



The implementation of the new EU water directives on different scales - two examples from the region of Trier (Germany)

I. Gellweiler (1) and B. Meyer (2)

(1) Trier University, Remote Sensing Department, Trier, Germany (inga.g@gmx.net), (2) Trier University, Department of Hydrology, Trier, Germany (berenike.meyer@uni-trier.de)

The EU water directives in Germany are being implemented and are at the moment in the process of being transformed into concrete measures. These measures mainly concern land use management and, if necessary, actions on site.

For the implementation of on-site measures as well as for land use management, the field of observation and its scale lead to various challenges. The number of stakeholders and the impact of the EU water directives depend on the size of the catchment. The scale of the impact range from single inhabitants to local or federal planning communities and can even impact cultural heritage management. The conflict potential increases as more interests are included in the decision making process, therefore different adaptation strategies are necessary. Issues, especially those involving the divergence between individual and public interests, nature conservation, flood prevention and economic concerns demand creative solutions.

The two examples located in the region of Trier (Germany) show conflicts during the implementation of the EU water directives on different scales. The Mosel, a first order river, passes through three countries on the way to the Rhine. The river gives a natural boundary to the settlement areas and forms the shape of the city of Trier. Regarding the EU Flood Water Directive, flood hazard and risk maps should be developed for all catchments. This can lead to conflicts between settlement developments and flood protection, as well as to loss of the economic value of private estates. A case study in Trier will be presented, where a building site as shown on the land development plan is an area prone to flooding. Up till now this area is still zoned for building and not as a flood area. Accordingly, local and spatial planning need to go hand in hand with water management.

The Olewiger Bach is a small creek (3rd order), which is strongly affected by urban rain water discharge. Primarily, the removal of fixed elements within the brook such as weirs and paved sectors are necessary to achieve the objectives of the directives. This is only possible when the spillway overflows existing in the brook are at the same time improved. This will be crucial to the sustainable management of the receiving water during flood events and to prevent the erosion caused by the removal of fixed elements.

These two examples and especially the comparison between the different scales drive home the message that, concerning the EU water directives, varying requirements for the implementation are necessary and depend on the catchment size as well as on the planning scale and the stakeholders involved. Different adaptation and participation strategies need to be developed to offer adapted solutions. As these two examples are diverse with regard to different scales, they can be used as examples outside of Germany, and are especially helpful when developing approaches for flood hazard and risk maps and flood risk management plans.