

Setting site-specific conservation objectives for N2000 – where river restoration is necessary and possible?

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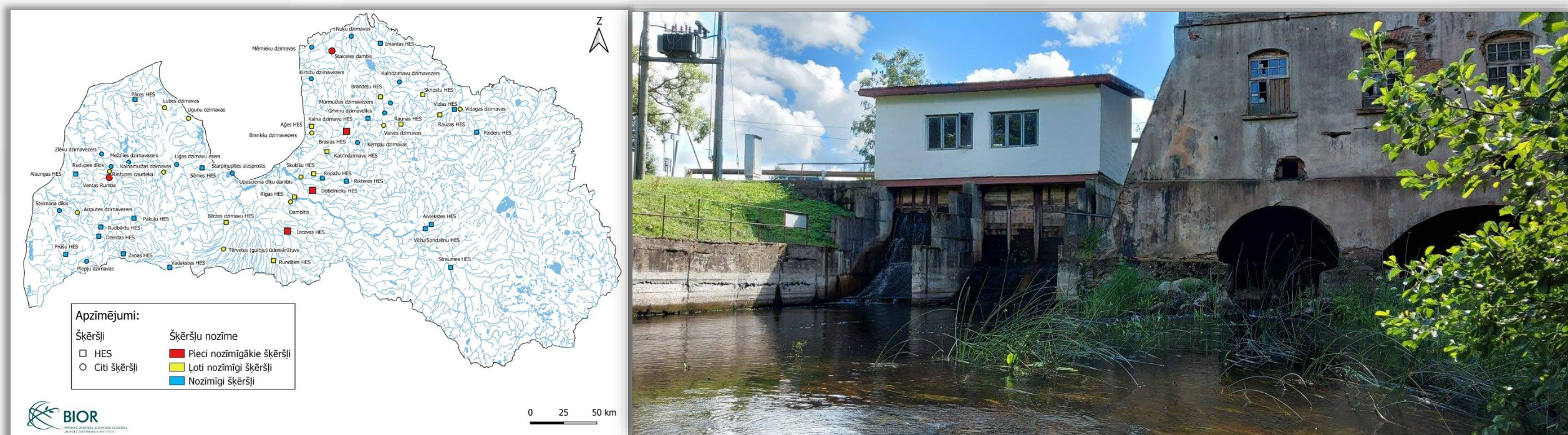
Connectivity and natural hydrological regime of rivers in Latvia are affected by alterations - obstacles and riverbed modifications, also on N2000 sites. There are more than 1200 obstacles on rivers and modified are more than 1/3 of total 37 500 km river length. The concept of a free-flowing river, indicated in *Barrier Removal for River Restoration* by ensuring both longitudinal and lateral connectivity of rivers, supports the achievement of Habitats Directive as well as Water Framework Directive objectives, as both of them aim at ensuring healthy aquatic ecosystems, at the same time ensuring a balance between water/nature protection and the sustainable use of nature's natural resources. **To achieve the goal of a free-floating river, it is necessary to define river sections which need to be restored.** In project *LIFE IP LatViaNature* site - specific Conservation Objectives of protected habitat 3260 *Water courses of plain to montane levels with the Ranunculus fluitantis and Callitriche-Batrachion vegetation* are being determined according to methodology elaborated in project, including a wide spectrum of criteria.

Conservation Objective (CO) for protected habitat 3260 = area (existing + potential) and quality. Potential river habitat – modified river with possibility of recovery in natural way or with appropriate management activities.

River sections that are included in CO as potential river habitats 3260:

