East Devon Level 2 Strategic Flood Risk Assessment

Final

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This report describes work commissioned by East Devon District Council, by an instruction dated 26th March 2024. The Client's representative for the contract was Linda Renshaw of East Devon District Council. Erica Godsland of JBA Consulting carried out this work.

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Abbreviations

2D	Two Dimensional (modelling)
AEP	Annual Exceedance Probability
AIMS	Asset Information Management System
BGS	British Geological Survey
CC	Climate Change
CIA	Cumulative Impact Assessment
EA	Environment Agency
FMfP	Flood Map For Planning
FRA	Flood Risk Assessment
FRISM	Flood Risk Metrics [JBA Consulting impact analysis software]
GIS	Geographical Information System
HM	Hydraulic Modelling
LLFA	Lead Local Flood Authority
NPPF	National Planning Policy Framework
PPG	Planning Policy Guidance
SFRA	Strategic Flood Risk Assessment

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 for East Devon District Council. It follows on from the East Devon Level 1 SFRA produced in 2024, and should be read in conjunction.

The primary purpose of the Level 2 SFRA is to provide an appropriate understanding of the level of actual risk affecting development included in the Local Plan Review. 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 East Devon District Council to apply the exception test to sites in accordance with the National Planning Policy Framework.

SFRA objectives

The Government's PPG on Flood Risk and Coastal Change advocates a tiered approach to risk assessment and identifies the Level 1 and Level 2 assessments.

The aim of the Level 2 assessment is to build on identified risks from Level 1 for proposed development sites, to provide a greater understanding of fluvial, surface water, groundwater, and reservoir related flooding risks to the sites. From this the Local Council and Developers can make more informed decisions and pursue development in an effective and efficient manner. The Level 2 assessment also identifies sites for further risk analysis at the site-specific Flood Risk Assessment (FRA) stage.

Level 2 SFRA outputs

The Level 2 assessment includes detailed assessments of the proposed site options. These include:

- An assessment of all sources of flooding including fluvial flooding, surface water flooding, groundwater flooding, and the potential increase in fluvial and surface water flood risk due to climate change.
- Reporting on conditions of flood defence infrastructure, where applicable.
- An assessment of existing flood warning and emergency planning procedures, including an assessment of safe access and egress during an extreme event.
- Advice and recommendations on the likely applicability of sustainable drainage systems for managing surface water runoff.
- Advice on whether the sites are likely to pass the second part of the Exception Test with regards to flood risk and on the requirements for a site-specific FRA.

Summary of the Level 2 SFRA

East Devon District Council provided 16 sites for further assessment. These sites were screened against flood risk datasets to assess the potential viability and provide flood risk recommendations.

Summary tables were prepared for all 16 sites and multiple sources of flood risk were assessed. Maps of extent, depth and velocity of flooding as well as hazard mapping have been produced where modelled outputs were available. The Risk of Flooding from Surface Water (RoFSW) mapping has also been used as an indication of flood risk for smaller watercourses where detailed modelling does not exist.

Each table sets out the National Planning Policy Framework (NPPF) requirements for the site, as well as guidance for site-specific FRAs. A broadscale assessment of suitable SuDS options has been provided to give an indication of potential constraints to surface water drainage and where additional information may be required.

1 Introduction

1.1 Level 2 SFRA Study Area

East Devon is located within the county of Devon and contains a number of Environment Agency Main Rivers including the River Axe, River Clyst, River Exe, River Otter and the River Sid. East Devon District covers an area of approximately 815km^2 and has a population of approximately 148,000[1].

1.2 Purpose of the Strategic Flood Risk Assessment

Paragraph 166 of the National Planning Policy Framework (NPPF) states that strategic policies should be informed by a Strategic Flood Risk Assessment (SFRA) 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 (EA) and other relevant flood risk management authorities, such as Lead Local Flood Authorities (LLFAs).

The Planning Practice Guidance (PPG) (2022) advocates a staged approach to risk assessment and identifies two levels of SFRA:

- Level 1 SFRA: 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. Level 1 is completed first to understand whether a Level 2 assessment is required.
- Level 2 SFRA: where land outside Flood Zones 2 and 3 cannot 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 and assessment of other sources of flooding.

This SFRA report fulfils the requirements for a Level 2 assessment of strategic sites identified for potential allocation within East Devon and has been prepared in accordance with the NPPF (2023) and PPG (2022).

This report should be read alongside the East Devon Level 1 SFRA (2024) and builds upon the information presented within the Level 1 SFRA.

1 Office for National Statistics (November 2021) Ward-level population estimates (Experimental Statistics) (Mid 2020)

1.3 Local Plan

East Devon District Council's Local Plan for 2013-2031 was adopted on 28th January 2016 and states how the district will develop in the future and provide policies to guide decisions on development proposals and planning applications over a 17-year period. Within the local plan it states that the majority of development will be focused towards the west end of East Devon.

It should be noted that the consultation on the East Devon Draft Local Plan 2020-2040 ran from Monday, November 7th 2022 until Sunday, January 15th 2023.

1.4 SFRA Objectives

The objectives of this Level 2 SFRA are to:

- Assess the flood risk to potential development sites using the latest available flood risk data and climate change uplifts where available;
- Provide information and mapping to show flood risk from all sources for each site option;
- Provide recommendations for making the site safe from flooding throughout its lifetime where the Exception Test is required;
- Take into account, as far as practically possible the most recent policy and legislation in the NPPF, PPG and LLFA SuDS guidance; and

1.5 Consultation

SFRAs should be prepared in consultation with other risk management authorities. The following parties (external to East Devon District Council) have been consulted during the preparation of this Level 2 SFRA:

- Devon County Council
- Environment Agency
- South West Water

1.6 How to use this Report

Table 1-1 SFRA User Guide

Section	Contents	How to use
1. Introduction	Outlines the purpose and objectives of the Level 2 SFRA.	For general information and context.
2. The Planning Framework and Planning Policy for Flood Risk Management	Provides an overview of both national and existing Local Plan policy on flood risk management. This includes the application of the Sequential Approach and Sequential/Exception Test process. Provides guidance for the Council and Developers on the application of the Sequential and Exception Test at allocation and planning application stages.	Users should use this section to understand and follow the steps required for the Sequential and Exception Tests.
3. Level 2 Strategic Flood Risk Assessment	Highlights the data used within the Level 2 assessment including Flood Zones, fluvial and surface water data, groundwater, historic flooding etc.	For information on the data sources used within the Level 2 assessment.
4. Level 2 Site Assessments	Details the approach taken to the site screening and scoping exercise and highlights the key points from the 16 Level 2 site sheets.	Developers and planners should use this section to provide an overview of the 16 sites and their requirements for development.
5. Summary	Summarises the results and conclusions of the Level 2 assessment and makes recommendations for planning policy and development.	Developers and planners should use this section to provide an overview of the Level 2 assessment.

