

Level 2 Strategic Flood Risk Assessment

Winchester City Council

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1. Introduction

1.1 Project Background

1.1.1 The National Planning Policy Framework¹ (NPPF) and associated Planning Practice Guidance (PPG) for Flood Risk and Coastal Change² set out the active role Local Planning Authorities (LPAs) should take to ensure that flood risk is understood and managed effectively and sustainably throughout all stages of the planning process. The NPPF outlines that Local Plans should be supported by a Strategic Flood Risk Assessment (SFRA) and LPAs should use the findings to inform strategic land use planning.

1.1.2 The overall approach of the NPPF to flood risk is broadly summarised in Paragraph 165:

“Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere”.

1.1.3 NPPF Paragraph 173 states:

“When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

- a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location,*
- b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment,*
- c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate,*
- d) any residual risk can be safely managed, and*
- e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan”.*

1.1.4 Winchester City Council (WCC) are preparing a Local Plan which contains the overall vision and framework for future development in the area, addressing a range of matters such as the climate emergency, local housing need, the economy, environmental considerations, community infrastructure as well as strategic infrastructure needs. The emerging Local Plan will set out planning policies and proposals for how communities and places in the area will develop over the period from 2020 to 2040.

1.1.5 SFRA's are typically prepared in two stages: Level 1 and Level 2. All LPAs need to produce a Level 1 SFRA and may need to produce a Level 2 SFRA depending on whether or not they have plans for development in flood risk areas.

1.1.6 The purpose of a Level 1 SFRA is to collate and analyse the most up to date readily available flood risk information for all sources of flooding and provide an overview of flood risk issues across the area. It should identify the risk of flooding from all sources, take climate change into account, and only consider flood risk management features and structures if they might increase the extent of flooding. The Level 1 SFRA for Winchester was produced in 2023³ and provides an overview of potential sources of flooding throughout Winchester, as well as recommendations for local policy and development management.

1.1.7 A Level 2 SFRA should give a more detailed assessment on the nature of flood risks identified in the Level 1 report in relation to specific potential development sites. AECOM has been commissioned by

¹ National Planning Policy Framework: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed January 2024]

² Planning Practice Guidance: Flood Risk and Coastal Change: <https://www.gov.uk/guidance/flood-risk-and-coastal-change> [Accessed January 2024]

³ AECOM (2023) Partnership for South Hampshire Level 1 Strategic Flood Risk Assessment PART 3 – Winchester City Council.

WCC to prepare a Level 2 SFRA to inform the ongoing preparation of the emerging Local Plan. This report and associated appendices form the Level 2 SFRA for WCC.

1.2 Site Screening

- 1.2.1 A number of factors are influencing the spatial strategy within Winchester and a pool of potential sites has been under consideration during the preparation of the emerging Local Plan.
- 1.2.2 The datasets included within the Level 1 SFRA have been used by WCC to identify the risk of flooding to each of these sites, so that they can sequentially locate and prioritise development within areas of lower flood risk where possible. A database compiling this information was provided to WCC as a tool to enable them to undertake the Sequential Test. The database has not been included in this report.
- 1.2.3 WCC have undertaken the Sequential Test which resulted in a list of 38 sites being taken forward for further consideration within this Level 2 SFRA.

1.3 Level 2 SFRA

- 1.3.1 The Environment Agency guidance 'How to prepare a strategic flood risk assessment'⁴ states that where a Level 1 SFRA shows that land outside areas at risk of flooding now or in the future cannot appropriately accommodate all the necessary development, it may be necessary to increase the scope of the assessment to a Level 2 SFRA to provide the information necessary for application of the Exception Test, where appropriate. A Level 2 SFRA should consider the detailed nature of the flood characteristics within a flood zone including, where possible:
- flood probability,
 - flood depth,
 - flood velocity,
 - duration of flood
 - sources of flooding
 - rate of onset of flooding; and
 - mechanism, for example breach or overtopping
- 1.3.2 The Level 2 SFRA provides more detailed information about the nature of flood risk in the area. This will enable users to:
- apply the Sequential Test by identifying the severity and variation in risk *within* medium and high flood risk areas,
 - establish whether proposed site allocations or windfall sites, on which the emerging Local Plan will rely, are capable of being made safe throughout their lifetime without increasing flood risk elsewhere, and
 - begin to apply the Exception Test, where relevant.

Exception Test

- 1.3.3 The purpose of the Exception Test is to ensure that, where it may be necessary to locate development in areas at risk of flooding, new development in Flood Zone 2 and Flood Zone 3 is only permitted if it can be demonstrated that:
- a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and

⁴ How to prepare a strategic flood risk assessment: <https://www.gov.uk/guidance/local-planning-authorities-strategic-flood-risk-assessment> [Accessed January 2024]

- b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

1.3.4 Both elements of the Exception Test should be satisfied for development to be allocated or permitted.

1.3.5 Table 1-1 (reproduced from Table 2 in the PPG⁵) identifies when the Exception Test is required. It is noted that some types of development are not permitted, regardless of the application of the Exception Test.

1.3.8 Full details of the vulnerability classifications for different types of development can be found in Annex 3⁶ of the NPPF.

Table 1-1 Flood risk vulnerability and Flood Zone 'incompatibility' (PPG, 2022)

Vulnerability Classification		Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Flood Zone	1	✓	✓	✓	✓	✓
	2	✓	Exception Test Required	✓	✓	✓
	3a	Exception Test Required ^a	✗	Exception Test Required	✓	✓
	3b	Exception Test Required ^b	✗	✗	✗	✓ ^b

✓ - Exception Test is not required ✗ - Development should not be permitted

^a In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.

^b In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test, and water-compatible uses, should be designed and constructed to:

- remain operational and safe for users in times of flood,
- result in no net loss of floodplain storage,
- not impede water flows and not increase flood risk elsewhere.

1.4 Report Structure

1.4.1 Section 2 of this document provides details of the datasets used to inform the Level 2 SFRA.

1.4.2 Section 3 provides an overview of the Level 2 SFRA for each of the sites. These are listed in groups, reflecting the increasing risk of flooding.

- Group 1: Sites in Flood Zone 1 with some dry access and low risk from other sources (surface water, groundwater, modelled flood extents, reservoir flooding, historical records). [4 Sites]
- Group 2: Sites in Flood Zone 1 with limited dry access. Low risk from other sources (surface water, groundwater, modelled flood extents, reservoir flooding, historical records). [8 Sites]
- Group 3: Sites in Flood Zone 1 with risk from other sources (surface water, groundwater, modelled flood extents, reservoir flooding, historical records). [17 Sites]
- Group 4: Sites within Flood Zones 2 and 3. [8 Sites]

1.4.3 Proformas for each site are included in Appendix A. A more detailed proforma is provided for sites in Group 4 given their location within Flood Zones 2 and 3.

1.4.4 The detailed proformas are in PDF format. The buttons in the top right corner of each proforma can be clicked to display mapping of the different sources of flood risk.

⁵ Planning Practice Guidance (PPG) flood risk and coastal change. Table 2: <https://www.gov.uk/guidance/flood-risk-and-coastal-change#table2> [Accessed January 2024]

⁶ Annex 3 of the NPPF. [National Planning Policy Framework - Annex 3: Flood risk vulnerability classification - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/101371/nppf-annex-3-flood-risk-vulnerability-classification-guidance.pdf) [Accessed January 2024]

1.5 Consultation

- 1.5.1 Flood risk datasets have been provided by the Environment Agency, Hampshire County Council (HCC) (in their role as the Lead Local Flood Authority (LLFA)), and WCC, to inform the development of the Level 2 SFRA. Prior to issuing the final report, a draft report was circulated for review and further input by WCC, HCC, and the Environment Agency.

1.6 Future Updates to the SFRA

- 1.6.1 SFRA's are intended to be living documents which are kept up to date as information on flood risk management changes.
- 1.6.2 The Environment Agency SFRA guidance⁴ available online states that in order to remain up to date, it may be necessary to update a SFRA to incorporate any changes to:
- the predicted impacts of climate change on flood risk,
 - updates to flood risk products (such as risk of flooding from surface water, or flood map for planning),
 - detailed flood modelling – such as from the Environment Agency or LLFA,
 - the local plan, spatial development strategy or relevant local development documents,
 - local flood management schemes,
 - flood risk management plans,
 - local flood risk management strategies,
 - national planning policy or guidance.
- 1.1.2 In addition, the SFRA may also need to be reviewed after any significant flood event.
- 1.1.3 It is noted that future changes to modelling, planning guidance, or climate change impacts may alter the level of risk posed to a specific site. The most up-to-date flood risk data must be used throughout the planning process to inform ongoing site planning and development design.

2. Datasets

2.1 Overview

2.1.1 The following datasets and sources of information were collated during the Level 1 SFRA and have been used to inform the Level 2 SFRA.

2.2 River Modelling Outputs

2.2.1 As part of the Environment Agency's national programme of coastal and fluvial modelling studies, hydraulic models have been developed for the Main Rivers in the area including the River Meon, River Wallington, and River Itchen and tributaries. Models of these rivers have been provided by the Environment Agency (where available) and are described in turn in the following sections, along with a summary of the outputs that have been used to inform the Level 2 SFRA site assessments.

2.2.2 For reference, Table 2-1 shows AEP event equivalent probability each year.

Table 2-1 AEP events and return period equivalent

Annual Exceedance Probability (AEP)	Return Period
50%	1 in 2 chance each year
20%	1 in 5 chance each year
5%	1 in 20 chance each year
3.33%	1 in 30 chance each year
2%	1 in 50 chance each year
1.33%	1 in 75 chance each year
1%	1 in 100 chance each year
0.5%	1 in 200 chance each year
0.1%	1 in 1000 chance each year

2.2.3 The Environment Agency's online guidance 'Flood risk assessments: climate change allowances'⁷ sets out the climate change allowances for peak river flows that should be considered. The allowances vary by management catchment which are sub-catchments of river basin districts. The management catchments of relevance to the Winchester study area are described in Table 2-2.

2.2.4 The guidance states that for SFRA's the 'central' and 'higher central' allowances should be used. When preparing site specific FRAs, the allowance that should be considered is based on the Flood Zone and the vulnerability classification of the development. For example, where More Vulnerable or Less Vulnerable development is proposed in Flood Zones 2 or 3a, the 'central' allowance should be applied.

2.2.5 The allowances that have been used within this Level 2 SFRA are detailed in the following sections. These take into account the allowances specified in the guidance (as noted in Table 2-2) as well as considering what modelled flood extents are available within the hydraulic models received from the Environment Agency.

2.2.6 Mapping of the modelled extents within the WCC area are included in Appendix A Figure 12 of the Level 1 SFRA, Part 3 – Winchester City Council.

⁷ Flood risk assessments: climate change allowances: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances> [Accessed January 2024]

Table 2-2 Peak river flow allowances for management catchments in Winchester (use 1981 to 2000 baseline)

Management Catchment	Allowance category	Total potential change anticipated for '2020s' (2015 to 2039)	Total potential change anticipated for '2050s' (2040 to 2069)	Total potential change anticipated for '2080s' (2070 to 2125)
East Hampshire	Central (50 th)	19%	22%	37%
	Higher Central (70 th)	24%	30%	51%
	Upper End (95 th)	37%	51%	88%
Test and Itchen	Central (50 th)	16%	17%	35%
	Higher Central (70 th)	24%	28%	56%
	Upper End (95 th)	45%	56%	127%

River Meon

2.2.7 Hydraulic modelling for the River Meon⁸ was completed in 2009 and comprises a set of eight ISIS-TUFLOW models, each covering short stretches of the river at key locations rather than covering the whole length of the river. The models relevant to this report study area are Wickham and Titchfield. The following scenarios from these two models were provided:

- Defended scenarios for the following AEP events: 20%, 5%, 1.33%, 1%, and 0.1%.
- Climate change scenario for the defended 1% AEP+20% climate change event.

2.2.8 The River Meon is in the East Hampshire management catchment, and as shown in Table 2-2, the central and higher central allowances for the 2080s are 37% and 51% respectively. As an equivalent modelled event is not available from the modelling provided (i.e. the climate change event provided only considers a 20% uplift), the 0.1% AEP event has been used as a proxy for the 1% AEP including climate change scenario (design event). This approach was adopted in the Level 1 SFRA.

2.2.9 As the 3.33% AEP flood extent was not available as part of the Environment Agency's model, the Level 1 SFRA used the 1.33% AEP flood extent to delineate the Flood Zone 3b Functional Floodplain as a conservative approach. This approach has also been used as part of the Level 2 SFRA.

River Wallington

2.2.10 Hydraulic modelling of the River Wallington⁹ completed in 2011 consists of a 1D ISIS model and a 2D TUFLOW model and covers the Wallington and Waterloo areas of the catchment.

2.2.11 The following scenarios were provided:

- Defended scenarios for the following AEP events: 20%, 5%, 2%, 1.33%, 1%, 0.4%, 0.1%.
- Climate change scenarios for the defended 1% AEP+20% climate change event.
- Undefended scenarios for the following AEP events: 5%, 1%, 0.1%.

2.2.12 The River Wallington is in the East Hampshire management catchment, and as shown in Table 2-2, the central and higher central allowances for the 2080s are 37% and 51% respectively. As an equivalent modelled event is not available from the modelling provided (i.e. the climate change event provided only considers a 20% uplift), the 0.1% AEP event was used as a proxy for 1% AEP plus climate change scenario (design event). This approach was adopted in the Level 1 SFRA.

2.2.13 As the 3.33% AEP flood extent was not available as part of the Environment Agency's model, the Level 1 SFRA used the 2% AEP flood extent to delineate Flood Zone 3b Functional Floodplain as a conservative approach. This approach has also been used as part of the Level 2 SFRA.

⁸ River Meon model FMP-TUFLOW, August 2009, Halcrow Group Ltd.

⁹ River Wallington FMP-TUFLOW, April 2011, Hyder Consulting.

River Itchen

2.2.14 Modelling for the River Itchen¹⁰, completed in 2019, has been split into three models due to the size of the catchment. The extents of each model are as follows:

- Model 1: From the source of the Cheriton Stream, Candover Stream and River Alre and includes the main Itchen watercourse down to Easton. This covers the villages of Bramdean, Cheriton, the Candovers and Itchen Abbas. It also covers the town of Alresford.
- Model 2: The Itchen and Itchen Navigation between Easton and the Hockley viaduct and M3. This covers the city of Winchester.
- Model 3: The Itchen and Itchen Navigation between the Hockley viaduct and M3 and Woodmill on the northern edge of Southampton. This covers the villages of Twyford and Shawford and the town of Bishopstoke.

2.2.15 The following scenarios were provided:

- The following AEP events (undefended for Models 1 and 3 and both defended and undefended scenarios for Model 2): 50%, 20%, 10%, 5%, 4%, 3.33%, 2%, 1.33%, 1%, 0.5% 0.1%.
- Climate change scenarios for the 1% AEP event with increased flows of: 35%, 45%, 105%.

2.2.16 The River Itchen is in the Test and Itchen management catchment, and as shown in Table 2-2, the central and higher central allowances for the River Itchen management catchment are 35% and 56% respectively. The available modelled outputs for the 1% AEP + 35% climate change (design event) have therefore been used within this Level 2 SFRA.

2.2.17 The 3.33% AEP flood extent has been used as part of the delineation of Flood Zone 3b Functional Floodplain. This approach has also been used as part of the Level 2 SFRA.

River Itchen Tributaries

2.2.18 Modelling for the River Itchen tributaries¹¹, completed in 2019, has been split into six models with one representing each tributary. The following models are located within the Winchester area:

- Colden Common Stream
- Otterbourne Stream
- Bow Lake

2.2.19 The following scenarios were provided:

- The following AEP events (undefended): 50%, 20%, 10%, 5%, 4%, 3.33%, 2%, 1.33%, 1%, 0.5% 0.1%.
- Climate change scenarios for the 1% AEP event with increased flows of: 35%, 45%, 105%.

2.2.20 The River Itchen Tributaries are in the Test and Itchen management catchment, and as shown in Table 2-2, the central and higher central allowances for the River Itchen management catchment are 35% and 56% respectively. The available modelled outputs for the 1% AEP + 35% climate change (design event) have therefore been used within this Level 2 SFRA.

2.2.21 The 3.33% AEP flood extent has been used as part of the delineation of Flood Zone 3b Functional Floodplain. This approach has also been used as part of the Level 2 SFRA.

¹⁰ River Itchen Models 1-3, FMP-TUFLOW, JFLOW, May 2019, JBA.

¹¹ Itchen Tributaries Models, FMP-TUFLOW, JFLOW, May 2019, JBA.

2.3 Risk of Flooding from Surface Water

Flood Extents

- 2.3.1 The Environment Agency's Risk of Flooding from Surface Water (RoFSW) dataset includes GIS layers showing the extent of flooding from surface water that could result from a flood with a 3.33%, 1% and 0.1% chance of happening in any given year.
- 2.3.2 There are four levels of flood risk. These are:
- High – each year, the area has a chance of flooding of greater than 1 in 30 (3.33%)
 - Medium – each year, the area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.33%)
 - Low – each year, the area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%)
 - Very low – each year, the area has a chance of flooding of less than 1 in 1000 (0.1%)
- 2.3.3 The Environment Agency's online guidance 'Flood risk assessments: climate change allowances'⁷ sets out the climate change allowances for peak rainfall intensity allowances for specific 'management catchments' and provides advice on applying climate change projections when preparing flood risk assessments. The allowances for the management catchments of relevance to Winchester are set out in the Level 1 SFRA (Table 3-4) and range from 20-45%.
- 2.3.4 It is noted that the RoFSW mapping is not to be used at property level. This is due to the way the maps have been produced and the fact that they are indicative. The maps are therefore not appropriate to act as the sole evidence for any specific planning or regulatory decision or assessment of risk in relation to flooding at any scale without further supporting studies or evidence. However, the mapping provides a useful source of information to identify the risk of surface water flooding to the local area in which a site is located, and the general patterns of surface water flow and ponding.
- 2.3.5 The RoFSW mapping does not contain a specific climate change scenario. Instead, the 0.1% AEP flood outputs from the RoFSW mapping have been used as a proxy for the 1% AEP including an allowance for climate change. It is recognised that this is a conservative approach, however this provides a useful identification of areas that could be at risk in the future as a result of more extreme rainfall events.
- 2.3.6 Mapping of the RoFSW dataset is included within Appendix A Figure 3 of the Level 1 SFRA, Part 3 – Winchester City Council.
- 2.3.7 Mapping local to each of the sites considered in this Level 2 SFRA is provided in the site assessments in Appendix A.

2.4 Groundwater Flooding

BGS Susceptibility to Groundwater Flooding

- 2.4.1 The British Geological Survey (BGS) dataset 'Susceptibility to Groundwater Flooding' can be used to identify where there is potential for groundwater flooding to occur based on geological and hydrogeological information. This has been considered as part of the Level 1 and Level 2 SFRAs.
- 2.4.2 The information shown in the Susceptibility to Groundwater Flooding mapping is based on conceptual understanding of the regional geology and hydrogeology and is therefore only an indication of where groundwater flooding may occur. It does not indicate hazard or risk, any information on the depth to which groundwater flooding may occur, nor the likelihood of the occurrence of an event of a particular magnitude. This information should not be used in isolation to make planning decisions at any scale or to indicate the risk of groundwater flooding, but it does provide a high level overview of the potential for groundwater flooding. The map shows the following information:

- **Limited potential for groundwater flooding to occur:** In this area there is a limited potential, based on an understanding of the underlying geology and hydrogeological conditions, that groundwater flooding may occur.
- **Potential for groundwater flooding of property situated below ground level:** In this area there is the potential, based on an understanding of the underlying geology and hydrogeological conditions, that groundwater flooding may occur in property or infrastructure *below ground level*, such as basements.
- **Potential for groundwater flooding to occur at surface:** In this area there is the potential, based on an understanding of the underlying geology and hydrogeological conditions, that groundwater flooding may occur *above the ground*.

2.4.3 All other areas are not considered to be prone to groundwater flooding.

2.4.4 Most climate change models indicate an increased likelihood of drier summers, albeit with more intense rainfall when it occurs, and wetter winters. As groundwater flooding occurs primarily as a response to extended periods of rain during late autumn and early winter, there may be an increased risk of groundwater flooding arising from these changing rainfall patterns. However, the complex relationship between rainfall, recharge, groundwater storage and flow make the response to climate change uncertain. As a result, no further modelling or mapping has been undertaken to specifically identify the risk of groundwater flooding in the future as a result of climate change. It is considered that the locations of groundwater flooding are likely to remain similar to those identified in the BGS mapping, however the impact of climate change may be to increase the frequency and severity of groundwater flooding in those locations.

