www.jbaconsulting.com

Blaby District Council Level 2 Strategic Flood Risk Assessment

Final Report

Prepared for	Date
Blaby District Council	April 2026

Document Status

Issue date	April 2026
Issued to	Kevin Exley
BIM reference	PJE-JBA-XX-XX-RP-HM-0001-A1-C01-Blaby_SFRA_L2_Report
Revision	A1-C01
Prepared by	Edmund Mumford BSc, MSc, MCIWEM C.WEM Senior Analyst
Reviewed by	Joanne Chillingworth BSc MSc MCIWEM C.WEM Project Director
Authorised by	Joanne Chillingworth Project Director

Carbon Footprint

The format of this report is optimised for reading digitally in pdf format. Paper consumption produces substantial carbon emissions and other environmental impacts through the extraction, production and transportation of paper. Printing also generates emissions and impacts from the manufacture of printers and inks and from the energy used to power a printer. Please consider the environment before printing.

Accessibility

JBA aims to align with governmental guidelines on accessible documents and WGAG 2.2 AA standards, so that most people can read this document without having to employ special adaptation measures. This document is also optimised for use with assistive technology, such as screen reading software.

Contract

JBA Project Manager	Edmund Mumford BSc, MSc, MCIWEM C.WEM
Address	JBA Consulting, 7 High Street, Newport, Wales NP20 1FQ
JBA Project Code	2025s0385

This report describes work commissioned by (insert the "Client"), on behalf of (state if the Client acted on a third-party), by an instruction dated (insert date in full). The Client's representative for the contract was (name of Client's Project Manager) of (insert Client). (Name of lead contributor) and (name of second contributor) of JBA Consulting carried out this work.

Purpose and Disclaimer

Jeremy Benn Associates Limited ("JBA") has prepared this Report for the sole use of (insert the "Client") and its appointed agents in accordance with the Agreement under which our services were performed.

JBA has no liability for any use that is made of this Report except to (insert the "Client") for the purposes for which it was originally commissioned and prepared.

No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by JBA. This Report cannot be relied upon by any other party without the prior and express written agreement of JBA.

JBA disclaims any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to JBA's attention after the date of the Report.

The methodology adopted and the sources of information used by JBA in providing its services are outlined in this Report. The work described in this Report was undertaken between ("date" and "date") and is based on the conditions encountered and the information available during the said period. The scope of this Report and the services are accordingly factually limited by these circumstances.

The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by JBA has not been independently verified by JBA, unless otherwise stated in the Report.

Acknowledgements

We would like to acknowledge the assistance of

- Blaby District Council

- Environment Agency
- Leicestershire County Council
- Canal and River Trust
- Charnwood Borough Council
- Harborough District Council
- Hinckley and Bosworth Borough Council
- Oadby and Wigston Borough Council
- Rugby Borough Council

Contents

List of Tables

Abbreviations

AEP	Annual Exceedance Probability
AIMS	Asset Information Management System
BGS	British Geological Survey
CC	Climate Change
CCTV	Closed Circuit Television
EA	Environment Agency
FAA	Flood Alert Area
FMfP	Flood Map For Planning
FRA	Flood Risk Assessment
FWA	Flood Warning Area
GIS	Geographical Information System
JBA	Jeremy Benn Associates
LiDAR	Light Detection And Ranging
LLFA	Lead Local Flood Authority
LPA	Local Planning Authority
mAOD	metres Above Ordnance Datum
NaFRA2	National Flood Risk Assessment 2
NPPF	National Planning Policy Framework
OS	Ordnance Survey
PPG	Planning Practice Guidance
RBD	River Basin District
RMA	Risk Management Authority
RoFSW	Risk of Flooding from Surface Water
SFRA	Strategic Flood Risk Assessment

SuDS	Sustainable Drainage Systems

Definitions

1D model: One-dimensional hydraulic model, typically representing a watercourse and structures within the channel (for example bridges and culverts).

2D model: Two-dimensional hydraulic model, typically representing the floodplain flows.

Annual Exceedance Probability: The probability (expressed as a percentage) of a flood event occurring in any given year.

Brownfield: A previously developed parcel of land.

Climate change: Long term variations in global temperature and weather patterns caused by natural and human actions.

Design flood: A flood event of a given annual flood probability, which is generally taken as: fluvial (river) flooding likely to occur with a 1% annual probability (a 1 in 100 chance each year), or surface water flooding likely to occur with a 1% annual probability (a 1 in 100 change each year), plus an appropriate allowance for climate change, against which the suitability of a proposed development is assessed and mitigation measures, if any, are designed.

Dry island: Land which may not be at risk of flooding itself but is surrounded by flood risk and therefore may become cut off during a flood event.

Flood defence: Infrastructure used to protect an area against floods such as floodwalls and embankments; they are designed to a specific standard of protection (design standard).

Green infrastructure: A network of natural environmental components and green spaces that intersperse and connect the urban centres, suburbs, and urban fringe.

Greenfield: An undeveloped parcel of land.

Lead Local Flood Authority: The unitary authority for the area or if there is no unitary authority, the county council for the area.

Local Planning Authority (LPA): The local government body which is responsible by law to exercise planning functions for a particular area.

Main river: A watercourse shown as such on the statutory main river map held by the Environment Agency. They are usually the larger rivers and streams. The Environment Agency has permissive powers (not duties) to carry out maintenance and improvement works on main rivers.

Major development: Defined in the National Planning Policy Framework as a housing development where 10 or more homes will be provided, or the site has an area of 0.5 hectares or more, or as a non-residential development with additional floorspace of 1,000m² or more, or a site of 1 hectare or more, or as otherwise provide in the Town and Country Planning (Development Management Procedure) (England) Order 2015 (gov.uk).

Natural Flood Management: Techniques that work with nature to reduce the risk of flooding for communities.

Ordinary watercourse: Any river, stream, ditch, drain, cut, dyke, sluice, sewer (other than a public sewer) and passage through which water flows but which does not form part of a main river. The local authority or internal drainage board has permissive powers (not duties) on ordinary watercourses.

Permissive powers: Authorities have the power to undertake flood risk management activities, but not a duty to do so. This will depend on priorities in flood risk management.

Return period: An estimate of the interval of time between events of a certain intensity or size, in this instance it refers to flood events. It is a statistical measurement denoting the average recurrence interval over an extended period of time.

Riparian owner: A riparian landowner, in a water context, owns land or property, next to a river, stream or ditch.

Risk: In flood risk management, risk is defined as a product of the probability or likelihood of a flood occurring, and the consequence of the flood.

Risk Management Authority: The Environment Agency, Lead Local Flood Authorities, District and Borough Councils in an area where there is no unitary authority, Coast Protection Authorities in coastal areas, Water and sewerage companies, Internal Drainage Boards, and Highways authorities.

Standard of Protection (SoP): Defences are provided to reduce the risk of flooding (typically from a river, sea or surface water). A Standard of Protection is usually described in terms of an AEP flood event. For example, a flood embankment could be described as providing a 1% AEP Standard of Protection

Stakeholder: A person or organisation affected by the problem or solution or interested in the problem or solution. They can be individuals or organisations, includes the public and communities.

