

# **lifelineMDD River Restoration Strategy**

## **A commitment for future restoration works in the 5-country Biosphere Reserve Mura-Drava-Danube (TBR MDD)**

### **Acknowledging that\***

- The Mura, Drava and Danube in Austria, Slovenia, Croatia, Hungary and Serbia form one of the largest river ecosystems in Europe, providing a home for a wide variety (including a large number of threatened) species and habitats;
- The Mura, Drava and Danube are rich in nature and vital to local people. Their restoration offers cost-effective nature-based solutions to protect biodiversity and to mitigate and adapt to the impacts of climate change, reduce the risk of extreme flooding and droughts, and creates important benefits for people's health, livelihoods and well-being;
- Hydropower dams in the upstream catchment area, river channelization and sediment extraction have resulted in bedload deficit, river bed degradation and a loss of natural hydro-morphological river dynamics, which threatens the unique biodiversity and ecosystem services of the Mura, Drava and Danube Rivers;
- Large scale integrated river restoration is the most effective measure to improve sediment balance and hydro-morphological conditions and thus to stop river and floodplain degradation.

### **Building on**

- The “Declaration concerning common approaches to water management, flood protection, hydropower utilization and nature and biodiversity conservation in the Drava River basin”, signed as a signal for full support at the Drava River Vision Symposium, Maribor, 24 September 2008, by the Heads of Delegation of the International Commission for the Protection of the Danube River from the Danubian States Austria, Croatia, Hungary and Slovenia and by the Director of the Department for Hydraulic Engineering of Bolzano, South-Tyrol in Italy;
- The Ministerial Declaration on the preparation of the establishment of the „Mura-Drava-Danube Transboundary Biosphere Reserve“ (MDD–TBR), signed by the Environment Ministers of Austria, Slovenia, Croatia, Hungary and Serbia in 2011;
- The “Assessment of the River and Floodplain Restoration Potential in the Transboundary UNESCO Biosphere Reserve “Mura-Drava-Danube””, WWF study prepared by Ulrich Schwarz as the first comprehensive strategic document for a joint management planning of the Transboundary UNESCO Biosphere Reserve “Mura-Drava-Danube” (2013);
- The Cooperation Agreement among the coop MDD partnership and managing institutions of Protected Areas forming part of the 5-country Biosphere Reserve “Mura-Drava-Danube” (2018) including
  - o The “Guidelines for a dynamic river corridor”

- The “Transboundary Mura-Drava-Danube Action Plan”
- The “Concept of transboundary learning network of River'sCools”
- The establishment of Biosphere Reserves along Mura, Drava and Danube in Croatia and Hungary (2012), Serbia (2017), Slovenia (2018) and Austria (2019) and the 5-country Biosphere Reserve Mura-Drava-Danube in 2021;
- The Common Work Plan for the 5-country Biosphere Reserve Mura-Drava-Danube (TBR MDD) as defined in the TBR MDD nomination form for UNESCO (2019) in particular *operational goal 1.1. Conserve ecosystems, habitats and species*, as well as *operational goal 1.2. Preserve natural water regimes and processes*
- The Ministerial Declaration to UNESCO on the Support of the Establishment of the "5-country Biosphere Reserve Mura-Drava-Danube" (TBR MDD), signed by the Environment Ministers of Austria, Slovenia, Croatia, Hungary and Serbia in 2020;
- The cross-border management plan for the innovative and sustainable management of the Border Mura and for improving the flood risk management (Management Plan Border Mura 2030, Core Goals and Guiding Principles, Interreg SI-AT goMURra) (2021);
- The “Danube Declaration” 2022 -2027 of the International Commission for the Protection of the Danube River (endorsed at the 4<sup>th</sup> Ministerial Meeting held on 8 February 2022) and the Danube River Basin Management Plan Update 2021, that also focuses on the significant water management issue of hydromorphological alteration including pressures on sediment balance in the Danube River Basin.
- Outputs developed in the frame of the lifelineMDD project, in particular:
  - The lifelineMDD River Restoration Toolbox – “Measures to improve sediment balance of rivers in the 5-country Biosphere Reserve Mura-Drava-Danube” (2022);
  - The lifelineMDD “Synthesis report on science-based needs for action” (2022);
  - The lifelineMDD “Call for Action” collected and signed by representatives of all 5 countries during the 5-country Biosphere Reserve conference from 5-8 September 2022 in Bad Radkersburg/Gornja Radgona;

