

# One river two countries (HU-AT) re-establish the longitudinal connectivity

The water mills and water intake has been disrupted longitudinal connectivity of the Rába river for centuries.

## Rába river hydrology

catchment area 10.270 km<sup>2</sup> (1/3 in Austria, 2/3 in Hungary)  
length 283 km. (in Hungary 212 km, and 71 km in Austria)  
low water flow 5 m<sup>3</sup>/sec.  
high water flow 1.000 m<sup>3</sup>/sec.  
ecological flow 4 m<sup>3</sup>/sec.

In the middle section of the River Rába at Nick, there has been a dam since 1932 to supply water for agricultural purposes. Now days the function changed for ecological water supply. Next to the dam the former out of date dam and small power station was rebuilt. In Szentgotthárd at the border area has been since 1905 a dam which in 2013 was reconstructed and the longitudinal connectivity was restored. According to EU Water Framework Directive along the river fish passes was formed. Classical pool type combined with vertical slot fish pass was design. At Szentgotthard fish pass additional a boat slode was constructed. At Nick due to the high water fluctuation a special attention was pay for water intake and attraction water. In this case a new approach was use: additional slot pass in water intake section, and double pipe for attraction water.

## Fish passage general data Nick

low/high water level difference 5 – 5.5 m.  
length of the fish passage 300 m.  
vertical slot passage length 72 m.

## Fish passage general data Szentgotthárd

low/higj water level difference 4 m  
length of the fish passes 95 m  
burst type boat/canoe slide 95 m

The fish monitoring results indicated the effectiveness of fish passage: 18 different fish species were collected, 60percent of the species were reophil. Dominant species were: *Barbus barbus* (Barbel) and *Squalius cephalus* (Chub) *Chondrostoma nasus* (Nase) , *Alburnus alburnus* (Bleak) and *Alburnoides bipunctatus* (Schneider).

## Result

The results indicated that after 100 years the connectivity of the Rába river in this sections was successful restored.

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## Open weir Project along the Rába river



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