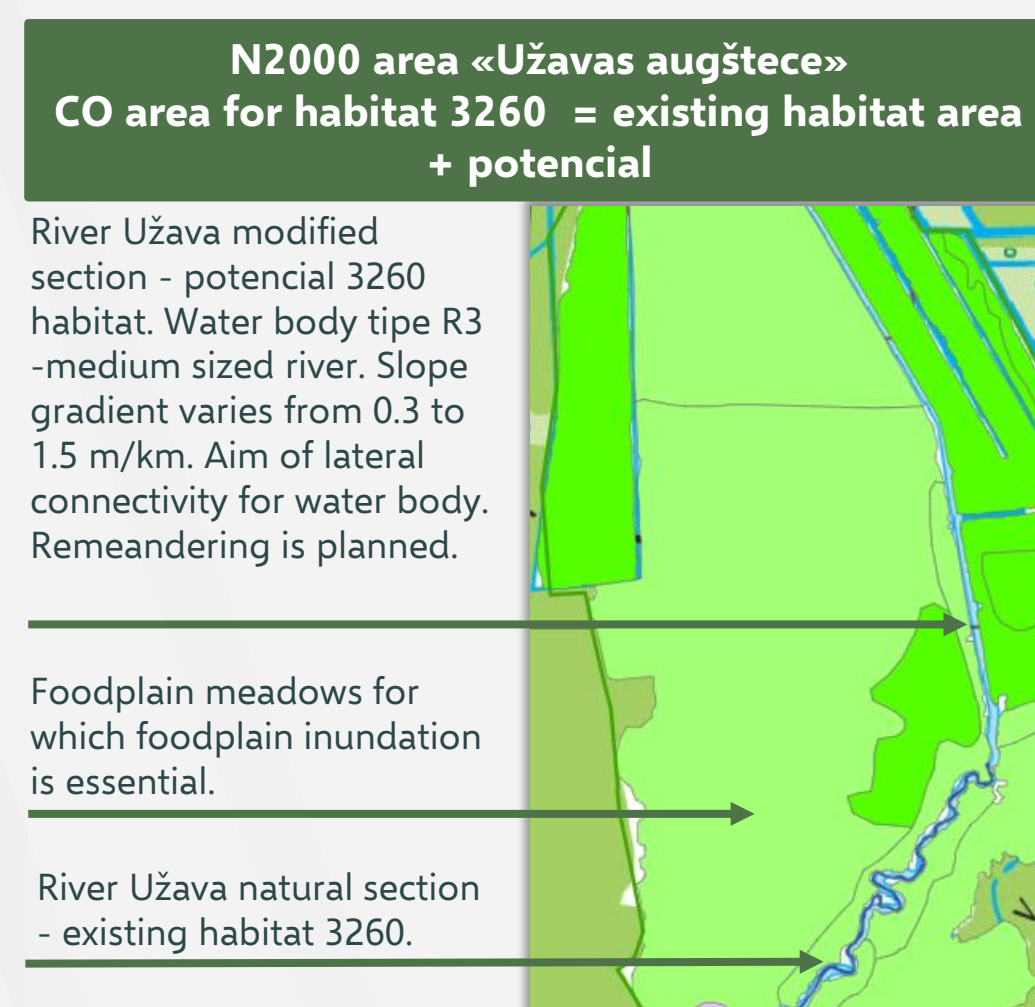
With obstacles:

- Obstacle is listed in top 70 of most important obstacles for fish fauna and nature (with possibility to get financial support in their elimination from Fish Fund)
- Defined aim of longitudinal connectivity for water body in River Basin Management plans
- Small rivers with high impact from beaver dams



Straightened, but with already existing signs of naturalization or with potential of naturalization:

- Defined aim of lateral connectivity for water body in River Basin Management plans
- Ecological type R3 – R7 (medium to large rivers)
- At least with some river rapids
- In natural areas
- With rare and specially protected freshwater species
- Remeandering of river is planned only if river is surrounded with foodplain meadows (6450) or alluvial forests (91E0)
- Restoration of river rapids only if average river slope gradient is >1 m/km



River sections that are not included in CO as potential river habitats 3260:

