INTRODUCTION TO THE PROJECT

Jānis Šīre

Project Manager

EU LIFE Programme integrated project

"Implementation of River Basin Management Plans of Latvia towards good surface water status"

THE OVERALL AIM

To **improve the status of water bodies at risk in Latvia** by implementing the measures laid down in all 4 river basin management plans

19 partner consortium, consisting from:

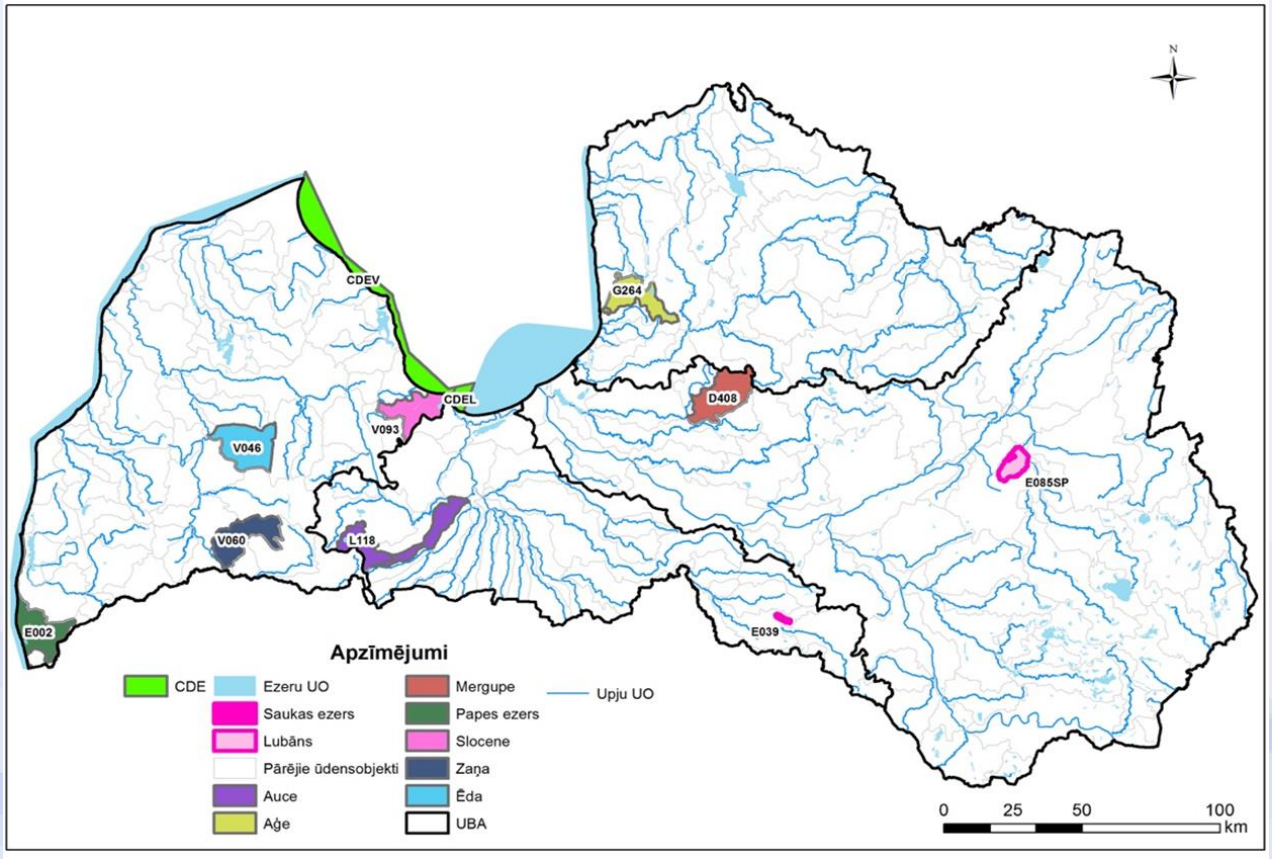
- public authorities;
- municipalities;
- scientific organizations;
- companies managing the State property;
- NGO`s (from farmers to environmental protection organizations)

EU LIFE Programme integrated project
"Implementation of River Basin Management Plans of Latvia towards good surface water status"

DURATION:
01.01.2020.–31.12.2027.