### **The signatories declare**

that, depending on financial and staff resources, and always acting within the boundaries of their respective national legislation and their institutional competencies, seeking state of the art solutions and stakeholder involvement, they will:

- Continue to work towards the restoration of the Mura, Drava and Danube Rivers and promote the necessity and the social and health benefits of river restoration among the local population and regional stakeholders;
- Support each other in their local work with the exchange of experience, information and know-how in river restoration;
- Seek for integrated win-win solutions in river restoration with local stakeholders;
- Raise European and other external funds as well as national resources for projects aiming at the practical implementation of river restoration;



- Participate in future transboundary river restoration projects;
- Promote and find joint synergetic solutions for difficulties in nature conservation and water management regarding restoration activities;
- Consider state-of-the-art river restoration measures, as well as international know-how and expertise in local restoration projects;
- Consider the outcomes that were developed in the lifelineMDD project based on research, pilot projects and shared learning as integrated transboundary strategic framework for future river restoration, to improve ecological corridors and cooperation among key stakeholders along Mura, Drava and Danube;
- Consider the proposed actions and recommendations in the “River Restoration Toolbox” and the “Synthesis report on science-based needs for action” (outputs of the Interreg DTP lifelineMDD project, annexed to the strategy) as a basis for future ecological restoration plans & activities. The focus shall be on:
  - Protecting and restoring river sections, wetlands and floodplains, while also considering negative impacts of current and future climate change;
  - Elaborating and implementing management concepts that guarantee sustainable use of biological resources in the future and prevent overexploitation;
  - Participation, education, public information, and increased scientific research regarding restoration activities;
  - Following detailed, interdisciplinary planning steps, combined with hydraulic and sediment modelling for all cases of river restoration in order to determine the reasonable planning variants, the suitable combinations of measures and finally the successful implementation of the measures;
  - Prioritizing restoration areas for short-, mid- and long-term pipeline development;
  - Considering the large-scale catchment level for restorations for promotion of a self-dynamic river system;
  - Matching restoration activities with the appropriate river section type to succeed with measures;
  - Establishing a sediment management concept to provide and remobilise sediments in the Danube, Drava and Mura basins and to improve longitudinal connectivity; activate potential sediment input from the floodplain for sufficient bedload input;
  - Substantial widening (by increasing channel width and/or numbers of channels) and/or decrease of slope (by increasing curvature), both for decreasing the transport capacity of the river;
  - Considering habitat needs, including habitat heterogeneity and morphological integrity, allowing continuous migration routes (fish, birds), eliminating/mitigating negative consequences/impacts of hydropeaking;

- Increasing lateral dynamics and improving morphological conditions to better use and keep the sediment in the system, considering river engineering, hydraulics, flood safety and river morphology;
- “Thinking big” in river restoration, starting with applying and combining the following key planning modules as initial measures (or even considering relocating the dykes where possible):
  - Erodible (“soft”) banks
  - Mechanical widening
  - Initial channels/Reconnection of existing channel systems
  - Lowering of the foreland
  - Additional input of sediment
  - Structures to enhance erosion

*\* these statements are of general nature and valid for MDD, however, due to the large scale of the area they might vary depending on the respective river stretch*

*Audrea Johauides*

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CEO WWF Austria



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Guenter Langergraber

BOKU

University of Natural Resources and Life Sciences Vienna  
Department of Water, Atmosphere and Environment

