

AlgaeService for LIFE, No. LIFE17 ENV/LT/000407

Kiek vertas vandens kokybės pagerėjimas?

How much is the improvement in water quality worth?

6 September 2022,
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The project is funded by EU LIFE programme, Ministry of Environment of the Republic of Lithuania, National Fund for Environmental Protection and Water Management and project partners

Why do we ask this question?

- ✓ Socio-economic impact assessment is required by the AlgaeService for Life Project
- ✓ Monetisation of nature (ecosystem services) allows assessing impact the improvement of water quality in Kauno marios makes to society
- ✓ Knowing pros and cons of the biomass harvesting makes decisions on its usage easier
- ✓ It allows comparing all benefits (i.e., social impacts, human health and environment) and costs of the water quality improvement



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What are benefits (ecosystem services) water resources provide to us?

- ✓ Fisheries and aquaculture
- ✓ Water for drinking
- ✓ Raw (biotic) materials
- ✓ Water for non-drinking purposes
- ✓ Raw materials for energy
- ✓ Raw abiotic materials
- ✓ Abiotic energy sources
- ✓ Water purification
- ✓ Air quality regulation
- ✓ Erosion prevention
- ✓ Flood protection
- ✓ Maintaining populations and habitats
- ✓ Pest and disease control
- ✓ Soil formation and composition
- ✓ Carbon sequestration
- ✓ Local climate regulation
- ✓ Recreation
- ✓ Intellectual and aesthetic appreciation
- ✓ Spiritual and symbolic appreciation

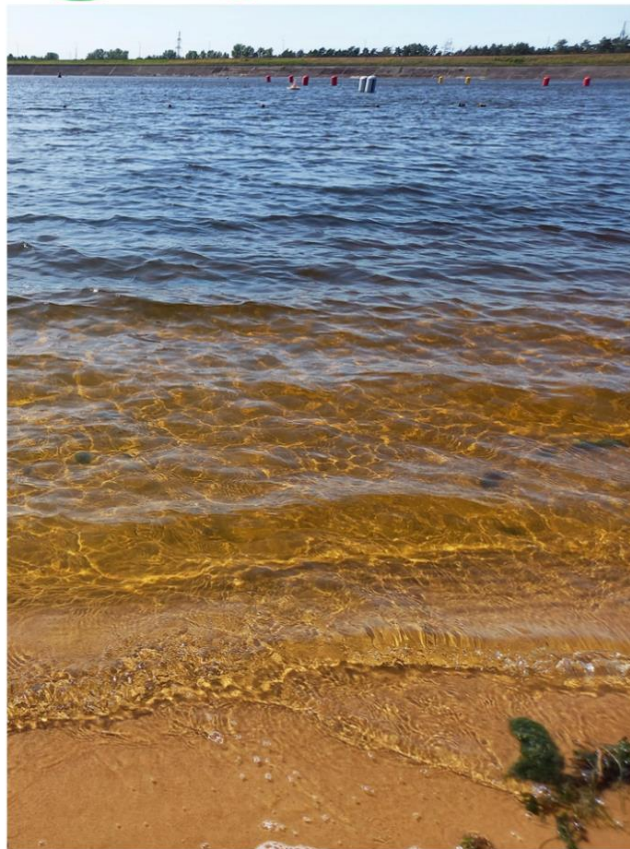
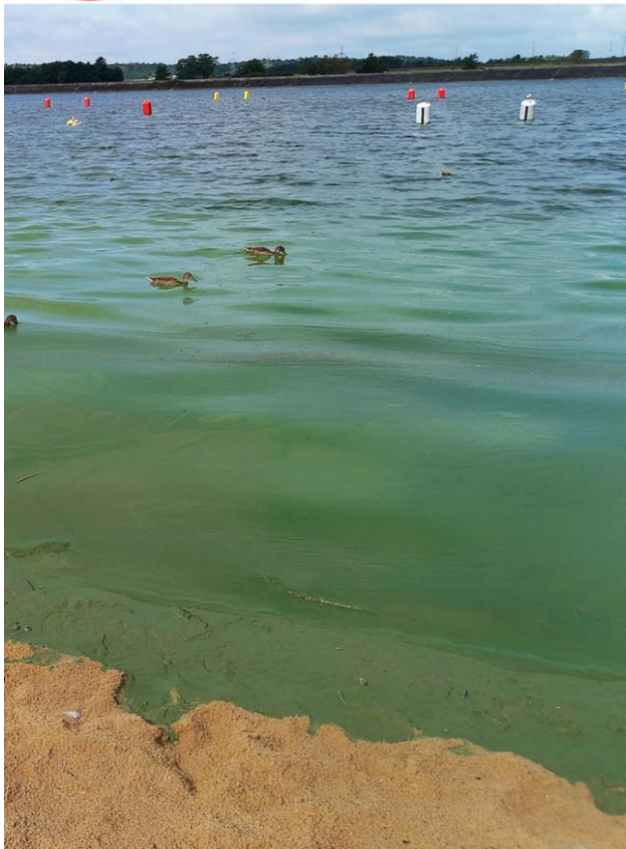
Willingness to pay
assessment is the only way
to evaluate nonmarketable
goods and services



