

### ACTION C.1.2:

#### **Improvement of hydrological conditions in the Zelenci project area**

*Description (what, how, where and when):*

A gravel barrier on an existing steep mountain stream flowing into Zelenci area will be built. The aim is to stop the gravel before it reaches the alkaline fen. The existing stream channel will be expanded (to 28m width and up to 40m long) and deepened up to 1.5m (see figure below). A transverse dam made of rocks and trunks will be constructed at end of the barrier to stop the gravel from reaching the alkaline fens. The excavated material will be used for the construction of the banks, which will later in the project be planted with trees and bushes.

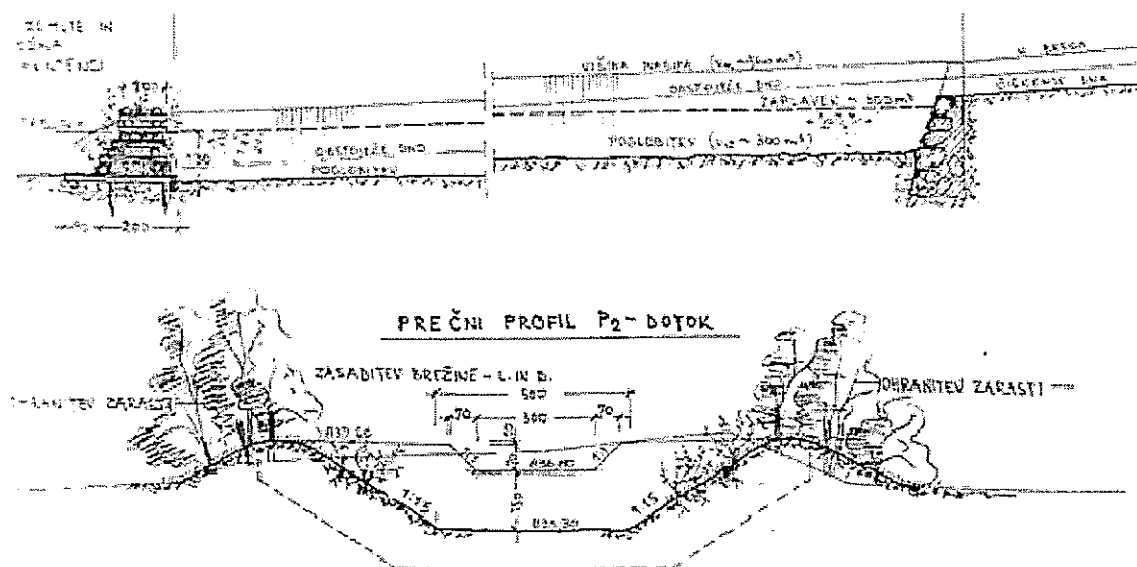


Figure 5.: Gravel barrier: top longitudinal cross-section, bottom transversal cross-section.

In order to be able to carry this action a part of the land parcel No. 508/1 approx. surface area of 1.400 m<sup>2</sup>) of the Podkoren cadastral unit in the Kranjska Gora municipality will be purchased (action B.1.). The building permit will be acquired in order to be able to carry out field actions.

The dry secondary river channel will be restored to assure the water flow through it. The restored size of the secondary river channel will be: 3m width, the depth up to 40cm and 650m in length. The material excavated will be used for restoration of the banks of the river channel. Since the river channel will be restored in the wetland area, special consolidation of the banks (using rocks or trunks) will not be necessary. The exact characteristics will be determined in detailed plan made by hydrologist under action A.2.

In order to be able to carry this action land owners' agreements will be obtained. Owners of the Sava river branch land are joined in the Agricultural Community of Podkoren which supports the planned hydrology action.

The hydrology action will begin in the end of 2011 (preparations), and is planned to be completed until the end of November 2013.

The technical hydrological works will be carried out by external assistance.

Institute of the Republic of Slovenia for Nature conservation will sign an agreement with the Municipality of Kranjska Gora to empty the gravel behind barrier regularly for the next 20 years at least once per year to assure a long term favourable conservation status of the habitats also after the end of this LIFE project. Municipality of Kranjska Gora is a partner in this project.

*Reasons why this action is necessary:*

Zelenci project area is surrounded with high mountains on one, and with agricultural land on the other side. Mountain streams flowing into Zelenci area are bringing along large quantities of gravel and are filling up the most vulnerable part of the Zelenci habitat. In the past the accumulated gravel was regularly removed by railway workers but in the last few decades a railway trail is no longer in use and the track is no longer maintained. Consequently the gravel is now accumulating in the most vulnerable part of Zelenci habitat.

Sava river in the Zelenci project area used to have two riverbed branches, of which one is filled with the material from the local road construction and is dried up now. As a consequence the area's water characteristics are changed significantly. The process of succession is very fast. The succession is additionally accelerated by eutrophication from the surrounding agricultural land. Reed and reed mace are already spreading over transition mires.

Due to unsustainable past management project actions are necessary to re-establish past hydrological conditions of the project area and thus prevent further loss of fen habitats and of targeted species of Community importance.

*Beneficiary responsible for implementation:*

Institute of the Republic of Slovenia for Nature Conservation is responsible for the: preparation and coordination of the construction of the gravel barrier and river branch restoration as well as help surveillance the external technical hydrological works and is responsible for the preparation and carrying out of the public tender for the external technical hydrological works.

The Institute for Water of the Republic of Slovenia is responsible for surveillance of the hydrological work.

*Expected results (quantitative information when possible):*

1. Future gravel accumulation over the wetlands will be prevented,
2. Hydrological condition of a dried up river branch will be re-established (3,5ha)
3. Hydrological condition will be improved over the surface of 54,55ha,
4. The typical mires vegetation will improve, namely: alkaline fens (HT7230; 6,5ha), transition mires (HT7140; 15,3ha), and depressions on peat substrates of the Rynchosporion (HT7150; 6,9ha)
5. The extent of typical mires vegetation: alkaline fens (HT7230), transition mires (HT7140), and depressions on peat substrates of the Rynchosporion (HT7150) will be enlarged in total area for at least 2ha,
6. The spreading of reed and reed mace over transition mires will be stopped due to the improved hydrological conditions,
7. The biodiversity of mires' and fens' vegetation is expected to increase,
8. Signed agreement with the Municipality of Kranjska Gora will assure active management of gravel accumulation also after the project end. This will assure a long term favourable conservation status of targeted habitats.

**ACTION C.1.3:**

***Improvement of hydrological conditions in the Vrhe project area***

*Description (what, how, where and when):*

Two water outflows from the existing forest skidding track channel will be built in the length of 15 meters, with the diameter of  $\varnothing=60$  cm in concrete execution. The outflows will be permanent for next 30 years time without extra interventions. After overgrowth will be cleaned out, now regulated stream will be dispensed through the area of fens by two redirection