



Huntingdonshire Level 2 Strategic Flood Risk Assessment Site Summary

Nominal Risk Site Assessments

Final Report

Prepared for
**Huntingdonshire District
Council**

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This report describes work commissioned by Huntingdonshire District Council by an instruction via email dated 21 July 2025. The Client's representative for the contract was Frances Schulz of Huntingdonshire District Council. Kira Khangura of JBA Consulting carried out this work.

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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 21 July 2025 6 November 2025 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.

Acknowledgements

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1 Introduction

A Level 2 Strategic Flood Risk Assessment (SFRA) is required by Huntingdon District Council (HDC) as all identified potential development sites cannot be allocated outside of areas of flood risk, as identified through the Huntingdon Level 1 SFRA Addendum (2025).

The Level 1 SFRA Addendum entailed the high-level flood risk screening of 437 potential development sites. 79 of these sites were shown to be at some level of fluvial, tidal and/or surface water flood risk yet considered important to HDC's Local Plan ambitions. Five out of the 79 sites were shown to be at nominal risk of flooding yet still required brief assessment and commentary to support allocation.

This report summarises the fluvial, tidal, surface water, groundwater, reservoir, and sewer risk to the sites at nominal risk of flooding within the Huntingdonshire authority area.

2 Nominal Risk Sites

2.1 CfS:28

Site summary (Figure 2-1)	
Location	Land between 76 and 86 Owl End, Great Stukeley
Existing site use	Agricultural
Existing site vulnerability	Less vulnerable
Proposed site use	Residential
Proposed site vulnerability	More vulnerable
Site area	0.3 hectares



Figure 2-1: CfS:28 Existing site location boundary

2.1.1 Fluvial and tidal

The site is wholly located within Flood Zone 1 of the Environment Agency's (EA) Flood Map for Planning which indicates it as at low risk of flooding from rivers and the sea. The site is not modelled to be at additional risk from fluvial climate change and is therefore at low risk of flooding from rivers in the future.

2.1.2 Surface Water

The site is predominantly at very low risk of surface water flooding, based on the EA's national scale RoFSW map. There is a surface water flow path along Owl End adjacent to the western boundary of the site. There is also a small area of surface water extent at the eastern boundary of the site. The risk along the main access road may impact on safe access and escape routes for the site. This will need confirming and potentially mitigating at the site-specific FRA stage.

Table 2-1: Existing surface water flood risk based on percentage area at risk using the NaFRA2 RoFSW map within CfS:28

