

31st International Conference on Coastal Engineering Hamburg /Germany

Short Course „European Overtopping Manual“ 31st August 2008

Advances in our understanding of overtopping processes have been acquired from recent European wide research projects. Experts from these projects have collaborated to produce a manual that presents a state of the art description of available methods for assessing overtopping and its consequences.

Understanding future changes in flood risk, from waves overtopping seawalls and other structures, is a key requirement for the effective management of coastal defences. Occurrences of loss of life and economic damage due to the hazardous nature of wave overtopping are becoming more frequent, and coastal managers and users are becoming more health and safety conscious. Seawalls make up most of these defences, and range from simple earth banks through to vertical concrete walls and on to more complex composite structures, and each of these require different methods for assessing the overtopping.

Research for Defra and the Environment Agency, carried out at HR Wallingford, has provided techniques for predicting the mean overtopping discharge, and the consequent flood volumes and drainage requirements, for a range of seawall types. In the Netherlands and Germany there has been continuous research into overtopping at embankments and dikes, and the recent European research project CLASH has expanded our understanding of overtopping.

The European Overtopping Manual incorporates new techniques to predict wave overtopping at seawalls, flood embankments, breakwaters and other shoreline structures facing waves. Supported by web-based programmes for the calculation of overtopping discharge and design details, the manual's appendices will give photographic and video visualisations of overtopping processes, graphical presentations, case studies, and example calculations.

The overtopping manual and the calculation tool will be presented in a one day short course by the authors of the manual.

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