TOTAL BUDGET:
14 463 050 EUR

COMPLEMENTARY FUNDS:
101 890 569 EUR



SPECIFIC OBJECTIVES

✓reduce the **point-source pollution**, mainly focusing on urban waste water:

- Engure village - improvements in the operation of existing WWTPs;
- Nākotne village - construction of new wastewater treatment plant

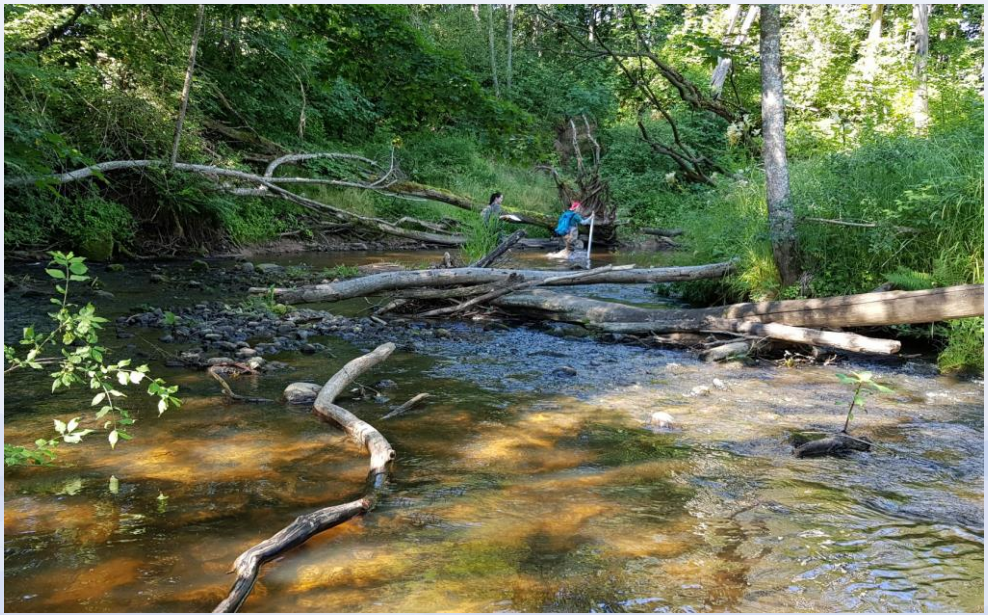
✓reduce the **diffuse pollution** from agricultural and forestry lands:

- research in Aģe, Slocene, Auce and Ēda rivers;
- green infrastructure solutions such as buffer strips and wetlands

SPECIFIC OBJECTIVES

✓mitigate effects of **hydrological and morphological alterations**, focusing not only on dams, but also on drainage systems:

- survey of 4 rivers along their entire length;
- inspection of drainage systems and construction of environmentally friendly elements, incl. culvert reconstruction
- construction of a fish pass (on Aģe HPP)
- calculation of ecological flow regime for HPPs in 4 rivers - Aģe, Mergupe, Auce and Zaņa



SPECIFIC OBJECTIVES

✓improvement of **river basin management planning** and implementation mechanisms:

- intensive monitoring in the project's rivers and lakes;
- SWAT+ model for determination of nitrogen and phosphorus loads;
- development of river basin management plans

✓**support for the respective authorities** by improving the legislative and regulatory documents and policies:

- results of measures implemented in practice - efficiency indicators;
- development of the National sewage sludge strategy;
- incorporation of the research results into the Common Agricultural Policy document;
- additions to other regulatory documents

