EUROPEAN COMMISSION – WFD COMMON IMPLEMENTATION STRATEGY
WG F Thematic Workshop on Implementation of the Floods Directive 2007/60/EC
"FLASH FLOODS AND PLUVIAL FLOODING"
26th – 28th May 2010, Cagliari, Italy

1

FLASH FLOOD EARLY WARNING SYSTEMS AND LEGISLATION ASPECTS IN THE CZECH REPUBLIC

J. Danhelka

CHMI – Czech Hydrometeorological Institute, Prague, Czech Republic

Abstract

Rainstorms causing flash floods in Central Europe are often of relatively small spatial extent and duration. Therefore the central warning system may fail to deliver the warning on site in time. Therefore local flood authorities are responsible for information provision and flood managing at local scale according to Water Act in the Czech Republic. They can declare the "flood stage" based on water level in stream, its forecast or even based on precipitation (the new Act will enable declaration based on precipitation forecast too).

To support a development of local automatic warning systems EU funding programme is operated in the Czech Republic. Several systems using rain gauge and water gauge automatic SMS generation if set threshold is exceeded were put in operation in recent years. Some examples will be introduced.

Czech Hydrometeorological Institute is responsible for flood forecasting warning service (including rain storms) in the Czech Republic. "Forecast" warning is issued 1 to 2 days before the event, while "Occurrence" warnings are issued if some dangerous phenomena are detected. "Occurrence" warnings include some very short term prediction of development of the phenomena. Tools used for warning issuing and the distribution system will be described. Some problems of warning system in

Corresponding author:
Jan Danhelka
CHMI
Na Sabatce, 17 – 143 06 Prague, Czech Republic
E-mail: danhelka@chmi.cz

frame of current legislation will be documented in case of June 2009 flash flood user's feedback and warning delivery evaluation.

In addition, the flash flood guidance (FFG) system is developed by CHMI to provide real time evaluation of flash flood risk based on updated basin saturation and thus the estimation of potential rainfall amount that could cause fast surface runoff. The system called FFG-CZ will be demonstrated.