2.4.5 Mapping of the BGS dataset 'Susceptibility to Groundwater Flooding' is included within Appendix A Figure 5 of the Level 1 SFRA, Part 3 – Winchester City Council.

2.4.6 Mapping local to each of the sites considered in this Level 2 SFRA is provided in the site assessments in Appendix A (where groundwater flooding is considered a risk).

2.5 Reservoir Flooding

2.5.1 The Environment Agency's reservoir flood maps¹² show where water may flow in the unlikely event of a dam or reservoir failure. This is a 'worst case scenario' and it is unlikely that any actual flood would be this large. This data does not give an indication of the likelihood of reservoir failure, the depth and speed of the flood waters, or the length of time it would take for the flood water to reach any location.

2.5.2 Flood extents are not included for smaller reservoirs or for reservoirs commissioned after October 2016.

2.5.3 Mapping of the risk of flooding from reservoirs dataset is included within Appendix A Figure 6 of the Level 1 SFRA, Part 3 – Winchester City Council.

2.5.4 Mapping local to each of the sites considered in this Level 2 SFRA is provided in the site assessments in Appendix A (where reservoir flooding is considered a risk).

2.6 Historic Flood Records

Recorded Flood Outlines

2.6.1 The Local Authority area has a history of flooding events, with events occurring in 1975, 1995, 1999, 2000, 2001, 2002, 2008, 2013, 2014. The Environment Agency dataset 'Recorded Flood Outlines' has been used to inform the Level 2 SFRA site assessments.

2.6.2 Mapping of recorded flood outlines within the WCC area is included within Appendix A Figure 2 of the Level 1 SFRA, Part 3 – Winchester City Council.

¹² Reservoir flood maps: [Reservoir flood maps: when and how to use them - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/reservoir-flood-maps-when-and-how-to-use-them) [Accessed January 2024]

Lead Local Flood Authority Records

- 2.6.3 In their role as the LLFA, HCC has duties to record and investigate flood incidents relating to local sources of flooding, namely flooding from surface water, groundwater, and ordinary watercourses. This data has been referred to within the Level 2 SFRA site assessments.

2.7 Priority Groups

- 2.7.1 The HCC Itchen Catchment Management Plan¹³ sets out priority groups and identifies areas which are at an increased risk of flooding due to geographical, geological, or developmental features. Of these, the Central Winchester and Winchester West priority groups are relevant to this report, and the following policies are relevant to potential developments located within a priority group:

HCC will:

- Implement a more stringent approval process for all Ordinary Watercourse Consent applications where land drainage incidents and excessive culverting is a cause for significant concern.
- Make it best practice that a pre-application assessment is sought by the developer for the surface water management features of any proposed development where major development is due to take place.
- Ensure that the Local Planning Authority only approve new developments that sufficiently demonstrate that a rigorous maintenance regime will be implemented for their surface water management systems where major development is due to take place.
- Make it best practice that a 50% betterment of surface water run-off rates is demonstrated for the surface water management features of any proposed development where major brownfield development is due to take place.
- Make it best practice for LPAs to request hydraulic modelling of surface water exceedance flows movement and management on the new development where major greenfield development is due to take place, or where surface water management is a cause of significant concern.
- Make it best practice for LPAs to request a minimum flow rate of 2l per second from the outfall (A 50mm diameter orifice may be an acceptable alternative where other supporting criteria are met) where development which requires attenuation on site with restricted outfalls is due to take place.

¹³ HCC Itchen Catchment Management Plan: [Hampshire Catchment Prioritisation \(hants.gov.uk\)](https://www.hants.gov.uk) [Accessed April 2024]

3. Level 2 SFRA Site Assessments

3.1 Proforma template

3.1.1 Site assessment proformas are included in Appendix A. The sites are listed in groups, reflecting the increasing risk of flooding.

- Group 1: Sites in Flood Zone 1 with dry access and very low/low risk from other sources (surface water, groundwater, modelled flood extents, reservoir flooding, historical records). [4 SITES]
- Group 2: Sites in Flood Zone 1 with limited dry access. Low risk from other sources (surface water, groundwater, modelled flood extents, reservoir flooding, historical records). [8 SITES]
- Group 3: Sites in Flood Zone 1 with risk from other sources (surface water, groundwater, modelled flood extents, reservoir flooding, historical records). [17 SITES]
- Group 4: Sites within Flood Zones 2 and 3. [8 SITES]

3.1.2 Proformas for each site are included in Appendix A. A simple proforma is provided for sites in Groups 1-3. A more detailed proforma is provided for sites in Group 4. Table 3-1 provides an overview of the fields in the proforma for sites in Group 4 and the source of the information or dataset.

3.1.3 An overview of the risk of flooding is provided, based on the available datasets, followed by recommendations for how development could be delivered on the site to meet Part (2) of the Exception Test as described in Section 1.3. Consideration has been made of the flood risk to the site as well as the access routes to and from the sites.

Table 3-1 Datasets and information used for Level 2 Site Proformas

Proforma Field	Dataset / information used
Site Description	
Site Allocation	As provided by WCC (GIS layer of sites).
Site Name	As provided by WCC (Excel sheet and GIS layer of sites).
Area (ha)	The area of the site (hectares).
Proposed use	As provided by WCC.
Vulnerability classification	Defined in accordance with Annex 3 of the NPPF.
Flood Zones and Historic Flooding	
Proportion within each Flood Zone	Flood Map for Planning (Rivers and Sea) Flood Zone 2; Flood Map for Planning (Rivers and Sea) Flood Zone 3; Flood Map for Planning (Rivers and Sea); Flood Zone 3b Functional Floodplain outline created from 3.33% AEP River Itchen, 1.33% AEP River Meon, 2% AEP River Wallington.
Flood Priority Group	As provided by HCC.
Proximity to Main River/Watercourse	Calculated using the Environment Agency Main River dataset obtained from the Defra Data Services Platform and the OS watercourse layer provided by WCC.
Recorded River Flooding Outlines within 500m of the site	The dates of the flood events that have affected the site, as detailed in the Environment Agency 'Recorded Flood Outlines'.
Recorded Flood Investigations within 500m of the site	As provided by WCC. Described in Section 2.6.
River Mapping	
Maximum Flood Extents	Maximum flood extent map(s) for the watercourses relevant to the site (River Meon, River Wallington, and River Itchen), as described in Section 2.2.
Maximum Flood Hazard	Maximum flood hazard map(s) for the watercourses relevant to the site (River Meon, River Wallington, and River Itchen) as described in Section 2.2.
Surface Water Flooding	
Risk of Flooding from Surface Water Map	Environment Agency dataset obtained from the Defra Data Services Platform.
Other sources	
Flooding from Reservoirs in the Event of a Break or Failure on a Wet Day or Dry Day	Environment Agency datasets obtained from the Defra Data Services Platform.
Summary	
An overview of the risk of flooding to the site now and in the future (as a result of the impacts of climate change) based on the information within the proforma.	

Site Specific Recommendations

Recommendations for how development could be delivered on the site to meet the requirements of Part 2 of the Exception Test (where required) i.e. that it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Recommendations are made in line with the development management measures presented within the **Level 1** SFRA and typically address the following:

- Applying sequential approach within development site,
- Setting back development from the edge of watercourses,
- Finished floor levels,
- Floodplain compensation storage,
- Access and egress arrangements,
- Flood warning and evacuation procedures,
- Surface water management,
- Further investigation of groundwater levels.

3.2 Site Assessments

3.2.1 Table 3-2 provides a summary of sites in Group 1. These are entirely within Flood Zone 1 i.e. low probability of flooding from rivers. The risk from other sources is also very low/low (surface water, groundwater, and ordinary watercourses). Dry access/egress during the design flood event is likely to be achievable. More Vulnerable and Highly Vulnerable development is permitted within Flood Zone 1. The Exception Test is not required. Site proformas are included in Appendix A.

Table 3-2 Group 1 Sites

Site Label	Area (ha)	Site carried over from previous Local Plan?	Address	Capacity	Vulnerability Classification	% in Flood Zone				Risk from Ordinary Watercourse	Risk of surface water flooding	Susceptibility to groundwater flooding
						FZ1	FZ2	FZ3 a	FZ3 b			
BW4	5.3	No	Land North of Rareridge Lane (Bishop's Waltham)	100	More Vulnerable	100	0	0	0	No	Very Low	Limited potential
CC4	0.8	No	Land adjoining 85 Church Lane (Colden Common)	10	More Vulnerable	100	0	0	0	No	Very Low	No potential
SH3	2.9	Yes	Whiteley Green (Whiteley)	30	More Vulnerable	100	0	0	0	No	Very Low	Limited potential
SW01	1.8	No	Land at West Hill Road North (South Wonston)	40	More Vulnerable	100	0	0	0	No	Very Low to Low	Limited Potential

3.2.2 Table 3-3 provides a summary of sites in Group 2. These are entirely within Flood Zone 1 i.e. low probability of flooding from rivers. The risk from other sources to the majority of the sites are also low (surface water, groundwater, and ordinary watercourses). Dry access/egress during the design flood event has potential to be limited. More Vulnerable and Highly Vulnerable development is permitted within Flood Zone 1. The Exception Test is not required. Site proformas are included in Appendix A.

Table 3-3 Group 2 Sites

Site Label	Area (ha)	Site carried over from previous Local Plan?	Address	Capacity	Vulnerability Classification	% in Flood Zone				Risk from Ordinary Watercourse	Risk of surface water flooding	Susceptibility to groundwater flooding
						FZ1	FZ2	FZ3 a	FZ3 b			
BW1	7.3	Yes	The Vineyard/ Tangier Lane (Bishop's Waltham)	120	More Vulnerable	100	0	0	0	No	Very Low	Limited potential
CC1	2.7	Yes	Clayfield Park (Colden Common)	48	More Vulnerable	100	0	0	0	No	Very Low to High	Potential at surface
CC2	2.3	No	Colden Common Farm (Colden Common)	45	More Vulnerable	100	0	0	0	No	Very Low to High	No potential
H16	1.6	Yes	The Nurseries Shedfield (Shedfield)	N/A	Highly Vulnerable	100	0	0	0	No	Very Low to High	Limited potential
KW1	1.3	No	Cornerways and Merrydale (Kings Worthy)	80 -100 bed nursing home (45 dwellings equivalent)	More Vulnerable	100	0	0	0	No	Very Low to Low	Limited potential
NA2	30.8	Yes	Sun Lane (New Alresford)	320	More Vulnerable	100	0	0	0	No	Very Low to High	Limited potential
WC1	2.8	Yes	Morgan's Yard (Waltham Chase)	80	More Vulnerable	100	0	0	0	Yes	Very Low to High	No potential
WK6	2.4	No	Land at junction of Mill Lane (Wickham)	40	More Vulnerable	100	0	0	0	No	Very Low	Limited Potential

3.2.3 Table 3-4 provides a summary of sites in Group 3. These are entirely within Flood Zone 1, low probability of flooding from rivers, and are at risk from other sources (surface water, groundwater, and ordinary watercourses). More Vulnerable and Highly Vulnerable development is permitted within Flood Zone 1. The Exception Test is not required. Site proformas are included in Appendix A.

Table 3-4 Group 3 Sites

Site Label	Area (ha)	Site carried over from previous Local Plan?	Address	Capacity	Vulnerability Classification	% in Flood Zone				Risk from Ordinary Watercourse	Risk of surface water flooding	Susceptibility to groundwater flooding
						FZ1	FZ2	FZ3a	FZ3b			
BW3	2.6	Yes	Tollgate Sawmill (Bishop's Waltham)	10	More Vulnerable	100	0	0	0	Yes	Very Low to High	Potential at surface
CC3	1.4	No	Land at Main Road (Colden Common)	35	More Vulnerable	100	0	0	0	No	Very Low to Medium	Potential at surface
H18	2.7	Yes	Tynefield Whiteley (Whiteley)	N/A	Highly Vulnerable	100	0	0	0	No	Very Low to High	Potential at surface and below ground
KW2	4.7	No	Land adjoining the Cart and Horses PH (Kings Worthy)	N/A	More Vulnerable	100	0	0	0	No	Very Low to High	Potential at surface and below ground
NA1	2.1	Yes	The Dean (New Alresford)	130	More Vulnerable	100	0	0	0	No	Very Low to Low	Potential at surface and below ground
SH4	6.1	Yes	Solent Business Park (Whiteley)	N/A	Less Vulnerable	100	0	0	0	Yes	Very Low to High	Potential at surface and below ground
SU01	5.3	No	Land at Brightlands (Sutton Scotney)	60	More Vulnerable	100	0	0	0	No	Very Low	Potential at Surface
W1	93.7	Yes	Barton Farm (Kings Barton)	1541	More Vulnerable	100	0	0	0	No	Very Low to Low	Potential at surface and below ground
W4	6.0	No	Courtenay Road (Winchester)	150	More Vulnerable	100	0	0	0	No	Very Low	Potential below ground
W5	43.0	No	Bushfield Camp (Winchester)	N/A	Less Vulnerable	100	0	0	0	No	Very Low to High	Potential at surface and below ground
W6	43.5	Yes	Winnall (Winchester)	N/A	Less Vulnerable	100	0	0	0	No	Very Low to High	Potential at surface and below ground
W8	5.8	Yes	Station Approach (Winchester)	250	More Vulnerable	100	0	0	0	No	Very Low to High	Potential at surface and below ground
W9	1.2	No	Bar End Depot (Winchester)	30	More Vulnerable	100	0	0	0	No	Very Low to Low	Potential at surface
W11	19.6	Yes	University and Hospital area (Winchester)	N/A	More Vulnerable	100	0	0	0	No	Very Low to High	Potential below ground
WK1	7.7	Yes	Winchester Road (Wickham)	125	More Vulnerable	100	0	0	0	No	Very Low to Low	Limited potential
WK4	17.2	No	Ravenswood (Knowle)	200	More Vulnerable	100	0	0	0	No	Very Low to High	Potential at surface and below ground
WK5	3.4	No	Land at Southwick Road/School Road (Wickham)	60	More Vulnerable	100	0	0	0	No	Very Low	Potential at Surface

3.2.4 Table 3-5 provides a high level summary of sites in Group 4. These are sites within Flood Zones 2 and 3. More Vulnerable and Highly Vulnerable development may be permitted within Flood Zone 2; proposals for Highly Vulnerable development would be subject to the satisfaction of the Exception Test. More Vulnerable development may be permitted in Flood Zone 3a, subject to the satisfaction of the Exception Test. Development is not permitted in Flood Zone 3b. Site proformas are included in Appendix A.

Table 3-5 Group 4 Sites

Legend Likelihood of deliverability of site from flood risk perspective

	Flood risk constraints unlikely to significantly impact deliverability of site.
	Some flood risk constraints identified, however considered that flood risk could be managed to ensure development is safe for its lifetime without increasing flood risk elsewhere.
	Significant flood risk constraints identified, such as requirements for safe access and/or floodplain compensation storage. Further discussion required with stakeholders to determine measures required to ensure development is safe for its lifetime without increasing flood risk elsewhere.
	Significant flood risk constraints identified. Unlikely to be able to be managed to ensure development is safe for its lifetime without increasing flood risk elsewhere.

Site Label	Area	Site carried over from previous Local Plan?	Address	Capacity	Vulnerability	Flood Zone 1	Flood Zone 2	Flood Zone 3a	Flood Zone 3b	Exception Test Required	Summary of flood risk	Site Specific Recommendations
Group 4: Sites within Flood Zone 2 and 3.												
OT01	6.4	No	Land East of Main Road (Otterbourne)	55	More Vulnerable	99.99	0.01	0	0	N	The Main River Otterbourne Stream flows approximately 63m from the site. The majority of the site (99.99%) is defined as Flood Zone 1, with 0.01% in Flood Zone 2 (along the north eastern boundary). This site has been included in Group 4 as a conservative approach. Modelling included within this report shows part of the site to be at risk of flooding during the 1% + 35% AEP event, as well as a part of Main Road north of the site to be at risk during the 1% + 35% AEP event with a hazard rating of Very Low to Significant. The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with pooling at the west of the site. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There is a recorded flood investigation within 500m of the site that occurred at Kiln Lane in 2014. There is a flood outline within 500m of the site that occurred in winter 2013/2014.	55 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. away from the north boundary of the site, and where there is potential for groundwater flooding at surface. This site will likely require further modelling to inform the site-specific FRA. Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) is available for the site heading south along Main Road. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.
SH1	245.0	Yes	Newlands (West of Waterlooville)	1200 + additional 300	More Vulnerable	88	9	1	2	Y	The Main River Old Park Stream as well as numerous ordinary watercourses flow through the site. The majority of the site (88%) is defined as Flood Zone 1, with 9% in Flood Zone 2 and the remainder in Flood Zone 3a and 3b. Modelling available for River Wallington shows part of the site to be at risk of flooding in the 0.1% AEP events, with access roads west and north of the site at risk during the 0.1% AEP events with a hazard rating of Very Low to Extreme. The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There is a recorded flood investigation within 500m of the site that occurred at Byrns Business Park in Winter 2000. There are no flood outlines within 500m of the site.	A total of 2800 residential units are proposed for this site. Outline planning permission has been obtained and the site is currently under construction. The site is being developed in phases with approximately 1200 dwellings complete of original allocation of 2,500 dwellings (in April 2023) with a further 300 allocated in the new Local Plan. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Modelling available for this site is considered to be outdated, and therefore site-specific modelling will be required for any new development. A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding the Main River and watercourses throughout the site, and where there is potential for groundwater flooding at surface. Development is not permitted in areas of Flood Zone 3b Functional Floodplain. This part of the site should be retained as floodplain and steps taken to restore the land to provide a more natural edge of the river. New development within 8 metres of a Main River or Ordinary Watercourse will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. Dry access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) may be achievable for the site heading south along the A3 and heading east along Hambledon Road based on modelling available for the site. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event due to surface water on all surrounding roads. Access/egress should be considered further as part of a site-specific FRA. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site

Site Label	Area	Site carried over from previous Local Plan?	Address	Capacity	Vulnerability	Flood Zone 1	Flood Zone 2	Flood Zone 3a	Flood Zone 3b	Exception Test Required	Summary of flood risk	Site Specific Recommendations
												Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.
SH2	210.0	Yes	North Whiteley (Curbridge)	2500 + additional 200	More Vulnerable	93	1	6	0	Y	The Main River Curbridge Creek as well as three ordinary watercourses flow through the site. The majority of the site (93%) is defined as Flood Zone 1 with 1% in Flood Zone 2 and 6% in Flood Zone 3a. There are no available hydraulic model results covering the site. The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no flood outlines or recorded flood investigations within 500m of the site.	A total of 3500 residential units are proposed for this site. Outline planning permission has been obtained and the site is currently under construction. The site is being developed in phases with approximately 974 dwellings complete of original allocation of 2,500 dwellings (in April 2023) with a further 200 allocated in the new Local Plan. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding areas around the Main River where Flood Zones 2 and 3 are present, and where there is potential for groundwater flooding at surface. Modelling is not available for this site, and therefore site-specific modelling will be required for any new development to confirm the flood risk during a 1% AEP event including climate change. Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) will need to be designed into the site masterplan, informed by hydraulic modelling of the watercourses. The eastern part of the site is not currently well connected to areas outside the floodplain, and therefore appropriate crossings for the watercourses will need to be designed into the site. Access is then available along the A3051. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.
SW1	10.0	Yes	The Lakes (Swanmore)	100	More Vulnerable	85	3	12	0	Y	An unnamed Main River which is a tributary of the River Hamble flows through the site. The majority of the site (85%) is defined as Flood Zone 1, with 3% in Flood Zone 2 and 12% in Flood Zone 3a. There are no available hydraulic model results covering the site. The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is no potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations or flood outlines within 500m of the site.	100 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. away from the Main River along the south border of the site where Flood Zones 2 and 3 are present. Modelling is not available for this site, and therefore site-specific modelling will be required for any new development to confirm the flood risk during a 1% AEP event including climate change. New development within 8 metres of a Main River or Ordinary Watercourse will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. Dry access/egress for surface water is likely to be achievable heading north along New Road and Hill Pound. Access/egress should be considered further as part of a site-specific FRA. Alternative access routes to the centre of the site may need to be provided as part of the development. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.
W2	84.3	No	Sir John Moore Barracks (Winchester)	900	More Vulnerable	97	0	3	0	Y	An unnamed Main River which is a tributary of the River Itchen flows through the site. Two tributaries of the unnamed Main River flow through the site. The majority of the site (97%) is defined as Flood Zone 1, with 3% in Flood Zone 3a. There are	900 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A sequential approach should be taken when designing the layout of the site, steering development

