Flood risk assessment guidance for new development

Technical Summary: FD2320

Joint Defra / EA Flood and Coastal Erosion Risk Management R&D programme

Background to R&D project

Approximately 7 million houses were constructed between 1971 and 2001 in the UK. The Office of the Deputy Prime Minister has forecasted continued property development, but unwise planning or regulation can increase flood risks, resulting in developments falling short of the Government's objectives for sustainability. Therefore, understanding and reducing flood risks associated with new developments is a high priority for Government and the Environment Agency (EA).

In order to achieve this, Planning Policy Guidance 25 (PPG25) for England and Technical Advice Note 15 for Wales recognises the need for flood risk to be considered at all stages of the planning and development process. It provides guidelines for using a Sequential Test to assist local planning authorities (LPAs) to take account of flood risk in the spatial planning process. It also gives guidance on requirements for undertaking assessments of flood risk at specific sites to accompany planning applications or over development areas to assist with spatial planning and development control. PPG25 is now under review and a lot of experience has been gained over the last 4 years. However, at the start of this project some significant questions remained

To assist with flood risk assessment for new property developments in England and Wales, Defra and EA had commissioned an R&D project under Flood and Coastal Erosion Risk Management's Risk Evaluation and Understanding Uncertainty Theme. This project (FD2320) started in December 2003 and was completed March 2005.

Results of R&D project

The main deliverable of FD2320 was to provide an overarching risk science based framework, simple tools and guidance with a nationally consistent approach to assessing and managing flood risk for new development across England and Wales. This involved understanding the indicators and defining what an appropriate assessment of flood risk should be at all scales of development planning and all types of development. This has been achieved by integrating and simplifying existing guidance documents and the latest findings from an extensive range of research projects and government/Agency initiatives.

Environment Agency

defra
Department for Environment Food and Rural Affairs

The other project deliverables would:

- Enable users to carry out activities in a timely and effective manner by reducing duplication and by including links to existing flood risk and environmental assessments methodologies and guidance.
- Enable users to communicate the assessment and decision-making processes to stockowners in a transparent and unambiguous manner, through both reporting and auditing mechanisms.
- Enable monitoring and review of application of flood risk assessment and management processes, decisions, to improve practices and implementation of the framework and guidance in the future.
- Be an evolving tool for users to incorporate lessons learnt and which identifies the gaps in the guidance and tools, new research and development and new legislation as and when it comes on-line.

The framework is the means by which the links between aspects of assessing and managing flood risk for new developments. At the core of the framework is a generic approach that can be applied in all contexts (not only in undertaking assessments, but also for reviewing assessments). This has been based on the DETR report "*Guidelines for Environmental Risk Assessment and Management"*, which is generally recognised within the UK as the best practice approach to assessing environmental risk.

R&D Outputs and their Use

The project has produced a number of different outputs that are designed to be used together to form an overall framework, as described above. Although the project outputs have been designed with end users in mind (including the EA, LPAs, Regional Assemblies and Developers), these should only be considered as R&D outputs; they do not represent the policies of either Defra or the EA. The guidance and tools will be useful to support practitioners and this is being encouraged.

The project outputs need to be tested further and parallel policies and procedures need developing by the relevant stockowner, in particular the EA. However, the Project Record includes a communication and implementation plan and a monitoring and review plan, which provide recommendations regarding how the project outputs should be taken forward and how the EA might choose this over the short and medium to long term.

This R&D Technical Summary relates to R&D Project FD2320 and the following R&D outputs, published in January 2006

R&D Technical Report 1 FD2320/TR1 Flood risk assessment guidance for new development – Overview
R&D Technical Report 2 FD2320/TR2 Flood risk assessment guidance for new development – Framework, guidance and tools
R&D Technical Report Project Record FD2320/PR Flood risk assessment guidance for new development

Publication Internal Status: Released Internally External Status: Released to Public Domain

Project Manager: Dr Suresh Surendran, Environment Agency
Research Contractor: Helen Udale-Clarke, HR Wallingford

The above outputs may be downloaded from the Defra/EA Joint R&D FCERM Programme website (www.defra.gov.uk/environ/fcd/research). Copies are also available via the Environment Agency's science publications catalogue (http://publications.environment-agency.gov.uk/epages/eapublications.storefront) on a print-on-demand basis.

PB 11544 TS

Further copies are available from:
Defra Flood Management, Ergon house,
Horseferry Road, London SW1P 2AL

Tel: 020 7238 6000

Info-fm:defra.gsi.gov.uk
www.defra.gov.uk/environ/fcd/research