Very low risk (%)	Low risk (%)	Medium risk (%)	High risk (%)
99	1	0	0

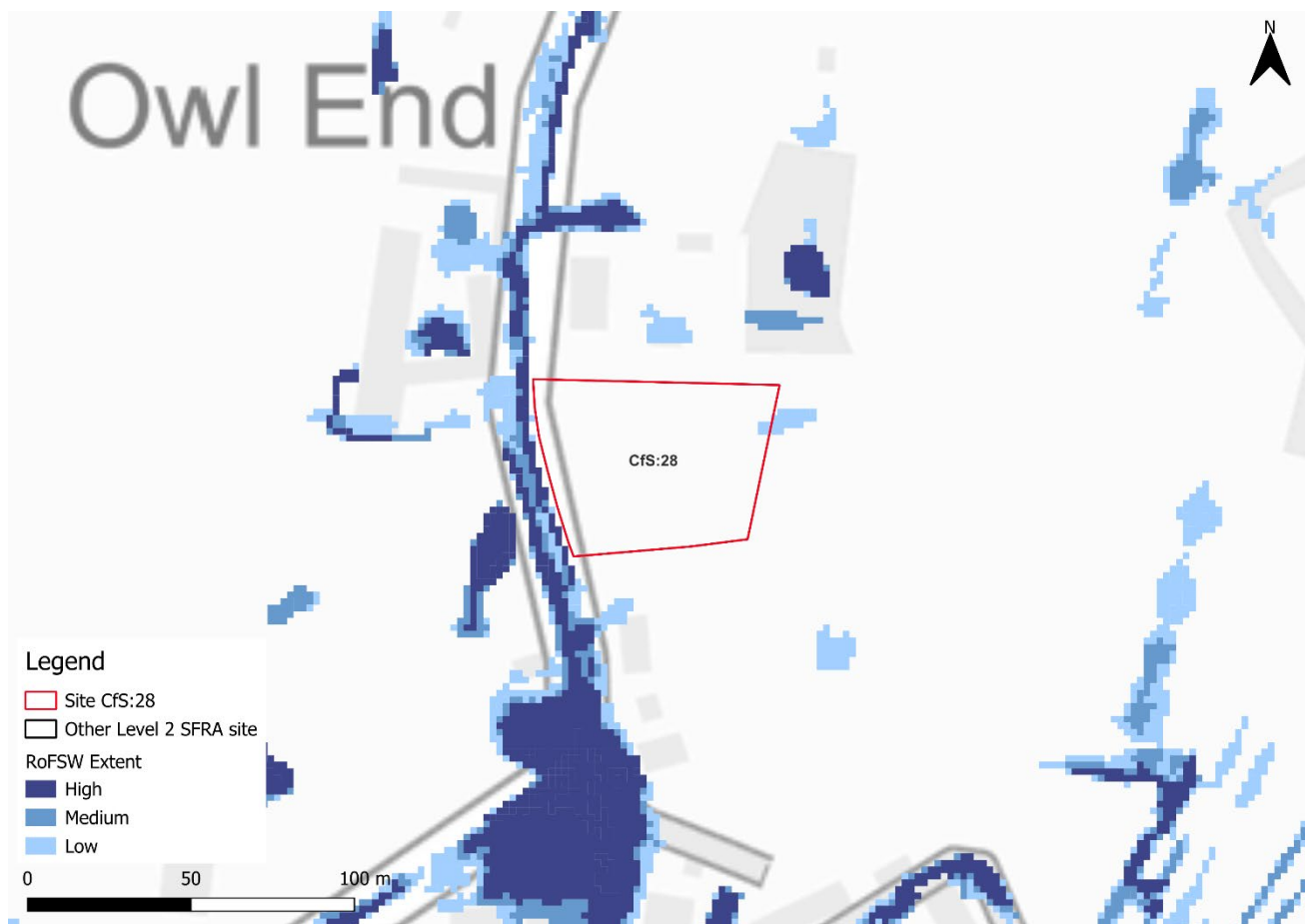


Figure 2-2: Surface water flood extents (NaFRA2 - Risk of Flooding from Surface Water map)

Based on the EA's national scale third generation RoFSW map, there are maximum flood depths between 0.15 and 0.30m along Owl End on the west boundary of the site. In the low risk event as a proxy for the medium risk event plus climate change, there is a slight increase in the flow path along Owl End, but depths remain low.

There are differences in the extent of surface water flooding between the NaFRA2 RoFSW map and the third-generation depths mapping, with the NaFRA2 extents appearing greater along Owl End and also highlighting flood extent in the east of the site. This reinforces the requirement for detailed assessment of surface water at the FRA stage to establish surface water flood risk conditions.



Figure 2-3: Medium risk event surface water flood depths (Third generation - Risk of Flooding from Surface Water map) within CfS:28

Based on available information and given that the depths along Owl End are modelled to be low, safe access and escape should be possible via this route.

2.1.3 Groundwater

The entirety of the site is in an area where there is no risk of groundwater emergence. Groundwater conditions may therefore be suited to infiltration SuDS.

2.1.4 Summary and recommendations

- The site is not required to pass the exception test as it is not located within Flood Zone 3a.
- The proposed development would see a change in the risk classification from less vulnerable to more vulnerable, according to the NPPF.
- Given the change in use and therefore vulnerability of the site, the FRA must show that the development can be designed to be safe and that there is adequate emergency planning provision (para 014 FRCC-PPG).
- Based on available information, there is no additional risk to the site from reservoir or sewer flooding.
- Development should be possible at this site given the low fluvial and very low surface water flood risk to the site.
- The third generation RoFSW flood depths on the access road are modelled to be shallow. However, this must be confirmed at the FRA stage.
- The site is not modelled to be at significant additional fluvial, tidal or surface water risk as a result of climate change.

2.2 CfS:78

Site summary (Figure 2-4)	
Location	Land North of St James Road, Little Paxton
Existing site use	Agricultural
Existing site vulnerability	Less vulnerable
Proposed site use	Residential
Proposed site vulnerability	More vulnerable
Site area	1.5 hectares



Figure 2-4: CfS:78 Existing site location boundary

2.2.1 Fluvial and tidal

The site is wholly located within Flood Zone 1 of the Environment Agency's (EA) Flood Map for Planning which indicates it as at low risk of flooding from rivers and the sea. The site is not modelled to be at additional risk from fluvial climate change and is therefore at low risk of flooding from rivers and the sea in the future.

2.2.2 Surface water

The site is predominantly at very low risk of surface water flooding, based on the EA's national scale RoFSW map. There is a surface water flow path along the road adjacent to the northern boundary of the site. There is also a small area of surface water extent in the middle of the site.

Table 2-2: Existing surface water flood risk based on percentage area at risk using the NaFRA2 RoFSW map within CfS:78

