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INVITATION TO THE LECTURE

The Impact of Dams and Water Abstraction on River Ecosystems

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*Lecture hall 201 of the School of Environmental Sciences,
Via Croce 3, Gorizia, Italy*

On running waters in Slovenia it is estimated there are over 37,000 water abstractions for drinking water, 440 for hydro-power generation, 290 for fish farming, 40 for irrigation, 80 for industrial purposes, and more are planned. Human influences on running waters and the riparian zone are widespread and tend to result in a trade-off between economic benefits and ecological impacts. For example, water abstraction may generate positive economic benefits, such as hydropower production or increased crop returns. However, reduced river flows can often cause ecological decline through altered flow regimes, morphological adjustments, loss of habitat, changes in physico-chemical parameters, and reduced species diversity.

To reduce these impacts and to protect river ecosystems, the need to determine Ecologically Acceptable Flow (EAF) in Slovenia has increased significantly in recent years. The EAF is defined as the quantity and quality of water that is needed to preserve the structure and the function of the river and riparian zone ecosystem and sufficient quantity of water to enable the survival and reproduction of aquatic organisms in different hydraulic habitats.

The impact of dams and water abstraction and evaluation of EAF will be presented through case study material.

Kindly invited!