Site Label	Area	Site carried over from previous Local Plan?	Address	Capacity	Vulnerability	Flood Zone 1	Flood Zone 2	Flood Zone 3a	Flood Zone 3b	Exception Test Required	Summary of flood risk	Site Specific Recommendations
											no available hydraulic model results covering the site. The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There is a recorded flood investigation within 500m of the site which occurred in 2014 in Littleton. There are recorded flood outlines within 500m of the site, occurring in winter 2000/2001 at Nunswalk, winter 2013/2014 at Fyfield Way, and winter 1995 at Nunswalk.	away from areas of flood risk. i.e. avoiding areas around the Main River where Flood Zones 2 and 3 are present, the tributaries of the Main River, and where there is potential for groundwater flooding at surface. Modelling is not available for this site, and therefore site-specific modelling will be required for any new development to confirm the flood risk during a 1% AEP event including climate change. New development should be set back from watercourses to retain the natural floodplain. New development within 8 metres of a Main River will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. Dry access/egress for surface water is likely to be achievable heading north along Andover Road North and south along Main Road. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.
W3	0.4	No	St Peter's Car Park (Winchester)	30	More Vulnerable	85	15	0	0	Y	An unnamed Main River is culverted through the site. The majority of the site (85%) is defined as Flood Zone 1, with 15% in Flood Zone 2. Flood Zone 3a and 3b are located at the northern boundary of the site. Modelling available for the River Itchen shows flooding in the 1% AEP +35% climate change event adjacent to the northern boundary, with the main access roads unaffected. The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running along the north of the site. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a dry day and is at risk of 74.7% of the site flooding on a wet day. The site lies within the Central Winchester Priority Group, details of relevant policies can be seen in Section 2.7 of the Level 2 SFRA. There are no recorded flood investigations within 500m of the site. There are four recorded flood outlines within 500m of the site, three of which occurred in winter 2013/2014 at Park Avenue, Water Lane, and Winchester Leisure Centre, and one which occurred in winter 2000/2001.	30 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding areas around the Main River where Flood Zones 2 and 3 are present, and where there is residual risk of reservoir flooding. This site will likely require further modelling to inform the site-specific FRA. Retain an 8 metre wide undeveloped buffer strip alongside Main Rivers and explore opportunities for riverside restoration including deculverting. New development within 8m of a Main River will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) is available for the site along North Walls. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading east along North Walls. Access/egress should be considered further as part of a site-specific FRA. The site is located within the Central Winchester Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is within an area that has been shown from modelling to be potentially affected in the event of a reservoir breach or failure. This should be assessed appropriately to inform the development strategy and ensure that the masterplan includes appropriate measures to manage the potential for inundation within the site.
W7	4.6	Yes	Central Winchester Regeneration (Winchester)	300	More Vulnerable	55	40	4	1	Y	Numerous unnamed Main Rivers which are tributaries of the River Itchen are throughout the site with one section of open channel and the remaining culverted. Much of the site (55%) is defined as Flood Zone 1, with 40% in Flood Zone 2, 4% in Flood Zone 3a, and 1% in Flood Zone 3b. Modelling available for the River Itchen shows part of the site to be at risk of flooding in the 1% AEP +35% climate change AEP event, with access roads to the north, south, and east of the site at risk during the 1%+35%CC AEP event with a hazard rating of Very Low to Significant. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths located throughout the site. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface. The site is not at risk of flooding from reservoirs in the event	300 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding areas around the Main River where Flood Zones 2 and 3 are present, and where there is residual risk of reservoir flooding. This site will likely require further modelling to inform the site-specific FRA. Development is not permitted in areas of Flood Zone 3b Functional Floodplain. This part of the site should be retained as floodplain and steps taken to restore the land to provide a more natural edge of the river. Retain an 8 metre wide undeveloped buffer strip alongside Main Rivers and explore opportunities for riverside restoration including deculverting. New development within 8m of a Main River or Ordinary Watercourse will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the

Site Label	Area	Site carried over from previous Local Plan?	Address	Capacity	Vulnerability	Flood Zone 1	Flood Zone 2	Flood Zone 3a	Flood Zone 3b	Exception Test Required	Summary of flood risk	Site Specific Recommendations
											of a breach on a dry day, however 84% of the site at risk during a wet day. The site lies within the Central Winchester Priority Group. There is a recorded flood investigation within 500m of the site which occurred at Culverwell Gardens in 2014. There are recorded flood outlines within 500m of the site, three of which occurred in winter 2013/2014 at Water Lane, Park Avenue, and Winchester Leisure Centre, as well as one which occurred in winter 2000/2001.	development sites is required for any increase in building footprint. Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) is available for the site along St George's Street. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading west along St George's Street. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event. Access/egress should be considered further as part of a site-specific FRA. The site is located within the Central Winchester Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is within an area that has been shown from modelling to be potentially affected in the event of a reservoir breach or failure. This should be assessed appropriately to inform the development strategy and ensure that the masterplan includes appropriate measures to manage the potential for inundation within the site.
W10	1.6	Yes	River Park (Winchester)	N/A	Less Vulnerable	51	31	9	9	N	The River Itchen (Main River) flows approximately 1.9m from the southern boundary of the site, and an ordinary watercourse runs 2.8m from the northern and eastern boundary of the site. Much of the site is defined as Flood Zone 1 (51%), with 31% in Flood Zone 2, 9% in Flood Zone 3a, and 9% in Flood Zone 3b. Modelling available for the River Itchen shows part of the site to be at risk of flooding in the 1% AEP +35% climate change event, with access roads to the north unaffected. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 0.1% AEP event, with a flow path located through the east of the site. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a dry day, however 88% of the site is at risk during a wet day. The site lies within the Central Winchester Priority Group. There are no recorded flood investigations within 500m of the site. There are recorded flood outlines within 500m of the site, two of which occurred in winter 2013/2014 at Park Avenue and Winchester Leisure Centre, and one which occurred in winter 2000/2001.	Employment space is proposed for this site. A site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. locate development to the west of the site and avoiding areas around the Main River where Flood Zones 2 and 3 are present, retain the east of the site to enable flood storage e.g. for water compatible uses. This site will likely require further modelling to inform the site-specific FRA. Development is not permitted in areas of Flood Zone 3b Functional Floodplain. This part of the site should be retained as floodplain and steps taken to restore the land to provide a more natural edge of the river. New development within 8m of a Main River or Ordinary Watercourse will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites is required for any increase in building footprint. Finished Floor Levels for Less Vulnerable development should be set above the design flood where possible (1% AEP including central climate change allowance) level, but as a minimum steps should be taken to ensure that the development is appropriately flood resistant and resilient Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) is likely to be achievable heading south along Gordon Road. Dry access/egress for surface water is not likely to be achievable, with flow paths along Gordon Road. Access/egress should be considered further as part of a site-specific FRA. The site is located within the Central Winchester Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is within an area that has been shown from modelling to be potentially affected in the event of a reservoir breach or failure. This should be assessed appropriately to inform the development strategy and ensure that the masterplan includes appropriate measures to manage the potential for inundation within the site.

4. Summary

- 4.1.1 Winchester City Council (WCC) are preparing a Local Plan which contains the overall vision and framework for future development in the area. Using the information within the Level 1 SFRA, WCC have undertaken the Sequential Test and have identified 38 sites that have been assessed within this Level 2 SFRA.
- 4.1.2 For all sites where development is proposed in the area, development should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS; and incorporate soft landscaping, planting, and permeable surfacing.
- 4.1.3 A preliminary Hydrogeological Risk Assessment (HRA) should be undertaken to determine ground conditions and groundwater levels in proximity to the site, and to identify whether the proposed development will impact on groundwater, either from subsurface construction or from changes to surface water drainage. The potential impact of climate change will be included within this assessment. Should the preliminary HRA identify potential for impact, a full HRA should be prepared to identify proposed mitigation measures.
- 4.1.4 The 3 sites identified below have a proportion of their area within the 3.33% AEP (1 in 30 year) modelled flood extent.
- SH1: Newlands (West of Waterlooville)
 - W7: Central Winchester Regeneration
 - W10: River Park
- 4.1.5 Within **undeveloped** areas of the 3.3% AEP flood extent, development should not be permitted, rather land should be safeguarded for flood storage.
- 4.1.6 Within **developed** areas of 3.3% AEP flood extent, redevelopment of existing buildings within the 3.3% AEP extent may be permitted, but only where the vulnerability of the development is not increased (and where possible reduced) and the number of occupants does not increase. For W7 and W10 this may limit the number of units that can be delivered on these sites.
- 4.1.7 The following sites are located partially within the design flood extent (1% AEP (1 in 100 year) including climate change).
- SH1: Newlands (West of Waterlooville)
 - W7: Central Winchester Regeneration
 - W10: River Park
- 4.1.8 For these sites, if development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites is required for any increase in building footprint. This may limit the number of units that can be delivered on the sites.
- 4.1.9 Modelling is not available for all sites, and therefore site-specific modelling will be required for any new development on the following sites to confirm the flood risk during the design event (1% AEP event including climate change).
- SH2: North Whiteley
 - SW1: The Lakes
 - W2: Sir John Moore Barracks
- 4.1.10 The Environment Agency noted on the draft version of the SFRA that further modelling may also be required to inform site-specific FRAs for some sites to confirm the flood risk during the design event (1% AEP event including climate change).
- OT01: Land East of Main Road (Otterbourne)
 - W3: St Peter's Car Park (Winchester)

- W7: Central Winchester Regeneration (Winchester)
 - W10: River Park (Winchester)
- 4.1.11 With regards to fluvial flooding there are several sites where safe access is considered to be limited. Further consultation with Emergency Planners and the Environment Agency is required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services.
- SW1: The Lakes
 - W3: St Peter's Car Park
 - W7: Central Winchester Regeneration
 - W10: River Park
- 4.1.12 When considering the RoFSW dataset there are several sites where safe access may not be achievable and could therefore restrict development. It is recommended that consultation with HCC, in their role as LLFA, is undertaken to explore opportunities for development to contribute to a reduction in flood risk. Consultation should also be undertaken with Emergency Planners to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services.
- BW3: Tollgate Sawmill (Bishop's Waltham)
 - SH1: Newlands (West of Waterlooville)
 - SH4: Solent Business Park (Whiteley)
 - KW1: Cornerways and Merrydale (Kings Worthy)
 - NA1: The Dean (New Alresford)
 - W7: Central Winchester Regeneration (Winchester)
 - W10: River Park (Winchester)
 - WK1: Winchester Road (Wickham)
 - WK5: Land at Southwick Road/School Road (Wickham)
- 4.1.13 There are also sites where access routes are susceptible to low risk of surface water flooding. Further consultation with Emergency Planners and HCC, in their role as LLFA, is required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services.
- BW1: The Vineyard/ Tangier Lane (Bishop's Waltham)
 - CC1: Clayfield Park (Colden Common)
 - CC2: Colden Common Farm (Colden Common)
 - CC3: Land at Main Road (Colden Common)
 - H16: The Nurseries Shedfield (Shedfield)
 - H18: Tynefield Whiteley (Whiteley)
 - W1: Barton Farm (Kings Barton)
 - W3: St Peter's Car Park (Winchester)
 - W4: Courtenay Road (Winchester)
 - W8: Station Approach (Winchester)
 - W9: Bar End Depot (Winchester)
 - W11: University and Hospital area (Winchester)
 - WK6: Land at junction of Mill lane (Wickham)

Appendix A Site Assessments

Group 1: Sites in Flood Zone 1 with some dry access and very low/low risk from other sources of flooding (i.e. surface water, groundwater)

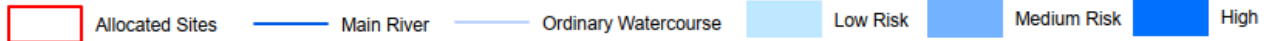
BW4: Land North of Rareridge Lane (Bishop's Waltham)					
Site Label:	BW4	Address:	Land North of Rareridge Lane	Area (ha):	5.3
Proposed Use: Residential - 100 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	Flood Zone 2 (0.1% AEP):	Flood Zone 3 (1% AEP):	Flood Zone 3b:	Exception Test required?	
100%	0%	0%	0%	No	
Carried over from previous Local Plan?		No			

Surface Water Flooding

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Legend



Risk of Flooding from Surface Water (RoFSW)

Summary

An unnamed tributary of the River Hamble flows approximately 600m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is not at risk of flooding from surface water (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There is a recorded flood outline within 500m of the site which occurred in winter 2013/2014.

Site Specific Recommendations

100 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is likely to be achievable for the site heading east along Hoe Road. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping,

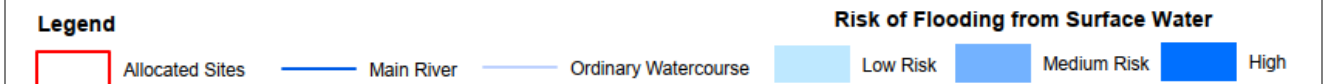
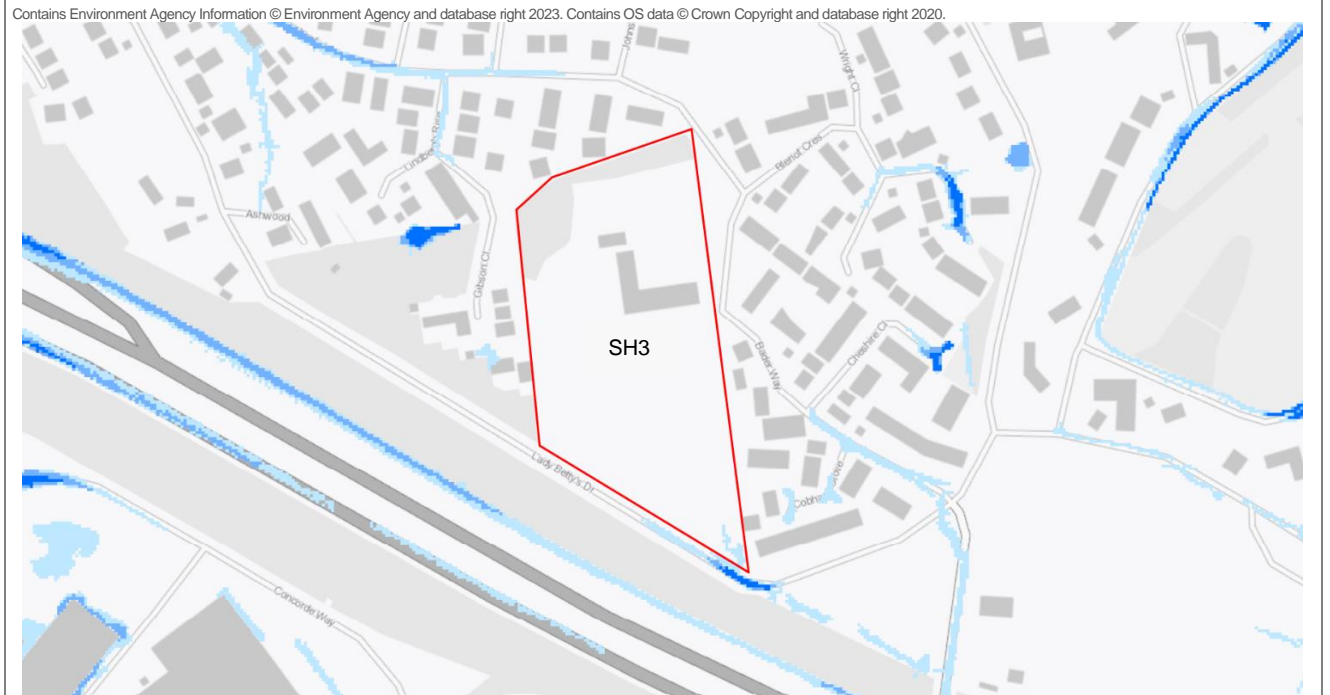
BW4: Land North of Rareridge Lane (Bishop's Waltham)

planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

CC4: Land adjoining 85 Church Lane (Colden Common)					
Site Label:	CC4	Address:	Land adjoining 85 Church Lane	Area (ha):	0.8
Proposed Use: Residential - 10 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		No			
Surface Water Flooding					
<small>Contains Environment Agency Information © Environment Agency and database right 2023. Contains OS data © Crown Copyright and database right 2020.</small>					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Ordinary Watercourse
			Low Risk		Medium Risk
			High		
Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>The Colden Common Stream flows approximately 80m to the north of the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is not at risk of flooding from surface water (as shown in the mapping above). BGS Susceptibility to Groundwater Flooding dataset indicates that there is no potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood outlines within 500m of the site. There is a flood investigation within 500m of the site which occurred in 2014.</p>					
Site Specific Recommendations					
<p>10 residential units are proposed for this site. Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. Dry access/egress for surface water is likely to be achievable for the site in the 1% AEP event heading east along Church Lane. Dry access/egress is not likely to be achievable in the 0.1% AEP event. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.</p>					

SH3: Whiteley Green (Whiteley)					
Site Label:	SH3	Address:	Whiteley Green	Area (ha):	2.9
Proposed Use: Residential - 30 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		Yes			

Surface Water Flooding



Risk of Flooding from Surface Water (RoFSW)

Summary

An unnamed tributary of the River Meon flows approximately 360m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 0.1% AEP event, with ponding in the south of the site (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no flood outlines or recorded flood investigations within 500m of the site.

Site Specific Recommendations

30 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is likely to be achievable for the site heading west along Lady Betty's Drive. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

SW01: Land at West Hill Road North (South Wonston)					
Site Label:	SW01	Address:	Land at West Hill Road North	Area (ha):	1.8
Proposed Use: Residential - 40 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Carried over from previous Local Plan?				No	
Surface Water Flooding					
<p>Contains Environment Agency Information © Environment Agency and database right 2023. Contains OS data © Crown Copyright and database right 2020.</p>					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Ordinary Watercourse
			Low Risk		Medium Risk
			High		
Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>An unnamed tributary of the River Itchen flows approximately 3km from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that a very small area within the centre of the site is at risk of flooding from surface water in the 0.1% AEP event. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There is a recorded flood outline within 500m of the site which occurred in winter 1995.</p>					
Site Specific Recommendations					
<p>40 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water in the 1% AEP event is likely to be achievable for the site heading south along West Hill Road North, as well as in the 0.1% AEP event provided that the connection to the site is located at the south east corner. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be</p>					

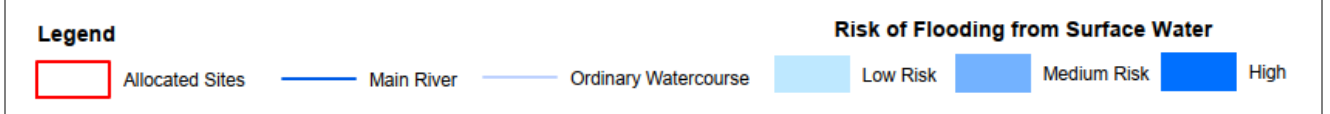
SW01: Land at West Hill Road North (South Wonston)

made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Group 2: Sites in Flood Zone 1 with limited dry access. Low risk from other sources of flooding (i.e. surface water, groundwater)

BW1: The Vineyard/ Tangier Lane (Bishop's Waltham)					
Site Label:	BW1	Address:	The Vineyard/ Tangie Lane	Area (ha):	7.3
Proposed Use: Residential - 120 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		Yes			

Surface Water Flooding



Risk of Flooding from Surface Water (RoFSW)

Summary

The River Hamble flows approximately 460m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is not at risk of flooding from surface water (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations or flood outlines within 500m of the site.