Very low risk (%)	Low risk (%)	Medium risk (%)	High risk (%)
97	1	1	1

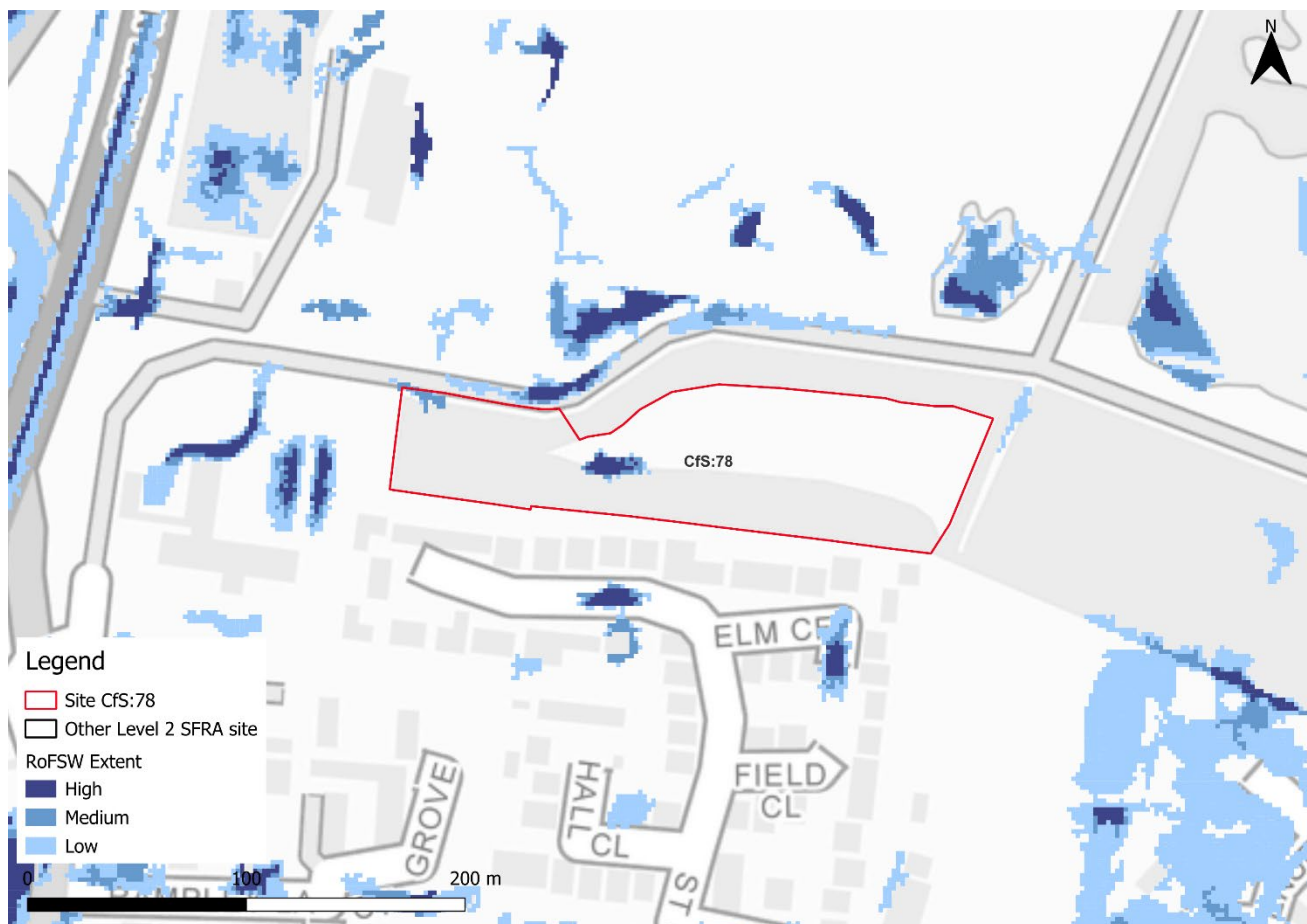


Figure 2-5: Surface water flood extents (NaFRA2 - Risk of Flooding from Surface Water map)

Based on the EA's national scale third generation RoFSW map, maximum flood depths are less than 0.15m. In the low risk event as a proxy for the medium risk event plus climate change there is very little change to surface water extent or depth.

There are differences in the extent of surface water flooding between the NaFRA2 RoFSW map and the third-generation depths mapping, with the NaFRA2 extents appearing greater along the road adjacent to the northern boundary of the site and also showing pooling in the

centre of the site. This reinforces the requirement for detailed assessment of surface water at the FRA stage to establish surface water flood risk conditions.

