

Innovative Strategies for Restoring Lakes and Rivers

Aligning with EU Mission “Restore Our Ocean and Waters”

Date: Thursday, 25 April 2024

Theme: Mission Ocean & Waters

Workshop Summary

Framing Restoration Measures: Decision Support Tools for Lake and River Management

Speaker: Mikael Malmaeus, IVL, Project LIFE IP RichWaters

Mikael Malmaeus introduced a new handbook developed under the LIFE IP RichWaters project, aimed at providing a decision support tool for measures against internal loading in aquatic systems. The handbook outlines a structured approach including risk assessment, environmental monitoring, modeling to determine if measures are needed, and the selection of appropriate actions. This resource is now accessible at richwater.se.

Low Flow Dredging: Combating Internal Phosphorus Loading

Speaker: Jenny Herbertsson, Municipality of Katrineholm, Project LIFE IP RichWaters

Jenny Herbertsson discussed the application of low flow dredging actions against internal phosphorus loading in lakes and coastal waters, noting the lengthy permitting process and detailing the project's initiation in 2021. Regular water sampling has been conducted over 18 months to monitor the effects and efficacy of the dredging.

Knowledge Transfer and Application of ALUM Treatment

Speaker: Inga Retiķe, LHEI, Project Interreg BSR TRUST ALUM

Inga Retiķe presented the ALUM water treatment method, emphasizing its rapid and long-lasting effects on water quality improvement. Despite its proven success over 60 years in Sweden, it faces limitations in very shallow lakes and low pH environments. The first pilot in Latvia is set for Lake Velnezers on May 24.

Restoration of Small Rivers in Latvia

Speaker: Jānis Šīre, LEGMC, Project LIFE GoodWater IP

Jānis Šīre highlighted the efforts of the LIFE GoodWater IP, involving 90 partners to improve water bodies in Latvia where many rivers have been adversely modified. He stressed the importance of involving local communities in river restoration, which includes educational materials, river cleaning events, and the formation of local action groups.

Removing Nutrients with Closed-Circuit Hypolimnetic Withdrawal

Speaker: Laura Härkönen, SYKE, Project RaPo

Laura Härkönen reported on the success of the RaPo project in removing phosphorus and other nutrients from eutrophic lakes, significantly reducing internal loading and improving water quality. The project aims to develop and disseminate methodologies for wider application.

Enhancing Urban Lake Quality with BioFloat

Speaker: Inga Retiķe, LHEI, Project Interreg EstLat BioFloat

Inga Retiķe introduced the BioFloat project, which uses floating islands as artificial platforms that harness microbes for water purification, thereby increasing biodiversity, providing habitats, and reducing erosion in urban lakes.

Breakout Sessions: Detailed Discussions on Water Management

1. Nature-Based Solutions & Restorative Actions: Discussion on involving various stakeholders, including nature, and sharing success stories to clarify responsibilities and co-effects of these solutions.
2. Management of Water Bodies: Focus on utilizing smart data to enhance the management of aquatic environments.
3. Monitoring of Water Bodies: Emphasis on expanding citizen science and additional educational efforts to improve monitoring practices.
4. Reduction of Nutrient Loading: Strategies discussed included managing upstream measures, addressing the impact of previous polluters, promoting the use of wetlands, and encouraging dietary shifts and composting to promote nutrient circularity.