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We will evaluate change of the water quality in Kauno marios



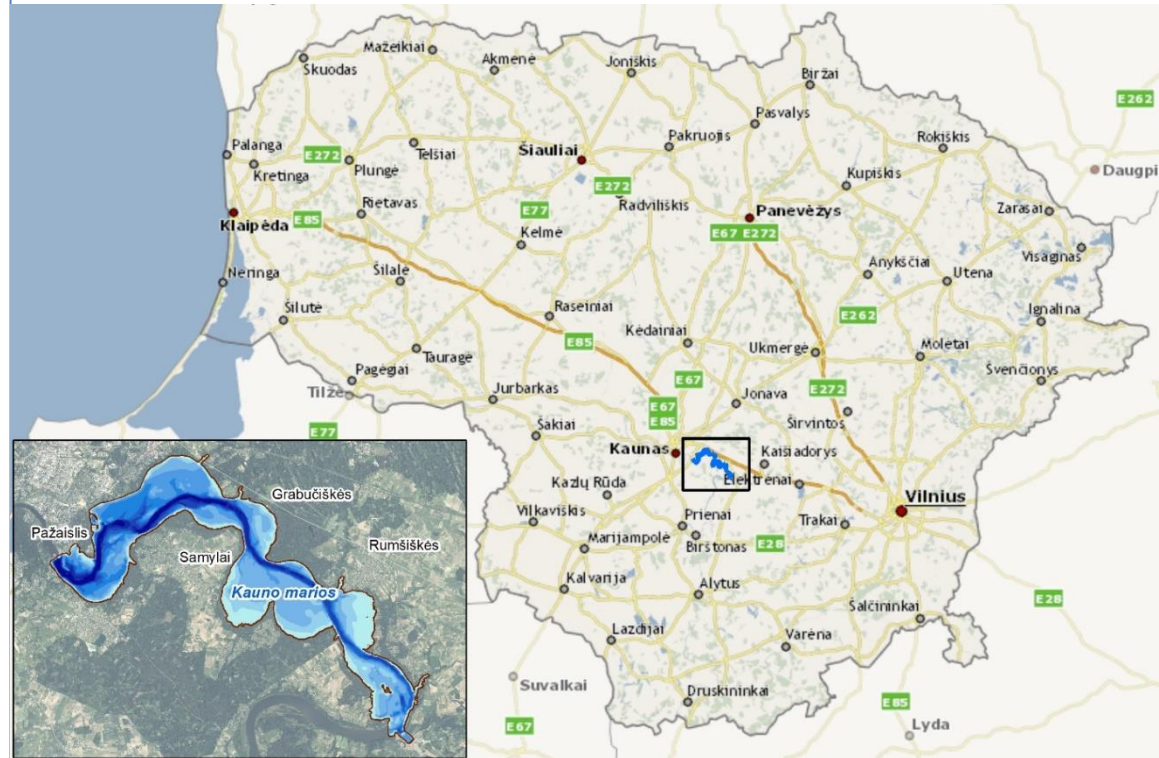
Current status	Good status
The water is turbid, there are blue-green sediments, and there is a water bloom	The water is clear, there is no water bloom
High concentration of toxic substances in cyanobacteria biomass	There are no toxic substances
Low diversity of species and habitats (predominantly small planktophagous and benthophagous fish – roach, cried, white bream, crucian carp)	High diversity of species and habitats (high diversity of predatory valuable fish – pike, common perch, sander)
Because of cyanobacteria in scums the lagoon water may pose a threat to people and pets	A safe ecosystem for people and pets



Survey on valuation of willingness to pay for the change of water quality in Kauno marios by people of Lithuania

Respondent will answer:

- 1) Perception of the area and environmental issues, connection to the Kauno marios
- 2) Experience / e.g., the use of the Kauno marios
- 3) Preferred status of the Kauno marios
- 4) Willingness to pay for improved water quality (how much, why/why not, certainty)
- 5) Socio-economic profile of respondent
- 6) Other, e.g., reactions from respondent (e.g., difficulties in answering), environmental friendliness



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How much people of Lithuania were willing to pay for water quality improvement before (contingent valuation studies)?