Sustainable Drainage Systems: Sustainable Drainage Systems are methods of management practices and control structures that are designed to drain surface water in a more sustainable manner than some conventional techniques, such as grates, gullies, and channels.

Windfall site: A site which becomes available for development unexpectedly and therefore not included as allocated land in a planning authority's local plan.

Executive Summary

Introduction and context

This Level 2 Strategic Flood Risk Assessment (SFRA) document was prepared with the purpose of providing part of the evidence base for the Local Plan 2026-42 for Blaby District. It follows on from the Blaby District Level 1 SFRA produced in September-December 2025 and should be read in conjunction.

The primary purpose of the Level 2 SFRA is to provide an appropriate understanding of the level of flood risk affecting development included in the updated Local Plan. The assessment takes into account all sources of flooding and considers other factors affecting flood risk such as residual risk. The information provided as part of the Level 2 SFRA enables Blaby District Council to apply the Exception Test to sites in accordance with the National Planning Policy Framework (NPPF).

SFRA objectives

The Government's Planning Practice Guidance (PPG) on Flood Risk and Coastal Change advocates a tiered approach to risk assessment involving Level 1 and Level 2 SFRAs.

After completing the Level 1 SFRA and the 'Call for Sites' process, Blaby District Council have undertaken the Sequential Test and have shortlisted sites which cannot be relocated outside of flood risk areas due to additional planning factors. The Level 2 assessment aims to build on identified risks from the Level 1 SFRA in order to provide a greater understanding of fluvial, surface water, groundwater, sewer, and reservoir related flooding risks to these shortlisted sites. From this, Blaby District Council and developers can make more informed decisions regarding future development. The Level 2 assessment also identifies sites requiring further risk analysis at the site-specific Flood Risk Assessment (FRA) stage.

Summary of Level 2 SFRA

Blaby District Council provided 17 sites for screening (including duplicates where all or part of a site was considered separately for housing or commercial use). These sites were screened using an 'overlap analysis' tool in GIS. This analysed various flood risk datasets against the site allocations layer and calculated the percentage cover for each flood risk dataset against each site. This was used to provide a summary of risk to each site.

Sites were given a Red, Amber, or Green category based on the risk to the site.

Red sites are those with significant flooding issues that would need to be addressed if development were to take place. These were generally sites where more than 10% of the site was within Flood Zones 2 or 3, or where more than 20% of the site was at risk in the present day 0.1% AEP surface water event. Some sites where percentages were below this threshold were also categorised as red due to the nature of the flooding e.g. where there were severe implications for access or egress.

Amber sites are those where the site is generally at low risk but has specific considerations to take the site forwards safely. These were generally sites where a small portion of the site

(<10%) of the site is within Flood Zones 2 or 3, between 10-20% of the site is at risk in the 0.1% AEP present day surface water event, or where more than 25% of the site was identified as having groundwater within 0.25m of the ground's surface during a 0.1% AEP event.

Following the screening, 10 Amber sites were taken forward for Level 2 Assessment. 2 Red sites were taken forwards. Additionally, Blaby District Council asked for a detailed Level 2 Assessment for 8 Green sites due to the scale of the proposed development or being brought forwards alongside higher risk sites. Some sites were assessed together due to proximity or coming forward together for joint development proposals.

The sites considered in the detailed site assessments are:

- EAST001 Land west of Junction 2, M69
- EBLA004, BLA036, & BLA038 Parsons Spinney, Glebe Farm,
- BLA031, BLA034, BLA039, & BLA040 Hospital Lane Sites
- COS009 Land West of Broughton Road, Cosby
- COU046 Peatling Road, Countesthorpe
- END028 Hayes Gardens
- GLE032 Land North of Glenfield
- KMU025 Land North of Hinckley Road
- LFE020 Kingstand Golf Course, Leicester Forest East
- STO025 Land South of Broughton Road, Stoney Stanton
- STO026 Land West of Stoney Stanton
- WHE027 & COS010 Whetstone Pastures & Cosby Hill
- WHE031 Land south of Whetstone

The following points summarise the Level 2 assessment:

- **Fluvial flooding** - In general, all sites taken forwards for Level 2 assessment are at very low risk of fluvial flooding. 5 sites taken forward for Level 2 assessment are within flood zones, however all have less than 10% of the site area within fluvial Flood Zones, and development is likely to be appropriate provided development is steered away from those areas at risk of flooding.
- **Flood Warning Areas (FWAs)** - Four proposed sites (BLA031/034/039/040, assessed together) are located within existing EA FWAs. For proposed development within existing EA FWAs, developers should consult the EA to ensure that adequate flood warning procedures and evacuation processes are in place, and that Risk Management Authorities (RMAs) are not put under any additional burden.
- Surface water flooding - Surface water tends to follow topographic flow routes, for example, along watercourses or isolated pockets of ponding where there are topographic depressions. Due to the nature of surface water risk, almost all sites are subject to some degree of risk. The majority of site taken forwards for Level 2 Assessment are at low risk, with less than 10% of the at risk, and for these sites it is likely that development can proceed by avoiding the areas at risk of flooding

and the application of appropriate SuDS. Eight sites have between 10-20% of the site at risk of surface water in the 0.1% AEP event, and more careful consideration will be needed as to how these sites can be made safe if development is to proceed. Two sites (STO25 and BLA036) have over 20% of the site at risk in the 0.1% AEP event, and careful consideration will be needed to bring these sites forwards safely if development cannot be located outside of the areas at risk.

- **Climate change** - Fluvial and surface water climate change mapping indicates that flood extents are predicted to increase. As a result, the depths, velocities, and hazard of flooding may also increase. The significance of the increase will depend on the topography of the site and the climate change percentage allowance used. Site-specific FRAs should confirm the impact of climate change using latest guidance. In general, most sites assessed in the Level 2 SFRA are shown to be less sensitive to climate change, however site-specific Flood Risk Assessments should consider the latest climate change allowances to confirm the risk to sites in future. It is recommended that Blaby District Council work with other RMAs to review the long-term sustainability of existing and new development in these areas when developing climate change plans and strategies for the district.
- **Historic** flooding - No sites taken forward for the Level 2 SFRA were noted to be within an area that has been flooded in the past, though it should be noted that not all flood events will be reported or recorded.
- **Sewer flooding** - Sewer flooding was assessed using information available form Severn Trent's Drainage and Wastewater Management Plan. Several catchments within Blaby District are considered to be at risk of sewer flooding, and developers should consult Severn Trent Water in all cases to ensure that development will be safe from flooding and support Severn Trent's long-term plans for managing sewer capacity/risk.
- **Groundwater flooding -** Groundwater flood risk is widespread throughout Blaby District and 10 sites taken forwards for the Level 2 assessment were identified as having areas where groundwater is within 5m of the ground surface, including several sites where groundwater is at or close to the surface. An appropriate assessment of the groundwater regime for a site should be carried out at the site-specific FRA stage.
- **Reservoir flooding** - No sites assessed within the detailed site assessments that are shown to be at risk of reservoir flooding. The level and standard of inspection and maintenance required under the Reservoirs Act means that the risk of flooding from reservoirs is very low. However, there is a residual risk of a reservoir breach, and this risk should be considered in any site-specific FRA.
- **Sustainable Drainage Systems (SuDS)** - A strategic assessment was conducted of SuDS options using regional datasets. A detailed site-specific assessment of suitable SuDS techniques would need to be undertaken at site-specific level to understand which SuDS option would be best.

