

FISH-PASS IN STREKOV DAM IN LABE RIVER

BACKGROUND

Improved river water quality has encouraged the return of some species of fish to our rivers. The second basic condition for encouraging fish migration is to overcome dams. In the Czech Republic, the State programme of nature and landscape protection was established in 1998. 24 fish-passes will be constructed and 17 fish-passes will be re-constructed by the year 2010. Historically, the River Labe was very important for fish migration. Salmon, salmon trout and eel came to the upper part of the River Labe and its inflows until the beginning of the 20th century. The original fish-pass was built in 1924-1936, at the same time as Strekov dam. In 1995, experimental arrangements were realized - improving conditions for fish migration. [1]



Fig 1 Chamber fish-pass in Strekov, Labe River (2005)

BASIC DATA

- Basic technical requirements for fish-pass reconstruction were established on the basis of further experiments (1995-2002).
- These were set length and width of chambers, water level difference of chambers, type of lure arrangements and position of tilting partitions in upper part.
- The reconstructed fish-pass is situated in 40, 361 km of River Labe.
- Length is 253 m and it has 3 parts with different technical construction.
- First part is made from ferroconcrete and it is new built in left bank of River Labe.
- Second part is made from steel and it is situated besides the power plant building.
- Third part is ferroconcrete flume in the place of origin fish-pass.

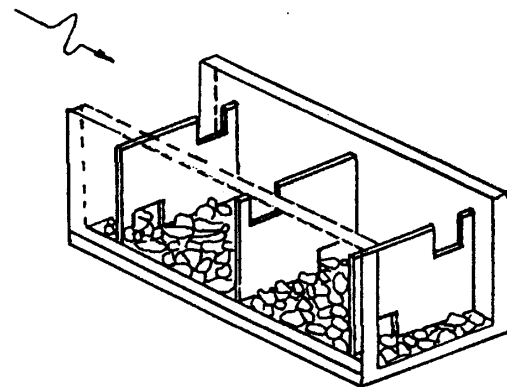


Fig 2 Schema of fish-pass [2]

SOLUTIONS

- The Chamber fish-pass has 27 chambers - the difference between upstream and downstream water level is 6, 4 m.
- The fish-pass reconstruction was completed in August 2002. Huge flooding at this same time postponed the approval of construction work until September 2002.
- In the wall next to fish-pass were provided holes for “sand martin” bird nesting.
- An observatory was built in the middle of the River Labe for control of fish-pass and research of fish migration. [1]
- MKOL-İKSE has published “Action programme of River Labe”, which highlights priorities for River Labe permeability.

Fig 3 Fish-pass in Strekov dam, River Labe (2005)



BENEFITS

- In 2003-2004, research in the fish-pass was conducted by researchers from T. G. M. Water research institute in Prague.
- The fish-pass observation progressed from April till November each year.
- Reductions of fish stocks were made in River Labe and in the fish-pass.
- The migration intensity was scoped by a special scanner “Vaki” from April to July.
- 56 fish were marked with radio transmitters and their routes monitored in weekly intervals (September 2003-September 2004).
- The results demonstrated that fish-pass is functional and these measures helped to find partial improvements. [3]

REFERENCES

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