Project Manager at BOKU:



Mario Klösch

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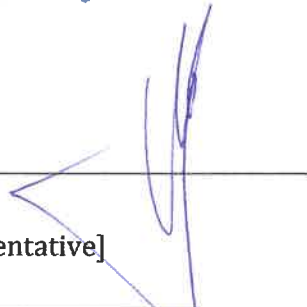
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DI Johann Wiedner

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Department 14  
Water Management,  
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Am der Steiermärkischen Landesregierung  
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mag. Teo Hrvoje Oršanič

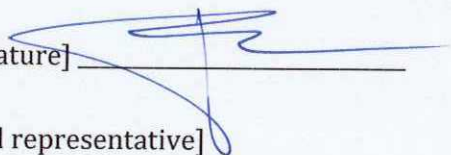
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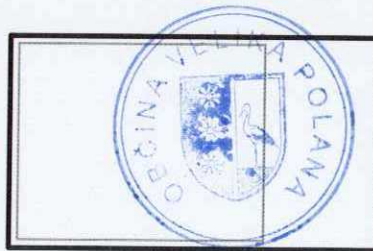


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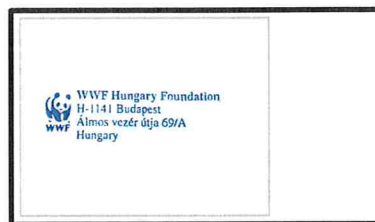
MRS. NATAŠA KALAUZ

WWF ADRIA



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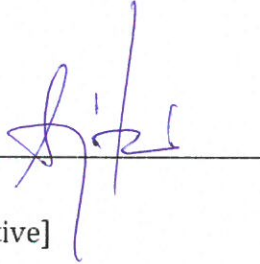
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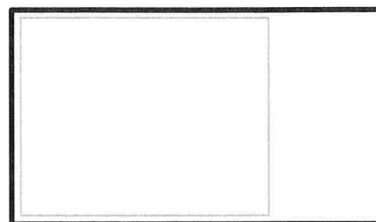
ANDREJ BIRO

POMGRAD - VGP d.d.



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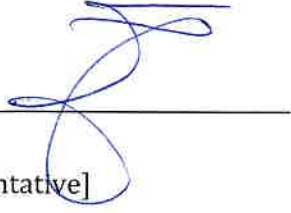
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Jasmina Marković

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Phd Zeljka Jeličić Marinković, Acting Director

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Dr. Andreas Baum  
Europaschutzgebietsbetreuung  
"Steirische Grenzmauer mit Gambitzbach u. Gnarsbach"  
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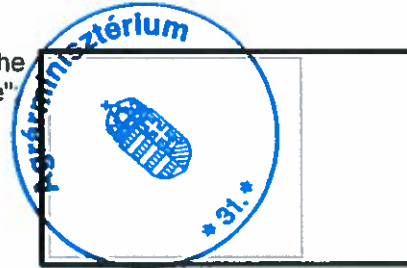
Public Institution for Management of Protected Natural Areas in the Koprivnica Križevci  
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In my capacity as chair of the Steering Committee of the  
"Five-country Biosphere Reserve Mura-Drava-Danube"

[Signature] *Echnolt Adás*



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Department for Nature Conservation

Ministry of Agriculture, Hungary



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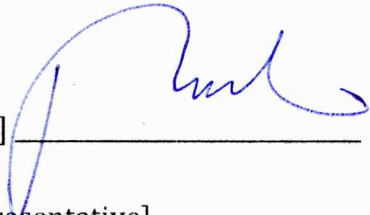


