

# What we can offer

Prior to the introduction of the draft FRM guidelines in September 2008 Atkins Ireland had amassed a wealth of experience in carrying out flood study assessments and associated reports. The flood study reports were in accordance with the OPW guidelines and the Greater Dublin Strategic Drainage Study and generally consisted of the following components:

- assessment of existing conditions
- estimation of flow
- hydrological analysis including river modelling
- conclusions and recommendations

Our staff have direct experience of assisting Developers, Consulting Engineers, Contractors and Local Authorities in the preparation of flood studies on a large number of projects for private and public clients including:

- single house and multi house developments
- mixed use developments
- retail and commercial developments
- amenity developments including greyhound stadiums
- science and technology parks
- bridge and road schemes

Some of our projects include:

- Kearns Place flood study
- Kanturk relief road and bridge
- Fethard housing development
- Sheen Falls development
- Coolnamuck Science and Technology Campus
- Limerick Greyhound Stadium
- N72 Barraduff Realignment

Since the introduction of the FRM guidelines in September 2008 Atkins has carried out a number of Flood Risk Assessments in accordance with the new guidelines. The assessments and associated reports include the following elements as per the FRM guidelines:

- screening
- scoping
- source-pathway-receptor model
- assessing flood risk
- drainage impact assessment
- sequential approach
- development management
- justification test

Some of the projects carried out as per the FRM guidelines include:

- Tullamore Retail Park
- Former FAI Ground development in Curraheen
- Equi-tourism centre, Straffan, Co. Kildare

# Key contacts

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# Office locations

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ATKINS

Flood Risk Assessment



Plan Design Enable

# Introduction

There is growing awareness in Ireland of the need for the Planning System to consider the risk of flooding and the impact on people, property, the overall economy and the environment. Good planning policy is fundamental in reducing the risk and consequences of flooding particularly in the context of anticipated climate change.

## Background

The DRAFT 'Planning System and Flood Risk Management' (FRM) guidelines issued by the Department of the Environment, Heritage and Local Government in September 2008 describe good practice in the consideration of flood risk in planning and development management. The FRM guidelines will require developers and their agents to:

- Carefully examine their development proposals to ensure consistency with the requirements of the guidelines
- Engage with planning authorities at an early stage, utilising the arrangements for pre-planning application consultation
- Carry out a site-specific flood risk assessment, as appropriate.



# Flood Risk Assessment

## Flood Risk Assessments (FRA's)

ATKINS undertakes Flood Risk Assessments on behalf of Developers and Local Authorities to assess the risk of flooding under both present and potential future circumstances such as changes in climate, land use development or flood risk management. FRA's aim to identify, quantify and communicate to decision-makers and other stakeholders the risk of flooding to land, property and people. Their purpose is to provide sufficient information to determine whether approving the planning application for proposed development is appropriate.

A FRA is carried out in two stages. Initial screening and scoping to determine the extent of the FRA appropriate to the location and, if needed, assessing the risk and extent of flooding by developing the source-pathway-receptor model and considering related issues such as the justification for the development, the impact of site drainage, potential mitigation measures and management of the development.



The Flood Risk Assessment provides a quantitative appraisal of the flood hazard and potential risk to an existing or proposed development and an assessment of its potential impact on flooding elsewhere and of the effectiveness of any proposed mitigation measures. It is important that a FRA should consider both the actual and the residual risks. A Drainage Impact Assessment is an assessment of how surface water run-off will be managed and is addressed in the FRA.

# Flood Risk Assessment

## Sequential Approach and Justification Test

A sequential approach is used to guide development away from areas at risk from flooding. The sequential approach is also applicable in the lay-out and design of development within a specific site. A balance needs to be achieved between accommodating appropriate growth as outlined above and the avoidance of flood risk. The Justification Test has been designed to rigorously assess the appropriateness or otherwise of particular developments that are being considered in areas of moderate or higher flood risk.

## Conclusion

The FRM guidelines will require the preparation of FRA's in the consideration of flood risk for planning applications. Atkins has extensive experience in carrying out hydrological assessments and FRA's for planning applications, road and bridge developments.

## References:

'Planning System and Flood Risk Management' guidelines, Department of the Environment, Heritage and Local Government, September 2008