Recommendations

Section 8 sets out the recommendations based on the findings of this Level 2 SFRA. This includes recommendations for applying the Exception Test, where required, requirements for developers in developing the Local Plan allocations, and guidance for windfall sites and development of sites not included within the Local Plan

1 Introduction

1.1 Purpose of the Strategic Flood Risk Assessment

Paragraph 171 of the National Planning Policy Framework (NPPF) (2024) (gov.uk) states that *'Strategic policies should be informed by a strategic flood risk assessment and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards*.'

1.2 Levels of SFRA

The Planning Practice Guidance (PPG) Flood risk and coastal change (gov.uk) advocates a staged approach to risk assessment and identifies two levels of a Strategic Flood Risk Assessment (SFRA):

- A Level 1 assessment, which all Local Planning Authorities (LPAs) are required to undertake. Where potential site allocations are at low flood risk and where development pressures are low a Level 1 assessment is likely to be sufficient, without the LPA progressing to a more detailed Level 2 assessment. The Level 1 assessment should be of sufficient detail to enable application of the Sequential Test, to inform the allocation of development to areas of lower flood risk.
- A Level 2 assessment is required where land outside flood risk areas cannot appropriately accommodate all necessary development, creating the need to apply the NPPF's Exception Test, or if an LPA believe they may receive high numbers of applications in flood risk areas on sites not identified in the Local Plan. In these circumstances the assessment should consider the detailed nature of the flood characteristics within a Flood Zone and assessment of all sources of flooding.

This SFRA report fulfils the requirements for a Level 2 assessment of development sites identified for potential allocation within Blaby District and has been prepared in accordance with the NPPF (2025) and PPG (2022).

This report should be read alongside the Blaby District Level 1 SFRA and builds upon information presented within the Level 1 SFRA.

1.3 SFRA objectives

The objectives of this Level 2 SFRA are to:

1. Provide individual flood risk analysis for site options using the latest available flood risk data, thereby assisting the Council in applying the Exception Test, where required, to their proposed site options in preparation of their Local Plan.

2. Using the available data, provide information and comprehensive mapping presenting flood risk from all sources for the site.
3. Provide recommendations for making sites safe throughout their lifetime.
4. Take into account most recent policy and legislation in the NPPF, PPG, EA SFRA Guidance, and LLFA SuDS guidance.

1.4 Consultation

SFRAs should be prepared in consultation with other RMAs. The following parties provided data and input to inform the Level 2 SFRA:

- Environment Agency (EA)
- Canals and rivers Trust (CRT)
- Severn Trent Water
- Leicestershire County Council

1.5 How to use this report

Table 1-1 below outlines the contents of this report and details how different users can apply this information.

Table 1-1: Outline of the contents of each section of this report.

Section	Contents	How to use
1. Introduction	Outlines the purpose and objectives of the Level 2 SFRA.	For general information and context.
2. Policy and strategy for flood risk management	Includes information on the implications of recent changes to planning and flood risk policies and legislation and signposts to relevant sections of the Level 1 SFRA.	Users should refer to this section and the relevant sections of the Level 1 SFRA for any relevant policy which may underpin strategic or site-specific assessments.
3. Sequential and Exception Tests	Signposts to relevant sections of the Level 1 SFRA for information on the Sequential and Exception Tests.	Users should refer to this section and the relevant sections of the Level 1 SFRA to understand and follow the steps required for applying the Sequential and Exception Tests.
4. Information used in the Level 2 SFRA	Summarises the data used in the Level 2 detailed site assessments and mapping.	Users should refer to this section in conjunction with the detailed site assessments (Appendix A) and mapping (Appendix B) to understand the data presented.
5. Level 2 Assessment Methodology	Summarises the sites taken forward to a Level 2 assessment and the outputs produced for each of these	Users should refer to this section in conjunction with the detailed site assessments (Appendix A) and mapping (Appendix B) to

Section	Contents	How to use
	sites.	understand the data presented.
6. Flood risk management requirements for developers	Identifies the scope of the assessments that must be submitted in Flood Risk Assessments (FRAs) supporting applications for new development. Refers to relevant sections in the Level 1 SFRA for mitigation guidance.	Developers should use this section alongside the relevant sections of the Level 1 SFRA to understand requirements for FRAs, which conditions/guidance documents should be followed, and information on flood mitigation options.
7. Surface water management and SuDS	Signposts to relevant sections of the Level 1 SFRA for information on the management of surface water including types of SuDS, SuDS policy and guidance, and SuDS constraints.	Developers should use this section alongside the relevant sections of the Level 1 SFRA to understand what national, regional, and local SuDS standards are applicable.
8. Summary of Level 2 assessment and recommendations	Summarises the results and conclusions of the Level 2 assessment, and signposts to the Level 1 SFRA for planning policy recommendations.	Developers and planners should use this section to see a summary of the Level 2 assessment and understand the key messages from the detailed site assessments. Developers should refer to the Level 1 SFRA recommendations when considering requirements for site-specific assessments.
Appendix A: Detailed site assessments	Provides a detailed summary of flood risk for sites requiring a more detailed assessment, which considers flood risk, emergency planning, climate change, broadscale assessment of possible SuDS, Exception Test requirements, and requirements for site-specific FRAs.	Planners should use this appendix to inform the application of the Sequential and Exception Tests, as relevant. Developers should use these assessments to understand flood risk, access and escape route requirements, climate change, SuDS, and FRA requirements for site-specific assessments.

Section	Contents	How to use
Appendix B: GeoPDF Mapping	Provides mapping of the flood risk at each of the sites afforded a detailed site assessment. Includes depth, velocity and hazard information for fluvial and surface water flood risk where available, alongside climate change risk.	Planners should use this appendix to inform the application of the Sequential and Exception Tests, as relevant. Developers should use these assessments to understand flood risk, access and escape route requirements, climate change, SuDS, and FRA requirements for site-specific assessments.
Appendix C: Site Screening Spreadsheet	Summarises the sites screened against datasets for this Level 2 SFRA.	Users should refer to this section to understand the risk to sites not taken forwards for this Level 2 SFRA. Users should refer to the Level 1 SFRA for datasets used.

2 Policy and strategy for flood risk management

The flood risk management roles and responsibilities for different organisations and relevant legislation, policy and strategy are detailed within Section 2 of the Blaby District Council Level 1 SFRA.

This contains details on:

- Key legislation for flood and water management.
- Key national, regional, and local policy documents and strategies.
- Roles and responsibilities for flood risk management in Blaby District

There have been no significant changes to national policy since the publication of the current Level 1 SFRA (produced Autumn 2025).

3 Sequential and Exception Tests

Information on planning policy for flood risk management is detailed in Section 3 of the Blaby District Council Level 1 SFRA. Users should consider this section within the Level 1 SFRA to understand national planning policy guidance and how to evidence that a proposed development will pass the Sequential Test, and if necessary, the Exception Tests.

