Restoration of the Zlato pole protected area, Bulgaria

Year of issue

2025

Summary

Dimitrovgrad Municipality restored, protected and promoted the sustainable development of the “Zlato pole” protected area by securing additional water to maintain its hydrological regime and constructing a hydraulic intake and supply channel. Water is diverted from the Martinka River, via a small intake and settling basin, then conveyed ~580 m in a buried 600-mm pipe and ~520 m in an open canal with control gates; the scheme was completed in 2013. The 84.79-ha site overlaps the Natura 2000 SPA BG0002103 “Zlato pole”, for which the Ministry adopted site-specific conservation objectives in June 2024, including targets for key birds such as Pygmy Cormorant and Ferruginous Duck and for wetland habitats. Management is overseen by RIEW Haskovo, with an information centre in Raynovo supporting education and visitors. Post-project actions have included nest boxes, aquatic plantings (white waterlily) and safeguarding of Leucojum aestivum. Current pressures reported on site are recurrent fires, illegal hunting/fishing and occasional flooding along the Martinka. Overall, the restoration sustains wetland hydrology, enhances habitat mosaics on the Maritsa floodplain and underpins ongoing Natura 2000 commitments, while requiring continued local engagement and enforcement.

Photo Gallery



Location

42.03138, 25.7216

Project

NWRM

National ID

Bulgaria_04

Sector

Hydromorphology

Installation Date

2012-07

Implementation status

Completed

Contact

REC

Overview

Location of the project

The protected area lies on the left bank of the Maritsa River, immediately south of Zlato pole village (Dimitrovgrad Municipality), and spans the lands of Zlato pole, Raynovo, Brod (plus Nova Nadezhda of Haskovo Municipality).

Country

Bulgaria

NUTS2 Code

Южен централен (Yuzhen tsentralen)

Sponge measures implemented in the case study

Wetland restoration and management

Basins

Objectives

Restore the hydrological regime by diverting water from the Martinka River via a small intake and settling basin, then ~580 m of buried Ø600 mm conduit + ~520 m open canal (slope 0.0015), with 8 inspection shafts and an operations plan (incl. emergency/pollution response). Target construction time: ~120 working days.
Recover floodplain riparian forests typical of the site through afforestation on ~60 decares (~6 ha) with local willow and poplar species; establish a black poplar mother stock/nursery and control Amorpha (invasive).
Reintroduce and reinforce rare plants: Leucojum aestivum and Nymphaea alba (e.g., municipal news reported >20 water-lily rhizomes planted; Green Balkans reported 30 new water lilies).
Education, access and anti-disturbance measures: create an Information/Visitor Centre in Raynovo, build two birdwatching towers, three gazebos, 15 litter bins, update zoning/marking and install interpretive signage.

Involved partners

Authority type	Authority name	Authority role	Comments	Authority responsibility
Local water authority	Municipality Dimitrovgrad	Initiation of the measure	—	Responsible
NGO	Green Balkans	Implementation	Federation of Nature conservation	Supporting

Site Information

Climate Zone

Warm temperate dry

Precipitation

600.00 mm

Temperature (°C)

12.60 °C

Runoff

1.00 mm

Elevation range

83 m

Slope range

0.0

Vegetation class

Shallow water bodies with extensive reedbeds and bulrush stands (i.e., emergent macrophyte marsh), with adjacent riparian willow vegetation, islands and pastures on the floodplain. This “reedbed/wetland emergent vegetation” is the dominant class.

WFD Ecological status

Poor

WFD Chemical status

Failing to achieve good

Water quality status

exceedances of good-status standards for total nitrogen, total phosphorus, nitrate-N, nitrite-N and orthophosphates

Design and Implementation

Project scale

Micro

Project scale specifications

This project targets a single protected site—the Zlato Pole Protected Area—through localised hydromorphological works (a small intake, settling basin and ~1.1 km supply canal) to maintain wetland water levels. The intervention footprint is the protected area itself (84.79 ha) on the Maritsa floodplain near the villages of Zlato pole, Raynovo and Brod; it does not cover a whole sub-basin or region.

Project area

84.79 ha

Design capacity

62

Constraints

Need to sustain existing dykes for flood security

Favourable preconditions

Protected area; Financing

Financing

Total cost

313315.95 €

Financing authorities

Authority name	Type of funding	Comments	Financing share
European Union	EU-funds: Cohesion and regional development funds	€266,318.56 or BGN 520,874	85 %
Bulgaria	National funds	€46,997.39 or BGN 91,919	15 %

Compensations

Non

Policy and Governance

Policy description

Interupted hydrawlic connection with main river and trained tributary; Habitat fragmentation

Land ownership

35% state, 12% municipal, 53% private

Policy targets

Improved Biodiversity

Increase Water Storage

Oher Societal Benefits

Part of a wider plan

Non

Public consultation

Oui

Has contractual arrangements

Non

Impacts and Monitoring

Monitoring System

Monitoring requirements

Bird and site surveillance is carried out through project-foreseen guarding during the breeding season, routine inspections by RIEW Haskovo, and NGO bird monitoring; Natura 2000’s 2024 objectives also call for multi-year, systematic species monitoring.