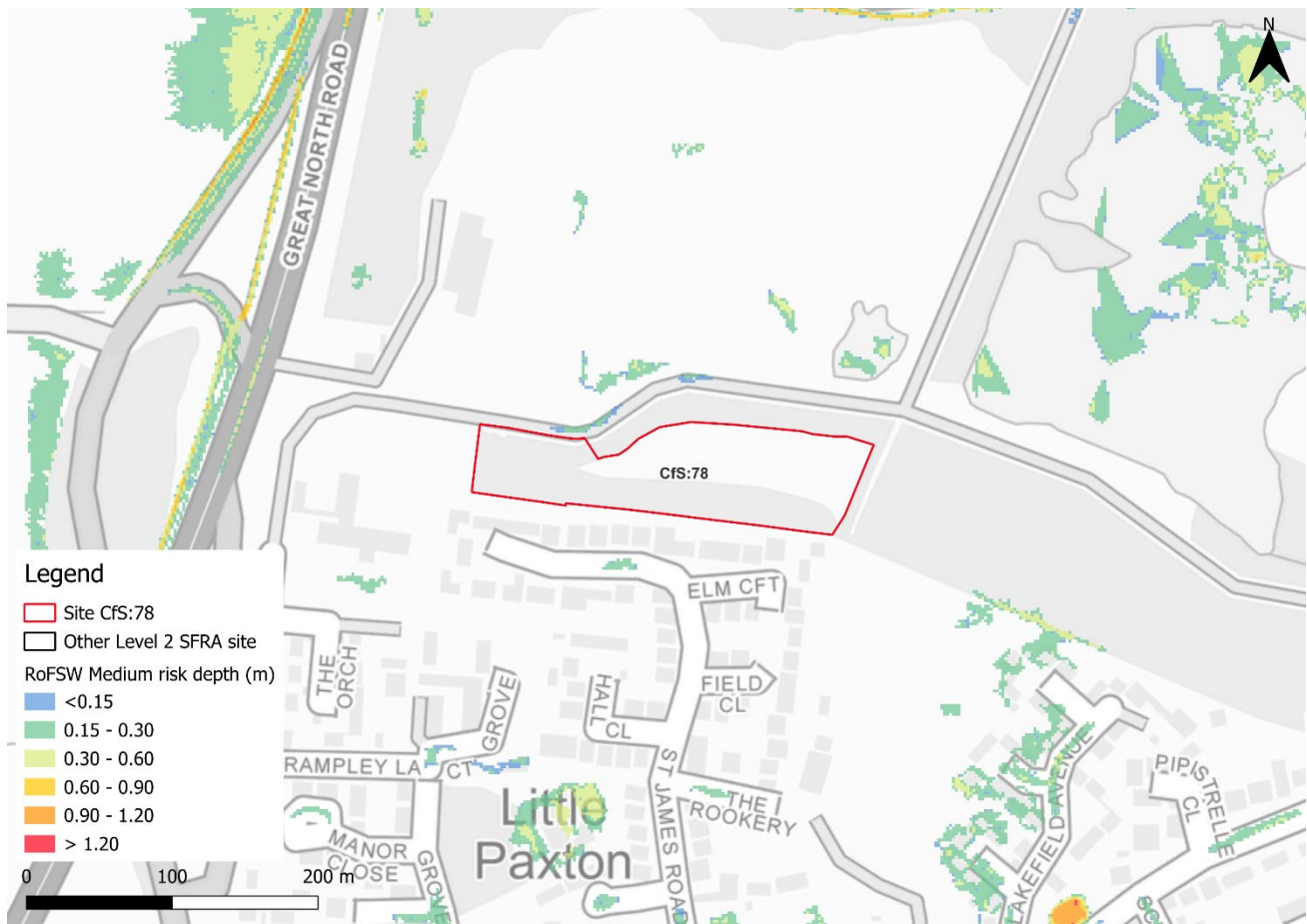


Figure 2-6: Medium risk event surface water flood depths (Third generation - Risk of Flooding from Surface Water map) within CfS:78

Based on available information, safe access and escape routes should be possible via the road at the north of the site both in the present day and longer term.

2.2.3 Reservoirs

The EA's Reservoir Flood Maps (RFM) (2021) show where water may go in the unlikely event of a reservoir or dam failure. Figure 2-7 shows the RFM in a 'dry day' and 'wet day' scenario. A 'dry day' scenario assumes that the water level in the reservoir is the same as the spillway level or the underside of the roof for a service reservoir and the watercourses upstream and downstream of the reservoir are at a normal level. A 'wet day' scenario assumes a worst-case scenario where a reservoir releases water held on a 'wet day' when local rivers have already overflowed their banks.

The site is potentially at risk in a 'wet day' scenario from Grafham Water reservoir, located in the Cambridgeshire LLFA. The reservoir is owned by Anglian Water Services Ltd.

The EA's SFRA guidance states that where a proposed development site is shown to be at potential risk from reservoir failure, then an assessment into whether the reservoir design or maintenance schedule needs improving should be carried out. Expert advice may be required from an all-reservoirs panel engineer. The Council should consult Anglian Water Services Ltd to ascertain whether the proposed development could affect the reservoir's risk designation, its design category or how it is operated. The Council, as category 1 responders, can access more detailed information about reservoir risk and reservoir owners using the [Resilience Direct](#) system.



Figure 2-7: EA Reservoir Flood Map for CfS:78

2.2.4 Groundwater

The entirety of the site is shown to have groundwater levels between 0 to 0.025m below the ground surface in the 100-year return period flood event. Infiltration SuDS are therefore unlikely to be appropriate in this area. Within this zone there is a risk of groundwater flooding to both surface and subsurface assets. There is possibility of groundwater emerging at the surface locally. The site-specific FRA should further investigate groundwater levels through percolation testing in both wet and dry weather conditions across the site.



Figure 2-8: JBA 5m Groundwater Emergence Map within CfS:78

2.2.5 Summary and recommendations

- The site is not required to pass the exception test as it is not located within Flood Zone 3a.
- The proposed development would see a change in the risk classification from less vulnerable to more vulnerable, according to the NPPF.
- Given the change in use and therefore vulnerability of the site, the FRA must show that the development can be designed to be safe and that there is adequate emergency planning provision (para 014 FRCC-PPG).
- Based on available information, there is no additional risk to the site from or sewer flooding.

- There is some risk from reservoir failure to the eastern boundary of the site. However, this should not be detrimental to development of the site.
- Development should be possible at this site given the low fluvial and very low surface water flood risk to the site.
- Groundwater conditions must be investigated further through the site-specific FRA. The potential use of infiltration SuDS should be investigated.
- The site is not modelled to be at significant additional fluvial, tidal or surface water risk as a result of climate change.

2.3 CfS:98

Site summary (Figure 2-9)	
Location	Land West of Warren Lane, Bythorn
Existing site use	Agricultural
Existing site vulnerability	Less vulnerable
Proposed site use	Residential
Proposed site vulnerability	More vulnerable
Site area	0.5 hectares