Section 3 contains detail on:

- the NPPF and PPG;
- the risk-based approach; and
- the Sequential and Exception Tests.

4 Information used in the Level 2 SFRA

This section outlines the datasets used in assessing the Local Plan proposed development sites in the Level 2 SFRA Appendix A.

It should be noted that datasets used to inform this SFRA may be updated following the publication of this SFRA and new information on flood risk may be produced by RMAs. This new information (such as updated mapping and modelling) may supersede the information included in this SFRA. Guidance should be sought from the LPA, LLFA, and the EA as appropriate to check the most up to date source of information is used for future flood risk assessment.

Appendix A of the Blaby District Council Level 1 SFRA provides an overview of the supplied data used to inform the appraisal of flood risk for Blaby District including when the data was provided, the source of the data, and how the data can be obtained by a developer if applicable.

4.1 Historic flooding

Historic flooding was assessed using the Environment Agency's Historic Flood Outlines layer and Section 19 Reports published by Leicestershire County Council.

It is important to note that the absence of historic flood records does not mean that an area has never flooded, only that records are not held. For previously undeveloped sites, it is likely that historic flooding incidents may have gone unreported due to a lack of site use or interest. In addition, it is also possible that flooding mechanisms have changed since the date of a recorded flooding incident, making it more or less likely for flooding to occur on site.

4.2 River networks

Main Rivers are represented by the EA's Statutory Main River layer. Ordinary Watercourses are represented by the OS MasterMap Water Network layer. Caution should be taken when using these layers to identify culverted watercourses which may appear as straight lines but, in reality, are not.

4.3 Fluvial flooding

Fluvial flood risk across the district is assessed based on Environment Agency Flood Zones, from Flood Map for Planning as of January 5th 2026. The Flood Zones do not consider defences, except when considering the functional floodplain.

The FMfP now incorporates both detailed local flood risk models and improved national data from the new national model (NaFRA2). The local models which have been incorporated are listed below:

- River Soar, 1D/2D Flood Modeller - ESTRY - TUFLOW, AECOM, 2012

- Upper River Soar and Tributaries, 1D/2D Flood Modeller - TUFLOW (CH2M Hill, 2018)
- Upper Sence, 1D/2D Flood Modeller - TUFLOW (JBA, 2021)
- Rothley Brook, 1D/2D Flood Modeller - TUFLOW (JBA, 2022)

Where modelled data is available, depth, velocity and hazard outputs have been used to inform site assessments. Where Flood Zones are based on the national model, these outputs are not available.

The EA Flood Zones do not cover all catchments or ordinary watercourses with areas <3km². As a result, whilst the EA Flood Zones may show an area is in Flood Zone 1, there may be a flood risk from a smaller watercourse(s) not shown in the Flood Zones. For Level 2 site assessments, the Environment Agency's risk of Flooding from Surface Water (RoFSW) dataset has been used to understand the risk from these watercourses.

Flood Zone 3b is defined as the 3.3% AEP event and as such mapped extents of that event should be used to inform the location and extents of Flood Zone 3b. 3.3% AEP extents are available within the Upper River Soar and Tributaries, Upper Sence, Rothley Brook and River Soar models.

For areas outside of the detailed model coverage, the NaFRA2 3.3% AEP defended extents have been used where mapping exists. Where mapping is not present, Flood Zone 3a has been used as a proxy. Further work should be undertaken as part of a detailed site-specific FRA to define and refine the extent of Flood Zone 3b where no detailed modelling exists. Caution should also be applied where the conservative Flood Zone 3b extent encompasses existing urban areas which would not otherwise be "designed to flood".

4.4 Flood defences

Current flood defence information has been taken from the EA's Asset Information Management System (AIMS) Spatial Defences dataset. These datasets include all flood defences currently owned, managed or inspected by the EA and include information pertaining to their current condition and standard of protection.

4.5 Surface water flooding

The EA's Risk of Flooding from Surface Water mapping (RoFSW) (gov.uk) has been used to assess surface water risk within this SFRA. These maps are intended to provide a consistent standard of assessment for surface water flood risk across England and Wales in order to help LLFAs, the EA, and any potential developers to focus their management of surface water flood risk. The RoFSW should not be used to understand flood risk for individual properties but is suitable for high level assessments such as SFRAs for local authorities.

4.6 Climate change

Climate change mapping is shown in the mapping in Appendix B for fluvial and surface water flooding using modelled outputs with the latest climate change uplifts where available.

There are no surface water models available for the district area, as such the 0.1% AEP surface water extents has been used as a proxy for climate change events. It should also be noted that the recently updated NaFRA2 surface water extents with climate change are not suitable for planning as they are currently only available for the 2050s epoch, as such the proxy should be used.

Section 5 of the Blaby District Council Level 1 SFRA provides information on the climate change allowances applicable, and how these should be considered in site-specific assessments for development.

4.7 Groundwater flooding

The JBA Groundwater Emergence map has been used to assess potential areas that are likely to be at higher risk of groundwater flooding. The JBA Groundwater Emergence map, shows the likelihood of groundwater emergence posing a risk to both surface and subsurface assets, based on predicted groundwater levels during a 1% AEP event. Surface water mapping and topographic data is used to gain an understanding of the overland flow routes which may be impacted by this emergence.

The JBA Groundwater Emergence mapping is categorised into five different classes; a detailed description of the classes is in Table 4-1 below.

Table 4-1: JBA Groundwater Emergence Map category descriptions.

Category	Potential risk
Groundwater levels are either at or very near (within 0.025m of) the ground surface.	Within this zone there is a risk of groundwater flooding to both surface and subsurface assets. Groundwater may emerge at significant rates and has the capacity to flow overland and/or pond within any topographic low spots.
Groundwater levels are between 0.025m and 0.5m below the ground surface.	Within this zone there is a risk of groundwater flooding to both surface and subsurface assets. There is the possibility of groundwater emerging at the surface locally.
Groundwater levels are between 0.5m and 5m below the ground surface.	There is a risk of flooding to subsurface assets, but surface manifestation of groundwater is unlikely.
Groundwater levels are at least 5m below the ground surface.	Flooding from groundwater is not likely.
No risk.	This zone is deemed as having a negligible risk from groundwater flooding due to the nature of the local geological deposits.

4.7.1 Groundwater flooding and climate change

The impact of climate change is more uncertain for groundwater flooding associated with rivers and land catchments and those watercourses where groundwater has a large influence on winter flood flows. Changes in frequency and intensity of groundwater flooding

due to climate change would depend on the flooding mechanism and geological characteristics.

Milder wetter winters may increase the frequency of groundwater flooding incidents in areas that are already susceptible, but warmer drier summers may counteract this effect by drawing down groundwater levels to a greater extent during the summer months.

4.8 Reservoir flooding

The risk of inundation as a result of a breach or failure of a number of reservoirs within the area has been identified from the EA's Reservoir Flood Extents dataset (gov.uk). Although it is predicted that there is a risk to life if these reservoirs were to fail, the risk of such an event occurring is very low.

