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Guidance on assessing and managing flood risk within the development planning process

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GUIDANCE ON ASSESSING AND MANAGING FLOOD RISK WITHIN THE DEVELOPMENT PLANNING PROCESS

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Abstract

This paper presents a summary of the framework and guidance, produced as part of the Defra/Environment Agency R&D project FD2320, to assist planners, developers and regulators to undertake effective decision-making regarding flood risk within the development planning processes in England and Wales.

Background

In the UK approximately 7 million houses were constructed between 1971 and 2001 and the Office of the Deputy Prime Minister has forecasted that property development will increase further. For example, in the South East of England, between 1996 and 2016 the Government is planning to accommodate 1.1 million new houses, which is 0.2 million above the level in the current regional planning guidance. Unwise property development will increase flood risk. Understanding and reducing flood risks associated with new developments is a high priority for Government and the Environment Agency (EA).

Planning Policy Guidance 25 (DTLR, 2001) and Technical Advice Note 15 (National Assembly for Wales, 2004) recognise the need for flood risk to be considered at all stages of the planning and development process in England and Wales.

Although both documents have provided a major step forward in encouraging a risk-based approach to development planning, it was clear at the outset of this project that some significant questions remained, including the following:

- How can these guidelines be interpreted and applied effectively (both at the local and site-specific scales) with proportionate effort in relation to the scale of the development and the scale of the flood risk?
- How can the flood risk issues raised by proposed development be considered on a wider spatial planning scale (i.e. at national, regional or sub-regional scales) and vice versa?
- How can other studies and plans carried out by the Government, the EA and other Operating Authorities (such as Catchment Flood Management Plans - CFMPs, Shoreline Management Plans - SMPs, etc.) usefully influence and contribute to assessments of flood risk required for development planning and vice versa?
- How can practitioners take full advantage of advances in science, policy and new guidance without being overwhelmed with information?

The framework

There was clearly a need for a framework that would be based on a robust risk-based approach, to assist practitioners in undertaking appropriate assessments of flood risk and also enable improved decision-making, by improving transparency and accountability. The project has developed such a framework by simplifying existing processes, guidance and tools and integrating these with the latest findings from research projects.

In summary, the framework provides the following:

- Links between the different decision scales (i.e. national, regional, sub-regional, local or site-specific) and different assessment types, such as National Flood Risk Assessments (NaFRA), CFMPs, SMPs and strategic or site-specific Flood Risk Assessments (SFRAs and FRAs).
- Links to the related activities of flood risk management planning and Sustainability Appraisals.
- Directs users to the latest research and development (R&D) and new or existing guidance and tools, identifying gaps in understanding of flood risk and development that will be filled by ongoing R&D projects.

At the core of the framework is a generic approach, as summarised in Figure 1, that can be applied at all decision scales. This has been based on the *Guidelines for Environmental Risk Assessment and Management* (DETR *et al.*, 2000), which is generally recognised within the UK as the best practice approach to assessing and managing environmental risk. This approach has already been adopted in the Flood and Coastal Defence Project Appraisal Guidance (MAFF, 2000) and refined by the Risk Assessment for Strategic Planning (RASP) methodology (Defra/EA, 2002). Therefore, the basis of the framework is wholly consistent with current Defra and Environment Agency practices.

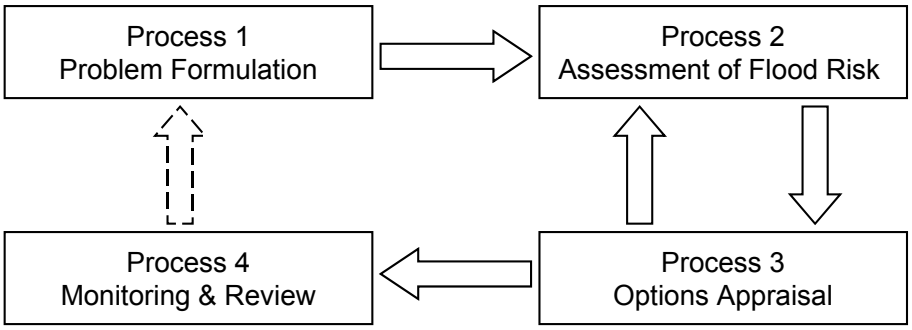

Figure 1 Generic Approach to Assessing and Managing Flood Risk

Guidance

The guidance provided to support the framework has been split into two parts:

a) A set of **decision guidance** to enable stakeholders to determine:

- What information is needed for a particular development planning scale,
- Which flood risk indicators can be used as part of the decision-making process, and
- Which types of assessment of flood risk can be used to provide the required information.

b) A set of **support guidance** to enable effective use of the framework, including:

- How to use/navigate the framework,
- How to manage the assessment processes (i.e. reporting, information management, auditing and control, stakeholder engagement and linkage to statutory requirements), and
- Key issues identified during the consultation exercises as worthy of separate guidance (i.e. climate change, risks to people behind defences, safe access and exit, brownfield development and mitigation measures).

A lot of the guidance produced by this project should only be considered as interim, based on the science currently available, and should be updated or added to in the future. The framework and guidance have been designed with this in mind by being in a modular format for easy access and amendment.

Recommended use of the project outputs

The project outputs can be accessed via Defra/EA Flood and Coastal Management R&D web links and also via HR Wallingford and CIRIA web sites.

At the present time, the project outputs should only be considered as R&D recommendations; they do not represent the policies of either Defra or the EA. However, some of the guidance and tools are useful to support practitioners in the short-term and this is being encouraged.

The project outputs need to be tested and parallel policies and practices need developing by the relevant stakeholder groups. This was outside of the scope of the project. However, the project has provided recommendations regarding how the project outputs should be taken forward over the short and medium to long terms.

Conclusions

This project has resulted in the following:

- An improved means of communicating risk-based approaches outside the R&D community, with particular emphasis on consistency of terminology and the use of plain English as much as possible.
- An improved understanding of the practical application of risk-based approaches within development planning.
- An improved understanding of the relationships between development planning (at all decision scales) compared to flood risk management planning (undertaken by Defra, the EA and other flood defence authorities).
- A recognition that the majority of current guidance is still applicable, if not taking full advantage of latest R&D. Where current guidance is still recommended, the outputs from this project can be used to add value by improving transparency, confidence and accountability in the decision-making processes.

These results now need to be disseminated, beyond the Project Team and those that have been involved in the consultation activities, to the wider stakeholder community, so that the benefits can be realised. This is an ongoing process and this paper is one of the means by which this is being undertaken.

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