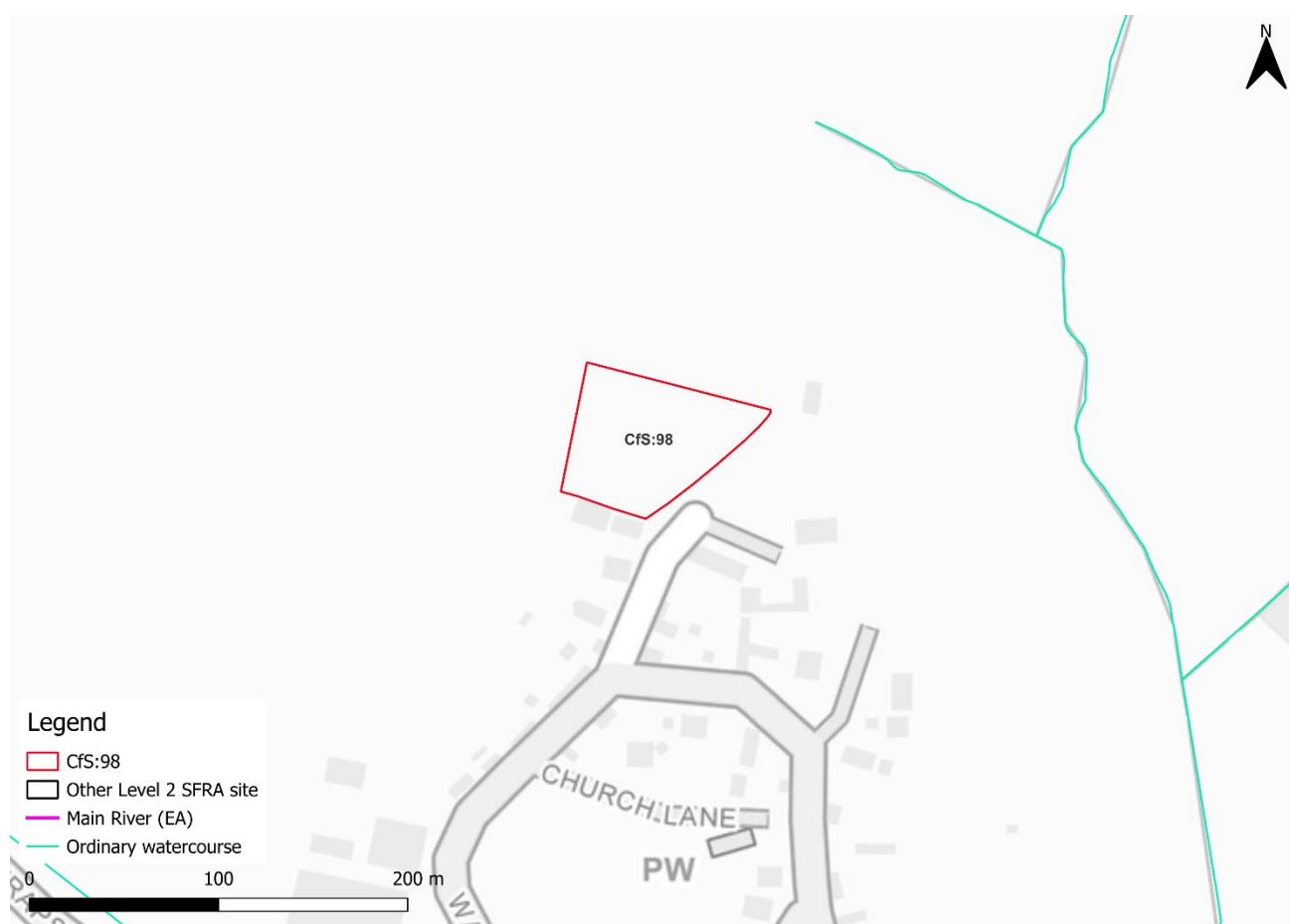


Figure 2-9: CfS:98 Existing site location boundary

2.3.1 Fluvial and tidal

The site is wholly located within Flood Zone 1 of the Environment Agency's (EA) Flood Map for Planning which indicates it as at low risk of flooding from rivers. The site is not modelled to be at additional risk from fluvial climate change and is therefore at low risk of flooding from rivers and the sea in the future.

2.3.2 Surface water

The site is predominantly at very low risk of surface water flooding, based on the EA's national scale RoFSW map. Figure 2-10 shows a small flow path along the eastern boundary of the site.

Table 2-3: Existing surface water flood risk based on percentage area at risk using the NaFRA2 RoFSW map within CfS:98

Very low risk (%)	Low risk (%)	Medium risk (%)	High risk (%)
97	1	1	1



Figure 2-10: Surface water flood extents (NaFRA2 - Risk of Flooding from Surface Water map)

Based on the EA's national scale third generation RoFSW map, maximum depths within the site are less than 0.15m (Figure 2-11). In the low risk event as a proxy for the medium risk event plus climate change there is very little change to surface water extent or depth.

There are differences in the extent of surface water flooding between the NaFRA2 RoFSW map and the third-generation depths mapping, with the NaFRA2 extents showing surface water risk along the eastern boundary of the site that is not present in the third-generation depths mapping. This reinforces the requirement for detailed assessment of surface water at the FRA stage to establish surface water flood risk conditions.



Figure 2-11: Medium risk event surface water flood depths (Third generation - Risk of Flooding from Surface Water map) within CfS:98

Based on available information, safe access and escape routes should be possible via Warren Lane to the south of the site both in the present day and longer term.

2.3.3 Groundwater

The entirety of the site is in an area where there is no risk of groundwater emergence. Groundwater conditions may therefore be suited to infiltration SuDS.

2.3.4 Summary and recommendations

- The site is not required to pass the exception test as it is not located within Flood Zone 3a.
- The proposed development would see a change in the risk classification from less vulnerable to more vulnerable, according to the NPPF.
- Given the change in use and therefore vulnerability of the site, the FRA must show that the development can be designed to be safe and that there is adequate emergency planning provision (para 014 FRCC-PPG).
- Based on available information, there is no additional risk to the site from reservoir or sewer flooding.

- Development should be possible at this site given the low fluvial and very low surface water flood risk to the site.
- The site is not modelled to be at significant additional fluvial, tidal or surface water risk as a result of climate change.

