

WS 2 - River restoration: a measure to deliver EU Directives objectives?

Facilitators: Bart Fokkens, Gilles Neveu

Background:

Introduction

In a number of reports the the EU has concluded, that River Restoration measures, often wetland restoration measures can contribute to the implementation of the EU directives. But at the same time a number of questions were raised about the role of river restoration for the implementation of the directives. These questions deal mainly with river restoration in relation to river basin management, protection of wetlands in relation to water quality and quantity status and the contribution of restored sites to the environmental cost recovery.

For the implementation of the Water Framework Directive, EU member states must provide an assessment of the pressure and impacts on the hydro morphology of surface waters. Water bodies identified as at risk of achieving "good ecological" status" must be restored to this standard by the year 2015 subject to derogation and designation criteria. Water bodies designated as Heavily Modified water Bodies will achieve the objective of "good ecological potential" which may require mitigation measures to improve existing habitat conditions.

Knowledge gaps, delivery mechanisms, and funding

However, if river restoration is to be used as an improvement measure for hydro morphology, a number of important knowledge gaps need to be addressed. The effectiveness of restoration and habitat creation, often in relation to reducing flood risk, or in relation to restoring environmental flows and application at the catchments scale is largely unknown. Information about the ecological benefits of river restoration is still limited. Identifying restoration priorities at the catchments scale requires a good coordination of existing delivery and funding mechanisms and close cooperation between stakeholders. There is time to address these problems before and during the process of making River Basin Management Plans.

Spatial coherence

The spatial coherence on different relevant scale levels is not covered in the EU directives. This causes local problems, concerning connectivity and isolation of sites and disturbed gradients and natural fluctuations and dynamics. And regional human influence by constructing infrastructure without sufficient mitigation measures causes migration problems. And on a larger scale the impact of constructing reservoirs and dams can be disastrous for migrating fish species. And on a fly-way scale, there should be suitable stopover points for specialised feeders.

Eco-system approach

The sustainable maintenance of biodiversity is especially the objective of the combined implementation of the WFD and the Bird and Habitat Directive (BHD), especially in the Natura 2000 sites. The WFD implementation deals strongly with the reduction of nutrients and micro pollutants. While River

Restoration is based on, the integrated eco-system development approach. This difference gives obvious nice opportunities, but also some threats with respect to an effective joined implementation of both River Restoration Measures and the EU directives.

River restoration sites need not always exactly overlap Natura 2000 sites. And for that reason the ecological and physio-chemical targets may differ in one (protected) site. For example natural nutrient levels in shallow water bodies are often higher than the EU standard levels, with a high carrying capacity as a food source for fish and water birds. Furthermore groundwater habitats or species are not included in WFD targets and the unsaturated groundwater zones are insufficient covered in the WFD.

Discussion

There can be concluded that the WFD/BHD and ecological river restoration measures are mutually very much supportive to each other. The WFD water quality restoration to ecosystem targets is unique. While the implementation of many river restoration measures experiences can be quite well used for the WFD implementation at policy (strategy) and practical level (management plans). But "blind" implementation of the WFD measures can harm the functioning of an ecosystem. But there are also other For example groundwater habitats, in relation to, both the unsaturated and saturated zone, might be badly affected by implementing the WFD. There where the EU directives have a strong legislative basis, there is quite some flexibility possible in the implementation River Restoration Measures.

Structure of the workshop

Introduction (15 minutes)

Short presentation about the background and the aim of the workshop by the chairman.

Open discussion round (45 minutes)

The discussion will be about the following statements or questions

- River restoration should be based on an integrated, towards all functions, ecosystem approach
- The European Water Directives are based on an integrated, towards management, river basin approach
- The development of a coordinated approach to river restoration is a good measure to deliver River Basin Management Plans

Sticker session (30 minutes)

- The participants will be asked to give answers on "yellow stickers" on the following questions
 - What is needed to be able to come to an coordinated integrated river restoration approach
 - Which techniques should be used to deliver river restoration measures
 - Which techniques should be used to deliver hydro morphological (ecological) improvements required for the EU Directives
 - What are the knowledge gaps to be able to deliver River Basin Mangement Plans

- What are the knowledge gaps to be able to deliver integrated, ecosystem based, river restoration measures and plans
- To be formulated during the workshop

Break (15 minutes)

Conclusions and recommendations (60 minutes)

The results of the *Discussion Round* and the *Sticker Session* will be discussed and summarised towards:

1. The ECRR for further development of their strategy, plans and activities
2. The EU and Member States for the development of River Basin Management Plans