SPECIFIC OBJECTIVES

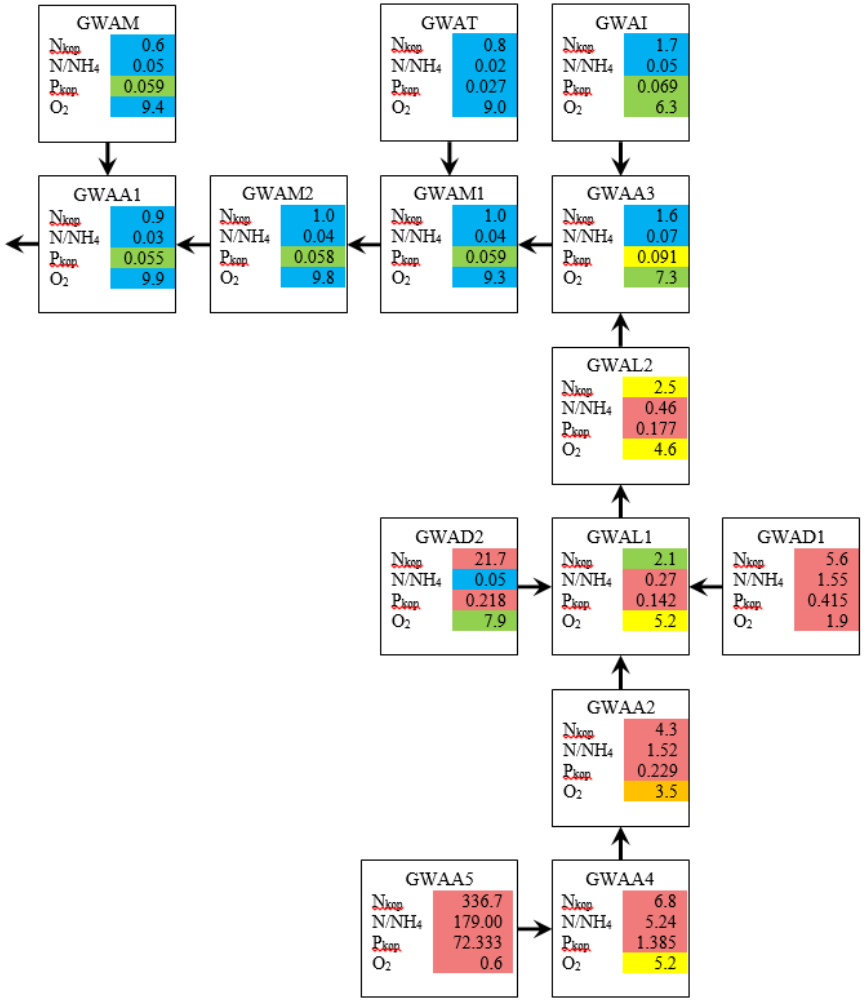
✓**awareness raising** activities:

- 4 thematic training programs will be developed (wastewaters, agriculture, forestry, aquaculture);
- river clean-ups, exhibitions and landscape tours;
- a small grant program for local cooperation and involvement (1st stage = 35 proposals → 6 for detailed elaboration → 4 in final phase for approval)

PRACTICAL ACTIVITIES

- Intensive **monitoring**
  - Agricultural impact assessment – 4 rivers (~15x4 samples each month)
  - Forestry impact assessment – 1 river (16 samples each month)
  - Wastewaters – 2x each month (1 year)
  - Detailed monitoring in Sauka lake (lake, in- / out-flowing rivers/ ditches)
  - Additional monitoring in lake Lubans (different sites in the lake)
  - Aquaculture impact (13 fish farms)
  - Hydromorphology/fish survey – 4 rivers in all their length
  - General monitoring in demo WB (12x per year)