2.4 Cfs23:2421

Site summary (Figure 2-11)	
Location	Old Sheds at Manor Farm
Existing site use	Agricultural
Existing site vulnerability	Less vulnerable
Proposed site use	Residential
Proposed site vulnerability	More vulnerable
Site area	2 hectares

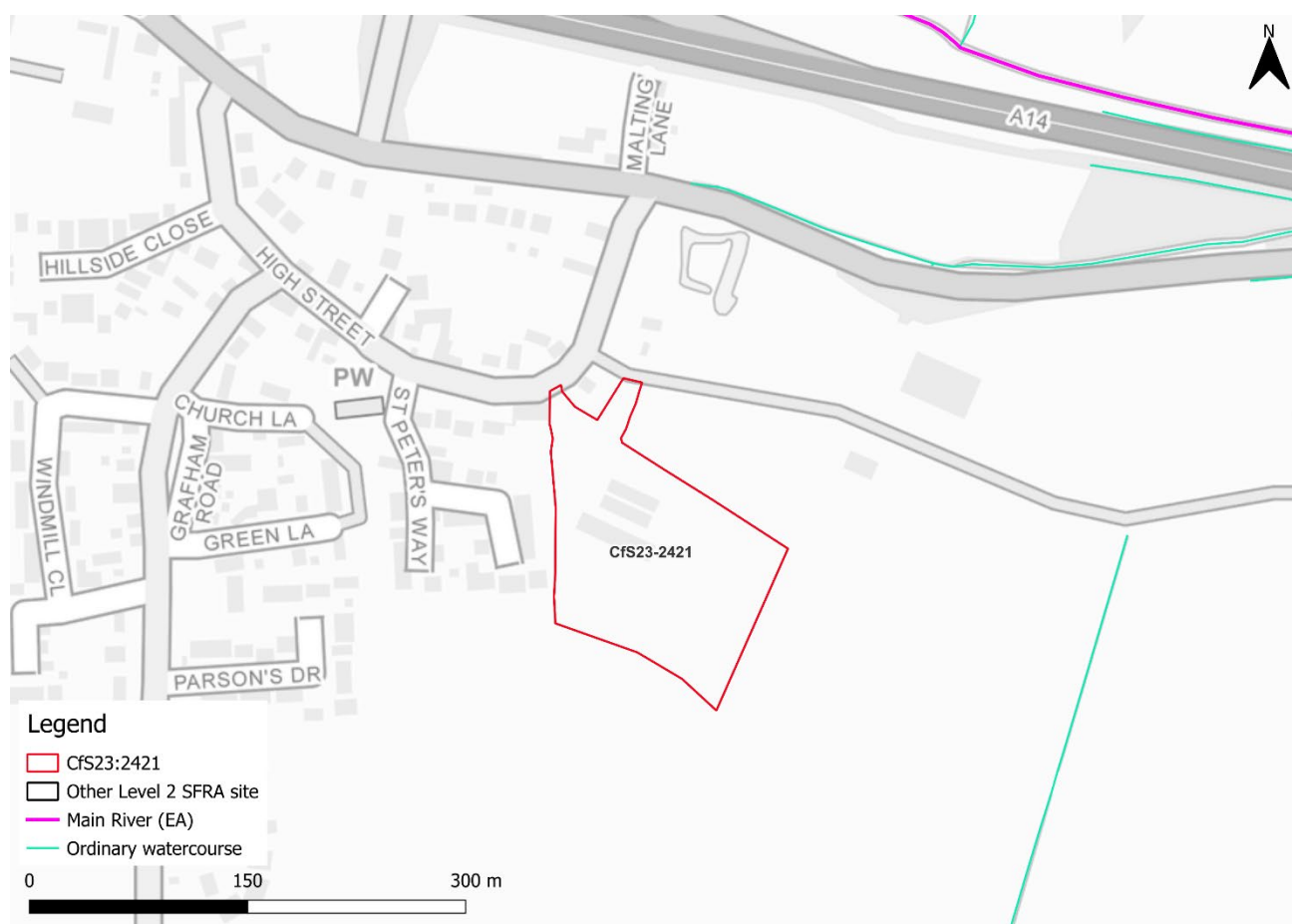


Figure 2-12: Cfs23:2421 Existing site location boundary

2.4.1 Fluvial and tidal

The site is wholly located within Flood Zone 1 of the Environment Agency's (EA) Flood Map for Planning which indicates it as at low risk of flooding from rivers. The site is not modelled to be at additional risk from fluvial climate change and is therefore at low risk of flooding from rivers and the sea in the future.

2.4.2 Surface water

The site is predominantly at very low risk of surface water flooding, based on the EA's national scale RoFSW map. There are two small areas of ponding within a topographic low spot on the western boundary of the site. There is also a surface water flow path along the southern boundary of the site.

Table 2-4: Existing surface water flood risk based on percentage area at risk using the NaFRA2 RoFSW map within Cfs23:2421

Very low risk (%)	Low risk (%)	Medium risk (%)	High risk (%)
97	1	1	1



Figure 2-13: Surface water flood extents (NaFRA2 - Risk of Flooding from Surface Water map)

Based on the EA's national scale third generation RoFSW map, maximum depths within the site are between 0.3 and 0.6 m (Figure 2-14). In the low risk event as a proxy for the medium risk event plus climate change, another small area of ponding emerges close to the existing one, however depths within the site remain very low.

There are differences in the extent of surface water flooding between the NaFRA2 RoFSW map and the third-generation depths mapping, with the NaFRA2 extents highlighting two areas of ponding in the east of the site as well as the surface water flow path along the

southern boundary that were not present in the third generation mapping. This reinforces the requirement for detailed assessment of surface water at the FRA stage to establish surface water flood risk conditions.



Figure 2-14: Medium risk event surface water flood depths (Third generation - Risk of Flooding from Surface Water map) within CfS23:2421

Based on available information, safe access and escape routes should be possible via High Street to the north of the site both in the present day and longer term.

2.4.3 Groundwater

The entirety of the site is in an area where there is no risk of groundwater emergence. Groundwater conditions may therefore be suited to infiltration SuDS.

2.4.4 Summary and recommendations

- The site is not required to pass the exception test as it is not located within Flood Zone 3a.
- The proposed development would see a change in the risk classification from less vulnerable to more vulnerable, according to the NPPF.

