Geophysical Research Abstracts,
Vol. 11, EGU2009-4076, 2009
EGU General Assembly 2009

Identification of flood prone locations along railway tracks

T. Nester, U. Drabek, and R. Kirnbauer
Institute for Hydraulic and Water Resources Engineering, Vienna University of Technology (nester@hydro.tuwien.ac.at)

In August 2002 a flood wave stopped a passenger train on an overflown track in the Austrian state of Salzburg. No flood warning was issued to the railway operator. This event was the main reason that caused the Austrian railway company to commission the development of a flood warning concept.

A very important part of this flood warning concept was the identification of flood prone locations along the railway tracks. The Austrian railway network includes more than 5800 kilometres of tracks. Therefore, the knowledge of flood prone locations along the tracks is of great importance. In the case of a flood, forces can be concentrated on only a few locations.

Data from a national flood mapping project in Austria provided flooding maps for return periods T = 30, 100 and 200 years. These flooding maps were combined with data from the railway company such as tracks and building. The results of the intersection were verified with flood damage data.

This paper shows some results of the combination of the data and addresses some of the problems we experienced during the project.