Site Specific Recommendations

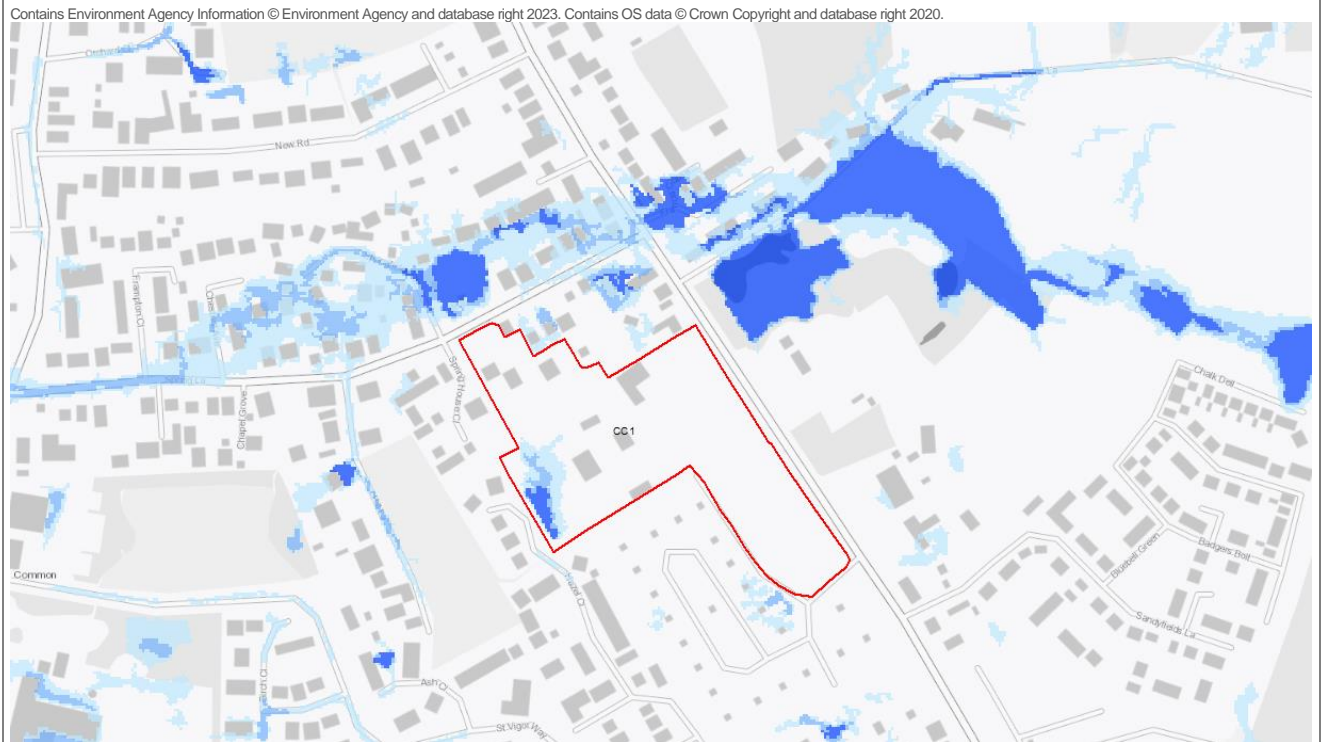
120 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is achievable for the northern part of the site via Albany Road, no existing dry road access/egress for the southern part of the site in either the 1% or 0.1% AEP event. Walking access/egress for surface water is likely to be achievable for the southern site via the footpath located to the east of the site. Alternative access routes to the south site will need to be provided as part of the development. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water

BW1: The Vineyard/ Tangier Lane (Bishop's Waltham)

making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

CC1: Clayfield Park (Colden Common)					
Site Label:	CC1	Address:	Clayfield Park	Area (ha):	2.7
Proposed Use: Residential - 48 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Carried over from previous Local Plan?		Yes			
Flood Zone 3b:		0%			
Exception Test required? No					

Surface Water Flooding



Legend

Risk of Flooding from Surface Water

Allocated Sites
 Main River
 Ordinary Watercourse
 Low Risk
 Medium Risk
 High

Risk of Flooding from Surface Water (RoFSW)

Summary

An unnamed watercourse flows approximately 270m south of the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with pooling in the west of the site (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood outlines within 500m of the site. There is a flood investigation within 500m of the site which occurred at Main Road, Colden Common in 2014.

Site Specific Recommendations

48 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with flow paths crossing Main Road both to the north and south of the site. Access/egress should be considered further as part of a site-specific FRA. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify

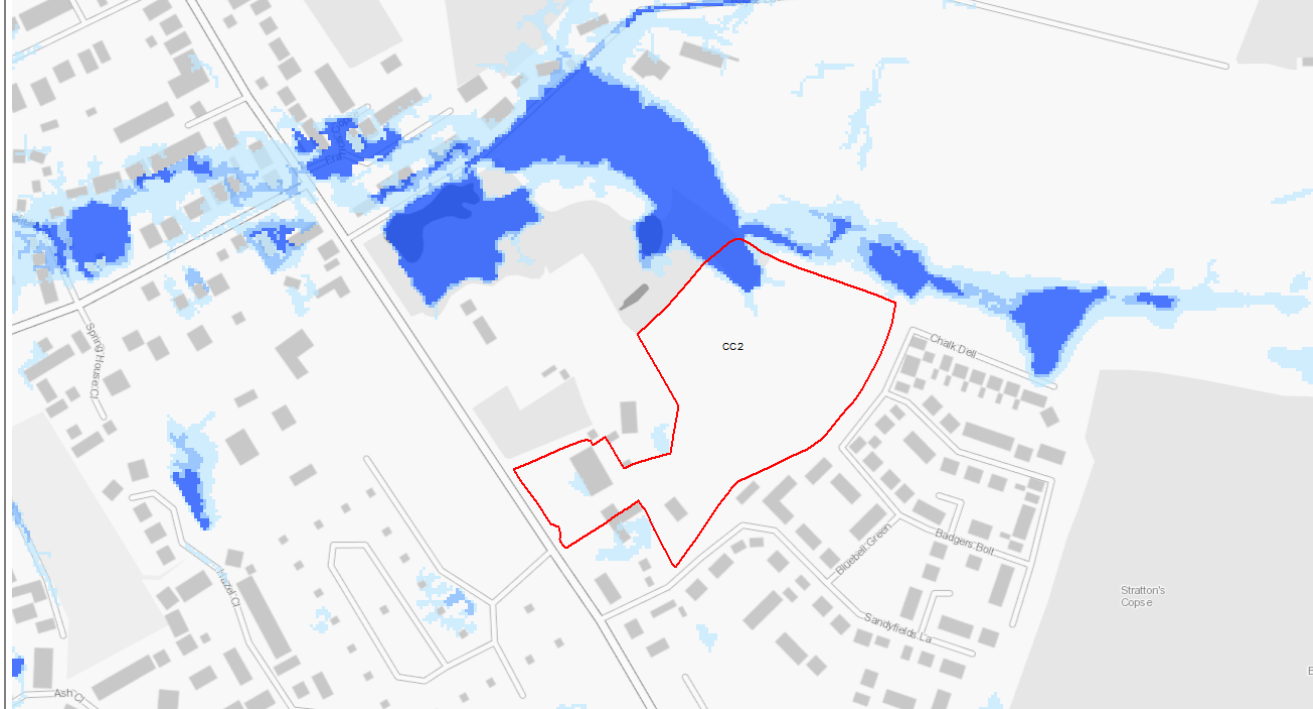
CC1: Clayfield Park (Colden Common)

potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

CC2: Colden Common Farm (Colden Common)					
Site Label:	CC2	Address:	Colden Common Farm	Area (ha):	2.3
Proposed Use: Residential - 45 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		No			

Surface Water Flooding

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Legend

Risk of Flooding from Surface Water

Allocated Sites
 Main River
 Ordinary Watercourse
 Low Risk
 Medium Risk
 High

Risk of Flooding from Surface Water (RoFSW)

Summary

An unnamed watercourse flows approximately 260m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with a flow path located in the north west corner of the site, flowing away from the site (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is no potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood outlines within 500m of the site. There is a flood investigation within 500m of the site which occurred in 2014 at Main Road, Colden Common.

Site Specific Recommendations

45 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress is not likely to be achievable for either the 1% AEP or 0.1% AEP event, with flow paths crossing Main Road both to the north and south of the site. Access/egress should be considered further as part of a site-specific FRA. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on

CC2: Colden Common Farm (Colden Common)

groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

H16: The Nurseries Shedfield (Shedfield)					
Site Label:	H16	Address:	The Nurseries Shedfield	Area (ha):	1.6
Proposed Use: Traveller and gypsy residence			Vulnerability Classification: Highly Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Flood Zone 3b:		0%		Exception Test required? No	
Carried over from previous Local Plan?		Yes			

Surface Water Flooding

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Legend

Risk of Flooding from Surface Water

Allocated Sites
 Main River
 Ordinary Watercourse
 Low Risk
 Medium Risk
 High

Risk of Flooding from Surface Water (RoFSW)

Summary

An unnamed tributary of the River Hamble flows approximately 550m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 0.1% AEP event, with a flow path to the north west of the site (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There is a recorded flood outline within 500m of the site which occurred in winter 2000/2001 at Shedfield, and a flood investigation which occurred in 2012 at the Meon Valley Golf and Country Club.

Site Specific Recommendations

Traveller and Gypsy residence is proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with flow paths crossing the A334 both to the east and west of the site. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for

H16: The Nurseries Shedfield (Shedfield)

impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

KW1: Cornerways and Merrydale (Kings Worthy)					
Site Label:	KW1	Address:	Cornerways and Merrydale	Area (ha):	1.3
Proposed Use: 80 -100 bed nursing home (45 dwellings equivalent)			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		No			
Surface Water Flooding					
<p>Contains Environment Agency Information © Environment Agency and database right 2023. Contains OS data © Crown Copyright and database right 2020.</p>					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Ordinary Watercourse
			Low Risk		Medium Risk
			High		
Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>An unnamed tributary of the River Itchen flows approximately 210m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 0.1% AEP event, with pooling at the centre of the site and a flow path located along Church Lane at the eastern boundary of the site (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There have been flood outlines within 500m of the site in winter 2000/2001 at Nunswalk, and in winter 2013/2014.</p>					
Site Specific Recommendations					
<p>80-100 nursing homes equivalent to 45 dwellings are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with flow paths along Church Lane. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from</p>					

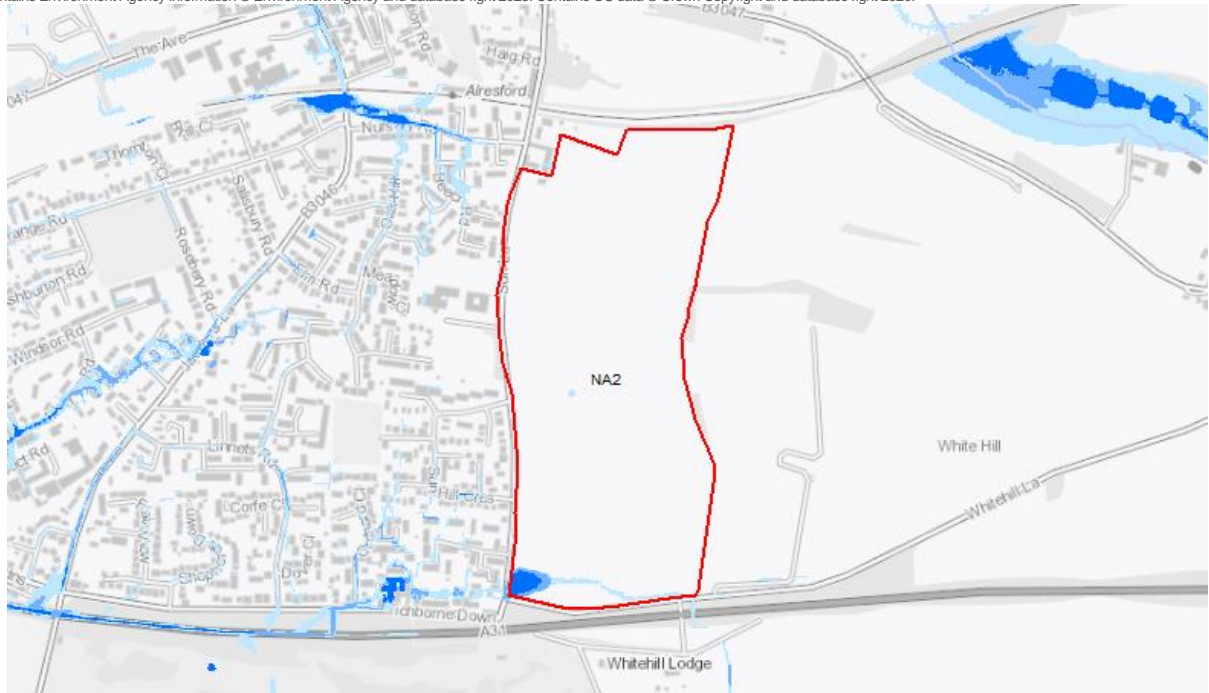
KW1: Cornerways and Merrydale (Kings Worthy)

subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

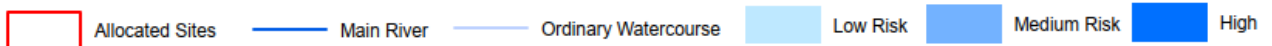
NA2: Sun Lane (New Alresford)					
Site Label:	NA2	Address:	Sun Lane	Area (ha):	30.8
Proposed Use: Residential - 320 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Carried over from previous Local Plan?		Yes			
Flood Zone 3b:		0%			
Exception Test required? No					

Surface Water Flooding

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Legend



Risk of Flooding from Surface Water

Risk of Flooding from Surface Water (RoFSW)

Summary

The River Alre flows approximately 590m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with a flow path located through the south of the site (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur and potential for groundwater flooding of property situated below ground level in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations or flood outlines within 500m of the site.

Site Specific Recommendations

320 residential units are proposed for this site (with planning permission granted). As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress is likely to be achievable heading north along Sun Lane. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

WC1: Morgan's Yard (Waltham Chase)					
Site Label:	WC1	Address:	Morgan's Yard	Area (ha):	2.8
Proposed Use: Residential - 80 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Carried over from previous Local Plan?		Yes			
Surface Water Flooding					
<small>Contains Environment Agency Information © Environment Agency and database right 2023. Contains OS data © Crown Copyright and database right 2020.</small>					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Low Risk
			Ordinary Watercourse		Medium Risk
					High
Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>An unnamed tributary of the River Hamble flows approximately 330m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with a flow path located along the northern boundary of the site (as shown in the mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is no potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet day or dry day. The site does not lie within a Priority Group. There are no recorded flood outlines within 500m of the site. There is a recorded flood investigation within 500m of the site which occurred at Oaks Farm in 2012.</p>					
Site Specific Recommendations					
<p>80 residential units are proposed for this site and planning permission has been obtained. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress is likely to be achievable heading east along Solomons Lane. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.</p>					

WK6: Land at junction of Mill lane (Wickham)					
Site Label:	WK6	Address:	Land at junction of Mill Lane	Area (ha):	2.4
Proposed Use: Residential - 40 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Carried over from previous Local Plan?				No	

Surface Water Flooding

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Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Low Risk
- Medium Risk
- High

Risk of Flooding from Surface Water

Risk of Flooding from Surface Water (RoFSW)

Summary

The River Meon flows approximately 390m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 0.1% AEP event with a small flow path in the south east corner. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur. The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There is a recorded flood outline within 500m of the site which occurred in winter 2000.

Site Specific Recommendations

40 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with flow paths running along Mill Lane. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological

WK6: Land at junction of Mill lane (Wickham)

Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Group 3: Sites in Flood Zone 1 with risk from other sources of flooding (i.e. surface water, groundwater)

BW3: Tollgate Sawmill (Bishop's Waltham)					
Site Label:	BW3	Address:	Tollgate Sawmill	Area (ha):	2.6
Proposed Use: Residential - 10 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		Yes			
Surface Water Flooding					
Legend		Risk of Flooding from Surface Water			
Allocated Sites	Main River	Ordinary Watercourse	Low Risk	Medium Risk	High
<small>Contains Environment Agency Information © Environment Agency and database right 2023. Contains OS data © Crown Copyright and database right 2020.</small>					
Summary					
<p>The River Hamble flows approximately 1.2km from the site and there is an Ordinary Watercourse that flows through the site as well as one along the north boundary of the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with a flow path located throughout the centre of the site, associated with the Ordinary Watercourse (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater at surface (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations or flood outlines within 500m of the site.</p>					
Site Specific Recommendations					
<p>10 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A 5 metre wide buffer strip will need to be retained alongside the Ordinary Watercourse that flows through the site. New development within 8 metres of an Ordinary Watercourse will require consent from Hampshire County Council (as LLFA). Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with flow paths crossing Winchester Road both north and south of the site. Access/egress should be considered further as part of a site-specific FRA. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the</p>					







BW3: Tollgate Sawmill (Bishop's Waltham)

management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend

- | | | | | | |
|---|--|--|---|--|--|
|  Allocated Sites |  Main River |  Ordinary Watercourse |  Limited Potential |  Potential at surface |  Potential below ground |
|---|--|--|---|--|--|

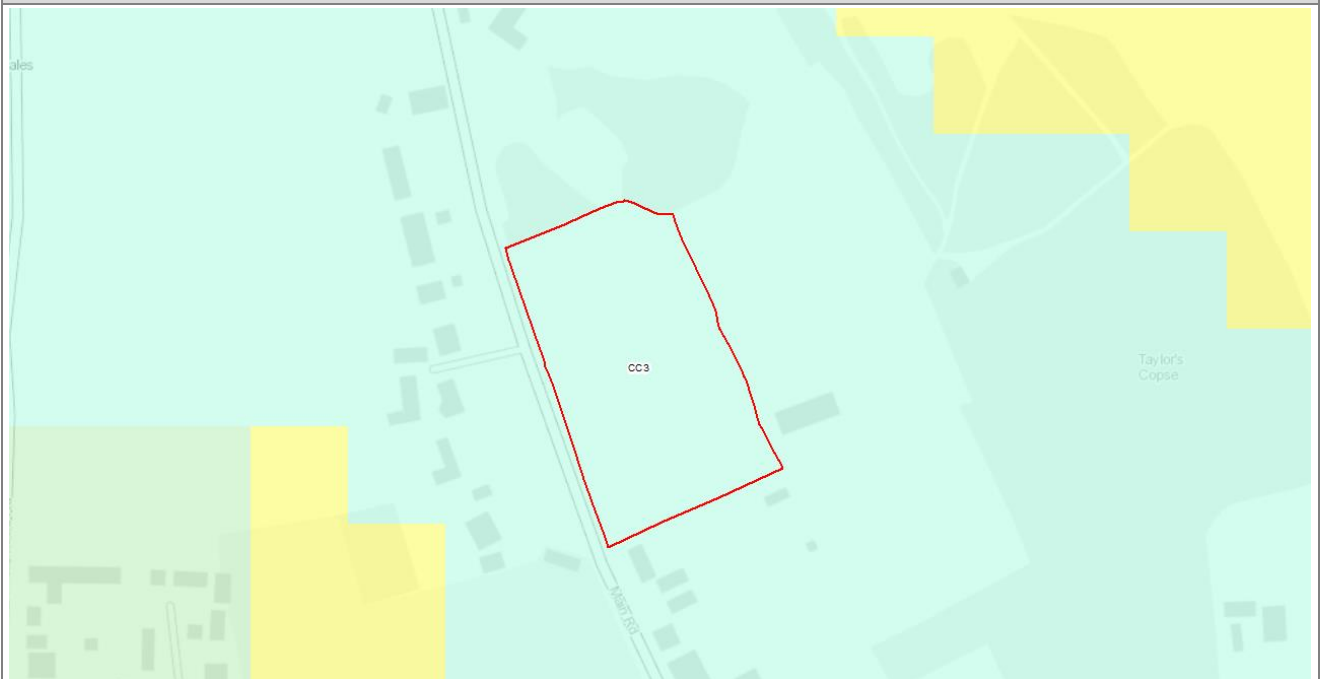
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CC3: Land at Main Road (Colden Common)					
Site Label:	CC3	Address:	Land at Main Road	Area (ha):	1.4
Proposed Use: Residential - 35 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		No			
Surface Water Flooding					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Low Risk
			Ordinary Watercourse		Medium Risk
					High
<small>Contains Environment Agency Information © Environment Agency and database right 2023. Contains OS data © Crown Copyright and database right 2020.</small>					
Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>The River Itchen flows approximately 470m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that there is a very small area of the site at risk of flooding from surface water in the 1% and 0.1% AEP events, along the eastern boundary of the site (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater at surface (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood outlines or flood investigations within 500m of the site.</p>					
Site Specific Recommendations					
<p>35 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event, with flow paths crossing Main Road both north and south of the site. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading north along Main Road. Access/egress should be considered further as part of a site-specific FRA. proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should</p>					