This dataset consists of flood extents for two scenarios including 'Wet Day' and 'Dry Day', for all large, raised reservoirs. The 'Dry Day' scenario shows flood extents in the event that reservoirs were to fail and release the water they hold when local rivers are at normal levels. The 'Wet Day' scenario shows flood extents in the event that reservoirs were to fail and release the water they hold when local rivers are in flood.

Flood extents are not included for smaller reservoirs or for reservoirs commissioned after the reservoir modelling programme began in October 2016. Furthermore, only those reservoirs with an impounded volume greater than 25,000 cubic metres are governed by the Reservoir Act 1975.

4.9 Sewer flooding

Severn Trent Water is the water company responsible for the management of the sewerage networks across Blaby District. The published Severn Trent Drainage and Wastewater Management Plan, which identifies sewer catchments where flood risk is a concern, has been used to inform this assessment.

4.10 Residual risk

Several sites assessed within Blaby District are near culverted sections of watercourses which flow beneath roads, railway lines, and footpaths, and present a residual flood risk should they become blocked or collapse. Potential culvert blockages that may affect a site were identified on OS Mapping and the OS Watercourse Link layer to determine where watercourses flow into culverts or through structures (i.e. bridges) in the vicinity of the sites. Any potential locations were flagged in the detailed site assessments.

Several sites within Blaby District are also located within close proximity of raised flood defences which present a residual risk should they breach or be overtopped. Raised flood defences were identified using the EA AIMS Dataset.

4.11 Canal flooding

The Canal & River Trust were consulted to identify any instances of breaches and overtopping of the Grand Union Canal. The Canals and River Trust data identifies no

known incidences of canal breach and a singular incidence of canal overtopping within Blaby, which was not within the vicinity of any sites considered in the screening exercise.

4.12 Depth, velocity, and hazard to people

The Level 2 assessment seeks to map the probable depth and velocity of flooding as well as the hazard to people and use this within the detailed site assessments.

For fluvial flood risk, depth, hazard and velocity information has been taken from detailed modelling where available, or from banded layers provided as part of the Risk of Flooding from Rivers and Sea dataset.

For surface water, depth, hazard and velocity information has been taken from the banded layers provided as part of the RoFSW dataset.

Hazard to people has been calculated using the below formula as suggested in Defra's Supplementary note on flood hazard ratings and thresholds for development planning and control purpose (gov.uk). The different hazard categories are shown in Table 4-2. Developers should also test the impact of climate change depths, velocities, and hazard on the site, as part of the site-specific FRA.

Table 4-2: Defra's 'Flood Risks to People' classifications

Description of Flood Hazard Rating	Flood Hazard Rating	Classification Explanation
Very Low Hazard/ Caution	<0.75	'Flood zone with shallow flowing water or deep standing water'
Danger For Some (i.e. children)	0.75 - 1.25	'Danger: flood zone with deep or fast flowing water'
Danger For Most	1.25 - 2.00	'Danger: flood zone with deep fast flowing water'
Danger For All	>2.00	'Extreme danger: flood zone with deep fast flowing water'

4.13 SuDS suitability

The hydraulic and geological characteristics of each site have been assessed to determine the factors that potentially constrain schemes for surface water management. This assessment is designed to inform the early-stage site planning process and is not intended to replace site-specific detailed drainage assessments. A high-level assessment of suitability of SuDS is included in the site assessments in Appendix A.

The assessment is based on catchment characteristics using the following data:

- EA 1m LiDAR
- The British Geological Survey website (bgs.ac.uk) geology and soils mapping
- JBA Groundwater Emergence Mapping (see Section 4.7 for further details)
- Historic landfill sites
- Groundwater Source Protection Zones

- Nitrate Vulnerable Zones
- RoFSW mapping
- Flood Zones derived as part of this Level 2 SFRA (see Section 4.3 for further details)

This data was then collated to provide an indication of particular groups of SuDS systems which might be suitable at a site. SuDS techniques were categorised into five main groups, as shown in Table 4-3.

Table 4-3: Summary of SuDS categories

SuDS Type	Technique
Source Controls	Green Roof, Rainwater Harvesting, Rain Gardens
Infiltration	Infiltration Trench, Infiltration Basin, Soakaway, Pervious Pavements
Detention	Pond, Wetland, Subsurface Storage, Shallow Wetland, Extended Detention Wetland, Pocket Wetland, Submerged Gravel Wetland, Wetland Channel, Detention Basin
Filtration	Surface Sand Filter, Sub-Surface Sand Filter, Perimeter Sand Filter, Bioretention, Filter Strip, Filter Trench
Conveyance	Dry Swale, Under-drained Swale, Wet Swale

The suitability of each SuDS type for the development sites has been described in the detailed site assessments, where applicable. The assessment of suitability is broadscale and indicative only; more detailed assessments should be carried out during the site planning stage to confirm the feasibility of different types of SuDS.

4.14 Emergency Planning

Flood Warning Areas (FWAs) and Flood Alert Areas (FAAs) are detailed in the EA's GIS datasets and can be used to inform emergency planning. FAAs inform the EA when there is flooding first in the catchment, irrespective of properties, hence this coverage tends to apply to whole watercourses or stretch of coastline. FWAs are derived from the extreme flood outline (0.1% AEP event), focussed on communities, properties, and/or infrastructure. Modelled depth, velocity and hazard data can be used to understand safe access and escape routes for each site.

5 Level 2 Assessment Methodology

This section outlines how sites were screened against flood risk datasets to determine which sites required a Level 2 detailed site assessment. It also identifies other sites at lower risk with general recommendations for developers.

5.1 Site screening

Blaby District Council provided 157 sites for screening (including duplicates where all or part of a site was considered separately for housing or commercial use). These sites were screened using an 'overlap analysis' tool in GIS. This analysed various flood risk datasets against the site allocations layer and calculated the percentage cover for each flood risk dataset against each site. This was used to provide a summary of risk to each site, including:

- the proportion of the site in each Flood Zone derived from detailed hydraulic model outputs where available, and where detailed modelling was unavailable the information is taken from the EA's NaFRA2 FMfP (see Section 4.2 for a summary of how the Flood Zones were derived for this SFRA).
- the proportion of the site affected by climate change within the 1% AEP + Higher Central Climate change allowance (where available from detailed EA modelling)
- whether the site is shown to be at risk from surface water flooding in the RoFSW mapping for the 3.3%, 1%, and 0.1% AEP events, and the Environment Agency's RoFSW plus Climate Change datasets.
- whether the site is within, or partially within, the reservoir 'Dry Day' or 'Wet Day' flood extents.
- whether the site is within, or partially within, the EA Historic Flood Map dataset.
- whether the site is within 20m of watercourses shown within the Ordnance Survey detailed watercourse network dataset.
- whether the site is at risk from groundwater emergence using the JBA Groundwater Emergence Map.

The results of the screening provide a quick and efficient way of identifying sites that are likely to require a Level 2 assessment, assisting Blaby District Council with Sequential Test decision-making so that flood risk is taken into account when considering allocation options.

The screening also provides an opportunity to identify sites which may show to be 100% in Flood Zone 1, but upon visual inspection in GIS, have an ordinary watercourse flowing through or adjacent to them. Although there are no Flood Zone maps available for these watercourses, it does not mean the watercourse does not pose a risk, it just means no modelling has yet been undertaken to identify the risk.

