



Framework & Tools for Local Flood Risk Assessment

Project Summary SC070059/S

A new framework has been developed by the Environment Agency to help local authorities better understand and manage flood risk in their area.

The framework recognises new statutory responsibilities for flood and coastal risk management in England and Wales and supports robust, consistent risk assessment across different spatial scales as part of Surface Water Management Plans, Local Flood Risk Management Strategies and Flood Risk Regulations related studies.

Being able to understand, communicate and plan for local flood risk is an essential part of local authorities' new roles. This project provides methods to apply to local flood risk assessments that are flexible and practical.

A prototype tool has been developed to show how the framework and methods can be delivered. The tool demonstrates a computer based implementation of the methodology which uses national and local datasets to calculate and display flood risk metrics which are user defined, within a consistent framework.

The tool takes the flood outlines produced by other Environment Agency projects and places them over the [National Receptor Dataset](#) to quantify the risk of flooding at a specific location. This process can be repeated with other data sources such as the Environment Agency flood maps, outputs from hydraulic models, or from other local information.

The tool allows users to weight different sources of flooding differently to reflect priorities. The risk from different sources can then be added together to give a single flood risk for a location. The results can then be presented in a table or on a map, and can be displayed quickly to deliver an interactive presentation.

The project will add to existing evidence on flood risk assessment and will help support local authorities by delivering methods and tools that:

- Are clear to follow and compatible with widely available data sets, modelling approaches and software;

- Are conceptually consistent with the Environment Agency's hierarchy of Risk Assessment for System Planning methods for fluvial and coastal flooding;
- Assist partnership working in line with the Flood and Water Management Act 2010;
- Support an open, flexible approach to flood risk assessment that is compatible with the different models, data and knowledge held by flood risk management partners; and
- Support better understanding and consistent communication of local flood risk through assimilation of the best available models, data and local knowledge.

The prototype tool is freely available to download and, for those interested in developing the tool further, the licensing agreement is also available from the following link: <http://evidence.environment-agency.gov.uk/FCERM/en/SC070059.aspx>

This summary relates to information from SC070059, reported in detail in the following output:

Report: SC070059/R3

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