Section	Contents	How to use
Appendices A - Site Assessment Summary Tables B - Axminster Hydraulic Modelling Report C - Sites not taken forwards for a Level 2 assessment D - Level 2 SFRA Site Screening	Detailed assessment of the risk to specific sites identified by East Devon District Council and likely actions required to bring the site forward under the Sequential/Exception Tests. Appendix B also details the hydraulic modelling report for the Axminster model developed for Axmi_07.	Developers and planners should use this section to provide an overview of the risk to specific sites.

Hyperlinks to external guidance documents/websites are provided throughout the SFRA.

2 The Planning Framework and Planning Policy for Flood Risk Management

The Flood Risk Management roles and responsibilities for different organisations and relevant legislation, policy and strategy are detailed within the East Devon District Council Level 1 Strategic Flood Risk Assessment (2024).

This contains detail on:

- Flood risk policy and strategy
- Roles and responsibilities for Flood Risk Management in East Devon
- Relevant legislation
- Relevant Flood Risk Policy and Strategy Documents
- Key legislation for flood and water management
- Key national, regional and local policy documents and strategies

2.1 National Planning Policy Framework and Guidance

The Revised National Planning Policy Framework (NPPF) was updated in December 2023. The NPPF sets out Government's planning policies for England and how these are expected to be applied. The Framework is based on core principles of sustainability and forms the national policy framework in England, also accompanied by a number of Planning Practice Guidance (PPG) notes. It must be taken into account in the preparation of local plans and is a material consideration in planning decisions. Further details regarding the NPPF can be found in the Level 1 SFRA.

2.1.1 Planning Practice Guidance (PPG)

An updated version of the PPG guidance was published in August 2022. This advises on 'how to take account of and address the risks associated with flooding and coastal change in the planning process'. The guidance outlines the steps required when preparing strategic policies. Further details regarding the PPG can be found in the Level 1 SFRA.

2.1.2 The Sequential Test

The Sequential Test aims to ensure that areas at lower risk of flooding are prioritised for development over areas at a higher risk of flooding. This means areas at a medium or high risk of flooding from any source, now or in the future, should be avoided for development where possible.

2.1.3 The Exception Test

It may not always be possible for all new development to be allocated on land that is not at risk from flooding. To further inform whether land should be allocated, or planning permission granted, a greater understanding of the scale and nature of the flood risks is required. In these instances, the Exception Test will be required.

The Exception Test should only be applied following the application of the Sequential Test. It applies in the following instances, where it is not possible for development to be located in areas with a lower risk of flooding:

- More vulnerable development in Flood Zone 3a;
- Essential infrastructure in Flood Zone 3a or 3b;
- Highly vulnerable development in Flood Zone 2 (this is NOT permitted in Flood Zone 3a or 3b); and/or
- Locations where surface, groundwater, sewer or reservoir flood risk materially affect the safety of proposed development or where development proposals potentially affect existing land or property.

For information on what types of development constitute more vulnerable, essential infrastructure and highly vulnerable refer to Annex 3 of the NPPF.

The information included in this Level 2 SFRA will provide sufficient information to inform the application of the Exception Test.

For sites allocated within the Local Plan, the Local Planning Authority should use the information in this SFRA to inform the Exception Test. At planning application stage, the Developer must design the site such that it is appropriately flood resistant and resilient in line with the recommendations in National and Local Planning Policy and supporting guidance and those set out in this SFRA. This should demonstrate that the site will still pass the flood risk element of the Exception Test based on the detailed site level analysis.

For developments that have not been allocated in the Local Plan, developers must undertake the Exception Test and present this information to the Local Planning Authority for approval. The Level 2 SFRA can be used to scope the flooding issues that a site-specific FRA should investigate in more detail to inform the Exception Test for windfall sites.

3 Level 2 Strategic Flood Risk Assessment

This section highlights all the datasets used in the Level 2 SFRA to assess the local plan sites against flood risk.

3.1 Historic Flooding

The Environment Agency's 'Recorded Flood Outlines' dataset has been used to understand whether historic flooding has been recorded at the sites. This dataset takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding.

Devon County Council's Flood Incident Database has also been reviewed. As specified in the Level 1 SFRA, there is a history of documented flood events within the district, with the main sources recorded as being fluvial, surface water and sewer flooding.

Furthermore, South West Water's Sewer Flooding dataset was assessed and any events within the same postcode location were identified for each site. Developers should contact South West Water for further information on the risk of sewer flooding to the sites.

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.

3.2 Flood Zones

As part of the Level 1 SFRA, existing fluvial modelling was incorporated into the SFRA Flood Zone 3b dataset. The models were then re-run with additional climate change allowances. At the time of writing this is considered more up-to-date than the Flood Map for Planning, however over time the online Flood Map for Planning is likely to be updated more often than the SFRA.

It is important to note that the Flood Map for Planning does not identify the functional floodplain (Flood Zone 3b) and the SFRA Flood Zones will remain the best available data for identifying this. In locations where there is no detailed modelling available, as part of the Level 1 SFRA, a precautionary approach was adopted by considering the maximum extent of Flood Zone 3a as an 'indicative' Flood Zone 3b. In these locations, detailed modelling will be required to identify the extent of the functional floodplain.

The Flood Map for Planning does not include allowances for climate change, therefore if detailed fluvial modelling was not available the Risk of Flooding from Surface Water plus Climate Change dataset has been assessed.

In places where no detailed modelling is available, Flood Zones are based off national scale generalised mapping prepared by the Environment Agency in 2011. This is the 'best

available data' at the time this SFRA was prepared, although may not provide a comprehensive understanding of flood risk. As a result, detailed hydraulic modelling work may be required to inform development at certain locations, where appropriate. National generalised modelling is due to be superseded by the National Flood Risk Assessment 2 (NaFRA2) evidence assessment which is currently being undertaken by the Environment Agency.

Further details on the Flood Zones can be found within the Level 1 Strategic Flood Risk Assessment.

3.3 Flood defences

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.

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

3.4 Flooding from rivers

Fluvial flood risk is notable throughout the district, particularly along the River Axe, River Clyst, River Exe, River Otter and the River Sid. Several other smaller watercourses also located in the district and have the potential to pose significant flood risk to development.

3.4.1 Impacts of climate change on fluvial flood risk

Climate change is expected to increase the peak flows of rivers, meaning that flows which were previously thought to be extreme will now be considered far more possible. Areas benefiting from flood defences will find the standard of protection changes over time with overtopping of defences more likely unless they are upgraded.

Peak river flow climate change allowances developed by the Environment Agency are divided into a series of Management Catchments. The details of the East Devon Management Catchment are shown below in Table 3-1.