CC3: Land at Main Road (Colden Common)

be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



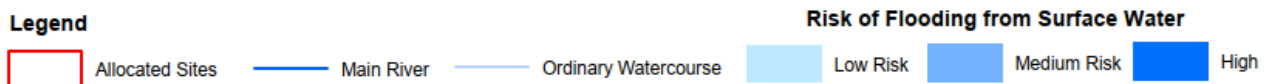
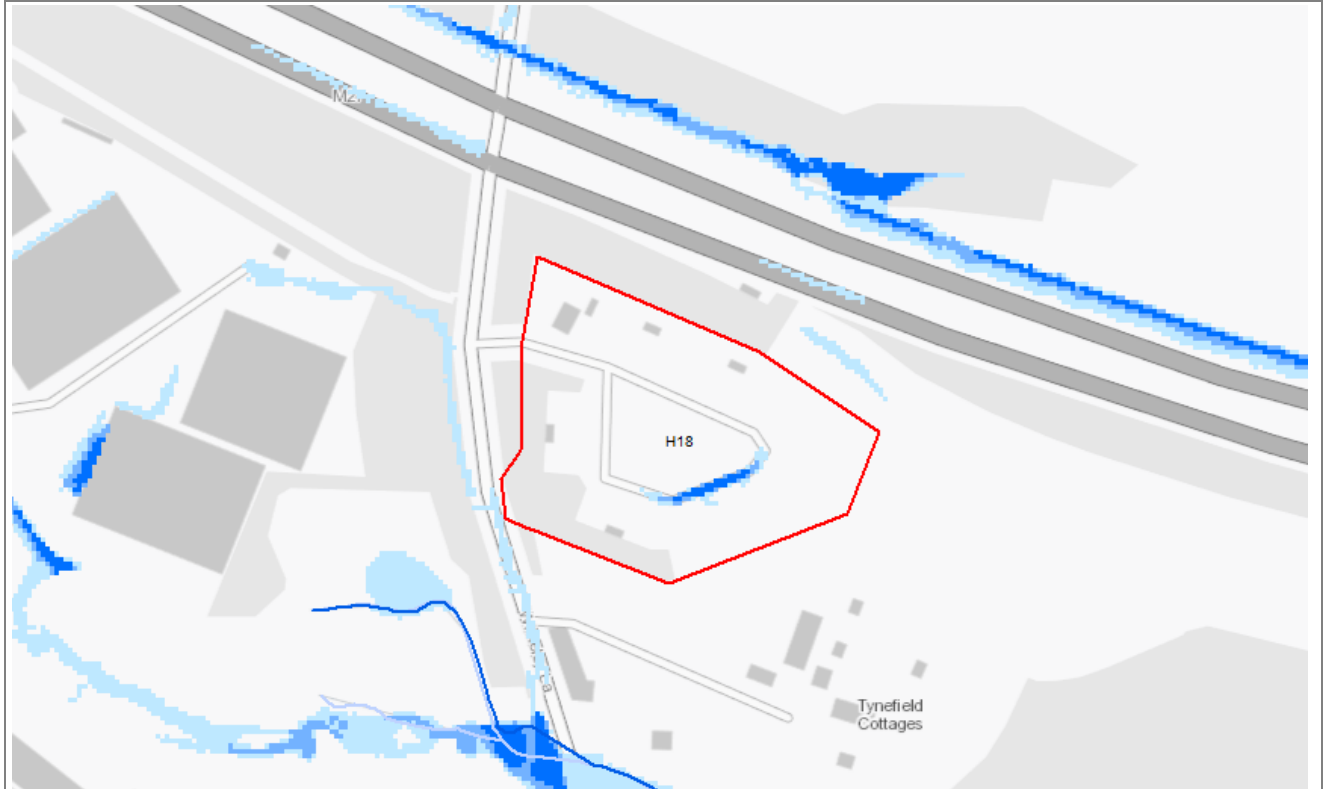
Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Limited Potential
- Potential at surface
- Potential below ground

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H18: Tynefield Whiteley (Whiteley)					
Site Label:	H18	Address:	Tynefield Whiteley	Area (ha):	2.7
Proposed Use: Traveller and gypsy residence			Vulnerability Classification: Highly Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Carried over from previous Local Plan?		Yes			
Flood Zone 3b:		0%			
Exception Test required? No					

Surface Water Flooding



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Risk of Flooding from Surface Water (RoFSW)

Summary

An unnamed tributary of the River Meon flows approximately 45m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with pooling at the centre of the site, along an existing access road (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater below ground and at the surface (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations or flood outlines within 500m of the site.

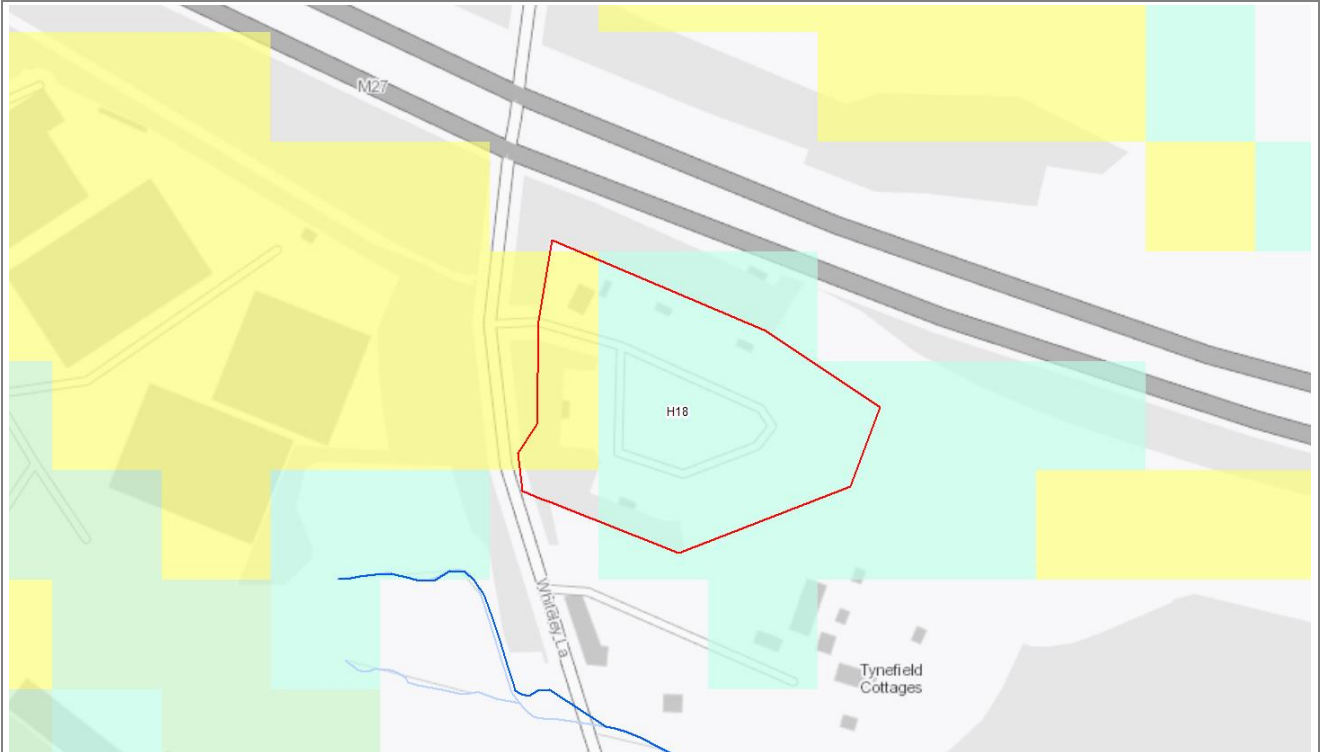
Site Specific Recommendations

Traveller and Gypsy residence is proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event, with flow paths crossing Whiteley Lane both north and south of the site. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading south along Whiteley Lane. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from

H18: Tynefield Whiteley (Whiteley)

subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Susceptibility to groundwater flooding

- Limited Potential
- Potential at surface
- Potential below ground

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KW2: Land adjoining the Cart and Horses PH (Kings Worthy)					
Site Label:	KW2	Address:	Land adjoining the Cart and Horses PH	Area (ha):	4.7
Proposed Use: Older persons residential units (75 dwellings equivalent)			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		No			

Surface Water Flooding



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Low Risk
- Medium Risk
- High

Risk of Flooding from Surface Water

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Summary

The River Itchen flows approximately 200m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths located through the site (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There is a flood outline within 500m of the site that occurred at Nunswalk in winter 2000/2001.

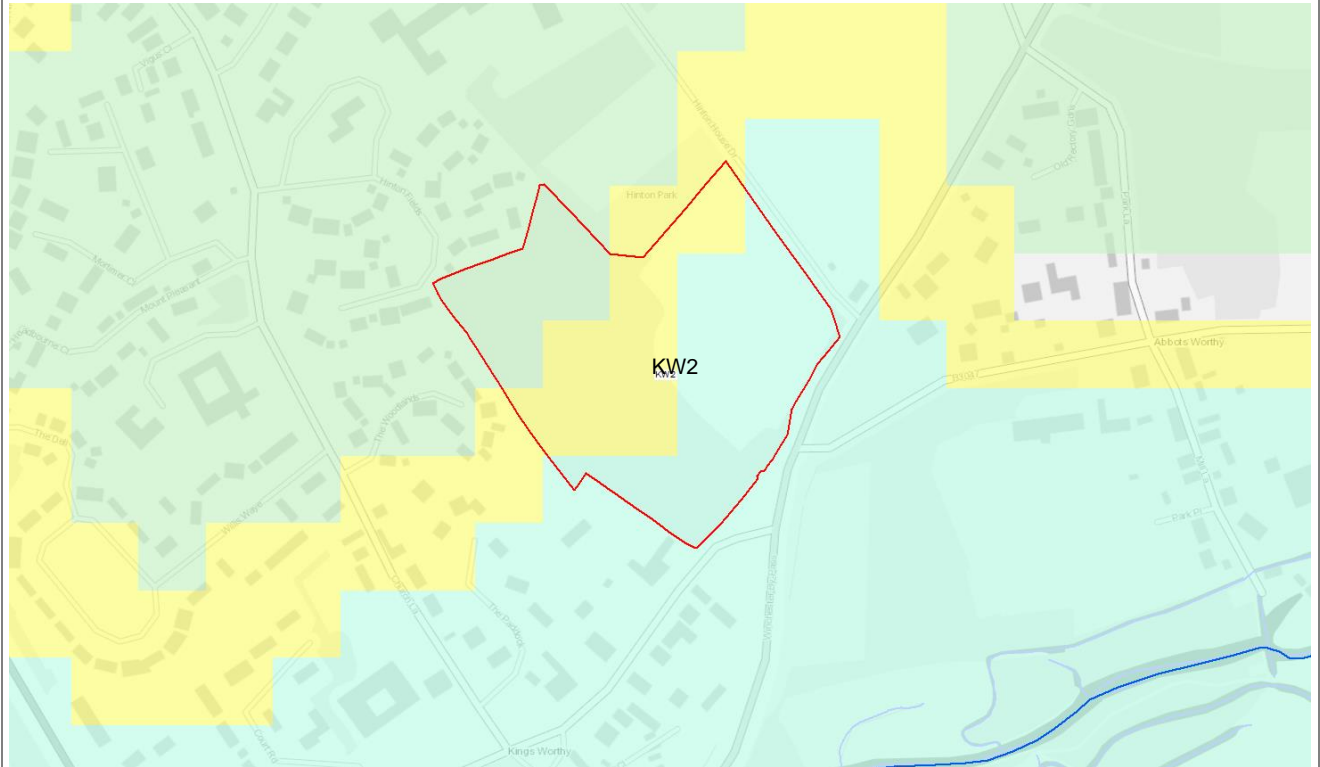
Site Specific Recommendations

Older persons residential units are proposed for this site (75 dwellings equivalent). As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is likely to be achievable, heading north along Basingstoke Road, however this may not be accessible from all areas of the site in the 0.1% AEP event due to a flow path running through the east of the site. Access/egress should be considered further as part of a site-specific FRA. Alternative access routes to the west of the site will need to be provided as part of the development. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs,

KW2: Land adjoining the Cart and Horses PH (Kings Worthy)

rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend
 [Red outline] Allocated Sites [Blue line] Main River [Light blue line] Ordinary Watercourse
Susceptibility to groundwater flooding
 [Light green] Limited Potential [Cyan] Potential at surface [Yellow] Potential below ground

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NA1: The Dean (New Alresford)					
Site Label:	NA1	Address:	The Dean	Area (ha):	2.1
Proposed Use: Residential - 130 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		Yes			

Surface Water Flooding



Legend

Risk of Flooding from Surface Water

Allocated Sites
 Main River
 Ordinary Watercourse
 Low Risk
 Medium Risk
 High

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Risk of Flooding from Surface Water (RoFSW)

Summary

The River Alre flows approximately 130m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with pooling at the west of the site and a flow path located along The Dean at the eastern boundary of the site (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There is a flood outline within 500m of the site that occurred at The Globe in winter 2013/2014.

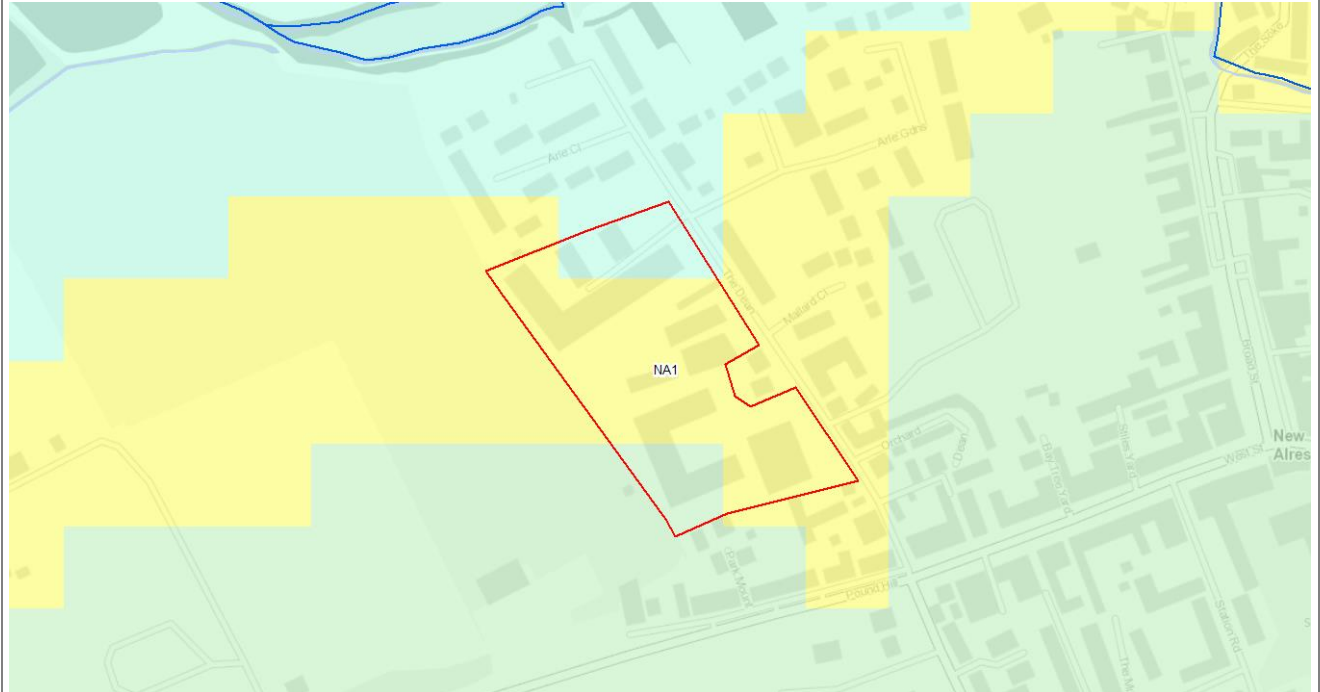
Site Specific Recommendations

130 residential units are proposed for this site. Part of the site has now been completed and most of the remainder has consent for residential development. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with flow paths along The Dean. Access/egress should be considered further as part of a site-specific FRA. Alternative access routes to the site will need to be provided as part of the development. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should

NA1: The Dean (New Alresford)

be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend
 [Red outline] Allocated Sites [Blue line] Main River [Light blue line] Ordinary Watercourse
Susceptibility to groundwater flooding
 [Light green] Limited Potential [Cyan] Potential at surface [Yellow] Potential below ground

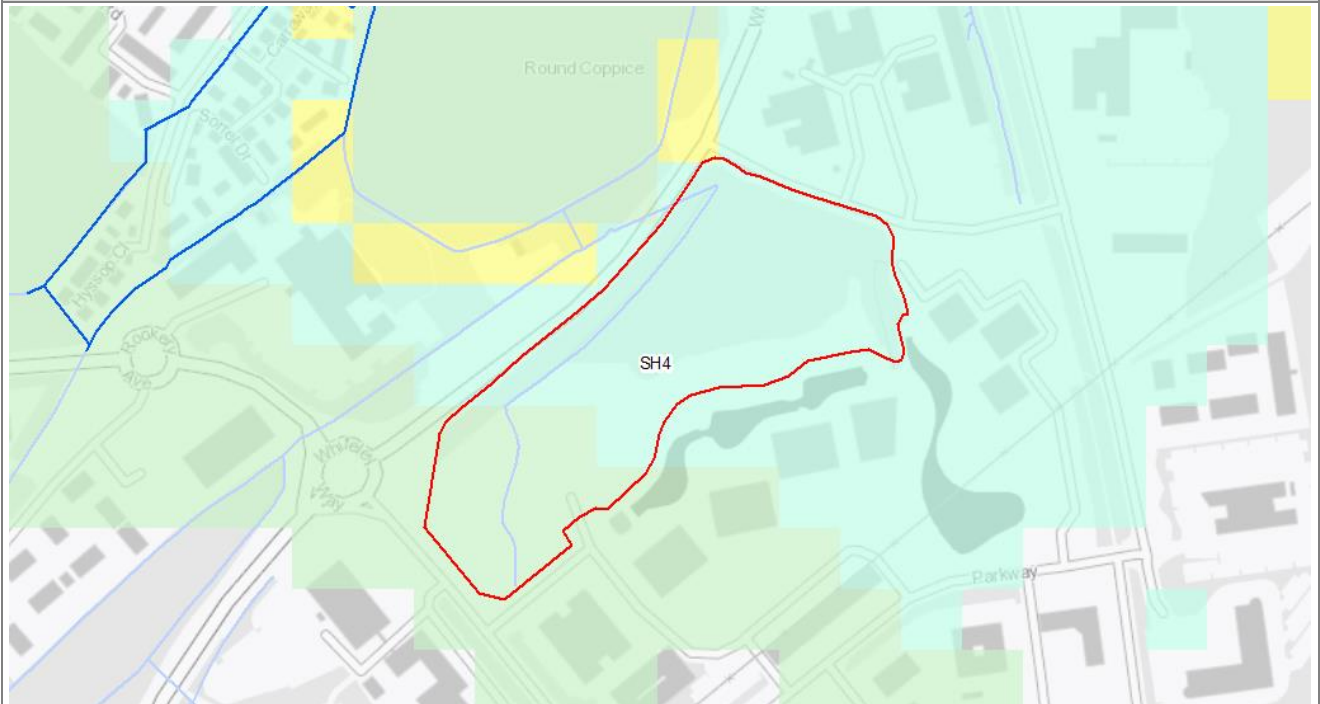
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SH4: Solent Business Park (Whiteley)					
Site Label:	SH4	Address:	Solent Business Park	Area (ha):	6.1
Proposed Use: Employment space			Vulnerability Classification: Less Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
				Flood Zone 3b:	0%
					Exception Test required? No
Carried over from previous Local Plan?		Yes			
Surface Water Flooding					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Low Risk
					Medium Risk
					High
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Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>An unnamed tributary of the River Hamble flows approximately 170m from the site and an Ordinary Watercourse flows through the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths associated with the Ordinary Watercourse (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no flood outlines or recorded flood investigations within 500m of the site.</p>					
Site Specific Recommendations					
<p>Employment space is proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. A 5 metre wide buffer strip alongside the Ordinary Watercourse through the site should be retained. New development within 8 metres of an Ordinary Watercourse will require consent from Hampshire County Council (as LLFA). Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with surface water flow paths along all surrounding roads. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be</p>					