- Given the change in use and therefore vulnerability of the site, the FRA must show that the development can be designed to be safe and that there is adequate emergency planning provision (para 014 FRCC-PPG).
- Based on available information, there is no additional risk to the site from reservoir or sewer flooding.
- Development should be possible at this site given the low fluvial and very low surface water flood risk to the site.
- The site is not modelled to be at significant additional fluvial, tidal or surface water risk as a result of climate change.

2.5 CfS23:24239

Site summary (Figure 2-14)	
Location	Land between the West Lodge and Home Farm, Waresley
Existing site use	Agricultural
Existing site vulnerability	Less vulnerable
Proposed site use	Residential
Proposed site vulnerability	More vulnerable
Site area	1.7 hectares



Figure 2-15: CfS23:24239 Existing site location boundary

2.5.1 Fluvial and tidal

The site is wholly located within Flood Zone 1 of the Environment Agency's (EA) Flood Map for Planning which indicates it as at low risk of flooding from rivers and the sea. The site is not modelled to be at additional risk from fluvial climate change and is therefore at low risk of flooding from rivers and the sea in the future.

2.5.2 Surface water

The site is predominantly at very low risk of surface water flooding, based on the EA's national scale RoFSW map. There is a small area of ponding in the centre of the site.

Table 2-5: Existing surface water flood risk based on percentage area at risk using the NaFRA2 RoFSW map within Cfs23:24239

Very low risk (%)	Low risk (%)	Medium risk (%)	High risk (%)
97	1	1	1

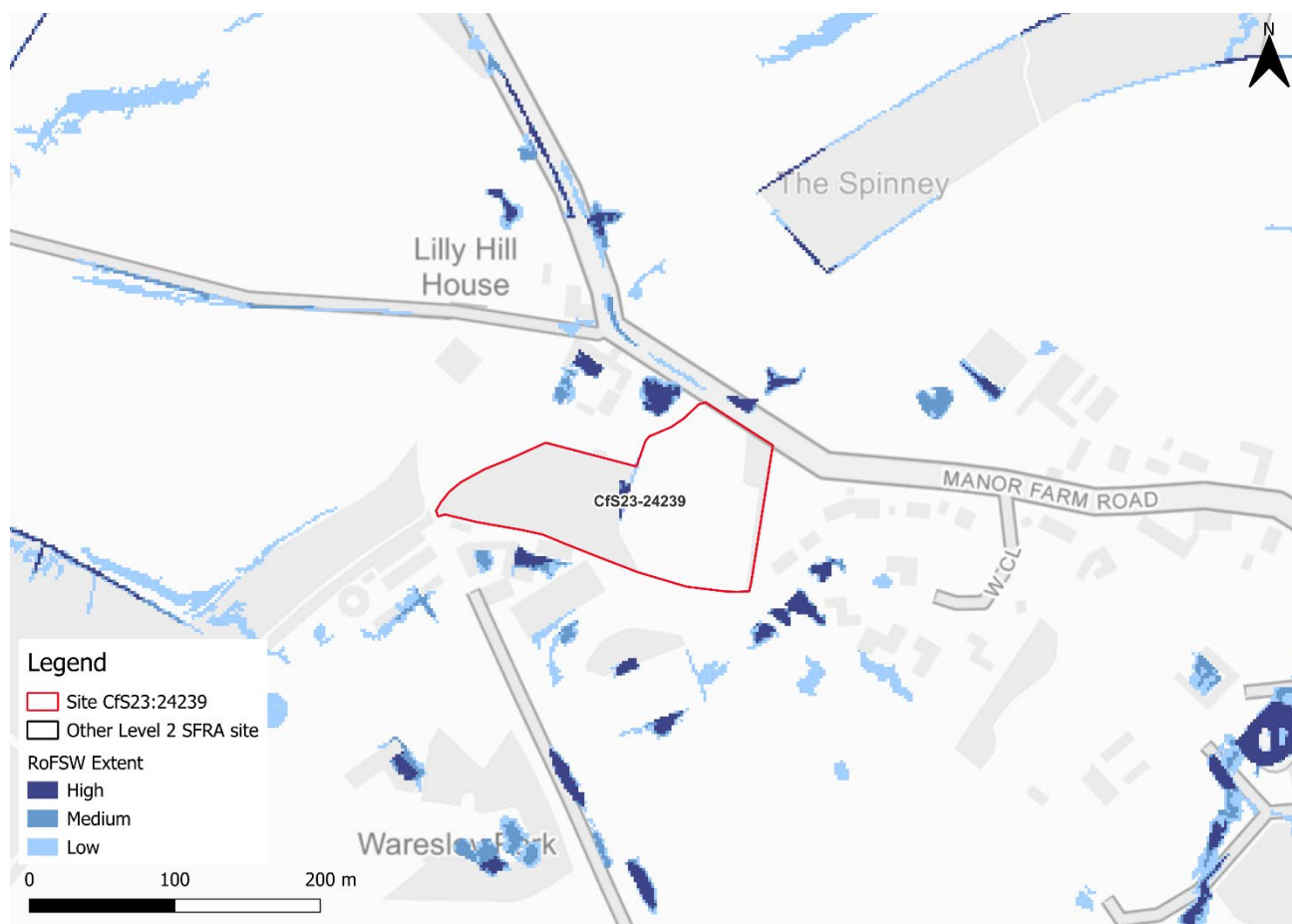


Figure 2-16: Surface water flood extents (NaFRA2 - Risk of Flooding from Surface Water map)

The EA's national scale third generation RoFSW map shows no risk of flood water within the site. In the low risk event as a proxy for the medium risk event plus climate change there is no further change to surface water depth. There are therefore differences between the NaFRA2 RoFSW mapping and the third generation depths mapping. This reinforces the requirement for detailed assessment of surface water at the FRA stage to establish surface water flood risk conditions.