Table 3-1 East Devon Management Catchment peak river flow climate change allowances

Allowance category	Total potential change anticipated for '2020s' (2015-2039)	Total potential change anticipated for '2050s' (2040-2069)	Total potential change anticipated for '2080s' (2061-2115)
Upper	34%	55%	96%
Higher	22%	33%	61%
Central	16%	24%	46%

3.4.2 River Axe Fluvial Modelling

The River Axe Flood Risk modelling was provided by the Environment Agency as part of the Level 1 SFRA for East Devon. The model was developed in 2014 by Mott MacDonald for the Environment Agency . The model was then run by JBA Consulting in 2023 for the Level 1 SFRA for the 3.3%, 1% and 0.1% AEP events with the 46% and 61% climate change allowances applied.

This modelling was used within the GH_ED_80a site summary sheet.

3.4.3 Axminster Carpets Fluvial Modelling

The Axminster Carpets Flood Modelling was developed by JBA Consulting in 2024 for the Level 2 SFRA assessment for East Devon District Council for the Axmi_07 site summary sheet. The model was run to include the 3.3%, 1% and 0.1% AEP events and the 46% and 61% climate change allowances. For more information see Appendix B.

3.5 Flooding from the sea

Tidal flood risk was assessed across the district using the Flood Map for Planning Flood Zones and tidal climate change model runs from the Level 1 SFRA. It should be noted that all of the 16 sites assessed in this Level 2 SFRA are located outside of the tidal flood extent and are therefore not at risk of flooding from the sea.

3.5.1 Impacts of climate change on tidal flood risk

The influence of the change to mean sea level as a consequence of climate change effects is particularly important for coastal areas and the lower reaches of watercourses, as this will contribute significantly to the height of predicted flood water levels. The predicted change in mean sea levels will also potentially have a material effect on the performance of local drainage systems at coastal locations since the discharge rates and ‘emptying times’ will be reduced.

The Environment Agency’s sea level allowances are divided per River Basin District, only one of which covers the district's coastline. Climate change allowances for the South West River Basin District are displayed in Table 3-2.

Table 3-2: Peak sea level allowances for the South West (1981 to 2000 baseline)

Allowance category	Annual sea level rise allowance 2000 to 2035	Annual sea level rise allowance 2036 to 2065	Annual sea level rise allowance 2066 to 2095	Annual sea level rise allowance 2096 to 2125	Cumulative rise 2000 to 2125
Higher Central	203mm	264mm	351mm	393mm	1.21m
Upper End	245mm	342mm	480mm	552mm	1.62m

3.6 Surface water flooding

Mapping of surface water flood risk in East Devon District has been taken from the Environment Agency's Risk of Flooding from Surface Water (RoFSW) mapping. Surface water flood risk is subdivided into the following four categories:

- **High**: An area has a chance of flooding greater than 3.3% AEP (1 in 30-year) each year.
- **Medium**: An area has a chance of flooding between 1% AEP (1 in 100-year) and 3.3% AEP (1 in 30-year) each year.
- **Low**: An area has a chance of flooding between 0.1% AEP (1 in 1,000-year) and 1% AEP (1 in 100-year) each year.
- **Very Low**: An area has a chance of flooding of less than 0.1% AEP (1 in 1,000-year) each year.

The results should be used for high-level assessments. If a particular site is indicated in the Environment Agency mapping to be at risk from surface water flooding, a more detailed assessment should be required to illustrate the flood risk more accurately at a site-specific scale. Such an assessment should use the RoFSW in partnership with other sources of local flooding information to confirm the presence of a surface water risk at that particular location.

Detailed modelling based on site survey will be necessary where there is a significant risk of surface water flooding. It is the intention that the Environment Agency will prepare updated and improved surface water mapping while updating the National Flood Risk Assessment through NaFRA2. At the time of writing, it is anticipated that this data will be available in 2025 and at that time it is recommended that the surface water risk assessment is reviewed. It is not anticipated that the updated mapping will fundamentally change the locations identified to be at risk from surface water flooding, but the improved analysis techniques will reduce some of the uncertainties associated with the assessment.

3.6.1 Impact of climate change on surface water flooding

Climate change is predicted to result in wetter winters and increased summer storm intensity in the future. This increased rainfall intensity will affect land and urban drainage systems, resulting in surface water flooding, due to the increased volume of water entering the systems. The potential impacts of surface water plus climate change will likely need to be considered at site-specific assessment stage.

Peak rainfall climate change allowances developed by the Environment Agency are divided into the same Management Catchments as peak river flows. The details of the East Devon Management Catchment are shown below in Table 3-3.

For more information on which climate change allowances should be used please refer to the Level 1 SFRA. As Risk of Flooding from Surface Water data with a 65% climate change uplift was already available this has been used as the best available data for the 3.3%, 1% and 0.1% AEPs as part of the Level 2 SFRA.

Table 3-3 East Devon Management Catchment peak rainfall climate change allowances

AEP	Allowance	Total potential change anticipated for '2050s' (up to 2060)	Total potential change anticipated for '2070s' (2061-2125)
3.3%	Central	20%	25%
3.3%	Upper End	35%	40%
1%	Central	25%	30%
1%	Upper End	40%	45%

3.7 Groundwater flooding

In comparison to fluvial flooding, current understanding of the risks posed by groundwater flooding is limited and mapping of flood risk from groundwater sources is in its infancy. Groundwater level monitoring records are available for areas on Major Aquifers; however, for lower lying valley areas, which can be susceptible to groundwater flooding caused by a high-water table in mudstones, clays, and superficial alluvial deposits, very few records are available. Additionally, there is an increased risk of groundwater flooding where long reaches of watercourse are culverted as a result of elevated groundwater levels not being able to naturally pass into watercourses and be conveyed to less susceptible areas.

To assess groundwater flooding emergence within East Devon District, the Groundwater Flood Data 5m Resolution (JBA licensed product) has been provided by JBA. The Groundwater Flood Data shows areas of potential groundwater emergence during a 1% AEP flood event, and highlights areas where there is sufficient evidence to suggest that flooding may occur. This data cannot form part of the Sequential Test as it is not directly comparable to other datasets (e.g. Flood Zones), and therefore cannot categorise an area as high, medium or low risk on its own. The map should be interpreted as an initial indicative tool to assess groundwater flood risk at preliminary stages of planning/site allocation. Where mapping indicates a risk of groundwater flooding a detailed assessment should be undertaken to confirm the risk to the site as part of any planning application, which may require ground investigations.

The Groundwater Flood data categorises into 5 different classes, with a detailed description of the classes in Table 3-4 below. For more information, please refer to the Level 1 SFRA and the Level 2 site assessments.

Table 3-4: JBA Groundwater Flood data classifications

Risk Class	Depth range	Description
0	>5m	The zone is deemed as a having negligible risk from groundwater flooding due to the nature or local geological deposits
1	At least 5m	Flooding from groundwater is unlikely
2	Between 5m and 0.5m	Risk of flooding to subsurface assets but surface manifestation is unlikely
3	Between 0.5m and 0.0025m	Risk of groundwater flooding to both surface and subsurface assets. Groundwater may emerge locally<0.0
4	<0.025m	Risk of groundwater flooding to surface and subsurface assets. Groundwater may emerge at significant rates and gas the capacity to flow overland and/or pond within any topographic low spots

3.7.1 Impact of climate change on groundwater flooding

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.