Aģe 2020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Pkop 0.059
O2 9.4
GWAT
Nkop 0.8
N/NH4 0.02
Pkop 0.027
O2 9.0
GWAI
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N/NH4 0.05
Pkop 0.069
O2 6.3
GWAA1
Nkop 0.9
N/NH4 0.03
Pkop 0.055
O2 9.9
GWAM2
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N/NH4 0.04
Pkop 0.058
O2 9.8
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Pkop 0.059
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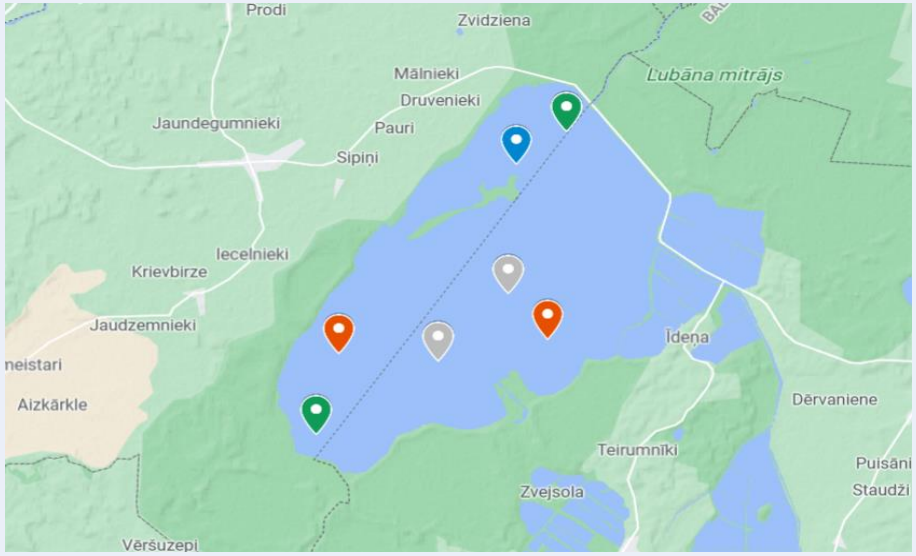
Prodi
Zvidziena
Mālnieki
Druvenieki
Lubāna mitrājs
Jaundegumnieki
Pauri
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Krievbirze
Jaudzemnieki
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Aizkārkle
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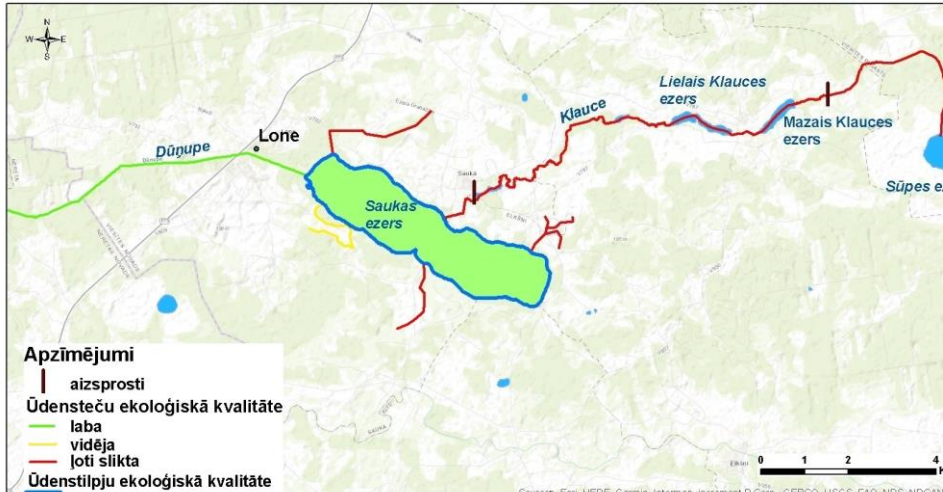
Teirumnīki
Puisāni
Staudži
Zvejsola
Vēršuzepi


Lone
Dūņupe
Klauce
Lielais Klauces ezers
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Saukas ezers
Apzīmējumi
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Ūdensteču ekoloģiskā kvalitāte
laba
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Ūdenstilpju ekoloģiskā kvalitāte