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PROVINCIAL SECRETARY

PROVINCIAL SECRETARIAT FOR  
URBAN PLANNING AND ENVIR. PROTECTION

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Puskás Zoltán

Balaton-felvidéki NPD



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NYUGAT-DUNÁNTÚLI  
VÍZÜGYI IGAZGATÓSÁG  
SZOMBATHELY

Date:  
04.01.2023

## Statement

in support of the

### **lifelineMDD River Restoration Strategy for the 5-country Biosphere Reserve Mura-Drava-Danube (TBR MDD)**

On behalf of the West-Transdanubian Water Directorate, as the manager of the Hungarian-Croatian section of the River Mura of common interest and the supporting partner of the lifelineMDD project I declare, that I consider principles and objectives of the River Restoration Strategy for the 5-country Biosphere Reserve Mura-Drava-Danube (TBR MDD) for 5 countries – which has been planned for some sections of the Mura and has been agreed upon on the basis of both social needs and professional water management aspects – to be supportable in the implementation of river restoration works that do not negatively affect flood flows.

  
Róbert Gaál  
Director



lifelineMDD ist ein Projekt, das im Rahmen des Danube Transnational Programme (DTP) der Europäischen Union (EFRE, IPA) sowie aus Mitteln nach dem Steiermärkischen Landes- und Regionalentwicklungsgesetz (StLREG 2018) ko-finanziert wird.

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Frau DI<sup>in</sup> Dr.<sup>in</sup> Kerstin Böck  
Project manager lifelineMDD  
WWF Austria  
Ottakringerstrasse 114-116  
1160 Vienna

Bad Radkersburg, Mittwoch, der 15. März 2023

Ergeht auf dem Email Wege an: [kerstin.boeck@wwf.at](mailto:kerstin.boeck@wwf.at)

Betreff: „DT.P3-308-2.3 lifeline MDD“ River Restoration Strategy – „Statement of support“

Sehr geehrte Frau DI<sup>in</sup> Dr.<sup>in</sup> Böck! Liebe Kerstin!

Das Leitungskomitee, der Fachbeirat des „Biosphärenparks Unteres Murtal im Steirischen Vulkanland“ erklären im Rahmen der 07. Sitzung der Steuerungsgruppe „Biosphärenpark Unteres Murtal im Steirischen Vulkanland“ von Donnerstag, dem 09. März 2023 mit einstimmigen Beschluss als Ausdruck des gemeinsamen Interesses an der Nachhaltigkeit der Ergebnisse aus dem Projekt „DT.P3-308-2.3 lifeline MDD“; Kurzbezeichnung „lifeline MDD“, die Ziele, Prinzipien und Schwerpunkte der „River Restoration Strategy“ im Rahmen des 5 Länder-Biosphärenparks und auf Grundlage ihrer spezifischen Möglichkeiten im Rahmen weiterer Projektaktivitäten zu unterstützen.

Die Mitglieder der Steuerungsgruppe stimmen dem Ersuchen um Unterstützung in Form des vorliegenden „Statement of support“ einstimmig zu.

Wir danken sehr herzlich für die Kenntnisnahme und zeichnen

mit freundlichen Grüßen



Mag.<sup>a</sup> Dr.<sup>in</sup> Beatrix Lenz, MBA, MA  
Regionalmanagement Südoststeiermark. Steirisches Vulkanland

In addition to the signatories, the following institutions have taken note of the strategy:

- Austrian National Committee for UNESCO's "Man and the Biosphere" Programme
- Federal Ministry of Agriculture, Regions and Tourism Directorate I: Water Management, Department I/6: Flood Risk Management, Austria
- Ministry of the Environment and Spatial Planning, Environment Directorate, Slovenia
- Slovenian Water Agency
- Croatian Waters, Water Management Department for the Mura and Upper Drava Rivers
- Public institution agency for management of protected natural values in Osijek Baranja County
- Ministry of Environment and Energy, Croatia
- Public Institution Nature Park Kopacki Rit, Croatia
- West-Transdanubian Water Directorate, Hungary
- Public Enterprise "Vojvodinašume" Petrovaradin, Serbia
- Ministry of Environmental Protection of the Republic of Serbia
- Bavarian State Ministry of the Environment and Consumer Protection, Germany