Flood Zones are not provided for specific sites or land where the catchment of the watercourse falls below 3km². For this reason, the Flood Zones are not of a resolution to be used as application evidence to provide the details of possible flooding for individual

properties or sites and for any sites with watercourses on, or adjacent to the site. The RoFSW has been used to assess flood risk in these cases because it is comparable to fluvial flooding from smaller watercourses and is therefore a reasonable representation of the floodplain of such watercourses to use for a strategic assessment.

5.2 Sites taken forward to a Level 2 assessment

157 sites from Blaby District Councils Strategic Housing and Economic Land Availability Assessment were screened against Flood Zones 2, 3a, and 3b, present day and future surface water risk form the RoFSW, and the JBA Groundwater Map to provide the percentage of the site at risk from each event/source of flooding.

Sites were given a Red, Amber, or Green category based on the risk to the site.

Red sites are those with significant flooding issues that would need to be addressed if development were to take place. These were generally sites where more than 10% of the site was within Flood Zones 2 or 3, or where more than 20% of the site was at risk in the present day 0.1% AEP surface water event. Some sites where percentages were below this threshold were also categorised as red due to the nature of the flooding e.g. where there were severe implications for access or egress.

Amber sites are those where the majority of the site is generally at low risk but there are specific considerations that would need to be addressed to be taken forwards. These were generally sites where a small portion of the site (<10%) of the site is within Flood Zones 2 or 3, between 10-20% of the site is at risk in the 0.1% AEP present day surface water event, or where more than 25% of the site was identified as having groundwater within 0.25m of the ground's surface during a 1% AEP event.

Following the screening, 11 Amber sites were taken forward for Level 2 Assessment. 2 Red sites were taken forwards. Additionally, Blaby District Council asked for a detailed Level 2 Assessment for 9 Green sites due to the scale of the proposed development or being brought forwards alongside higher risk sites. Some sites were assessed together due to proximity or coming forward together for joint development proposals.

Table 5-1 summarises the sites taken forward for Level 2 Assessment. Results for all screened sites can be seen in Appendix C.

Table 5-1: Sites taken forward for Level 2 Assessment

Site Code	Description	Rank
EAST001	Land west of Junction 2, M69	Amber
EBLA004, BLA036, BLA038 (South of Blaby)	Parsons Spinney, Glebe Farm, Land off the A426 Blaby Land to the East of Lutterworth Road	Amber Red Green
BLA031 BLA034 BLA039 BLA040	Hospital Lane Sites	Amber Amber Amber Amber
COS009	Land West of Broughton Road, Cosby	Amber
COU046	Peatling Road, Countesthorpe	Green
NAR016 END028	Hayes Gardens	Green Green
GLE032	Land North of Glenfield	Green
KMU025	Land North of Hinckley Road (Hastings Fields phase 2)	Green
LUB002	Land at Desford Road / Beggar's Lane	Green
LFE020	Kingstand Golf Course, Leicester Forest East	Green
STO009	Land west of Huncote Road	Amber
STO025	Land South of Broughton Road, Stoney Stanton	Red
STO026	Land West of Stoney Stanton	Amber
WHE027 COS010	Whetstone Pastures Cosby Hill	Amber Green
WHE031	Land south of Whetstone	Amber

5.3 Detailed site assessments

As part of the Level 2 SFRA, detailed site assessments have been produced for the 19 sites identified in Section 5.2. The site assessments can be found in Appendix A with the mapping shown in Appendix B. Table 5-2 sets out the information contained within each section of the site assessment.

Table 5-2: Summary of the information within each section of the detailed site assessments.

Section	Information
1. Background	• Location of the site

Section	Information
	• Area, current land use (greenfield/brownfield), proposed site use • Topography of the site • Geology and soil characteristics
2. Sources of flood risk	• Location of the site within the catchment • Existing drainage features • Fluvial – proportion of site at risk including description from mapping/modelling, utilising depth, hazard, and velocity information from detailed hydraulic models where available • Surface Water – proportion of site at risk including description from RoFSW mapping using available depth, hazard, and velocity information • Reservoir flood risk in both the 'Dry Day' and 'Wet Day' scenarios • Groundwater emergence risk • Sewer flood risk - information on the flood risk within the Sewer Catchment identified within the DWMP. • Flood history - historic incidents on or surrounding the site from the EA Recorded Flood Outline and Historic Flood Map datasets
3. Climate Change	• Fluvial climate change - summary of available climate change allowances and increase in flood extent compared to the 1% AEP event (Flood Zone 3a) • Surface water climate change - summary of available climate change allowances and increase in flood extent compared to the 1% AEP event
4. Flood risk management infrastructure	• Flood risk management infrastructure • Description of residual risk
5. Emergency planning	• Flood warnings and alerts • Access and escape routes
6. Requirements for drainage control and impact mitigation	• Broadscale assessment of possible SuDS to provide indicative surface water drainage advice for each site assessed for the Level 2 SFRA. • Identification of potential SuDS constraints including Groundwater Source Protection Zones, Nitrate Vulnerable Zones and historic landfill sites
7. NPPF and planning implications	• Exception Test requirements • Requirements and guidance for site-specific Flood Risk Assessment • Guidance for site design and making development safe

Section	Information
8. Conclusions	• Summary of key risks to the site • Summarising considerations if development proceeds

6 Flood risk management requirements for developers

The flood risk management requirements for developers are detailed within the Blaby District Council Level 1 SFRA (Section 7). Users should refer to this section for guidance on site-specific FRAs and other principles for managing flood risk in new development.

This contains details on:

- early consultation with statutory and non-statutory consultees;
- requirements for site-specific FRAs, including signposting to specific guidance; and
- emergency planning.

The sections below contain further information on emergency planning and the requirements for developer contributions.

6.1 Emergency planning

Safe access and escape routes from the site should be provided. The developer should seek to incorporate an emergency plan and a safe refuge point if the development site has been identified to be at risk of flooding. The local authority and Emergency Services should be consulted when designing an emergency plan.

This Level 2 assessment has identified four proposed sites (BLA031/034/039/040, assessed together) located within existing EA FWAs and/or FAAs. For proposed development within existing EA FWAs, developers should consult the EA to ensure that adequate flood warning procedures and evacuation processes are in place and that RMAs are not put under any additional burden.

Section 10.1 of the Level 1 SFRA report discusses NPPF requirements and what an emergency plan will need to consider and other relevant information on emergency planning.

The duration and onset of flooding affecting a site depends on several factors:

- Location of the site within the catchment: flooding is likely to be rapid and flashy in the upper catchment (e.g. small tributaries) and slower responding and longer in duration in the lower catchment.
- Upstream storage: floodplains, reservoirs, and other storage areas upstream of a site may provide some online flood storage that reduces the flood risk downstream and delays the onset of flooding.
- Timing of peak flow: at the confluence of the larger watercourses and smaller tributaries, there may be different timings of peak flows, for example smaller tributaries would peak much earlier than the larger catchments.
- The principal source of flooding: where this is surface water, depending on the intensity and location of the rainfall, flooding could be experienced within 30

minutes of the heavy rainfall event e.g., a thunderstorm. Typically, the duration of flooding for areas at risk of surface water flooding, or from flash flooding from small watercourses, is short (hours rather than days).

