

Section Sciences et Ingénierie de l'environnement Design Project 2013 (semestre de printemps)

Proposition n°13

<h4>Aquatic Ecology and Hydropower</h4> <h4>Development of Concepts of Aquatic Measures in the Region Oberhasli</h4>
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Descriptif du projet + Objectifs

Development of Concepts of Aquatic Measures in the Region Oberhasli.

Extension Projects like KWO plus are in the need of ecological measures to compensate adverse effects of such projects. In 2011 a plan for protection and utilization (Schutz- und Nutzungsplan) was developed (Schweizer et al. 2012 a-c). Since not all ecological measures are ensured and KWO will be in the need of a new concession, additional ecological measures have to be developed. The measures have to improve the aquatic ecology of running waters in the region of Oberhasli. The following types are possible:

- River revitalisations
- Improvements of longitudinal and / or lateral connectivity
- Improvements of the gravel balance of a river / stream
- Structural improvements of the shoreline

- Improvements of the landscape.

The development of a concept of a measure should consider the following aspects:

- Risks of flooding
- Gravel balance
- Ownership / land use
- Ecological Improvements

Within the project it is possible to focus on one or two projects (with more details) or to generate an overview of possible measures (with less details).

The project contains the following aspects:

- Introduction into topic
- Literature research on ecological measures
- Field visits to localize possible measures (at least 5 visits are recommended)
- Development of concepts for some measures
- Report

Literature

Schweizer S., Zeh Weissmann H., Wagner T. und Brechbühl S. (2012a): Ökologische Bilanzierungsmethode für die Schutz- und Nutzungsplanung im Oberhasli. «Wasser Energie Luft» 2012(1): 18-29.

Schweizer S., Meyer M., Wagner T. und Zeh Weissmann H. (2012b): Gewässerökologische Aufwertungen im Rahmen der Restwassersanierung und der Ausbauvorhaben an der Grimsel. «Wasser Energie Luft» 2012(1):30-39.

Schweizer S., Zeh Weissmann H. und Ursin M. (2012a): Der Begleitgruppenprozess zu den Ausbauprojekten und zur Restwassersanierung im Oberhasli. «Wasser Energie Luft» 2012(1):11-17.