

Draft Local Plan 2021-2040 (Regulation 18)

Strategic Flood Risk Assessment (SFRA) Level 2 – Exception Tests

November 2023



OUR
**LOCAL
PLAN**

2021-2040

CONSULTATION

22 JANUARY - 4 MARCH 2024

1.0 Introduction

- 1.1 This document has been prepared as a supplement to the East Hampshire Strategic Flood Risk Assessment Level 1 (Level 1 SFRA) and in support of the East Hampshire Draft Local Plan 2021 – 2040 (Regulation 18). The purpose of this document is to demonstrate that proposed sites that have been identified as potential allocations for housing and employment, in areas of flood risk, are appropriate in the context of the Exception Test. Passing the Exception Test is required as part of the National Planning Policy Framework (NPPF) and its accompanying Planning Practice Guidance (PPG) on Flood Risk and Coastal Change.
- 1.2 This Level 2 Strategic Flood Risk Assessment (Level 2 SFRA) should be read in conjunction with the Level 1 SFRA 2022 and Sequential Test 2023.
- 1.3 Further information relating to the explanation of the Exception Test, and when this is applicable in relation to the vulnerability of the proposed use, is available in the NPPF and accompanying PPG.

2.0 Purpose and Planning Context

- 2.1 The proposed site allocations have gone through the Sequential Test process. This has highlighted that the Local Planning Authority's (LPA) development needs cannot be fully accommodated in sites that are wholly within Flood Zone 1 due to wider sustainability issues. Where a site scores highly in relation to all sources of flooding (depending on the proposed use), the Exception Test is triggered. This needs to demonstrate that the site can be developed safely without increasing flood risk elsewhere, which must consider all sources of flooding, climate change and that the development provides wider sustainability benefits to the community.
- 2.2 The undertaking of a Level 2 SFRA does not preclude the need for a site-specific Flood Risk Assessment (FRA). Rather the Level 1 and 2 SFRA's should be used to inform the site specific FRAs. At the stage that a Level 2 SFRA is written there is often very little known about the development other than development type, number of units and occasionally an indicative layout. As a result, Level 2 SFRA's have to take a high-level strategic view of a development. A site-specific FRA can then fill in the details of the development and mitigation proposed within the parameters set by the Level 2 SFRA. An exception test needs to:
 - Demonstrate that the site can be developed safely without increasing flood risk elsewhere.
 - Consider all sources of flooding.
 - Consider climate change.
 - Provide wider sustainability benefits to the community.

3.0 Local Flood Risk Context

- 3.1 The Level 1 SFRA has highlighted that parts of the Local Plan Area are at risk from all sources of flooding – fluvial, surface water and groundwater. Whilst most

locations have a low risk of flooding, the Sequential Test has shown that some of the Local Plan Area's development needs will have to be accommodated on sites that have some level of flood risk. In the cases where the Exception Test has been triggered by the presence of Fluvial Flood Zones, the Level 2 SFRA has also assessed the risk of flooding to the sites from all sources.

- 3.2 Climate change is expected to increase flood risk in the Local Plan Area over the coming years. The sequential test used a simple approach to consider climate change by using Flood Zone 2 and adding a buffer of 10 metres. However, in those areas affected by the River Wey flood zones, the Exception Test has considered the Environment Agency (EA) detailed River Wey modelling which specifically modelled the climate change flood extents affecting this river.

4.0 Methodology

- 4.1 This Level 2 SFRA sets out to demonstrate that it is technically feasible to accommodate the proposed development safely without increasing offsite flood risk. This is done by following a number of principles:

- **Using readily available information and data.** No new data or surveys were collected as part of this process. However, the sites, where relevant, have used the extents from the EA River Wey modelling. The LPA understands that in 2020 these extents had been reviewed by the EA and advice is to refer to these outlines from the updated Wey modelling alongside the Flood Map for Planning when considering the allocations.
- **The Sequential Test was applied on site** as far as possible by directing the most vulnerable elements of the development to the areas of lowest flood risk. Wherever possible built development was kept out of areas at risk of flooding from all sources.
- **Assumed worst case scenarios were used to determine land take** for built development. Land take for development was determined using dwelling densities and the area of the site outside of identified flood risk areas known as 'developable area'. Where possible other restrictions to development such as Tree Preservation Orders and Special Sites of Scientific Interest (SSSI) etc were excluded from the defined 'developable area'.
- **Suggested mitigation measures to manage flood risk on site** are taken from best practice and recommendations set out in the Level 1 SFRA.
- **The impact of climate change on the development was taken account** by applying a 10m buffer to the Flood Zone 2 and 3 extents.
- **All sources of flooding are assessed using exiting mapping.** Wherever possible areas shown to flood from surface water and groundwater are avoided for built development. Where this is not possible, mitigation measures are proposed to prevent internal flooding and ensure that flood risk elsewhere is not increased. Where these areas cannot be avoided for built development it is recommended that more detailed assessment of the risk is undertaken during the planning application process for the individual site.
- **Access and egress.** Wherever possible the Flood Zones are avoided completely. In circumstances where there is evidence that surface water flooding of an access route could pose a real danger to site users due to a combination of factors such as

flood hazards or duration of flooding, developers may be asked to investigate this risk further.