3.8 Reservoirs

The risk of inundation as a result of reservoir breach or failure of a number of reservoirs within the area has been identified from the Environment Agency's Reservoir Flood Extents dataset.

The Environment Agency Reservoir Flood Extents data consists of flood extents for two scenarios; a "dry-day" and "wet-day". 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. Note: only for those reservoirs with an impounded volume greater than 25,000 cubic metres are governed by the Reservoir Act 1975.

Five sites were assessed to be at residual risk of flooding from reservoirs included in the Environment Agency mapping, however none of these the sites were taken forwards for a site-specific Level 2 assessment, due to limited surface water, fluvial or tidal flooding.

3.9 Sewer Flooding

3.9.1 Data used to inform sewer flooding

South West Water's Sewer Flooding dataset was assessed and any events within the same postcode location were identified for each site. Developers should contact South West Water for further information on the risk of sewer flooding to the sites.

3.10 Residual risk

The residual flood risk to sites is identified as where potential blockages or overtopping / breach of defences could result in the inundation of a site, with the sudden release of water with little warning.

Residual risk from breaches to flood defences, whilst rare, needs to be considered in Flood Risk Assessments. Considerations include the location of a breach, when it would occur and for how long, the depth of the breach (toe level), the loadings on the defence and the

potential for multiple breaches. There are currently no national standards for breach assessments and there are various ways of assessing breaches using hydraulic modelling. Work is currently being undertaken by the Environment Agency to collate and standardise these methodologies.

None of the sites taken forwards to Level 2 were identified as defended.

However, the potential of a culvert blockage scenario has been assessed within the Axminster Carpets Model JBA have created for Axmi_07.

3.11 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 during the defended fluvial 1% AEP plus climate change flood event. This assessment is made to help inform the Exception Test.

Where detailed model outputs were available, the 1% AEP plus climate change depth, velocity and hazard data has been used. This data is only present where models have a 2D element, representing the floodplain in detail.

In the absence of detailed hydraulic models, the Risk of Flooding from Rivers and Sea dataset has been used, as well as the Risk of Flooding from Surface Water datasets. The depth, hazard, and velocity of the 1% AEP surface water flood event has also been mapped and considered in this assessment.

Hazard to people has been calculated using the below formula, as suggested in Defra's FD2321/TR2 "Flood Risk to People". The different hazard categories are shown in Table 3-5. Developers should also test the impact of climate change depths, velocities, and hazard on the site, as part of the site-specific Flood Risk Assessment.

Table 3-5: Defra FD2321/TR2 Flood Risks to People classifications

Description of Flood Hazard Rating	Flood Hazard Rating	Classification Explanation
Very Low Hazard	< 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.

As part of a site-specific FRA, developers may need to undertake more detailed hydrological and hydraulic assessments of the watercourses to verify flood depth, velocity and hazard based on the relevant 1% AEP plus climate change event, using the relevant climate change allowance based on the type of development and its associated vulnerability classification. Not all this information is known at the strategic scale.

3.12 Duration and onset of flooding

The duration and onset of flooding affecting a site depends on a number of factors, such as:

- The position of the site within a river / surface water catchment, with those at the top of a catchment likely to flood sooner than those lower down. The duration of flooding tends to be longer for areas in lower catchments.
- Upstream reservoirs in these catchments will provide some online flood storage that reduce the flood risk downstream and delays the onset of flooding. 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. Tributaries with small catchment areas will respond faster and result in flashier storm hydrographs than those of a larger Main River.
- 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 tidal level will also control the duration and onset of flooding where fluvial-tidal interactions affect flood levels in East Devon.
- 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, for example chalk catchments take longer to respond than typical clay catchments.

It is recommended that a site-specific Flood Risk Assessment refines this information, based on more detailed modelling work where necessary.
It is not always possible to extract information on the duration and onset of flooding from detailed modelling, and information is not available where there is no detailed modelling available. Where sites are at risk of flooding, the duration and onset of flooding should be assessed within an emergency response plan.

3.13 SuDS suitability

The hydraulic and geological characteristics of each site have been assessed to determine constraints relating to 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.

The assessment is based on catchment characteristics, British Geological Survey (BGS) mapping. LIDAR data was used as a basis for determining the topography and average

slopes across each development site. Other datasets were used to determine factors such as potential water quality and flood constraints, including:

- Historic landfill sites
- Groundwater Source Protection Zones
- Nitrate Vulnerable Zones
- Detailed River Networks
- Risk of Flooding from Surface Water mapping
- Flood Map for Planning

SuDS in the East Devon District should be designed in accordance with Devon County Councils SuDS Guidance.

The Surface Water Management roles and responsibilities for different organisations and relevant legislation, policy and strategy are detailed within the East Devon Level 1 Strategic Flood Risk Assessment (Section 9) (2024).

This contains detail on:

- Role of the LLFA and Local Planning Authority in surface water management
- Sustainable Drainage Systems (SuDS)
- Sources of SuDS guidance
- Other surface water considerations: Groundwater Vulnerability Zones; Groundwater Source Protection Zones; Nitrate Vulnerable Zones

3.14 Critical Drainage Areas

Each site has been assessed using the Critical Drainage Areas (CDAs) dataset and those sites within a CDA have been noted within the site screening process. It is important to note that any sites within a CDA have to meeting certain criteria and the Devon District Council website states that:

‘All new development will have to play their part in reducing current rainfall runoff rates. The SuDS hierarchy should be followed, by using infiltration as far as is practicable.

All off-site surface water discharges from development should mimic “Greenfield” performance up to a maximum 1 in 10-year discharge rate.

On-site all surface water should be safely managed up to the “1 in 100-year +climate change” conditions. This will require additional water storage areas to be created thereby contributing to a reduction in flooding downstream.’

It is therefore important that any sites within a CDA are assessment accordingly and the LLFA and the EA are consulted early with regards to the development site.

3.15 Coastal Change Management Areas

The sites locations within a Coastal Change Management Area was also assessed and those sites within a CCMA have been noted within the site screening process.

It should be noted than none of the 16 sites taken forwards to Level 2 were located within a CCMA and is therefore not discussed further.

3.16 Emergency Planning

3.16.1 Data used to Inform Emergency Planning

Flood Warning and Flood Alert Areas are detailed in the Environment Agency's GIS Datasets. Flood Alert Areas inform the Environment Agency when there is flooding first in the catchment, irrespective of properties, hence this coverage tends to apply to whole watercourses or stretch of coastline. Flood Warning Areas are derived from the extreme flood outline (0.1% AEP event), focussed on communities, properties and/or infrastructure. Areas covered by this would receive a Flood Warning in advance of flooding.

Modelled depth, velocity and hazard data can be used to understand safe access and egress around each site.