Monitoring parameters

number of breeding pairs, size of wintering population (individuals), area of suitable habitat (ha), and the ecological status/potential of water bodies used by target species (as per the River Basin Management Plan). Project texts also foresee presence/guarding records at the colony and amphibian breeding checks (with potential larval translocation if pools dry). Together, these indicate a monitoring set focused on population counts, habitat extent/condition, and water-body status relevant to the wetland.

Maintenance

Maintenance requirements

The intake–canal system is operated with periodic care of sluice gates and sediment flushing, and the municipality has procured repairs to the canal (2013), indicating ongoing municipal maintenance via contractors.

Socio-economic Impacts

Direct benefits

Nature-based recreation & ecotourism : Visitor infrastructure includes birdwatching towers (2) and gazebos/shelters for visitors.

Ancillary benefits information

Raising public awareness of the conservation value of the site and involvement of citizens in the measures for its protection

Biophysical impacts: Hydrology

Information on retained water

intake + settling basin + conveyance (buried pipe and open canal) built to feed the former Maritsa meander

Biophysical impacts: Biodiversity

Improved biodiversity

Oui

Information on improved biodiversity

Heron colony size: Green Balkans reports about 140 nests (Grey Heron, Little Egret, Night Heron) within the protected area. Positive indication that suitable nesting habitat persists.
Pygmy Cormorant (winter roost): the site (Zlatopole/Raynovo) is a regular roost within the Maritsa valley network. A 23-year study (1996–2019) covering 7 roosts including Zlatopole & Raynovo found 3,065–8,180 wintering birds annually across the valley and an increasing trend overall; it does not isolate the Zlato pole project’s specific contribution.
Local maxima cited in management texts: older official material for the site mentions up to ~2,000 Pygmy Cormorants in winter (contextual importance; not a project effect evaluation).
Habitat features added: c. 100 nest boxes for cavity-nesters were installed at Zlato pole (conservation action; no quantified breeding response published).

Biophysical impacts: Water & Soil Quality

Water quality overall improvements

Positive impact-WQ improvement

Lessons Learned

Key lessons

It is important to involve local authorities (municipalities) as main driving organizations in river restoration works, especially in cases where the main targeted lands are municipal property. The EU funds (ERDF) provide good opportunities for implementation however the practical experience is still limited.
Municipal leadership was decisive. Dimitrovgrad Municipality was the project beneficiary and operator, coordinating design, tendering, construction and subsequent operation—exactly the governance model that enabled a small, site-level intervention to happen.
Technical simplicity plus clear O&M matters. A modest intake on the Martinka River, a settling basin, and ~1.1 km of conveyance were paired with an operations plan (gate management, sediment flushing; normal vs. emergency modes). This pairing is a transferable lesson for similar floodplain wetlands.
Build partnerships for stewardship. The project design includes seasonal guarding of the heron colony and fishing restrictions, while NGO actors contribute monitoring and outreach—showing how agency–municipality–NGO roles can be complementary.
Invest in public engagement infrastructure. The Information/Visitor Centre in Raynovo and attendant amenities created a focal point for education, ecotourism and community programming, which helps sustain local support beyond the construction phase.
Plan for risks and enforcement. Post-project fires inside the protected site and recurring poaching pressures underline the need for prevention, surveillance and rapid response baked into management.
Align restoration with current Natura 2000 objectives. In 2024, Bulgaria adopted site-specific conservation objectives for SPA BG0002103 Zlato pole; tying management to these measurable targets strengthens accountability and provides a framework for long-term monitoring.
Close the evidence gap on outcomes. Publicly available documents emphasise actions and species aims, but provide little quantified before/after evidence for hydrology or water quality at Zlato pole; meanwhile, nearby Zlatopolska River monitoring registers nutrient exceedances—arguing for future projects to budget dedicated, site-level monitoring from the outset.

Barriers

Barrier type	Barrier role	Comments
Existing technical standards	Main barrier	Dyke security standards in relation to the flow restoration

Drivers

Driver type	Driver role	Comments
Organisation committed to it	Main driver	Commitment of Dimitrovgrad municipality and support by Green Balkans NGO

Success factors

Success factor type	Success factor role	Comments
Attitude of decision makers	Main factor	Good cooperation between local authorities and NGO
Existing staff and consultant knowledge	Main factor	—
Financing possibilities	Secondary factor	—
Available support tools	Secondary factor	—

Transferability

Highly transferable to small floodplain wetlands needing hydrologic top-ups via simple intake+canal. Success hinges on municipal leadership, clear O&M (gate ops, sediment flushing), correct hydrologic sourcing, and alignment with conservation objectives. Check land ownership, permits, sediment/nutrient loads, and plan for enforcement and fire risk; fund monitoring to evidence outcomes.

Sources

Sources

Case study:Restoration, protection and sustainable development of protected area "Zlato pole"

Restoration, protection and sustainable management of the biodiversity in the protected place Zlato pole

„Възстановяване и опазване на крайречни гори... община Димитровград“ (Project ID BG161PO005-3.0.07-0017-C0001) – UMIS public fiche

Пожар в Защитена местност “Злато поле” (Fire in “Zlato pole” Protected Area)

Long-Term Changes in a Pygmy Cormorant Microcarbo pygmaeus Wintering Population in Southern Bulgaria

Чистят защитена местност „Злато поле“ за Деня на влажните зони (Cleanup of Zlato pole for World Wetlands Day)

NATURA 2000 – Standard Data Form: BG0002103 “Zlato pole”