- The preceding weather conditions prior to the flooding: wet weather lasting several weeks will lead to saturated ground. Rivers respond much quicker to rainfall in these conditions.
- Whether a site is defended, noting that if the defences were to fail, a site could be affected by very fast flowing and hazardous water within 15 minutes of a breach developing (depending on the size of the breach and the location of the site in relation to the breach), causing danger to life.
- Catchment geology: the permeability of a catchment affects its response time, for example chalk catchments take longer to respond than clay catchments.

6.2 Developer contributions

In some cases, and following the application of the Sequential Test, it may be appropriate for the developer to contribute to the improvement of flood defence provision that would benefit both proposed new development and the existing local community. Developer contributions should include the following:

- Developers should check the online Flood Map for Planning (gov.uk) in the first instance to identify any major changes to the Flood Zones and the long-term flood risk mapping portal (gov.uk) for any changes to flood risk from surface water or inundation from reservoirs.
- Developer contributions can be made to maintenance and provision of flood risk management assets, flood warning and the reduction of surface water flooding (i.e. SuDS).
- Developers should also confirm that a development will not impact upon the ability of a floodplain to store or convey and seek opportunities to provide floodplain betterment, should the footprint of a development change.
- Where necessary, compensatory flood storage should be provided up to the 1% AEP plus climate change flood level and adjacent to the floodplain so that the flood storage can hydraulically fill and drain.
- Developers must be aware that that information within the Level 1 and Level 2 SFRAs will be a useful starting point for development considerations, however they must request the most recent data and update hydraulic modelling where required. The EA are due to publish a new national risk information for flooding and coastal erosion; this will include future scenarios accounting for climate change. Once this information is available, it should be used as the main source of flood risk information, unless site-specific modelling / information is available.

The Council should only use planning obligations to secure contributions where it is satisfied that the contribution will fund works / measures which are:

- Necessary to make the development acceptable in planning terms;
- Directly related to the development; and

- Fairly and reasonably related in scale and kind to the development (Paragraph 57, NPPF).

7 Surface water management and SuDS

The Surface Water Management roles and responsibilities for different organisations and relevant legislation, policy and strategy are detailed within the Blaby District Council level 1 SFRA (Section 9). Users should refer to this section when considering the different sources of flood risk to the site and how this can be mitigated in a sustainable way.

This contains detail on:

- role of the LLFA and LPA in surface water management;
- types of SuDS;
- sources of SuDS guidance; and,
- other surface water considerations including Groundwater Vulnerability Zones (GVZs), Groundwater Source Protection Zones (GSPZs), and Nitrate Vulnerability Zones (NVZs).

7.1 Updated SuDS guidance

The Defra National standards for sustainable drainage systems (SuDS) (gov.uk) were published in June 2025.

Previously SuDS guidance was developed to sit alongside the PPG and provide non-statutory standards as to the expected design and performance for SuDS. The new national remain as a non-statutory specification but form a material consideration for LPAs when assessing planning applications. These standards aim to reflect and reinforce good practice and use of SuDS, reflecting the four pillars of SuDS design.

The national standards contain two sets of standards. The first type (Standard 1) is known as the hierarchy standard and gives criteria for the prioritisation of final runoff destinations. The other standards (Standards 2-7) detail the minimum requirements of design criteria that surface water drainage systems should satisfy alongside how they are to be appropriately built, maintained, and operated.

8 Recommendations

8.1 Considering the Exception Test for the proposed development sites

When required, to pass the Exception Test it must be shown that the development will provide wider sustainability benefits that outweigh the risk, and that the development will be safe throughout its lifetime without increasing risk elsewhere. The former is a planning-related consideration and the Level 2 SFRA helps to answer the latter part of the Test.

All of the sites assessed in this Level 2 SFRA are generally at lower risk; however, some of the sites included in the screening exercise were at higher risk, and would require careful consideration and significant mitigation to pass the flood risk element of the Exception Test.

In principle, all of the sites assessed within this Level 2 SFRA are likely to pass the flood risk element of the Exception Text by:

- Undertaking a sequential approach to site planning so development is steered away from areas within the site at the highest risk.
- Considering safe access/escape routes in the event of a flood (from all parts of the site, if say the site is severed by a flood flow path). If access and escape are affected, a Flood Response Plan may be required.
- Designing buildings with finished floor levels above the estimated flood level (fluvial 1% AEP event with an allowance for climate change), including an allowance for freeboard.
- Using areas in Flood Zone 2 for the least vulnerable parts of the development in accordance with Table 2 in the PPG. No development should be permitted in Flood Zone 3b (aside from Essential Infrastructure).
- Testing flood mitigation measures if these are to be implemented, to ensure that they will not displace water elsewhere (for example, if land is raised to permit development on one area, compensatory flood storage will be required in another).
- Considering space for green infrastructure in the areas of highest flood risk.

Although not explicitly required within the PPG, consideration should be given to the surface water risk where this is high, with regards to the Exception Test.

If a site is split in future into smaller land parcels for development, and some of those parcels are in areas of flood risk, the Exception Test may need to be re-applied by the developer at the planning application stage.

8.2 Recommendations from the Level 1 SFRA

Recommendations from this report should be considered in addition to recommendations from the Level 1 SFRA, which still stand for the site allocations and any windfall development that comes forward. The recommendations for the Level 1 SFRA are set out in Section 13 of the Blaby District Council Level 1 SFRA.

8.3 Requirements for developers

The sections below set out requirements for developers to consider both for developing sites assessed within this Level 2 SFRA and for developing windfall sites.

8.3.1 Watercourses

Any sites located where there is a Main River (including culverted reaches of a Main River) will require an easement of 8m either side of the watercourse from the top of the bank. This may introduce constraints regarding what development will be possible and consideration will also need to be given for access and maintenance at locations where there are culverts. Developers will be required to apply for appropriate permits so the activity being carried out over easements does not increase flood risk. Further information relating to this can be viewed on the government website Flood risk activities: environmental permits (gov.uk).

Where no recent detailed hydraulic modelling is present, it is recommended that developers construct new, or update existing, detailed hydraulic models at these sites as part of a site-specific FRA using channel, structure, and topographic survey to confirm flood risk. Site-specific flood modelling will likely need to be developed in locations where it is necessary to understand the effects of proposed development schemes on the existing flood flow paths and flood volume storage, in the present day and in the future.

At the planning application stage, developers may need to undertake more detailed hydrological and hydraulic assessments of unmodelled watercourses and surface water interactions so that the potential effects of proposals can be evaluated at site level and ensure that there is no increase in risk off-site as a result of development. The modelling should evidence flood extents, depths, velocities and hazard (including latest climate change allowances), inform development zoning within the site and prove, if required, whether the Exception Test can be passed.

If an ordinary watercourse is within or immediately adjacent to the site area, consultation with Leicestershire County Council as the LLFA should be undertaken. If alterations or discharges are proposed to the watercourse, a land drainage consent will be required.