For more information about Flood Warning and Alert areas please refer to the Level 1 SFRA report.

4 Level 2 Site Assessments

4.1 Approach taken to the site screening and scoping exercise

JBA Consulting have recently undertaken the Level 1 Strategic Flood Risk Assessment (SFRA) for East Devon District Council. Following this work, a number of sites have been identified by East Devon District Council as potentially requiring a Level 2 SFRA.

In order to provide guidance on which of these sites should be taken forward to a Level 2 SFRA, JBA Consulting have undertaken a Level 2 scoping exercise.

This section outlines how sites were screened against flood risk datasets to determine which sites were taken forwards for a Level 2 assessment.

4.2 Site screening

East Devon District Council provided 149 sites for assessment as part of the Level 2 SFRA. These sites were screened against a suite of available flood risk information and spatial data to provide a summary of risk to each site, including:

- The proportion of the site within Flood Zones or fluvial/tidal modelling data (including an allowance for climate change) derived from the Level 1 SFRA.
- Whether the site is shown to be at risk from surface water flooding in the Risk of Flooding from Surface Water (RoFSW) dataset including an allowance for climate change.
- The proportion of the site in the reservoir 'wet' and 'dry' day extents.

The screening was undertaken using JBA's in-house software called 'FRISM'. FRISM is an internal JBA GIS package that computes a range of flood risk metrics based on flood and receptor datasets.

The results of the screening provide a quick and efficient way of identifying sites that are likely to require a Level 2 Assessment, assisting East Devon 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 be shown to be entirely in Flood Zone 1, but upon visual inspection in GIS, have an ordinary watercourse flowing through or adjacent to them but for which no Flood Zone information is currently available. Note: 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.

The Flood Zones are not provided for specific sites or land where the catchment of the watercourse falls below 3km^2. 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 dataset has been used in these cases because this provides a reasonable representation of the floodplain of such watercourses to use for a strategic assessment.

4.3 Sites taken forward to a Level 2 assessment

A spreadsheet was formulated taking into account the 149 sites assessing their flood risk from fluvial, tidal and surface water flooding extents. Sites were taken forwards if greater than 10% of the site area was within the following flood extents:

- Surface water 1% Annual Exceedance Probability (AEP) +65% climate change
- Flood Zone 2 as a proxy for climate change
- 0.5% AEP Tidal upper end allowance from detailed modelling
- 1% AEP Fluvial central allowance from detailed modelling

The reservoir and historical flood risk were also considered for each site, along with location within flood warnings/alerts, defences and previous hydraulic models. Access and egress were then also assessed for each site, identifying depths locally above and below 300mm within the surface water plus climate change flooding extent.

Out of the 149 sites, 35 sites were identified as potentially needing a Level 2 assessment.

Consideration was also given to each site to identify any site-specific information; for example, where detailed modelling is needed, or if the RoFSW dataset can be used to assess flood risk.

Following a discussion with East Devon District Council seven sites were then removed due to significant flood risk. The boundaries of several sites were also amended, to remove areas at risk of flooding, so a Level 2 was no longer required, and several other sites were not taken forward by EDDC.

Therefore, out of the 149 sites provided by East Devon District Council, 16 sites have been identified to be carried forward to a Level 2 assessment. These 16 sites are summarised below in and site summary sheets provided in Appendix A.

Site Name	Key points/constraints
Axmi_07	Access and egress affected and should be assessed within a site-specific FRA. 31% located within surface water flood risk during the 0.1% AEP extent and 50% within 0.1% AEP plus 65% climate change. 32% located within the modelled fluvial flood risk during the 0.1% AEP extent and 35% within 0.1% AEP plus 65% climate change. The site is partially located within Flood Zone 2 and 3. The model report is included within Appendix B. The site has one identified sewer event in 2012.

Site Name	Key points/constraints
	No identified reservoir or tidal flood risk and no flood warnings, however, the site is located within a flood alert area. The site is not located within a CDA, Groundwater SPZ and NVZ.
Feni_07	Available access and egress with depths up to 0.22m in Broad Road. 15% located within surface water flood risk during the 0.1% AEP extent and 25% within 0.1% AEP plus 65% climate change. No identified sewer, reservoir, tidal, fluvial flood risk. No flood warnings or alerts. Site located within a CDA, Groundwater SPZ and NVZ, aswell as the Feniton Flood Alleviation Scheme.
Kilm_10	Access and egress affected and should be assessed within a site-specific FRA. 18% located within surface water flood risk during the 0.1% AEP extent and 36% within 0.1% AEP plus 65% climate change. No identified sewer, reservoir, tidal, fluvial flood risk. No flood warnings or alerts. The site is not located within a CDA, Groundwater SPZ and NVZ.
Musb_01a	Access and egress affected and should be assessed within a site-specific FRA. 21% located within surface water flood risk during the 0.1% AEP extent and 41% within 0.1% AEP plus 65% climate change. A small corner to the northeast of the site is located within Flood Zone 2 and 3. No identified sewer, reservoir or tidal flood risk. No flood warnings, however, the site is located within a flood alert area. The site is not located within a CDA, Groundwater SPZ and NVZ.
Otry_10	Access and egress is available with depths up to 0.07m along Strawberry Lane in the 1% AEP plus climate change surface water modelling. 9% located within surface water flood risk during the 0.1% AEP extent and 13% within 0.1% AEP plus 65% climate change. The site is partially located within Flood Zone 2 and 3. No identified sewer, reservoir or tidal flood risk.

Site Name	Key points/constraints
	The site is located within an NVZ, and an area of flood warning and alerts. The site is not located within a CDA and Groundwater SPZ.
GH/ED/27	Access and egress is likely to be possible with depths up to 0.07m along Strawberry Lane in the 1% AEP plus climate change surface water modelling. 12% located within surface water flood risk during the 0.1% AEP extent and 14% within 0.1% AEP plus 65% climate change. The site is partially located within Flood Zone 2 and 3 No identified sewer, reservoir or tidal flood risk. The site is located within a NVZ, and an area of flood warning and alerts. The site is not located within a CDA and Groundwater SPZ.
Whim_11	Access and egress is likely possible with depths predominantly less than 0.3m. 12% located within surface water flood risk during the 0.1% AEP extent and 20% within 0.1% AEP plus 65% climate change. The site is partially located within Flood Zone 2 and 3. No identified sewer, reservoir or tidal flood risk, and is not located within a Groundwater SPZ and NVZ. The site is located within a CDA and an area of flood alerts.
GH/ED/80a	Access and egress is likely to be possible with depths of up to 0.21m along Sector Lane in the 1% AEP plus climate change surface water modelling. 8% located within fluvial flood risk during the 0.1% AEP extent, and 9% within 0.1% AEP plus 65% climate change. 14% located within surface water flood risk during the 0.1% AEP extent and 22% within 0.1% AEP plus 65% climate change. The site is partially located within Flood Zone 2 and 3. No identified sewer, reservoir or tidal flood risk, and is not located within a Groundwater SPZ and NVZ. The site is located within a CDA and an area of flood alerts.
Airp01	Available access and egress with depths up to 0.17m in Long Lane.