1. Baltic Drainage Basin Project, 1995
2. Baltic Coast Study, 1998
3. Ukmergė – willingness to pay study, 1999
4. Willingness to pay study for water quality improvement in Nevėžis basin, 2007
5. Willingness to pay study for water quality improvement in Neris basin, 2008
6. Baltic Survey - A survey study in the Baltic Sea countries on people's attitudes and use of the sea, 2010

Based on these earlier carried out surveys, willingness to pay for improved water quality in Lithuanian rivers and the sea amounts to approx. 7-10 Eur/person/year

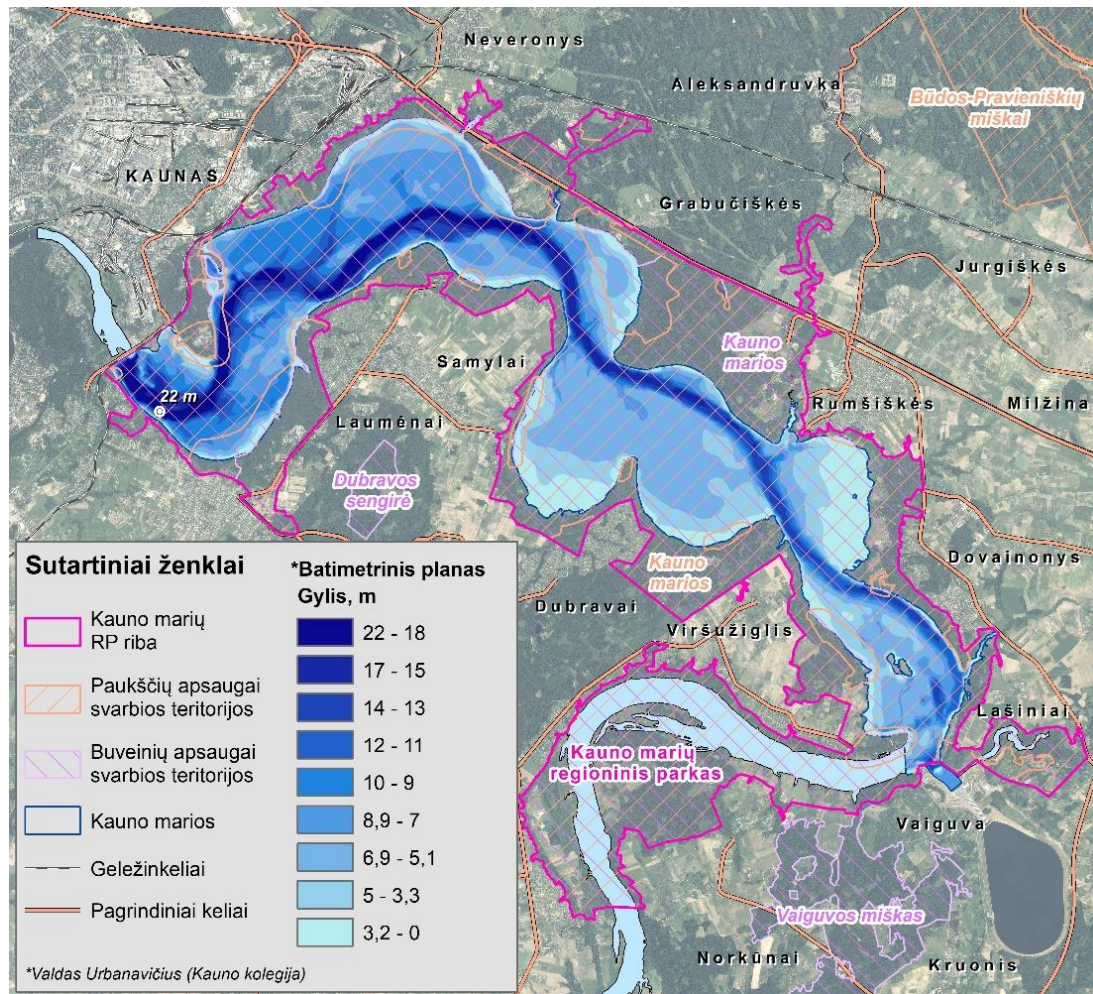
Let's see what results for Kauno marios will be 😊



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Thank you!



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