- **Flood issues that do not impact on the developable area.** It has been assumed that there is sufficient space to accommodate the development proposed within the site boundary if there are no onsite flooding issues. Where flooding issues do not impact on the site's developable area (eg. only the sites access is liable to flood or only a small proportion of the site is flooded), then it has not been deemed necessary to determine the land take of the build development or attenuation storage.

5.0 Options Assessed

5.1 The following sites are being assessed within this Level 2 SFRA:

- LAA reference AL005 - Brick Kiln Lane, Alton (residential)
- LAA reference WHI020 - Land at former Bordon Garrison, Whitehill & Bordon (mixed use including residential)
- WOR004 - Wilsom Road, Alton (employment)

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| Site and LAA Reference | Brick Kiln Lane, Alton – AL005 |
| Site Proposal | Residential |
| Source | |
| Fluvial | The River Wey is located on the south east of the site. The Environment Agency Flood Zones mapping identify small areas of Flood Zone 2 and Flood Zone 3 present in the south eastern part of the site. The site is not shown to be at risk of flooding in the updated modelled area of the River Wey. |
| Surface water | <p>A surface water flow path enters the north west site boundary and follows the southern boundary towards the River Wey. The majority of the site is unaffected.</p> <p>Mitigation: Site layout should avoid the areas at risk of surface water flooding. Development should utilise sustainable drainage systems (SuDS) to manage surface water onsite for a 1 in 100 year + climate change event, unless there are practical reasons for not doing so.</p> <p>Mitigation measures should ensure that there is no increase in risk from surface water, and where possible reducing the existing risk.</p> |
| Groundwater | <p>A small part of site (to the south) has the potential for groundwater flooding to occur at surface.</p> <p>Basement development should be avoided in areas which have the potential for groundwater flooding to occur at surface or below ground, unless accompanied by a robust Ground Investigation confirming safety of the development and no displacement of risk.</p> |
| Access & Egress | <p>If a proposed vehicle site access cuts across the route of the River Wey, consideration of flood risk in design and consent from the Environment Agency will be required. If any proposed pedestrian access is in an area of surface water flooding, this will need to be mitigated as part of the design.</p> <p>Any route crossing a watercourse should ensure it does not block or reduce the size of the channel.</p> |
| Site Drainage considerations | The BGS Infiltration SuDS suitability maps indicates that the majority of the site may be suitable for infiltration SuDS. Significant constraints to infiltration are indicated to the south of the site. An infiltration test should be carried out before any infiltration SuDS are designed. |
| Planning and Sustainability considerations | Must have a site-specific FRA which includes the mitigation measures. |

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| | <p>The site scores above average in the Local Planning Authority's Accessibility Study. It could be well-connected to both the open countryside and to parts of Alton, via public rights of way and pedestrian infrastructure, thus supporting healthy and active lifestyles for residents. New vehicular access could be provided directly onto the A339 with opportunity to upgrade the existing junction between A339/Basingstoke Road and Pertuis Avenue to a roundabout that would also incorporate the proposed access into the development site.</p> |
| Conclusion | <p>The Flood Map for Planning shows that the majority of the site is located in Flood Zone 1, with a small area of Flood Zone 2 and Flood Zone 3 located on the south easterly boundary associated with the open channel present at this location. However, the EA hydraulic modelling data for the River Wey shows that the site is now outside of Flood Zones 2 and 3 but this has not been updated on the gov.uk website.</p> <p>A surface water flow path is present to the south of the site. Effective surface water management measures are required in accordance with planning policy including the incorporation of SuDS, in order to reduce flooding both on the site and routing of flood water to other areas. Environment Agency surface water mapping suggests that highway flooding may occur adjacent to the site, developers should check for any records of instances of flooding at this location. A development including 'blue corridors' may provide opportunity to reduce flood risk to the local highways by containing surface water on site in a sustainable way.</p> <p>A site-specific FRA should be supplied to demonstrate that the development will adequately mitigate the risk of flooding from all sources. Due to the size of the site, the small percentage located within a fluvial flood zone or identified as being at risk from other sources and the potential for mitigation measures through careful site layout and design, and the updated River Wey modelling, this site passes the Exception Test.</p> |
| Exception Test | Passed |

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| Site and LAA Reference | Land at Former Bordon Garrison – WHI020 |
| Site Proposal | Residential and mixed use |
| Source | |
| Fluvial | Flood Zone 1 |