Site Name	Key points/constraints
	14% located within surface water flood risk during the 0.1% AEP extent and 18% within 0.1% AEP plus 65% climate change. No identified sewer, reservoir, tidal, fluvial flood risk and is not located within a CDA, Groundwater SPZ or area of flood warning or alerts. The site is identified to be within a NVZ.
Exmo_50	Available access and egress with depths up to 0.3m along Clarence Road. 20% located within surface water flood risk during the 0.1% AEP extent and 38% within 0.1% AEP plus 65% climate change. No identified sewer, reservoir, tidal or fluvial flood risk and is not located within an area of flood warning and alerts, CDA or Groundwater SPZ. The site is located within a NVZ.
Axmi_17	Available access and egress with depths up to 0.07m along the A358. 14% located within surface water flood risk during the 0.1% AEP extent and 34% within 0.1% AEP plus 65% climate change. The site is partially located within Flood Zone 2 and 3. No identified sewer, reservoir or tidal flood risk and is not located within an area of flood warning and alerts, CDA, NVZ or Groundwater SPZ. The site is located within the FMfP.
Brcl_31	Access and egress is likely to be possible with depths up to 0.34m in Long Lane. 10% located within surface water flood risk during the 0.1% AEP extent and 17% within 0.1% AEP plus 65% climate change. The site is partially located within Flood Zone 2 and 3. No identified sewer, reservoir or tidal flood risk and is not located within a CDA and Groundwater SPZ. The site is identified to be within a NVZ and an area of flood warning and alerts.
Coly_06	Access and egress is likely to be possible with depths up to 0.32m in a small, localised area on the B3161 to the west of the site shown in the 1% AEP plus climate change surface water modelling.

Site Name	Key points/constraints
	17% located within surface water flood risk during the 0.1% AEP extent and 56% within 0.1% AEP plus 65% climate change. The site is located within Flood Zone 2 and 3. No identified sewer, reservoir or tidal flood risk and is not located within a CDA, Groundwater SPZ or NVZ. The site is identified to be within an area of flood warning and alerts.
GH/ED/43	Available access and egress with depths up to 0.22m along Long Lane. 17% located within surface water flood risk during the 0.1% AEP extent and 26% within 0.1% AEP plus 65% climate change. No identified sewer, reservoir, tidal or fluvial flood risk and is not located within an area of flood warning and alerts, CDA or Groundwater SPZ. The site is located within a NVZ.
Clge 23	Flood free access and egress along Topsham Road. 27% located within surface water flood risk during the 0.1% AEP extent and 60% within 0.1% AEP plus 65% climate change. No identified sewer, reservoir, tidal or fluvial flood risk and is not located within an area of flood warning and alerts, CDA or Groundwater SPZ. The site is located within a NVZ.
Farr 01	Flood free access and egress along the B3184. 11% located within surface water flood risk during the 0.1% AEP extent and 24% within 0.1% AEP plus 65% climate change. No identified sewer, reservoir, tidal or fluvial flood risk and is not located within an area of flood warning and alerts, CDA or Groundwater SPZ. The site is located within a NVZ.

4.4 Sites not taken forward to a Level 2 assessment

The sites shown in Appendix C were not identified as requiring a Level 2 assessment, however some restraints may still apply. It is therefore critical that each site is assessed with access and egress, if a site is in a CDA, groundwater flood risk, reservoir flood risk etc to prepare the necessary documentation (for example a Flood Response Plan) and gain the

appropriate advice. For example, it would be recommended that sites at risk of reservoir flooding contact the local reservoir owners.

Access and egress for the sites not taken forwards to a Level 2 assessment should still be considered and investigated prior to any development. Sites that have not been identified to have safe access and egress have flood depths greater than 300mm and are shown within Appendix C. These sites can still be allocated but should be assessed as part of an individual site-specific assessment and should have a Flood Response Plan produced to further consider access and egress on a site-specific basis. Residents should sign up to Flood Warnings and Alerts where these are available. Please refer to Paragraph: 047 (Reference ID: 7-047-20220825) of the Flood and Coastal Change section of the PPG for further details on access and egress.

4.5 Cumulative Impact Assessment (CIA)

When allocating land for development, consideration should be given to the potential cumulative impact of the loss of floodplain storage volume and potential effects of increased volumes of runoff from proposed development. Whilst the loss of storage or potential increase in flow volume for individual developments may only have minimal impact on flood risk, the cumulative effect of multiple developments may be more severe.

Future development sites within the study area were provided by East Devon District Council. Predicted flood risk was assessed in the Level 1 SFRA using a variety of datasets and the catchments were then ranked to allow the categorisation of the catchment dependent on the sensitivity of the catchment to proposed levels of growth, historic flood risk and properties sensitive to growth. For more details on the CIA and catchment rankings please refer to Section 7 of the Level 1 SFRA report.

5 Summary

5.1 Overview

This Level 2 SFRA delivers site specific guidance and recommendations for sites in the East Devon District. As part of the Level 2 SFRA 16 detailed site summary tables have been produced. The Level 2 SFRA should be read in conjunction with the Level 1 SFRA which deliver a strategic assessment of all sources of flooding in the area.

5.2 Recommendations

5.2.1 Level 1 SFRA

Recommendations from this report should be considered in addition to recommendations from the Level 1 SFRA, which still stands for the site allocations and any windfall development that comes forwards. Recommendations in the Level 1 SFRA were made regarding (but not limited to):

- Locating new development according to the Sequential and Exception Test requirements, including adopting a sequential approach within the site.
- Consider long-term opportunities to remove development from the floodplain and to make space for water.
- Where there is an unknown risk from an ordinary watercourse, risk should be adequately assessed. This could include modelling the watercourse should the potential risk be found to be high.
- Ensure development has safe, dry pedestrian egress and emergency vehicular access should be possible for all residential development.
- Considering flood resilience measures for new development.
- SuDS design should demonstrate how site-specific constraints have been considered and how the design provides multiple benefits.
- Seeking opportunities for betterment where possible, where surface water flooding issues are present.

5.2.2 Level 2 SFRA

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.

In principle, it is possible for the majority of sites to pass the flood risk element of the Exception Test by:

- Siting development within the site away from the highest areas of risk.

- Considering safe access/ egress 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 egress is affected a Flood Response Plan may be required.
- Finished floor levels should be above the estimated flood level (Fluvial 1% AEP event with an allowance for climate change or tidal 0.5% 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).
- Considering space for green infrastructure in the areas of highest flood risk.

Redevelopment of brownfield sites should look to reduce and help manage flood risk by including activities such as daylighting culverts, reinstating floodplain and flood corridors.