SH4: Solent Business Park (Whiteley)

prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Susceptibility to groundwater flooding

- Limited Potential
- Potential at surface
- Potential below ground

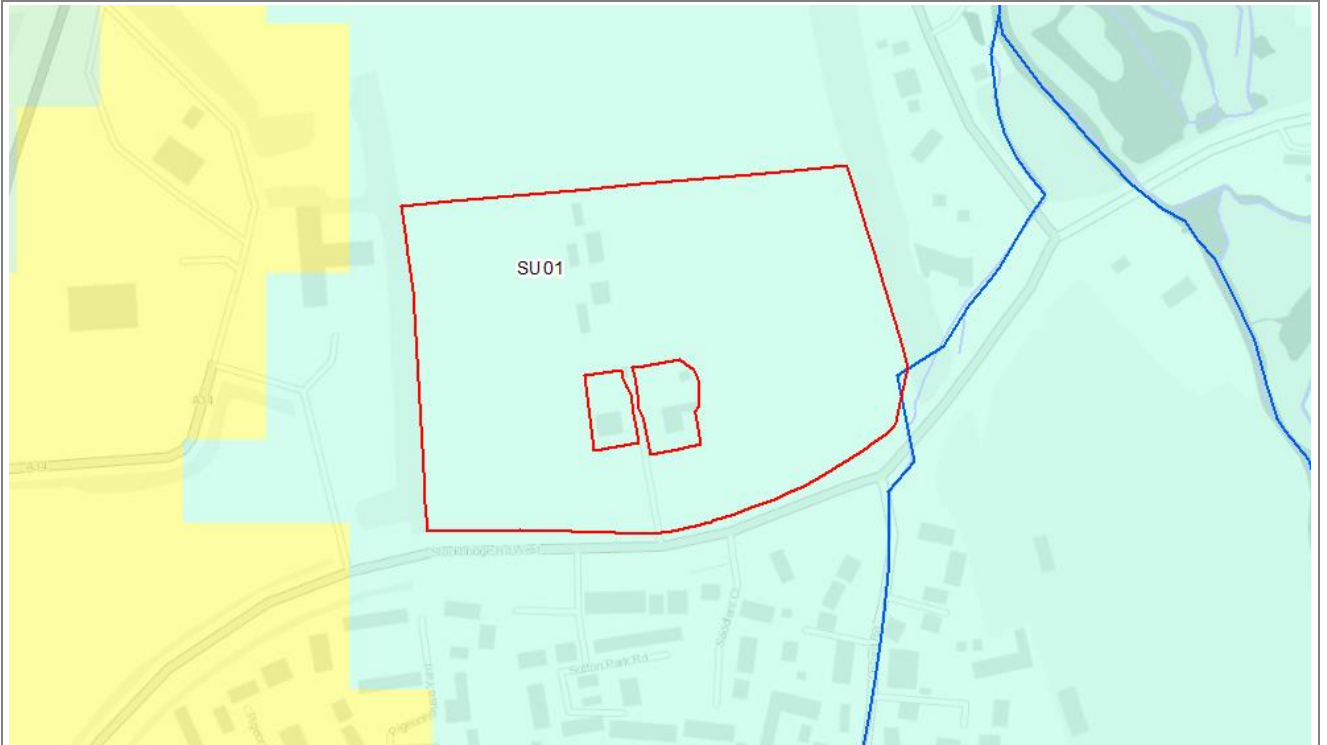
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SU01: Land at Brightlands (Sutton Scotney)					
Site Label:	SU01	Address:	Land at Brightlands	Area (ha):	5.3
Proposed Use: Residential – 60 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		Yes			
Surface Water Flooding					
<small>Contains Environment Agency Information © Environment Agency and database right 2023. Contains OS data © Crown Copyright and database right 2020.</small>					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Low Risk
			Ordinary Watercourse		Medium Risk
					High
Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>An unnamed Main River is culverted through the site. The entirety of the site is defined as Flood Zone 1, however Flood Zones 2 and 3 run 1 and 1.5m from the south east of the site respectively. The RoFSW Map indicates that the site is at risk of flooding from surface water, with a small area of ponding located in the west of the site in the 1% AEP event, and a flow path running through the west of the site in the 0.1% AEP event. (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface. (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There is a recorded flood investigations within 500m of the site at Egypt Cottage, Sutton Scotney, in 2014. There is a recorded flood outline within 500m of the site, which occurred in winter 1995.</p>					
Site Specific Recommendations					
<p>60 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Retain an 8 metre wide undeveloped buffer strip alongside Main Rivers and explore opportunities for riverside restoration including deculverting. New development within 8m of a Main River will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. Dry access/egress for surface water is likely to be achievable heading west along Stockbridge Road West. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and</p>					







SU01: Land at Brightlands (Sutton Scotney)

permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend

	Allocated Sites		Main River		Ordinary Watercourse		Limited Potential		Potential at surface		Potential below ground
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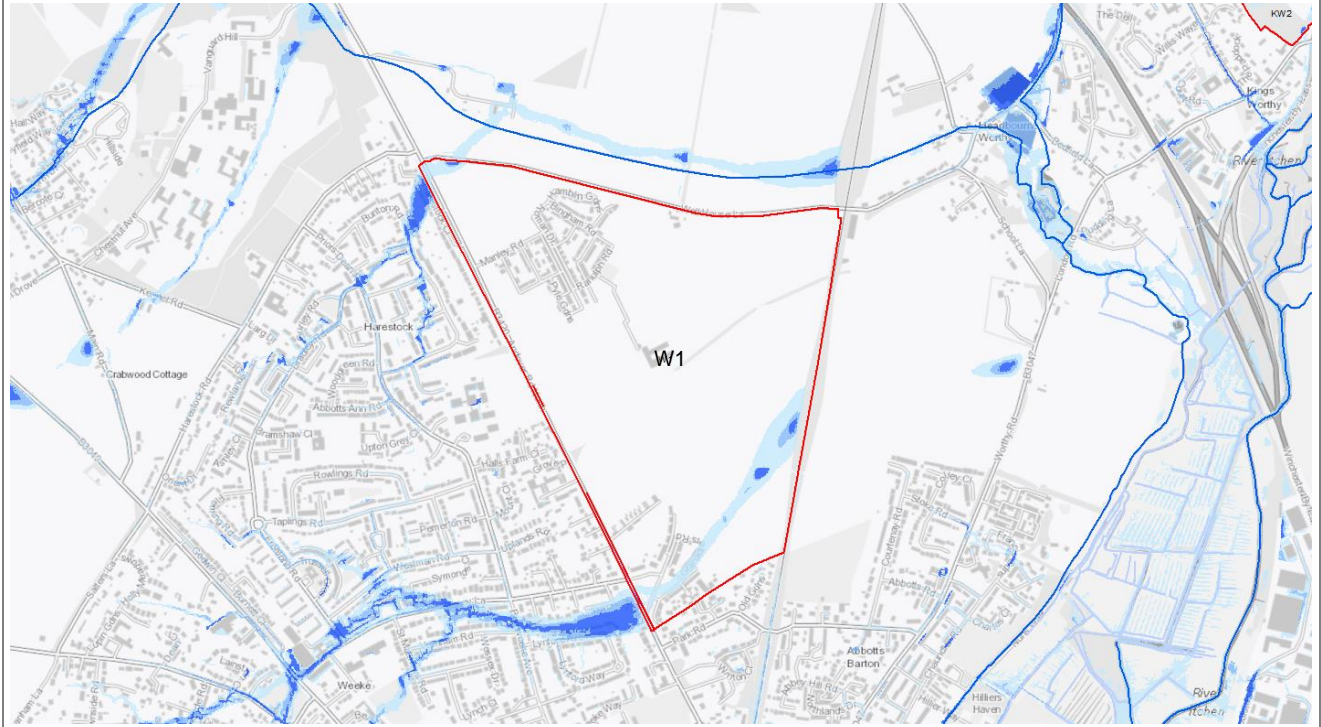
W1: Barton Farm (Kings Barton)					
Site Label:	W1	Address:	Barton Farm (Kings Barton)	Area (ha):	93.7

Proposed Use: Residential – 1541 units	Vulnerability Classification: More Vulnerable
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Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No
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Carried over from previous Local Plan?	Yes
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Surface Water Flooding



Legend

Risk of Flooding from Surface Water

Allocated Sites
 Main River
 Ordinary Watercourse
 Low Risk
 Medium Risk
 High

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Risk of Flooding from Surface Water (RoFSW)

Summary

An unnamed watercourse flows approximately 100m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with a flow path located through the site (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There are recorded flood outlines within 500m of the site, three of which occurred in winter 2000/2001 at Barton Farm and Nunswalk, and two in winter 2013/2014.

Site Specific Recommendations

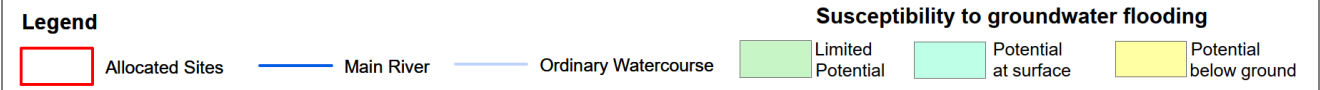
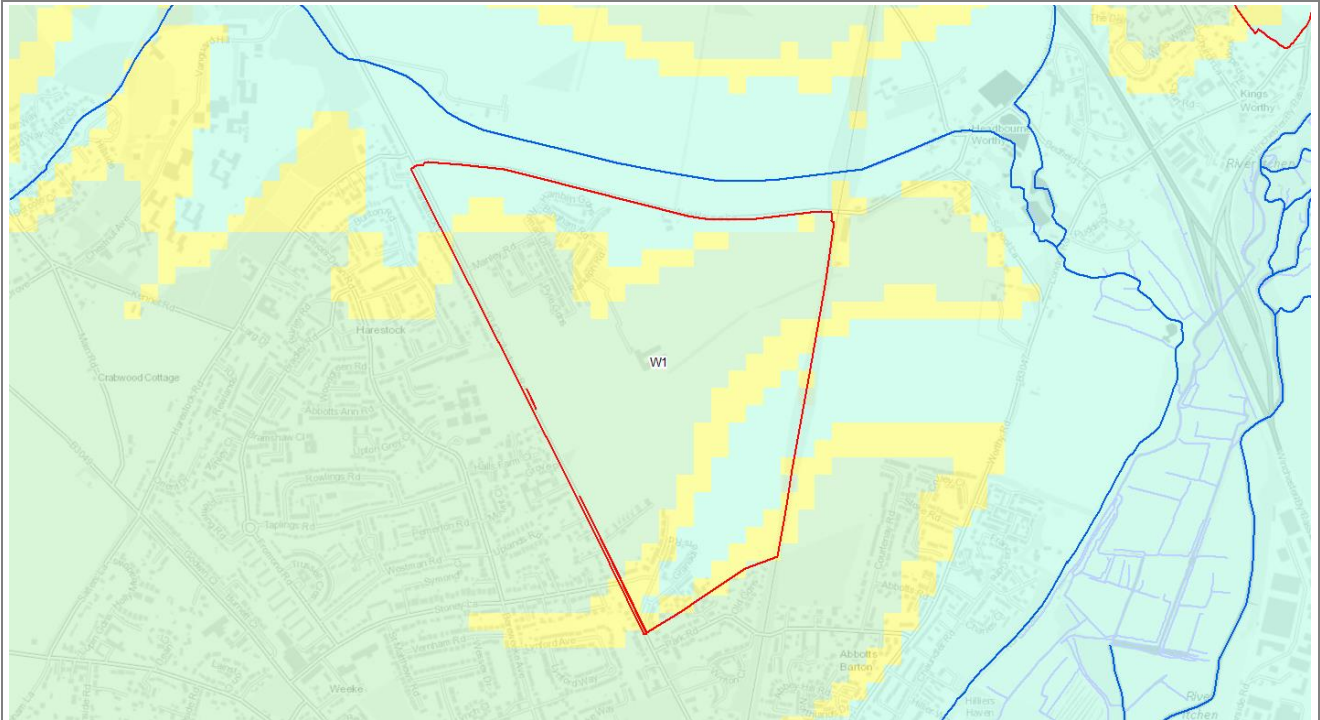
Outline planning permission has been granted for 2,000 new homes including affordable housing, community facilities, retail development and other supporting employment uses and a park and ride facility. The site is currently under construction with approximately 1,541 dwellings remaining to be developed (in April 2023).

1680 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event, with flow paths crossing Andover Road North both north and south of the site, and Well House Lane to the east of the site. Dry access/egress for surface water is likely to be

W1: Barton Farm (Kings Barton)

achievable in the 1% AEP event heading north along Andover Road North. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



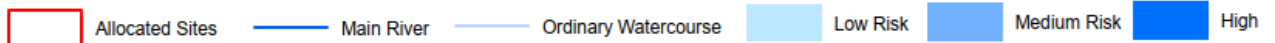
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W4: Courtenay Road (Winchester)					
Site Label:	W4	Address:	Courtenay Road	Area (ha):	6.0
Proposed Use: Residential - 150 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		No			

Surface Water Flooding



Legend



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Risk of Flooding from Surface Water (RoFSW)

Summary

The River Itchen flows approximately 340m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is not at risk of flooding from surface water (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur and potential for groundwater flooding to below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet day or dry day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There are two recorded flood outlines within 500m of the site, which occurred in winter 2013/2014, and in winter 2000/2001 at Barton Farm.

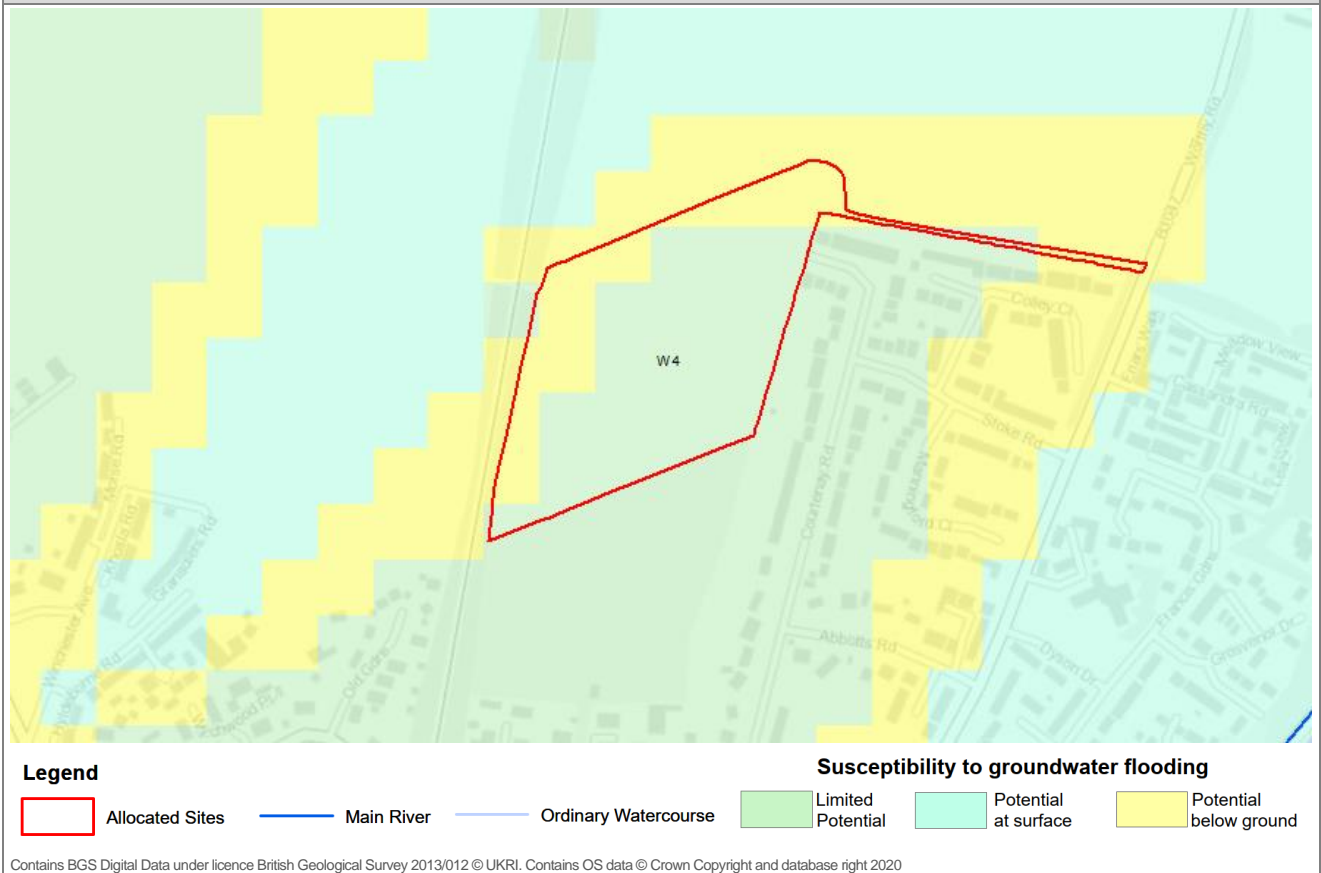
Site Specific Recommendations

150 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with flow paths crossing Worthy Road both north and south of the site. Access/egress should be considered further as part of a site-specific FRA. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed

W4: Courtenay Road (Winchester)

mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

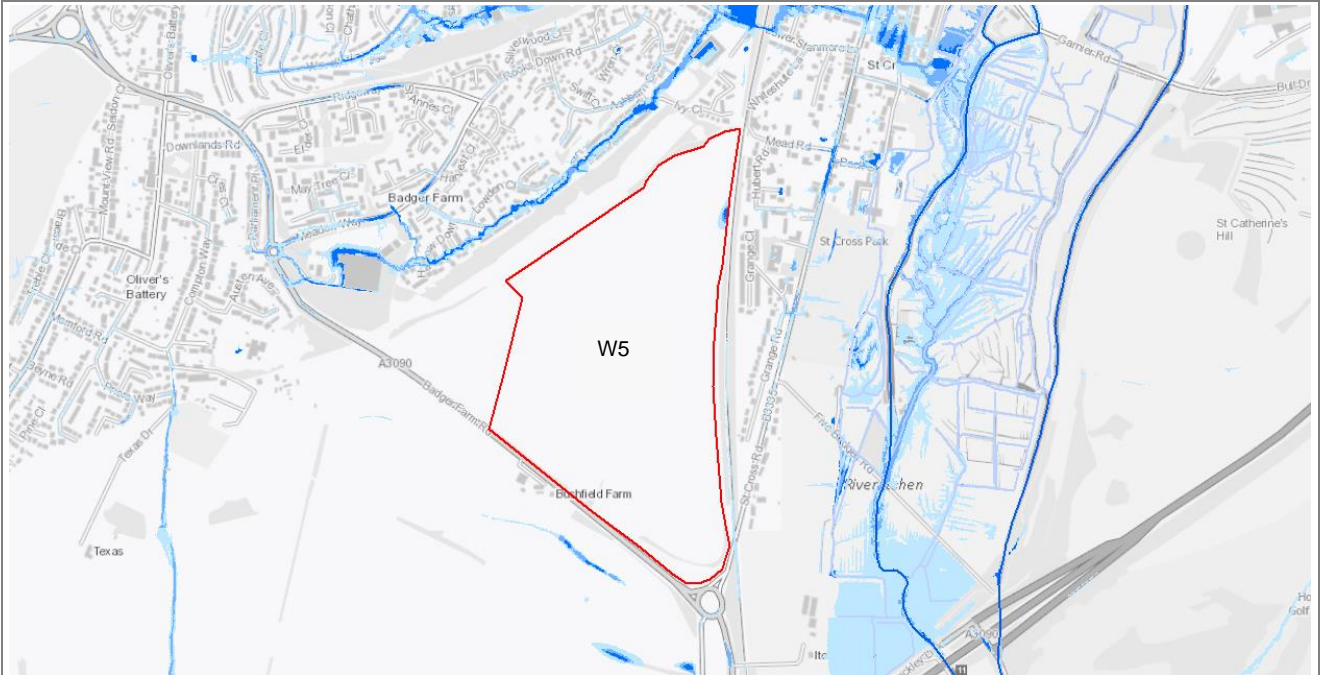
Groundwater Flooding



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W5: Bushfield Camp (Winchester)					
Site Label:	W5	Address:	Bushfield Camp	Area (ha):	43.0
Proposed Use: Employment space			Vulnerability Classification: Less Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Carried over from previous Local Plan?				No	

Surface Water Flooding



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Low Risk
- Medium Risk
- High

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Risk of Flooding from Surface Water (RoFSW)

Summary

The River Itchen flows approximately 370m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that majority of the site is not at risk of flooding from surface water, however in the 1% and 0.1% AEP events there is a small area of pooling along the eastern boundary of the site (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet day or dry day. The site lies within the Winchester West Priority Group. There are no recorded flood investigations or flood outlines within 500m of the site.