Phytoplankton and zooplankton samples


Photo: I. Druvietis

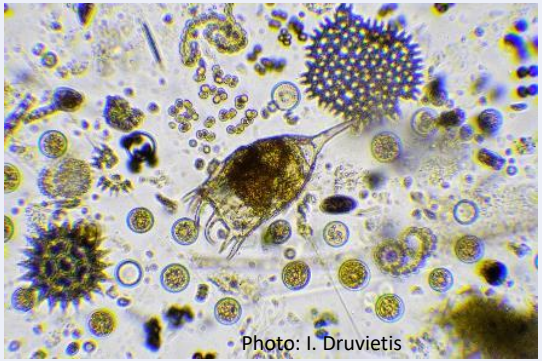


Photo: I. Druvietis

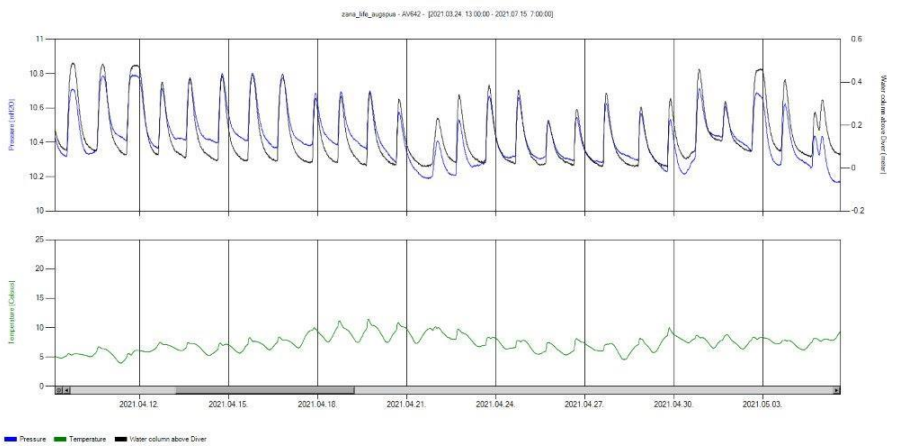

Benthic invertebrates

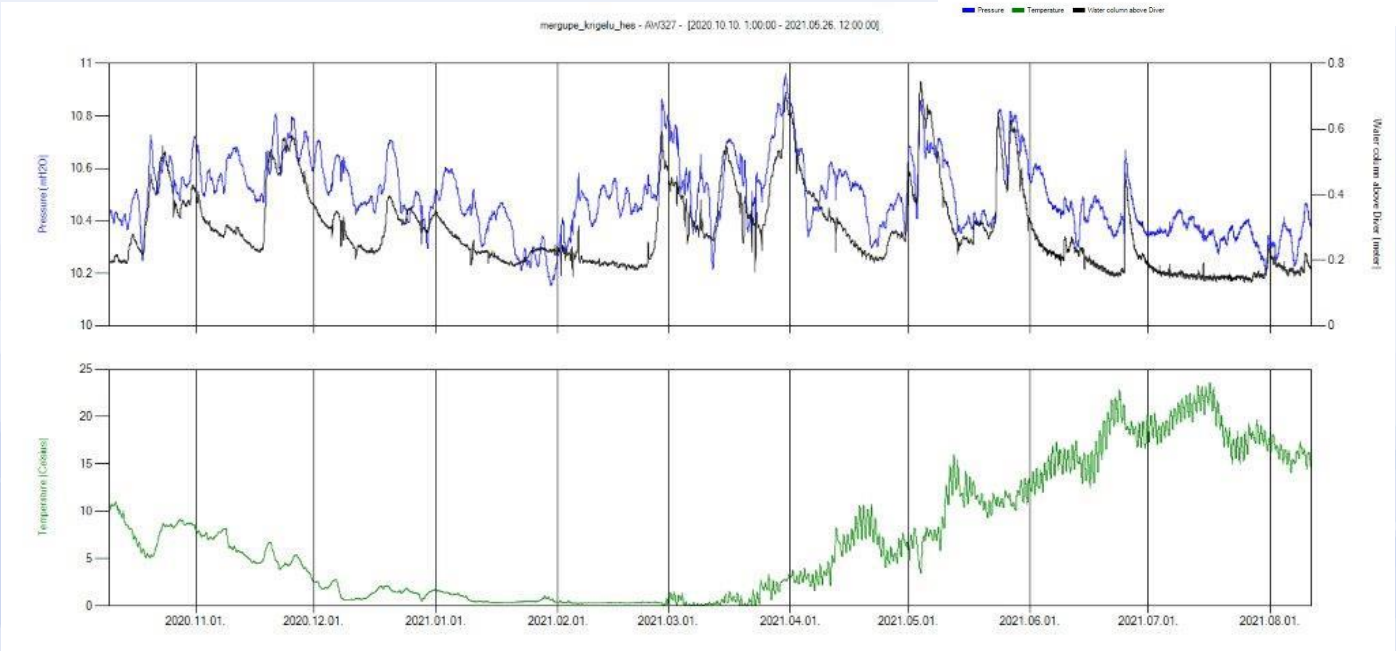

Macrophytes

Plankton sampling

HPPs and E-flow

- Field works - ongoing
- Installation of divers
- Control issues - water level/flow regime





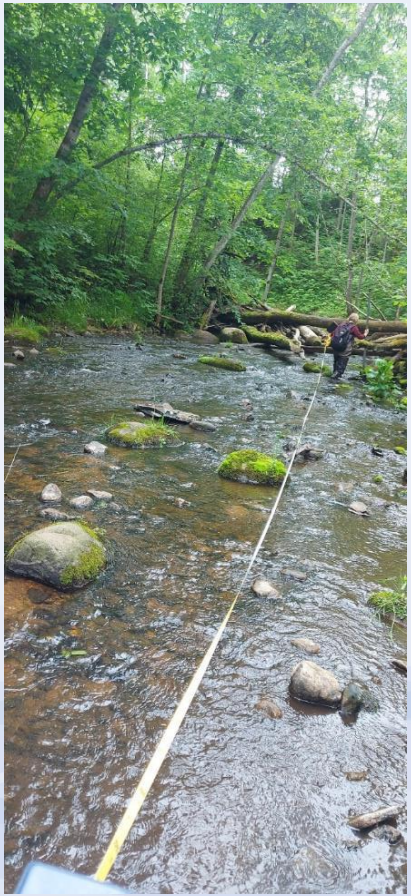
Hydromorphological surveys

River inspection

- Includes RHS (river habitat survey) + THS (trout habitat score) + data on rapids, beaver dams and log jams
- Aģe & catchment – 36.6 km in Aģe River (95% from riverbed) and 13.7 km in tributaries
- Mergupe & catchment – 43.3 km in Mergupe (83% from riverbed) and 6.1 km in catchment
- Survey of macrophytes and benthic invertebrates performed within activity D1
- Auce and Zaņa rivers in 2021!

Electrofishing

- Aģe & catchment – 12 sites in Aģe River and 4 in tributaries. One additional site sampled within other projects.
- Mergupe & catchment – 11 sites in Mergupe River and 2 sites in tributaries. Two additional sites sampled within other projects



Aģe river & catchment

PLANNED NATURE BASED SOLUTIONS

Plan to implement AND TEST **measures for improving the ecological quality** and assess their effectiveness:

- build and test the applicability of **sustainable and environmentally friendly drainage system elements** - *meandering, artificial rapids etc.*;




Photos: Ainis Lagzdiņš, Source: NUTRINFLOW project

EU LIFE Programme integrated project
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Let the rivers flow!

www.goodwater.lv @goodwater @goodwater LIFE GoodWater goodwater goodwater

The integrated project "Implementation of River Basin Management Plans of Latvia towards good surface water status" (LIFE GOODWATER IP, LIFE18 IPE/LV/000014) has received funding from the LIFE Programme of the European Union and the Administration of Latvian Environmental Protection Fund. www.goodwater.lv