Watercourses (as defined within the 1991 Land Drainage Act), including 'Main' rivers and their associated floodplains, should be allocated as dedicated areas of public open space and not allocated for gardens or forecourts/parking.

Some sites are at greater risk and will require careful consideration and mitigation to pass the flood risk element of the Exception Test.

Consideration should be given to the surface water risk where this is high, with regards to the Exception Test. For example, a site may pass the test based on fluvial flood risk alone, but greater risk may come from surface water.

If a settlement 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.

In some cases, and following the application of the Sequential Test, it may be appropriate for the developer to contribute to the improvement of maintenance and provision of flood risk management assets, flood warning and the reduction of surface water flooding (i.e. SuDS).
Developers should, where required, undertake more detailed hydrological and hydraulic assessments of the watercourses, including latest climate change allowances, to verify flood extent in order to inform the sequential approach within the site and demonstrate, as required, that the Exception Test is satisfied.

As set out in paragraph 167 of the NPPF, developers should use opportunities provided by new development and improvements in green and other infrastructure to reduce the causes and impacts of flooding (making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management).

As set out in paragraph ID 7-037-20220825 of the PPG, developers should identify opportunities to reduce flood risks overall by incorporating green infrastructure within the form and layout of development to make additional space for the flow and storage of flood water.

5.3 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. Additional guidance should be sought from Devon County Council, the Environment Agency and South West Water where relevant to ensure the most up to date information is considered within any new assessments. Such information may be in the form of:

- Policy/ legislation updates
- Flood event information following a flood event
- New hydraulic modelling results
- Environment Agency flood map updates
- New flood defence or alleviation schemes

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.

5.4 Neighbourhood Plans

Flood risk should be fully addressed in development plan preparation and in bringing forward policies for the allocation of land. Therefore, SFRA findings should be used in the production of Neighbourhood Plans.

Neighbourhood planners can use the information in the Level 1 and Level 2 SFRAs on the sources of flood risk across East Devon and the flood risk mapping, to assess the risk of flooding to sites within their community. The SFRA will also be helpful for developing community level flood risk policies in high flood risk areas.

A Site Assessment Summary Tables

B Axminster Hydraulic Modelling Report

C Sites not taken forwards for a Level 2 assessment

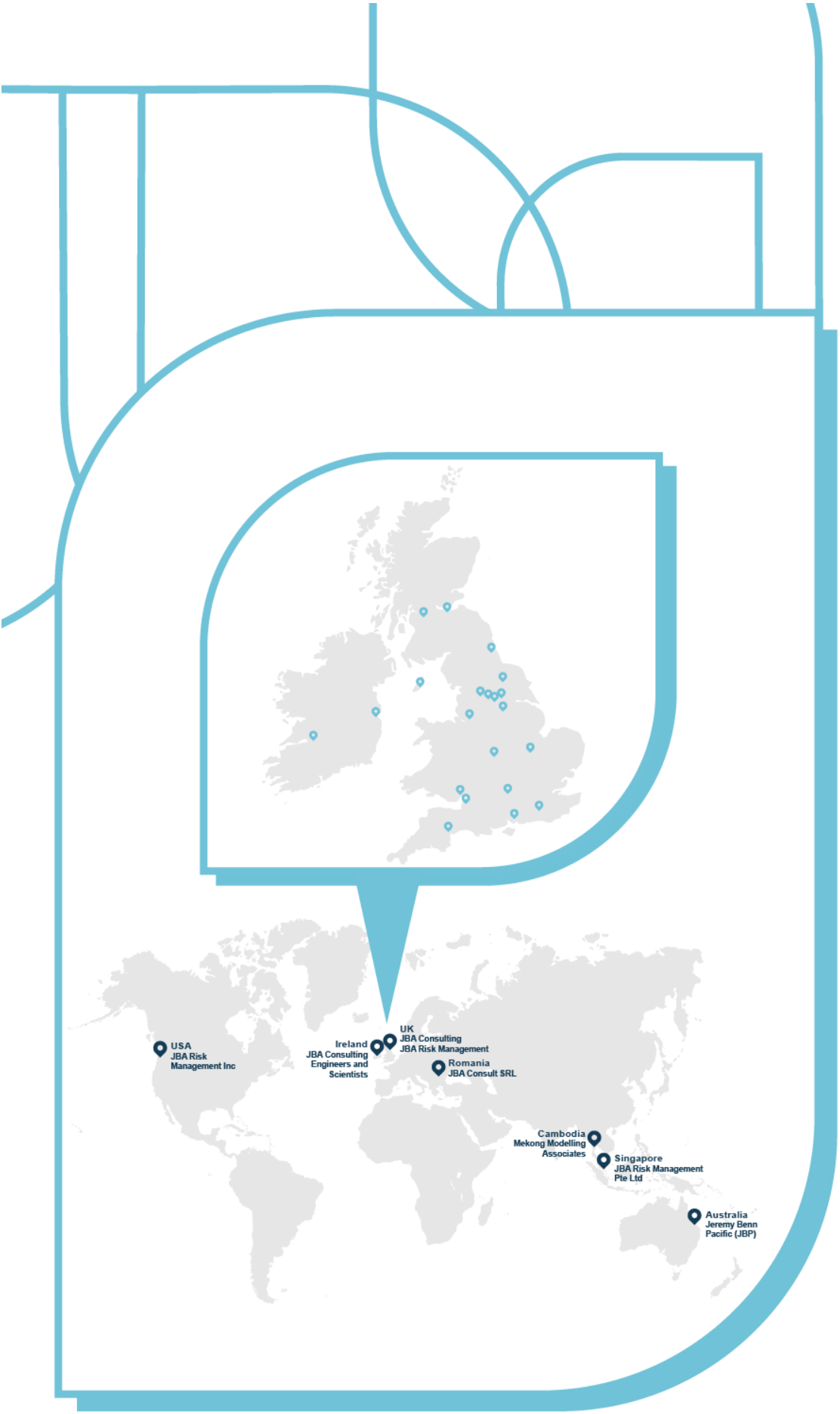
Site Name	Available Access and Egress	Wet Day reservoir flood risk	Surface Water 1% AEP plus 65% CC	Percentage in Flood Zone 1	Located within a CDA
011A	No	0%	25%	100%	No
011B	Yes	0%	0%	100%	No
011D	Yes	0%	26%	80%	No
011M	Yes	0%	0%	100%	No
Axmi_01a	No	0%	0%	100%	No
Axmi_02	Yes	0%	1%	98%	No
Axmi_08	Yes	0%	1%	100%	No
Axmi_09	Yes	0%	6%	94%	No
Axmi_10	Yes	0%	0%	100%	No
Axmi_11	Yes	0%	7%	81%	No
Axmi_11a	Yes	0%	12%	85%	No
Axmi_12	No	0%	4%	100%	No
Axmi_18	Yes	0%	6%	100%	No
Axmi_23	Yes	0%	2%	100%	No
Axmi_24	Yes	0%	2%	98%	Yes
Beer_03	Yes	0%	0%	100%	No
Brcl 27	Yes	0%	0%	77%	No
Brcl_03a	Yes	0%	0%	97%	No
Brcl_03b	Yes	0%	0%	100%	No
Brcl_09	Yes	0%	0%	100%	No
Brcl_12	Yes	0%	1%	95%	No
Brcl_29	Yes	0%	0%	100%	No
Brhe_09	Yes	0%	4%	100%	No
Budl_01	Yes	0%	0%	100%	No
Budl_02	Yes	0%	9%	100%	No
Budl_03	Yes	0%	1%	100%	No
Budl_06	Yes	0%	0%	100%	No
Char_04a	Yes	0%	0%	100%	No
Clge_01	Yes	0%	1%	100%	No
Clge_07	Yes	0%	0%	100%	No
Clge_08	Yes	69%	39%	14%	No
Clge_20	Yes	4%	1%	78%	No
Clge_24	Yes	21%	2%	73%	No
Clma_04	Yes	0%	0%	100%	No
Coly_02	Yes	0%	0%	100%	No
Coly_10	Yes	0%	0%	100%	No
Dev_next_to_the_M5	Yes	0%	1%	100%	No
Dunk_05	Yes	0%	0%	100%	No
Ebud_01	Yes	0%	0%	100%	No
Exmo_04a	Yes	0%	1%	100%	No

