



JBA
consulting

Mid Devon Strategic Flood Risk Assessment

Executive Summary

October 2014



Mid Devon
DISTRICT COUNCIL

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Revision History

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Draft Report (version 1) June 2014		<ul style="list-style-type: none"> Poie-Yee Li (Mid Devon District Council) Environment Agency
Final Draft Report (version 1) September 2014	Amendments made to main report and summary tables based on MDDC and EA comments	<ul style="list-style-type: none"> Poie-Yee Li (Mid Devon District Council) Environment Agency
Final Draft Report (version 2) October 2014	Amendments made to main report based on MDDC	<ul style="list-style-type: none"> Poie-Yee Li (Mid Devon District Council)
Final Report (version 1) October 2014	Amendments made to main report based on MDDC	<ul style="list-style-type: none"> Poie-Yee Li (Mid Devon District Council)

Contract

This report describes work commissioned by Mid Devon District Council. Mid Devon District Council's representative for the contract was Poie-Yee Li. Andrew Waite and Claire Gardner of JBA Consulting carried out this work.

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Purpose

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JBA Consulting has no liability regarding the use of this report except to Mid Devon District Council.

Acknowledgements

We would like to acknowledge the assistance of Poie-Yee Li (Mid Devon District Council), Stephen Rosser (South West Water), Jessica Bott (Devon County Council) and Robin Leivers and Ian Hooper (Environment Agency).

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Executive Summary

Introduction

This updated version of the Mid Devon Strategic Flood Risk Assessment (SFRA) 2014 replaces the document “Mid Devon Strategic Flood Risk Assessment Final Report, June 2009”. The updated report has been prepared to replace the work that was included in the previous SFRA and provide appropriate supporting evidence for the Mid Devon Local Plan.

Since the previous SFRA there have been a number of changes to the planning legislation and policy, including the Localism Act (2011) and the 2012 National Planning Policy Framework (NPPF) with accompanying Planning Practice Guidance (March 2014). In addition, the provisions of the Flood and Water Management Act (2010) have been substantially commenced under a programme that was initiated by Defra in April 2010 and the Flood Risk Regulations came into force in December 2009 (these regulations transposed the EU ‘Floods Directive’ into UK law).

The purpose of the SFRA is to

- provide information on the changes to planning, policy and guidance since the previous SFRA;
- provide an indicative assessment of the flood hazard within the Flood Zones;
- provide information on existing defences and flood risk management measures;
- allow a sequential approach to site allocation to be undertaken within a flood zone; and
- allow suggestions for the development of potential policies and practices that may be required to ensure that development in Flood Zones 2 and 3 satisfies the requirements of the Exception Test.

SFRA objectives

The Planning Practice Guidance advocates a tiered approach to risk assessment and identifies the following two levels of SFRA:

1. Level One: where flooding is not a major issue and where development pressures are low. The Assessment should be sufficiently detailed to allow application of the Sequential Test
2. Level Two: where land outside Flood Zones 2 and 3 cannot appropriately accommodate all the necessary development creating the need to apply the NPPF’s Exception Test. In these circumstances the Assessment should consider the detailed nature of the flood characteristics within a flood zone.

The objectives of this SFRA update are a hybrid of level one and level two.

SFRA outputs

This SFRA delivers:

Level one outputs

- Maps showing the local planning authority area, Main Rivers, ordinary watercourses, and Flood Zones
- An assessment of the flood risk at potential development sites, including consideration of climate change implications
- Areas at risk from other sources of flooding, for example surface water or reservoir
- Flood risk management measures, including location and standard of flood defences, flood warning coverage and emergency plans
- Recommendations about the areas with possible existing drainage issues and the potential need for surface water management plans
- Identification of locations where additional development may significantly increase flood risk elsewhere (Environment Agency identified Critical Drainage Areas)
- Advice on the likely applicability of sustainable drainage systems for managing surface water runoff at key development sites
- Advice of the preparation of flood risk assessments for development sites

Level two outputs

- An appraisal of the current condition of flood defence infrastructure
- An appraisal of the probability and consequences of overtopping or failure of flood risk management infrastructure, including an allowance for climate change
- Definition and mapping of the functional floodplain
- Definition and mapping of (where available)
 - Flood depth
 - Flood velocity
 - Flood hazard
- Maps showing the distribution of flood risk across all Flood Zones from all sources of flooding
- Advice on potential policies for sites which could satisfy the first part of the Exception Test and on possible requirements that may be necessary for a site-specific flood risk assessment supporting a planning application to pass the second part of the Exception Test
- Advice on the preparation of site-specific flood risk assessments for sites of varying risk across the Flood Zones, including information about the use of sustainable drainage techniques
- Recommendations to inform policy, development control and technical issues

Summary

- The Mid Devon SFRA update has considered all sources of flooding, including fluvial, pluvial, groundwater, canal, reservoir and sewer flooding, within the Mid Devon District.
- An assessment of the flood defences in the District has been undertaken, including defence condition and standard and the residual risk.
- Flood risk has been assessed on all sites highlighted within the draft Local Plan, as well as an additional six sites identified during the Local Plan Options Consultation. Guidance for the requirements for a site specific Flood Risk Assessment for these sites is provided (Appendix **Error! Reference source not found.**), as well as general guidance, throughout the SFRA, on flood risk assessment for any development proposals within the Mid Devon District.
- The updated Flood Map for Surface Water is provided, indicating the likelihood of surface water flooding in the Mid Devon District.
- Surface water flooding is a risk in many of the areas. Advice has been provided regarding suitable SuDS options.
- Green Infrastructure within the District has been assessed and the WFD status of the District's watercourses assessed.

Recommendations

- The report makes a number of recommendations for development control, in particular the requirements and considerations that should be given for development in different flood zones and taking account of all sources of flooding
- Recommendations have been made for the protection and enhancement of watercourses,
- Recommendations for further work have been made including further modelling to identify functional floodplain and understand the implications of climate change on flood risk, as well as provide more detailed depth, hazard and velocity information for Mid Devon. The need to consider residual risk for defence and canal breach has also been identified, where appropriate.

Use of SFRA data

It is important to recognise that the SFRA has been developed using the best available information at the time of writing. This relates both to the current risk of flooding from rivers, and the potential impacts of future climate change.

The Environment Agency regularly reviews their flood risk mapping, and it is important that they are approached to determine whether updated information is available prior to commencing a detailed Flood Risk Assessment. New information on flood risk may be provided by Mid Devon District Council, Devon County Council (in its role as Lead Local Flood Authority), the Highways Authority, South West Water and the Environment Agency and should be considered at the planning application stage.

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