

Improving the quality of Latvian rivers and lakes



Implementation of River Basin Management Plans of Latvia Towards Good Surface Water Status
(LIFE 18 IPE/LV/000014)



More on LIFE
Good Water IP:



THE SITUATION

Only one third of Latvia's rivers and lakes are considered to be of good ecological quality.

35%

The remaining two thirds are classified as "water bodies at risk" – they might need help in order to reach good ecological quality.

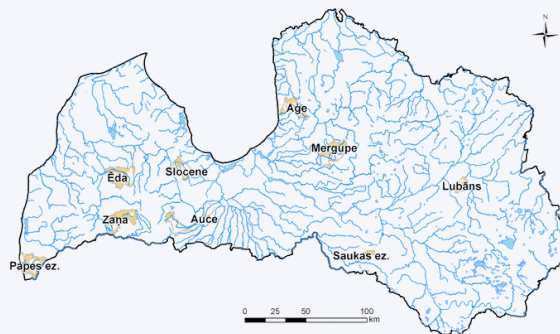
In Latvia, surface water quality is most affected by:

- 💧 **Inflow of nutrients** (nitrogen and phosphorus) via wastewater and runoff from agricultural and forest lands. It fosters eutrophication – increased richness of nutrients in the water, leading to excessive algal and plant growth in the water body.
- 💧 **Man-made modifications** – dams, drainage systems, polders, straightening of rivers, embankments etc. These modifications change the natural flow and water regime, thus affecting river and lake habitats.

WHAT WE DO

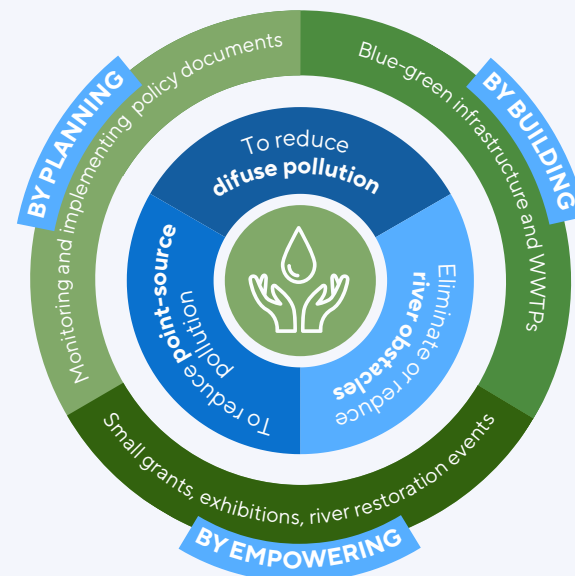
LIFE GoodWater IP is the European Union's LIFE Programme Integrated Project tackling challenges of surface water management in Latvia.

We aim to improve the ecological quality of six rivers and three lakes (making up 17 water bodies), as well as 10 additional water bodies in Latvia by testing and applying innovative management measures. Insights and experience gained during this process will be the starting ground for further improvement of water quality all throughout the country.



LIFE GoodWater IP demonstration objects – 6 rivers (Aģe, Mergupe, Auce, Slocone, Zāņa, Ēda) and 3 lakes (Papē, Saukas, Lubāna)

PROJECT "IN A NUTSHELL"



Total project budget: 14,46 M €, of which 8,68 M € are contributed by the EU LIFE programme.

OUR TASKS

Improvement of wastewater management

Faulty wastewater treatment plants impact surface water quality significantly. In partnership with two municipalities – Tukums and Jelgava – we have improved the operation of two wastewater treatment plants (WWTPs).

Improved wastewater treatment plant in Engure, Tukums municipality (2024)



We've also developed a **mathematical model for wastewater risk assessment** in populated areas.



Newly built wastewater treatment plant in Nākotne, Jelgava municipality (2025)

Reduction of nutrient run-off from agricultural lands

After continuous water quality monitoring in Āģe, Slocene, Auce and Ēda river catchments, spaces for nutrient reduction measures have been determined.

So far:

- **7** surface flow constructed wetlands
- **1** sub-surface flow constructed wetlands
- **6** woodchip bioreactors
- **11** sedimentation ponds

have been or will be constructed.

Additionally, at least 50 km of drainage ditches will be restored by the end of 2027.



Constructed wetland on Āģe (2024) might be the largest in the Baltics!

Reduction of nutrient run-off from forest lands

Forestry can also contribute to decrease in surface water quality. Therefore, the project has created a portfolio of green-blue infrastructure solutions tackling this problem. In the basin of River Tora (Āģe tributary):

- **Forest stand diversification** has been carried out
- **Three types of sedimentation ponds** have been constructed
- **Sedimentation pond with peak flow control system** has been built



Sedimentation pond with peak flow control system in Tora river basin (2025)

Mitigating the impacts of modifications

Four rivers – Āģe, Auce, Mergupe and Zāņa – have been mapped entirely (more than 200 km), identifying areas leaving negative impact on the quality of natural habitats in the rivers.

In order to improve the hydromorphological quality of the streams (and subsequently the quality of natural habitats), different measures are applied:

- **A fish pass** will be built nearby a small hydroelectric power plant
- **The impact of two culverts** will be mitigated
- **50 km of riverbed** incorporated in the national drainage system will be reconstructed

Additionally, **60 km of natural river sections** will be restored, incl. through removal of man-made obstacles



Removal of river obstacle in Zāņa (2023)

Community engagement and public education events

An important aspect of LIFE GoodWater IP is to educate and empower the citizens to help water bodies. We do that through:

- **Online learning platform** for agriculture, forestry, aquaculture and wastewater management specialists
- **Small grants programme** funding **7** activities related to water quality improvement (e.g. testing innovative method for phosphorus recovery from wastewater)
- **In total 24 guided landscape tours** offering insights into different water bodies
- **In total 5 traveling exhibitions on rivers and lakes**, fostering local care for the water bodies

- **At least 30 river restoration events** with an educational focus on river habitats



Support for the authorities

As a part of the project, national sewage sludge management strategy has been developed and approved. Two nature protection plans – for Lake Pape and Lake Lubāns – are under development, as well as recommendations for agriculture, hydropower and aquaculture sectors. The project results will serve as input for the river basin management plans to come!

From ministries to NGOs – 19 partners coming together to take care of Latvia's rivers and lakes



LVGMC



Ministry of Climate and Energy
Republic of Latvia



Ministry of Agriculture
Republic of Latvia



ZMNI
Latvian National Institute of Environmental and Natural Sciences



LATVIJAS VALSTS MEŽI
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Latvian Bioscience and Technology University



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BALTIJAS KRĀSTI



BEF



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Find us on:



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01.01.2020 –
31.12.2027

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