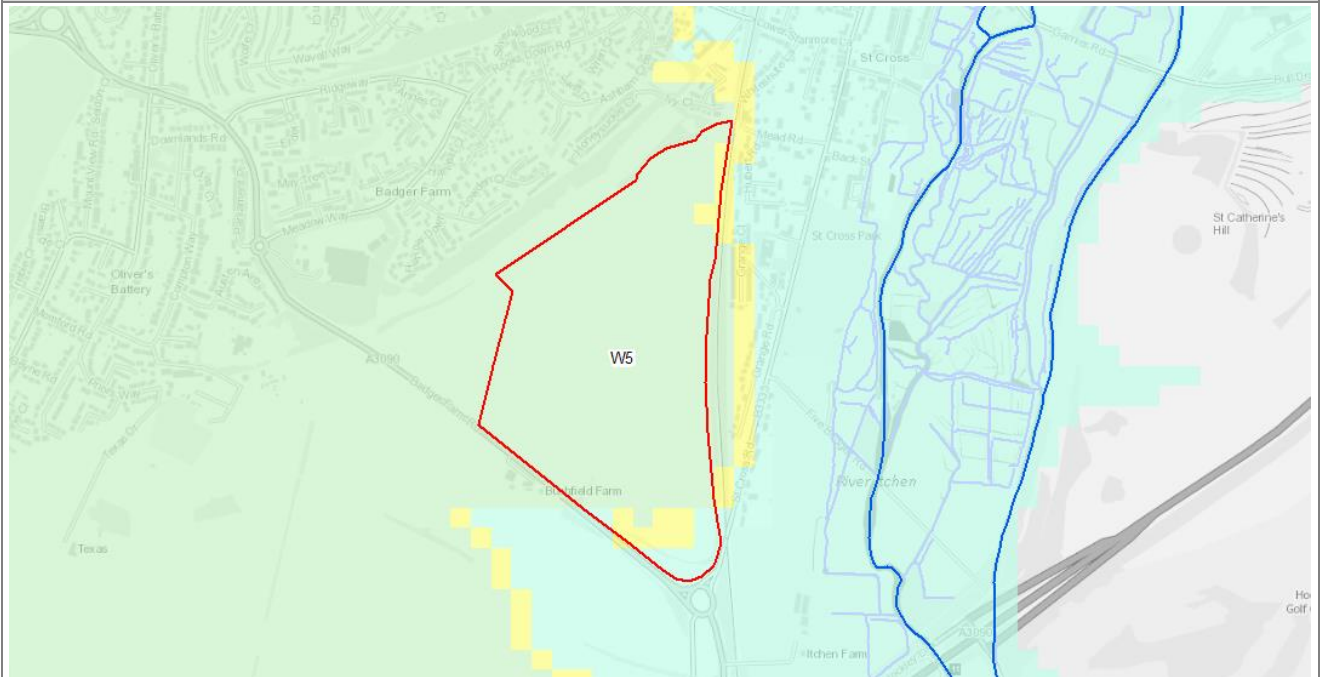
Site Specific Recommendations

Employment space is proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is likely to be achievable heading south along the A3090. Access/egress should be considered further as part of a site-specific FRA. The site is located within the Winchester West Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site as detailed in Section 2.7. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for







W5: Bushfield Camp (Winchester)

impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



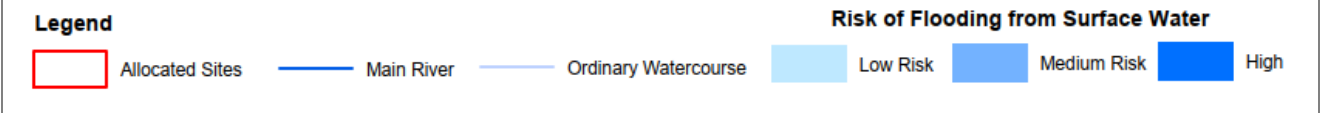
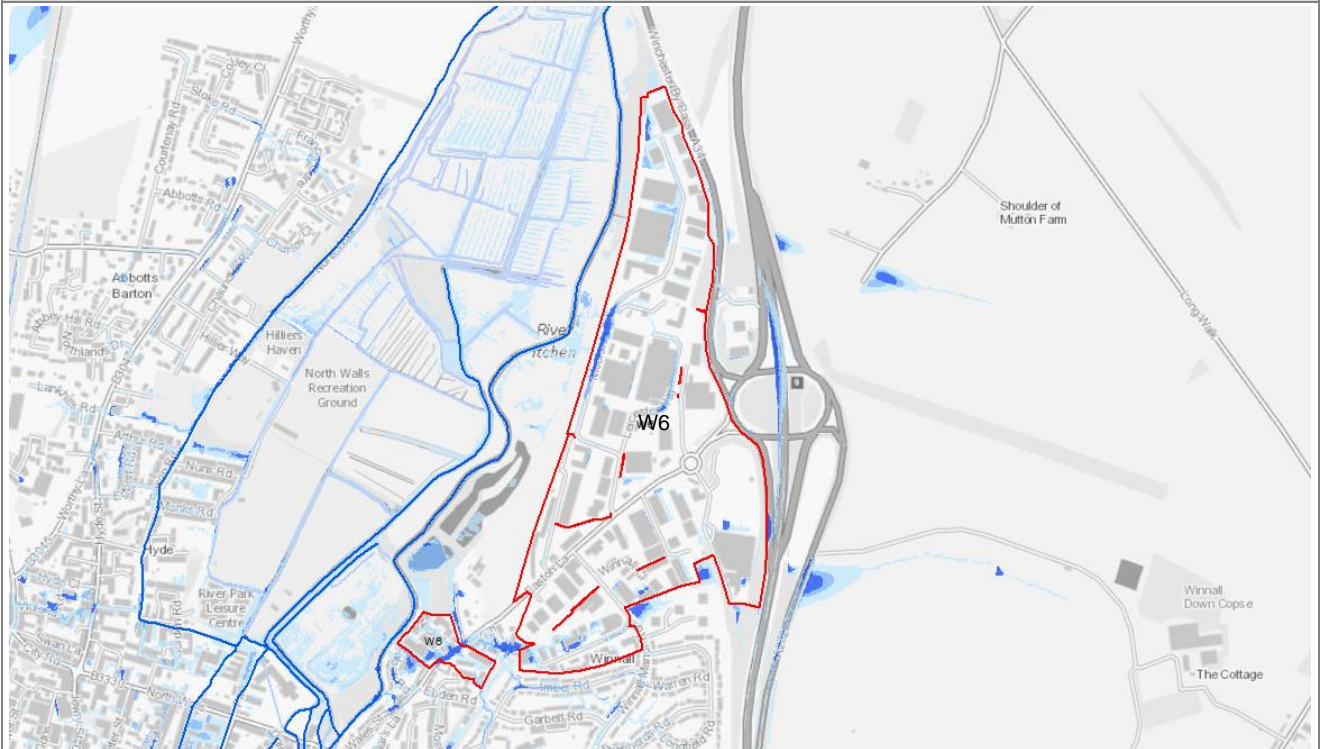
Legend

- | | | | | | |
|---|--|--|--|--|--|
|  Allocated Sites |  Main River |  Ordinary Watercourse |  Limited Potential |  Potential at surface |  Potential below ground |
|---|--|--|--|--|--|

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W6: Winnall (Winchester)					
Site Label:	W6	Address:	Winnall	Area (ha):	43.5
Proposed Use: Employment space (Existing employment allocation, being carried forward).			Vulnerability Classification: Less Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
Carried over from previous Local Plan?		Yes			
Flood Zone 3b:		0%			
Exception Test required? No					

Surface Water Flooding



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Risk of Flooding from Surface Water (RoFSW)

Summary

The River Itchen flows approximately 13.5m from the site. The entirety of the site is defined as Flood Zone 1. Modelling available for the area does not show the site to be at risk of fluvial flooding in the design event. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with areas of ponding throughout the site (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet day or dry day. The site lies within the Central Winchester Priority Group. There are no recorded flood investigations within 500m of the site. There are recorded flood outlines within 500m of the site, four of which occurred in winter 2013/2014 at Park Avenue, Water Lane, and Winchester Leisure Centre, and two of which occurred in winter 2000/2001.

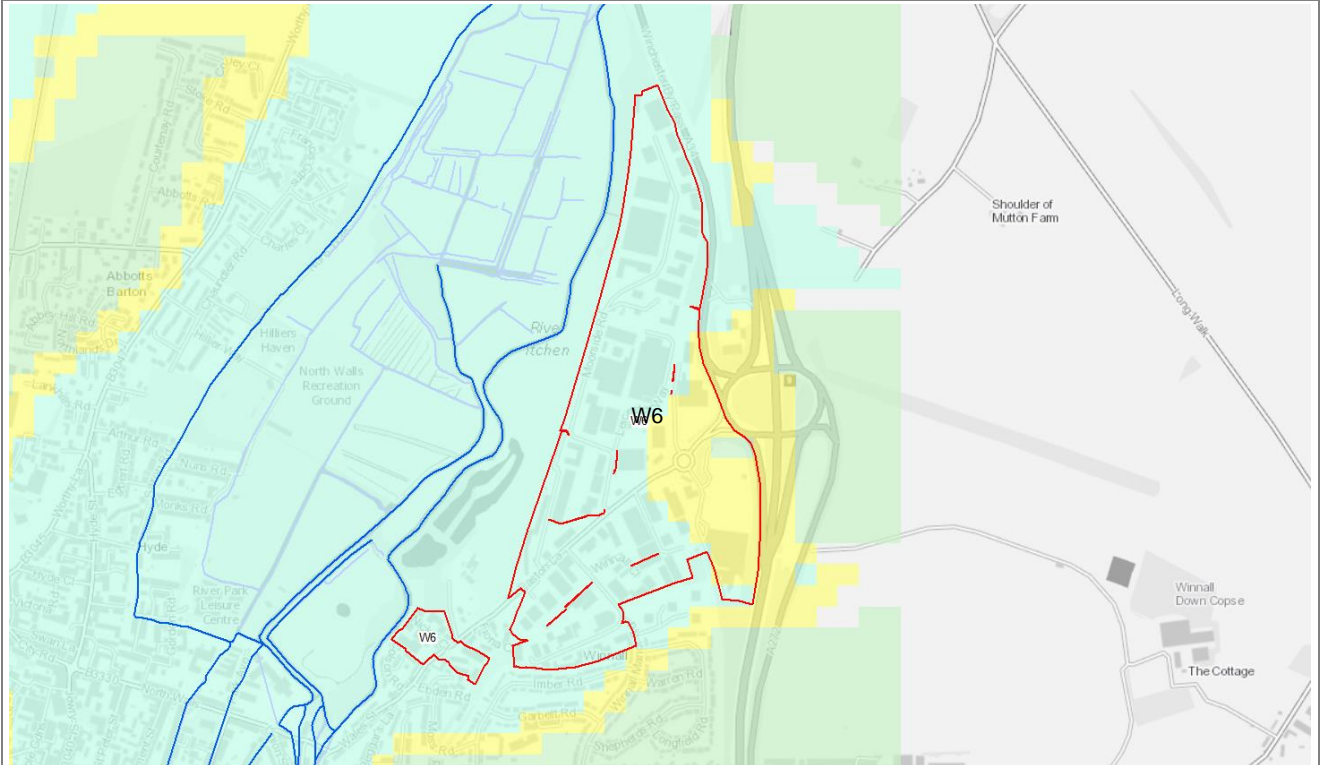
Site Specific Recommendations

Winnall is an existing employment allocation in the adopted Local Plan that has been carried forward and updated as necessary. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is likely to be achievable heading north along the M3. Access/egress should be considered further as part of a site-specific FRA. The site is located within the Central Winchester Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site as detailed in Section 2.7. Development proposals for the site should seek to restrict surface water runoff

W6: Winnall (Winchester)

rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Susceptibility to groundwater flooding

- Limited Potential
- Potential at surface
- Potential below ground

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W8: Station Approach (Winchester)					
Site Label:	W8	Address:	Station Approach	Area (ha):	5.8
Proposed Use: Residential - 250 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		Yes			
Surface Water Flooding					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Low Risk
			Ordinary Watercourse		Medium Risk
					High
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Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>The River Itchen flows approximately 300m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths located along the railway line (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet day or dry day. The site lies within the Winchester West Priority Group. There are no recorded flood investigations within 500m of the site. There are recorded flood outlines within 500m of the site, one which occurred in winter 2013/2014 at the Winchester Leisure Centre, and one which occurred in winter 2000/2001.</p>					
Site Specific Recommendations					
<p>250 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event, with flow paths along all surrounding roads. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading east along North Walls. Access/egress should be considered further as part of a site-specific FRA. The site is located within the Winchester West Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site as detailed in Section 2.7. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable</p>					

W8: Station Approach (Winchester)

approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



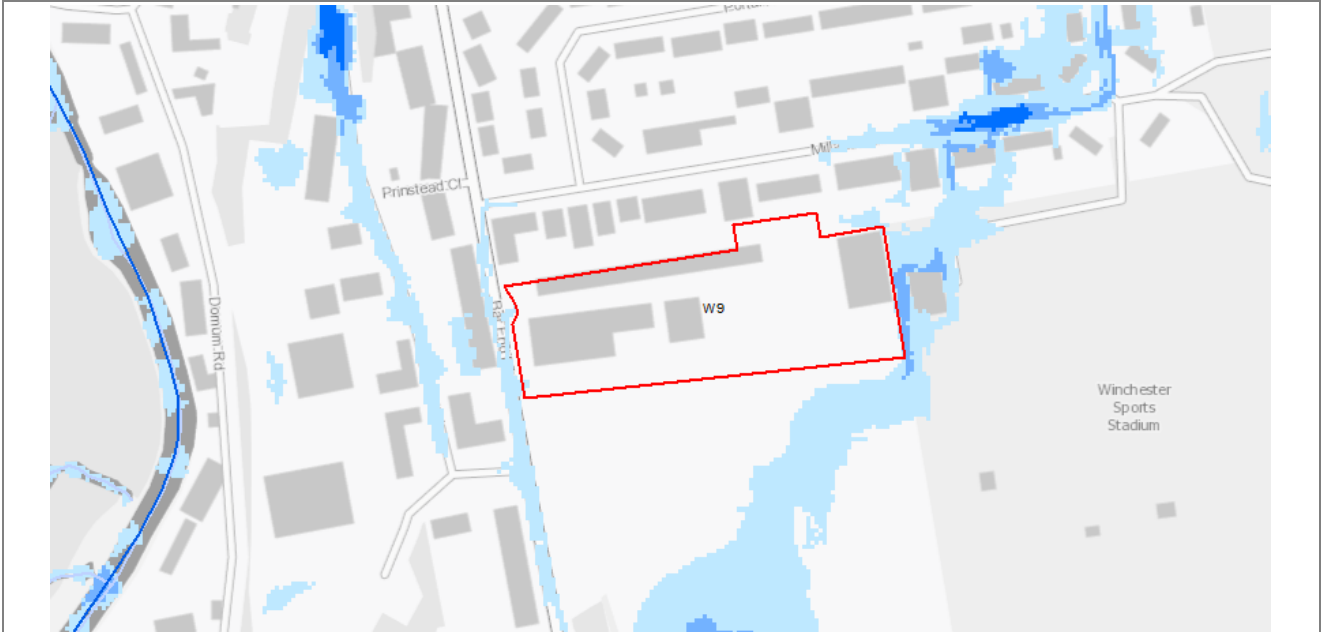
Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Limited Potential
- Potential at surface
- Potential below ground

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W9: Bar End Depot (Winchester)					
Site Label:	W9	Address:	Bar End Depot	Area (ha):	1.2
Proposed Use: Residential – 30 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
				Flood Zone 3b:	0%
					Exception Test required? No
Carried over from previous Local Plan?		No			

Surface Water Flooding



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Low Risk
- Medium Risk
- High

Risk of Flooding from Surface Water

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Risk of Flooding from Surface Water (RoFSW)

Summary

The Itchen Navigation flows approximately 170m from the site. The entirety of the site is defined as Flood Zone 1. There are no available hydraulic model results covering the site. The RoFSW Map indicates that there are flow paths running along the eastern and western boundaries of the site (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a wet day or dry day. The site lies within the Central Winchester Priority Group. There are no recorded flood investigations within 500m of the site. There are recorded flood outlines within 500m of the site, four of which occurred in winter 2013/2014, and two of which occurred in winter 2000/2001.