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| Surface water | There are areas of surface water flood risk in both central and eastern parts of the site, especially in areas close to the Oxney Drain |
| Groundwater | <p>Has the potential for groundwater flooding to occur at surface.</p> <p>Basement development should be avoided in areas which have the potential for groundwater flooding to occur at surface or below ground, unless accompanied by a robust Ground Investigation confirming safety of the development and no displacement of risk.</p> |
| Access & Egress | N/A |
| Site Drainage considerations | The BGS Infiltration SuDS suitability maps indicates that the majority of the site may be suitable for infiltration SuDS. Significant constraints to infiltration are indicated to the south of the site. An infiltration test should be carried out before any infiltration SuDS are designed. |
| Planning and sustainability considerations | <p>The site is over 1 ha so a site-specific FRA and drainage strategy will be needed.</p> <p>Planning permission for new residential development has been permitted on this site. However, a more efficient use of this previously developed land may be possible, by laying out and designing new homes in ways that optimise the use of space whilst still providing a good standard of residential amenity. Additional residential development would be sustainably located, close to new services and facilities in the town centre and along Budds Lane, and within walking and cycling distance of natural greenspace. The Oxney Drain could be used as the basis for a green corridor that could offer sustainable drainage solutions.</p> |
| Conclusion | The site falls within Flood Zone 1 but an area proposed as supporting nature recovery at Broxhead Common falls within the 10m climate change buffer to the Flood Zone 2 extent. No residential or built development is proposed in this area other than a supporting nature recovery area. |
| Exception Test | Passed |

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| Site and LAA Reference | Wilsom Road, Alton – WOR004 |
| Site Proposal | Employment |
| Source | |
| Fluvial | Flood Zone 2 and Flood Zone 3 but employment is classed as a less vulnerable development in the NPPG. |
| Surface water | Areas prone to surface water flooding. |

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| Groundwater | <p>Has the potential for groundwater flooding to occur at surface.</p> <p>Basement development should be avoided in areas which have the potential for groundwater flooding to occur at surface or below ground, unless accompanied by a robust Ground Investigation confirming safety of the development and no displacement of risk.</p> |
| Access & Egress | Access would need to be provided from existing access points along Wilsom Road. |
| Site Drainage considerations | <p>The Drainage Strategy must be designed in accordance to the National SuDS Standard and use the latest climate change allowances.</p> <p>The BGS Infiltration SuDS suitability maps indicates that the majority of the site may be suitable for infiltration SuDS. Significant constraints to infiltration are indicated to the south of the site. An infiltration test should be carried out before any infiltration SuDS are designed.</p> |
| Planning and sustainability considerations | <p>The site is currently an allocated site within the Housing and Employment Allocations (Part 2 Local Plan) DPD. It lies adjacent to an existing employment area and therefore offers the potential to accommodate the expansion of adjoining employment or new employment opportunities. Access would need to be provided from existing access points along Wilsom Road. Employment uses are a less vulnerable use in terms of flood risk and can be located in flood zone 2 and 3, subject to sequential testing, and demonstrating that the proposed development will not increase flood risk elsewhere.</p> |
| Conclusion | <p>As the proposal is for employment use only it is defined as a 'less vulnerable' development in the Government's PPG - Flood Risk and Coastal Change, Table 2. Table 2 sets out that provided no development is proposed in Flood Zone 3b an Exception Test is not required, no development is proposed in Flood Zone 3b.</p> |
| Exception Test | N/A |

6.0 Conclusion

- 6.1 The Level 2 SFRA has assessed three proposed sites. This Exception Test document shows that there is sufficient space to allocate the number of units proposed within the identified 'developable area' (lowest area of risk) for two of the sites. However, the latter being for employment use only does not require an Exception Test. The sites are therefore considered to be safe and have passed the Exception Test.
- 6.2 It should be noted that the BGS susceptibility to groundwater flooding map is an indication that groundwater flooding is possible but does not indicate how likely the site is to flood in any one year. As such, it is strongly recommended that sites wishing to allocate built development in areas at risk of groundwater flooding at the surface should undertake a thorough assessment of the groundwater flooding risks at the site and apply suitable mitigation within the site-specific FRA.
- 6.3 Given the above, the Local Planning Authority are satisfied that there is sufficient space on site to accommodate the level of development proposed without increasing offsite flood risk. As such, all development sites assessed within this Level 2 SFRA are considered to be able to pass the Exception Test and comply with Local Plan Policy NBE7- Flood Risk Management.
- 6.4 A site specific Flood Risk Assessment will still be required for all sites assessed within this document. These site-specific Flood Risk Assessments will need to demonstrate that the proposed development designs are being carried out in a manner which meets the requirements of the Exception Test, that the recommendations from the Level 1 and 2 SFRA have been incorporated, and that the development complies with the emerging Flood Risk Management Policy NBE7.