



LIFE RESTORE FOR MDD

UNESCO Five-country
Biosphere Reserve
Mura-Drava-Danube

GRADIŠČE - OXBOW LAKE RESTORATION

The Mura River is an exceptionally important river for nature conservation. It once meandered widely across its floodplain, but today its natural dynamics are limited to floodplain forests directly along the river. Regulation and hydropower plants in the upper reaches have interrupted sediment transport, leading to channel deepening and lower groundwater levels. Consequently, floodplain forests along the riverbanks are under threat.

The restoration of the Gradišče oxbow lake is being implemented near the village of Tropovci in the Municipality of Tišina. It is one of the last remaining oxbow lakes in the Slovenian section of the Mura, but has been largely drying out due to silt accumulation and declining groundwater levels.

Oxbow lakes are an important habitats of floodplain forests, providing a living environment for many animal species, including Natura 2000 species. Due to its location, it plays a key role in the migration of amphibians and other species dependent on aquatic habitats, as such habitats are very scarce in the wider surrounding area.

The implementation area also covers the Natura 2000 sites POV Mura (SI5000010) and POO Mura (SI3000251). Since 2021, the area has also been part of the UNESCO Five-country Biosphere Reserve Mura-Drava-Danube.



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FACTSHEET

PLANNED ACTIVITIES

- Removal of the upper soil layer with existing vegetation and the underlying layers to achieve an average water depth in the excavated basin of approximately 1 – 2.3 m at the mean groundwater level.
- Excavation of local deepened sections measuring 2 × 2 m.
- Removal of woody vegetation.
- Estimated quantity of excavated sediment: 6774.82 m³.
- Total area of the measure implementation site: 0.82 ha.
- Monitoring the effectiveness of the implemented measure.

INITIAL SITUATION

- The oxbow lake area is overgrown with bushes and other woody vegetation.
- The oxbow lake has largely dried out, with surface water present only in certain sections.
- Blockages have formed, preventing water flow within the oxbow lake.



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LIFE RESTORE FOR MDD: THREE RIVERS, FIVE COUNTRIES, ONE PROJECT

In the project “Preserving and restoring floodplain forest habitats along the Mura–Drava–Danube rivers” (LIFE RESTORE for MDD), 17 partners from five countries are involved. Between 1 October 2023 and 30 September 2028, various measures will be implemented to improve the condition of floodplain forests along the Mura, Drava and Danube rivers.



Overview of the Gradišče oxbow lake restoration area.

OVERVIEW OF THE MEASURE

Estimated value (incl. VAT): 254,758.89 €.

Objective: Restoration and improvement of the oxbow lake’s functionality in order to reestablish natural hydrological and ecological processes.

Restoration activities:

- Planned implementation period: 2025 – 2026.
- Removal of woody vegetation.
- Excavation within the existing depression area to enable the formation of a continuous water surface for as long as possible.

Monitoring of measure effectiveness:

- Biotic and abiotic monitoring.



Condition of the oxbow lake before the planned measure.

POSITIVE EFFECTS OF THE MEASURE

- Increased connectivity of floodplain forests.
- Restoration of natural hydro-morphological processes.
- Establishment and improvement of natural river dynamics.
- Reduction of flood risk.
- Increase in biodiversity.
- Rise in groundwater levels.
- Improvement of drinking water quality.
- Strengthening of cross-border cooperation.
- Increased aesthetic value of the area.

FOR MORE INFORMATION:

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