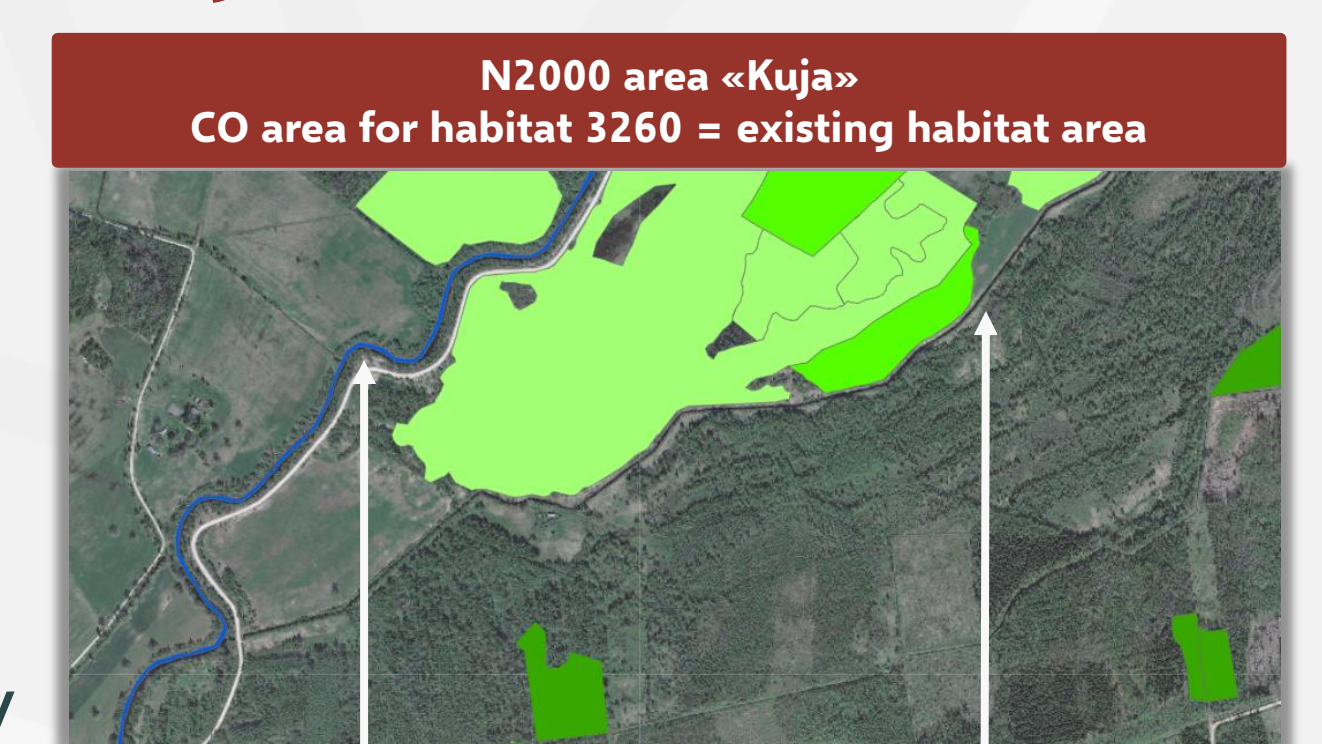
With priorities other than nature protection:

- In area of hydro power plants, where river is defined as lake water body according to River Basin Management Plans, with a vital role in ensuring the country's electricity supply
- Are part of polders and/or protective dams in flood risk areas of national importance according to River Basin Management Plans
- On the state borders



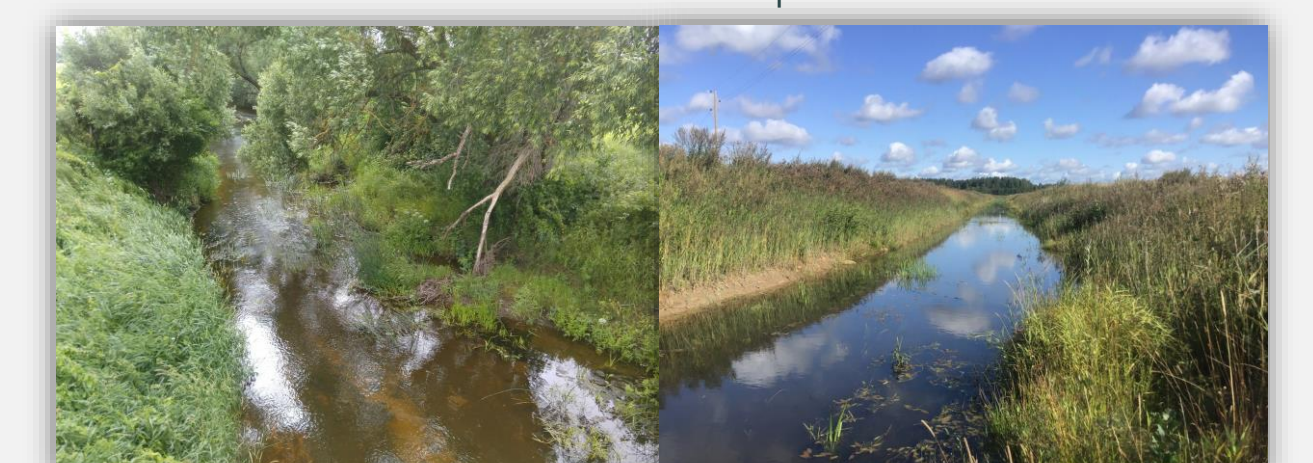
Straightened rivers with low possibility of naturalization (low morphological activity):

- In farmland areas with a dense network of ditches
- Small upstream stretches that fit into ditch systems
- Small potamal rivers
- Slow-flowing rivers with a sandy bottom without signs of naturalization, although a long time has passed since transformations (more than 50 years)
- Repeatedly modified over the past 20 years



River Kuja has naturalized since modifications in 1951. It has regained the diversity, that is characterized for natural river. Habitat 3260.

River Upsts. No signs of naturalization since modifications in 1951. Low morphological activity. Small river with average slope gradient 0.1 m/km. Is not potential habitat 3260.



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