implementation of these actions will result in enhancing key parameters, indicative for the favourable status of the target habitat like increased depth, decreased pollution and eutrophication, improved hydrological regime. The improvement of the places for nesting and roosting will result in increased quality of the site as a bird habitat. Number of the nesting and wintering bird species is expected to increase.

Secure the coastal lagoon Atanasovsko Lake against flood and pollution for creation of favorable conditions for all organisms groups.

Cleaning the bypass channel with total length of 22,930 m and restoration of the protection dyke will result in improved flood protection and decreased pollution from surface water inflow at the whole water body of Atanasovsko lake. The particular benefits from this activity to the key parameters of the favourable conservation status of habitat type 1150* are: Parameter 2.4: Oxygen conditions restored; Parameter 3.1: Pollution reduced; Parameter 3.2: Eutrophication reduced.

Develop comprehensive monitoring scheme for the Atanasovsko Lake lagoon, taking into account the specifics of the unique ecosystem and receive reference values for determining the favorable ecological status.

The implementation of a comprehensive monitoring scheme for the components of the biological diversity, abiotic factors and threats will provide measurable indicators of the effect of the project on the state of the ecosystems.

Sustainable use of the natural resources as a way to maintain the functions of the ecosystem

Keeping the traditional salt production is one of the guarantees of the long-term preservation of the favorable ecological status of the lagoon. Sea salt production take place in wetlands and their traditional extensive management supports wide variety of biodiversity with European significance in the adjacent Atanasovsko Lake. From the point of view of the effect on nature, traditional sea salt production carries the same characteristics as high nature value farming systems. The project has analyzed the possibilities to support traditional and beneficial for biodiversity salt production through the measures of the Rural Development Programme.

The involvement of "Black Sea Salinas" Ltd. as a partner in the project is a positive example of the involvement of business in the nature conservation.

BULGARIAN BIODIVERSITY FOUNDATION