Figure 2-17: Medium risk event surface water flood depths (Third generation - Risk of Flooding from Surface Water map) within CfS23:24239

Based on available information, safe access and escape routes should be possible via Manor Farm Road both in the present day and longer term.

2.5.3 Groundwater

The entirety of the site is shown to have groundwater levels between 0.025 to 0.5m below the ground surface in the 100-year return period flood event. Infiltration SuDS are therefore unlikely to be appropriate in this area. Within this zone there is a risk of groundwater flooding to surface and subsurface assets. There is the possibility of groundwater emerging at the surface locally. The site-specific FRA should further investigate groundwater levels through percolation testing in both wet and dry weather conditions across the site.

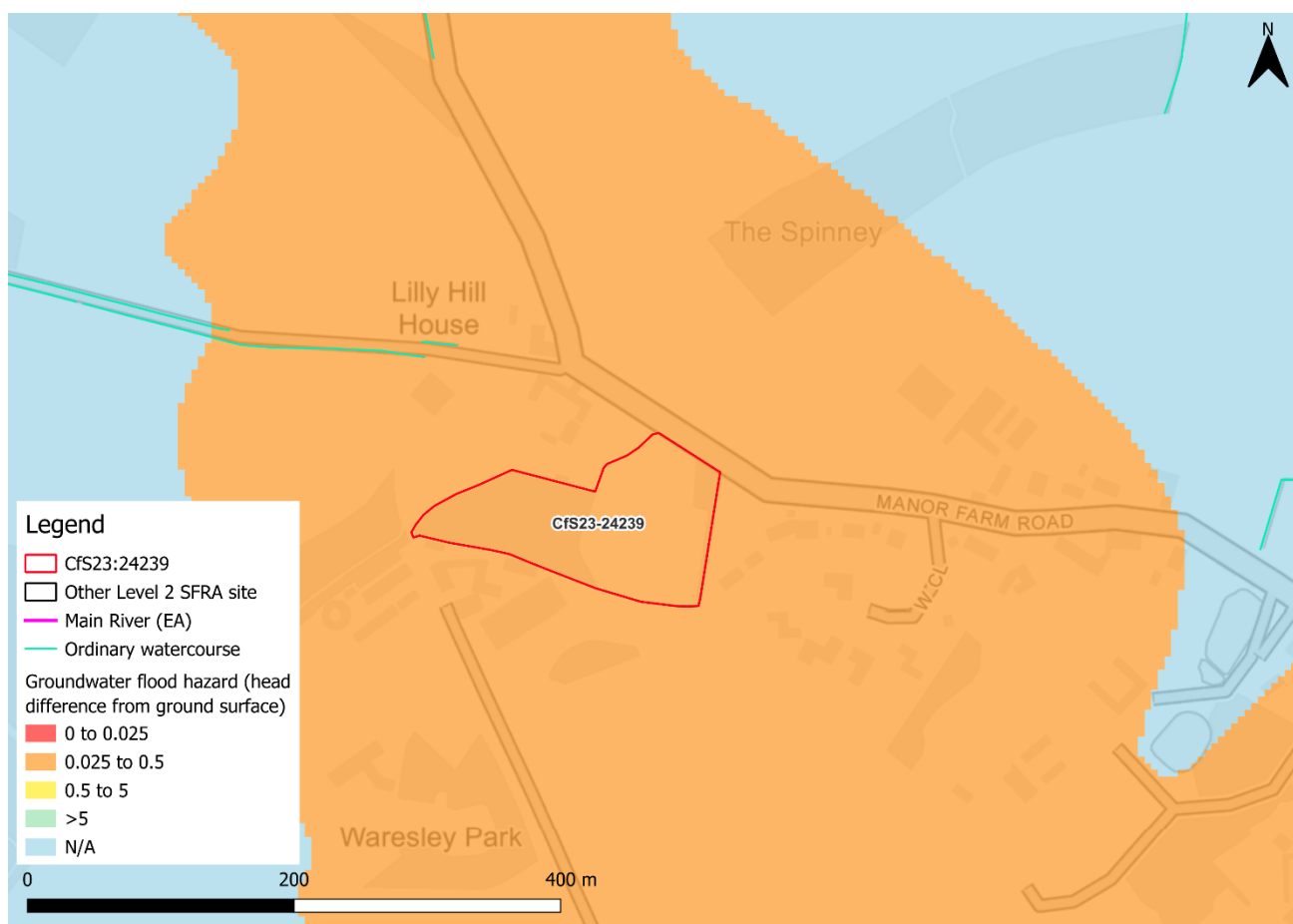


Figure 2-18: JBA 5m Groundwater Emergence Map within CfS23:24239

2.5.4 Summary and recommendations

- The site is not required to pass the exception test as it is not located within Flood Zone 3a.
- The proposed development would see a change in the risk classification from less vulnerable to more vulnerable, according to the NPPF.
- Given the change in use and therefore vulnerability of the site, the FRA must show that the development can be designed to be safe and that there is adequate emergency planning provision (para 014 FRCC-PPG).
- Based on available information, there is no additional risk to the site from reservoir or sewer flooding.
- Development should be possible at this site given the low fluvial and very low surface water flood risk to the site.
- Groundwater conditions must be investigated further through the site-specific FRA. The potential use of infiltration SuDS should be investigated.
- The site is not modelled to be at significant additional fluvial, tidal or surface water risk as a result of climate change.

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