Site Name	Available Access and Egress	Wet Day reservoir flood risk	Surface Water 1% AEP plus 65% CC	Percentage in Flood Zone 1	Located within a CDA
Exmo_08&16	Yes	0%	1%	99%	No
Exmo_17	Yes	0%	7%	96%	No
Exmo_18	Yes	0%	2%	100%	No
Exmo_23	Yes	0%	0%	100%	No
Exmo_52	No	0%	1%	99%	No
Feni_01	No	0%	0%	100%	Yes
Feni_05	No	0%	2%	100%	Yes
Feni_08	Yes	0%	0%	100%	Yes
Feni_09	Yes	0%	0%	100%	Yes
Feni_10	Yes	0%	0%	100%	Yes
Feni_11	Yes	0%	0%	100%	Yes
GH/ED/29a	No	0%	1%	99%	No
GH/ED/31	Yes	0%	0%	99%	No
GH/ED/32	Yes	0%	0%	100%	No
GH/ED/33	Yes	0%	4%	99%	No
GH/ED/44	Yes	0%	4%	100%	No
GH/ED/45	Yes	0%	5%	100%	No
GH/ED/72	Yes	0%	3%	100%	No
GH/ED/73	Yes	0%	1%	100%	No
GH/ED/75	Yes	0%	1%	99%	No
GH/ED/79	Yes	0%	3%	100%	Yes
GH/ED/82	Yes	0%	11%	89%	No
GH/ED/82a	Yes	0%	0%	100%	No
GH/ED/83	No	0%	3%	78%	No
Gitti_03	Yes	0%	3%	100%	No
Gitti_04	No	0%	2%	100%	No
Gitti_05	Yes	0%	1%	100%	No
Gitti_06	Yes	0%	2%	100%	No
Hawk_01	Yes	0%	0%	100%	No
Honi_05	No	0%	67%	12%	No
Honi_06	Yes	0%	1%	100%	No
Honi_07	Yes	0%	0%	100%	No
Honi_10	No	0%	6%	100%	No
Honi_13	Yes	0%	0%	100%	No
Honi_14	Yes	0%	0%	100%	No
Honi_15a	Yes	0%	2%	99%	No
Kilm_09	Yes	0%	5%	100%	No
Kilm_11	Yes	0%	0%	100%	No
Lymp_01	No	0%	0%	100%	No
Lymp_07	Yes	0%	0%	100%	No
Lymp_08	Yes	0%	0%	100%	No

Site Name	Available Access and Egress	Wet Day reservoir flood risk	Surface Water 1% AEP plus 65% CC	Percentage in Flood Zone 1	Located within a CDA
Lymp_09	Yes	0%	1%	100%	No
Lymp_10a	Yes	0%	1%	100%	No
Lymp_14	Yes	0%	3%	100%	No
Musb_03a	Yes	0%	0%	100%	No
Option 1a	No	0%	8%	91%	No
Option 1b	Yes	0%	2%	98%	No
Option 1c	No	0%	75%	0%	No
Option 2a	No	0%	7%	92%	No
Option 2b	Yes	13%	10%	90%	No
Option 2c	Yes	0%	5%	95%	No
Option 3	No	3%	7%	91%	No
Otry_01b	Yes	0%	0%	100%	No
Otry_04	Yes	0%	0%	100%	No
Otry_09	Yes	0%	2%	92%	No
Otry_15	Yes	0%	0%	100%	No
Otry_20	Yes	0%	0%	100%	Yes
Otry_22	Yes	0%	0%	100%	No
Otto_01	Yes	0%	0%	100%	No
Otto_02	No	0%	3%	60%	No
Otto_03	Yes	0%	0%	100%	No
Otto_03a	Yes	0%	0%	100%	No
Otto_04	No	0%	6%	71%	No
Payh_03	Yes	0%	1%	100%	No
Plym_05	Yes	0%	0%	100%	No
Seat_02	Yes	0%	0%	100%	No
Seat_03	Yes	0%	0%	100%	No
Seat_05	Yes	0%	3%	100%	No
Seat_09	Yes	0%	0%	100%	No
Seat_13	Yes	0%	3%	100%	No
Sidm_01	Yes	0%	8%	100%	No
Sidm_06a	Yes	0%	4%	100%	No
Sidm_17	Yes	0%	13%	100%	No
Sidm_24	Yes	0%	3%	100%	No
Sidm_31	Yes	0%	0%	100%	No
Sidm_34	Yes	0%	1%	100%	No
Sidmouth 001A	Yes	0%	0%	100%	No
Sowt 15	Yes	0%	0%	100%	No
Sowt_03	Yes	0%	0%	100%	No
Sowt_09	Yes	0%	1%	99%	No
Sowt_11a	Yes	0%	0%	100%	No
West_01	Yes	0%	0%	100%	No

Site Name	Available Access and Egress	Wet Day reservoir flood risk	Surface Water 1% AEP plus 65% CC	Percentage in Flood Zone 1	Located within a CDA
West_04	Yes	0%	0%	100%	No
West_06	Yes	0%	0%	100%	No
Whim_03	No	0%	2%	87%	Yes
Whim_07	No	0%	16%	32%	Yes
Whim_08	No	0%	5%	94%	No
Whim_13	No	0%	7%	41%	Yes
Wood_01	Yes	0%	0%	100%	No
Wood_10	No	0%	11%	85%	No
Wood_20	Yes	0%	0%	100%	No
Wood_23	Yes	0%	0%	100%	No
Wood_28	Yes	0%	0%	98%	No

D Level 2 SFRA Site Screening



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