Developers should be aware of the need to identify the route of, and flood risk associated with, any culverts within a site. CCTV condition survey will be required to establish the current condition of the culvert and hydraulic assessments will be necessary to establish culvert capacity of both culverts on site and those immediately offsite that could pose a risk to the site. The risk of flooding should be established using site survey, including the residual risk of culvert blockage.

8.3.2 Flood risk management infrastructure and residual risk

For sites where existing flood defences provide a reduction in the flood risk to the site, it is important to understand the standard of protection these structures and measures provide. It is also necessary to understand how this level of protection changes over time, considering the implications of climate change.

If flood defences are required to protect a development site, evidence will be required to show that the new development does not adversely impact and increase flood risk to other areas, for example that there is no net loss in floodplain storage in circumstances where this is a material consideration. It will need to be established that these defences can be appropriately managed and maintained during the lifetime of the development. In some cases, it will be a requirement to demonstrate that there is an appropriate level of commitment to the maintenance of the standard of protection afforded by existing defences, where reliance is placed on the standard they provide.

Any development proposed adjacent to a canal should include a detailed assessment of how a canal breach would impact the site, as part of a site-specific FRA. The Canal and River Trust (canalrivertrust.org.uk) provide guidance on development near canals.

8.3.3 Access and escape routes

Access and escape routes should be considered at the site, but also in the vicinity of the site, for example, a site may have low surface water risk, but in the immediate locality, access/escape routes to and from the site could be restricted for vehicles and/or people. For sites assessed within this Level 2 SFRA, an initial overview of potential access and escape options is provided within the detailed site assessments and potential constraints identified.

8.3.4 Surface water flood risk and SuDS

Surface water risk should be considered in terms of the proportion of the site at risk in the 3.3%, 1% and 0.1% AEP events (with an appropriate allowance for climate change), whether the risk is due to isolated minor ponding or deeper pooling of water, or whether the risk is due to a wider overland flow route.

A strategic assessment of SuDS options has been undertaken using regional datasets for sites assessed within this Level 2 SFRA. A detailed site-specific assessment of suitable SuDS techniques should be undertaken at site-specific level to understand which SuDS options are most appropriate. This may need to include infiltration testing to determine the suitability of infiltration methods.

Surface water risk and mitigation should be considered as part of a detailed site-specific FRA and surface water drainage strategy.

8.4 Use of SFRA data and future updates

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

The SFRA should be a ‘living document’, and as a result should be updated when new information on flood risk, flood warning, or new planning guidance or legislation becomes available. New information may be provided by Blaby District Council, Leicestershire

County Council as LLFA, the EA, and Severn Trent Water. Such information may be in the form of:

- New hydraulic modelling results.
- Flood event information following a future flood event.
- Policy or legislation updates.
- Updates to the EA flood mapping.
- New flood defence schemes or flood alleviation schemes.

The EA 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 FRA. Additional NaFRA2 surface water datasets including climate change allowances for the 2080s epoch were anticipated to be published in January 2026, however this has been delayed at time of writing. Developers should consult the Environment Agency to understand the status of any planned data releases, and ensure their assessments are based on the latest data.

It is recommended that the SFRA is reviewed in line with the EA's Flood Zone map updates to ensure latest data is still represented in the SFRA, allowing a cycle of review and a review of any updated data by checking with the above bodies for any new information.

Appendices

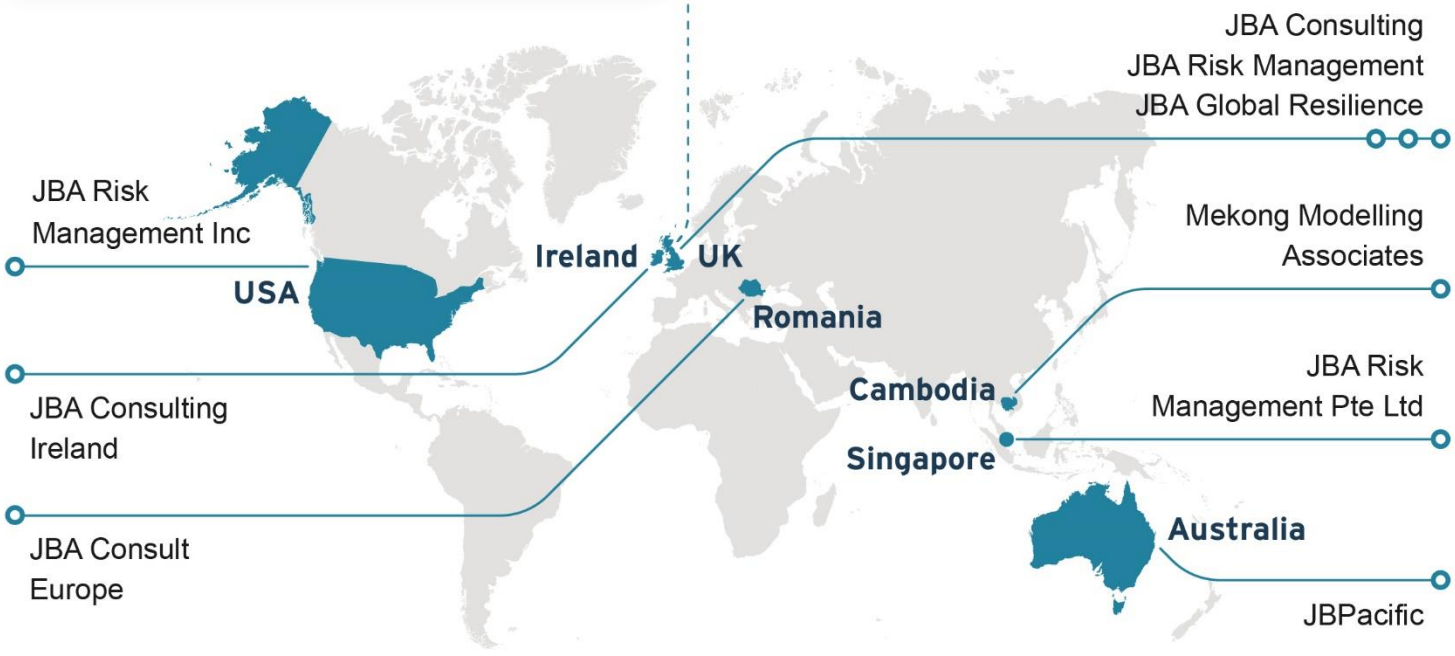
A Detailed site assessments

B GeoPDF mapping

www.jbaconsulting.com

Our Offices

Bristol
Coleshill
Cork
Doncaster
Dublin
Edinburgh
Exeter
Glasgow
Haywards Heath
Leeds
Limerick
Newcastle
Newport
Peterborough
Portsmouth
Saltaire
Skipton
Tadcaster
Thirsk
Wallingford
Warrington



Registered Office
1 Broughton Park
Old Lane North
Broughton
SKIPTON
North Yorkshire
BD23 3FD
United Kingdom

+44(0) 1756 799919
info@jbaconsulting.com
www.jbaconsulting.com

Follow us on

Jeremy Benn
Associates Limited
Registered in
England
3246693

JBA Group Ltd is
certified to
ISO 9001:2015
ISO 14001:2015
ISO 27001:2022
ISO 45001:2018