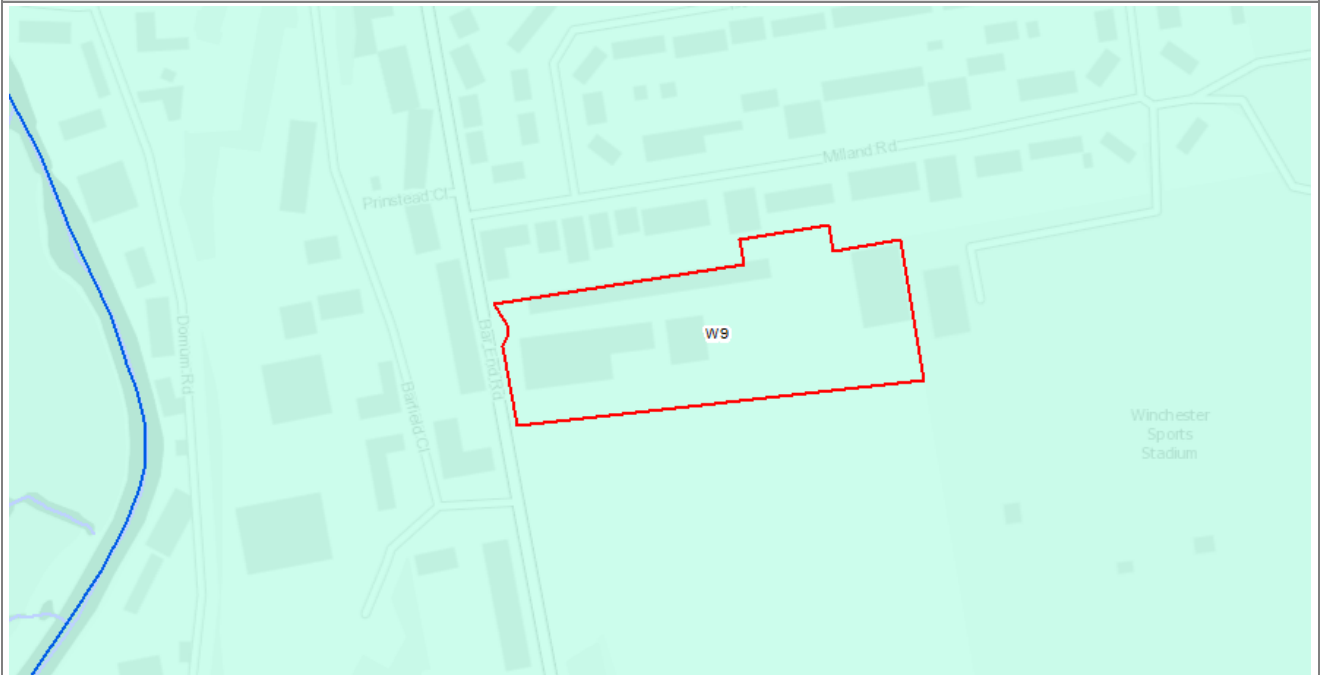
Site Specific Recommendations

30 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event, with flow paths running along Bar End Road. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading south along Bar End Road. Access/egress should be considered further as part of a site-specific FRA. Alternative access routes to the site will need to be provided as part of the development. The site is located within the Central Winchester Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site as detailed in Section 2.7. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed

W9: Bar End Depot (Winchester)

Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

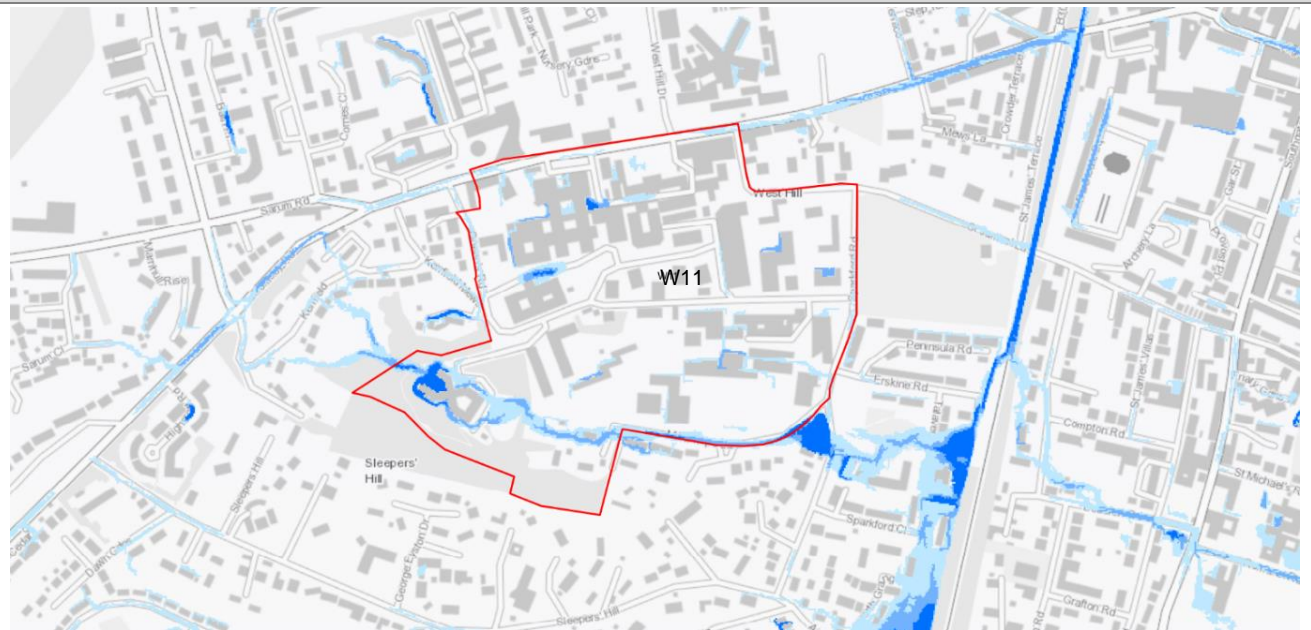
Susceptibility to groundwater flooding

- Limited Potential
- Potential at surface
- Potential below ground

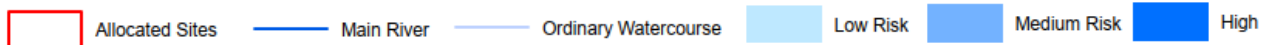
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W11: University and Hospital area (Winchester)					
Site Label:	W11	Address:	University and Hospital area	Area (ha):	19.6
Proposed Use: Residential			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		Yes			

Surface Water Flooding



Legend



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Risk of Flooding from Surface Water (RoFSW)

Summary

An unnamed tributary of the River Itchen flows approximately 830m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with a flow path running in the south of the site as well as areas of ponding (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, with the exception of an area in the south west corner where there is potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a wet day or dry day. The site lies within the Winchester West Priority Group. There are no recorded flood investigations or flood outlines within 500m of the site.

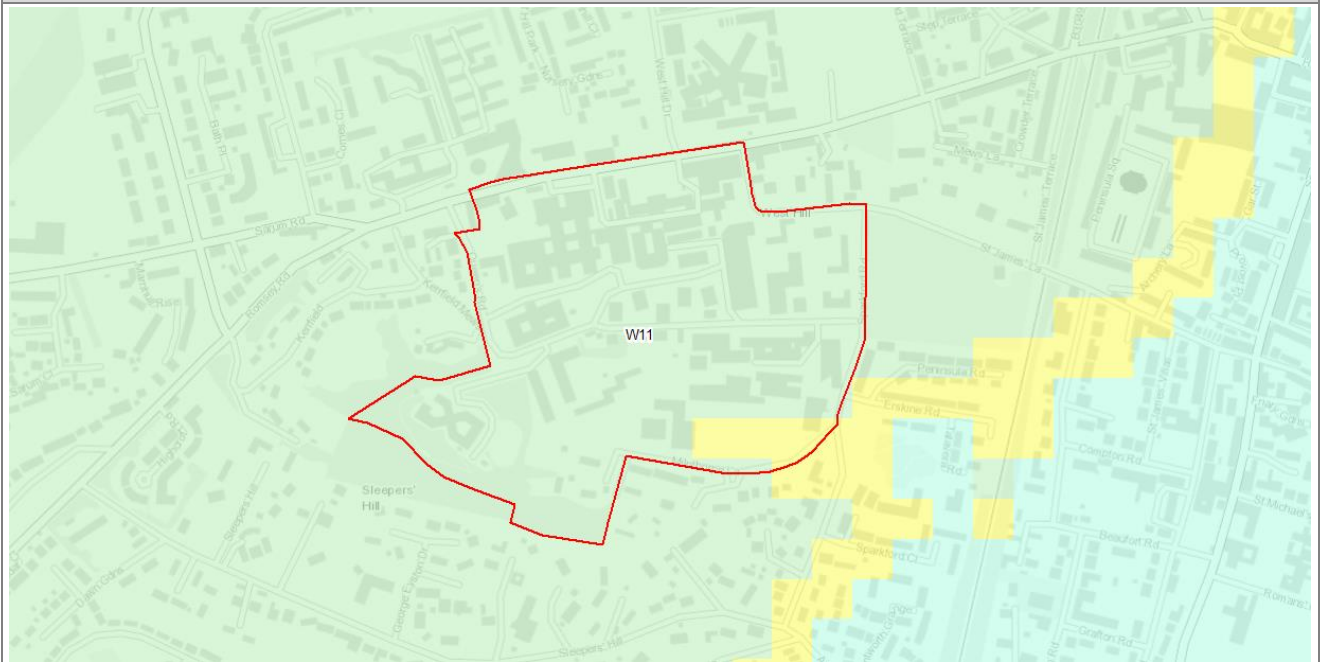
Site Specific Recommendations

. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event, with flow paths running along Romsey Road and Saint James' Lane. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading west along Romsey Road, however this may not be accessible from the south west of the site. Access/egress should be considered further as part of a site-specific FRA. Alternative access routes to the south west of the site will need to be considered as part of the development. The site is located within the Winchester West Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site as detailed in Section 2.7. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water

W11: University and Hospital area (Winchester)

drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



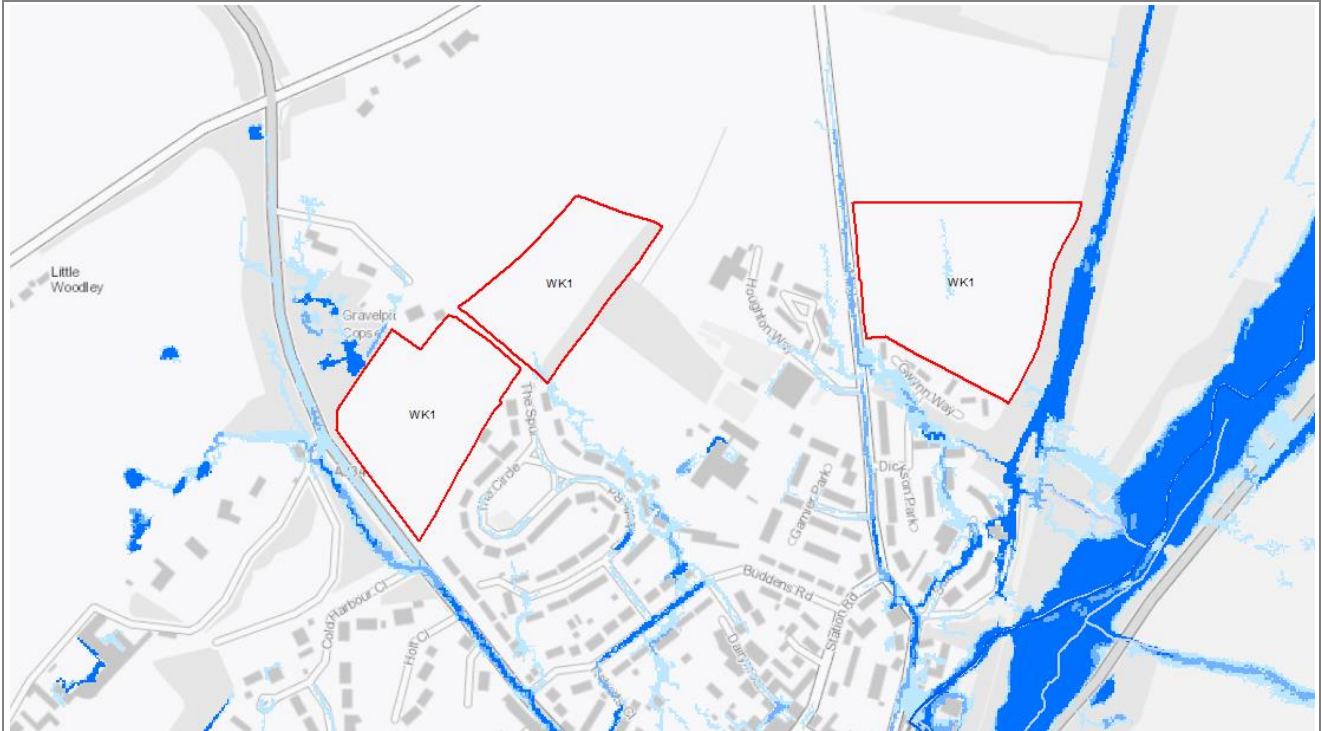
Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Limited Potential
- Potential at surface
- Potential below ground

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WK1: Winchester Road (Wickham)					
Site Label:	WK1	Address:	Winchester Road	Area (ha):	7.7
Proposed Use: Residential - 125 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
				Flood Zone 3b:	0%
Exception Test required?					No
Carried over from previous Local Plan?		Yes			

Surface Water Flooding



Legend

Risk of Flooding from Surface Water

Allocated Sites
 Main River
 Ordinary Watercourse
 Low Risk
 Medium Risk
 High

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Risk of Flooding from Surface Water (RoFSW)

Summary

The River Meon flows approximately 190m from the east most site. All three sites which form WK1 are located within Flood Zone 1. The RoFSW Map indicates that the majority of the three sites are at very low risk. The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a dry day or wet day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There are recorded flood outlines within 500m of the site, of which occurred in winter 2013/2014 at Bridge Street and two of which occurred in winter 2000.

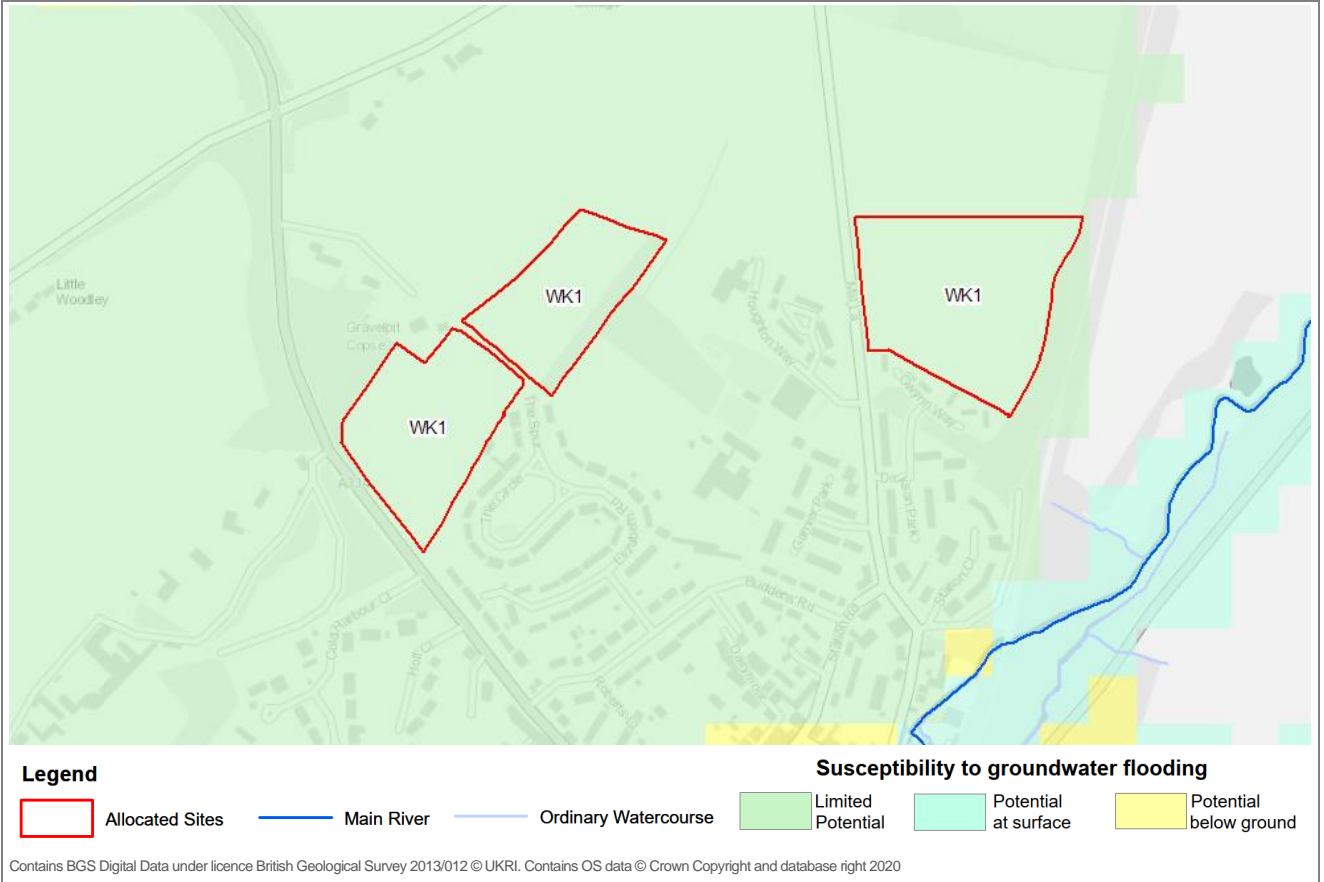
Site Specific Recommendations

125 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event, with flow paths running along all surrounding roads. Dry access/egress for the west sites is likely to be achievable for the 1% AEP event heading north along Winchester Road. Access/egress should be considered further as part of a site-specific FRA. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological

WK1: Winchester Road (Wickham)

Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding

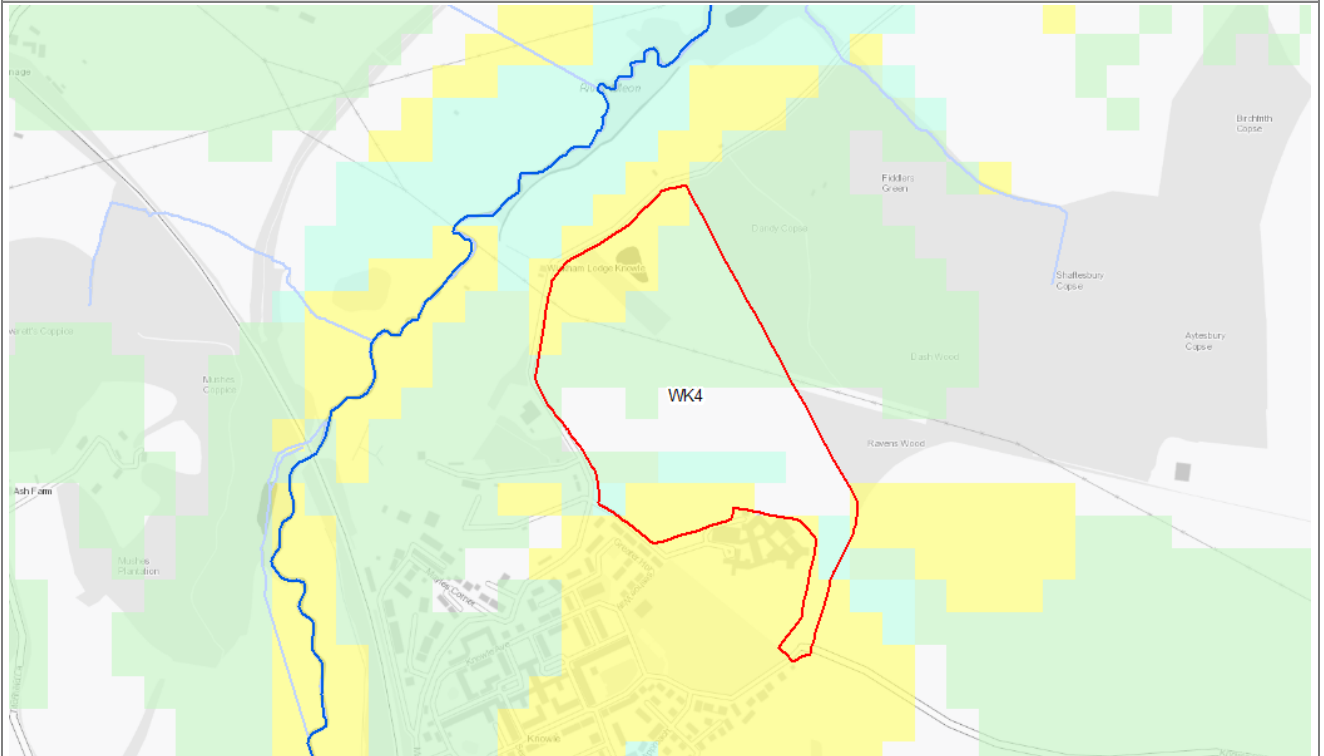


WK4: Ravenswood (Knowle)					
Site Label:	WK4	Address:	Ravenswood	Area (ha):	17.2
Proposed Use: Residential - 200 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP):	100%	Flood Zone 2 (0.1% AEP):	0%	Flood Zone 3 (1% AEP):	0%
				Flood Zone 3b:	0%
Exception Test required?					No
Carried over from previous Local Plan?		No			
Surface Water Flooding					
Legend		Risk of Flooding from Surface Water			
	Allocated Sites		Main River		Ordinary Watercourse
			Low Risk		Medium Risk
			High		
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Risk of Flooding from Surface Water (RoFSW)					
Summary					
<p>The River Meon flows approximately 130m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with a flow path located through the south of the site (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level (as shown in the groundwater mapping below). The site is not at risk of flooding from reservoirs in the event of a breach on a dry day or wet day. The site does not lie within a Priority Group. There are no recorded flood investigations within 500m of the site. There is a recorded flood outline within 500m of the site which occurred in winter 2000.</p>					
Site Specific Recommendations					
<p>200 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is likely to be achievable heading east along Knowle Road, however this may not be accessible from the north of the site due to a flow path cutting across the site in the 0.1% AEP event. Access/egress should be considered further as part of a site-specific FRA. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water</p>					

WK4: Ravenswood (Knowle)

drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.

Groundwater Flooding



Legend

Allocated Sites
 Main River
 Ordinary Watercourse

Susceptibility to groundwater flooding

Limited Potential
 Potential at surface
 Potential below ground

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WK5: Land at Southwick Road/School Road (Wickham)					
Site Label:	WK5	Address:	Land at Southwick Road/School Road	Area (ha):	3.4
Proposed Use: Residential - 60 units			Vulnerability Classification: More Vulnerable		
Flood Zone 1 (<0.1% AEP): 100%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3 (1% AEP): 0%	Flood Zone 3b: 0%	Exception Test required? No	
Carried over from previous Local Plan?		No			

Surface Water Flooding

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Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Low Risk
- Medium Risk
- High

Risk of Flooding from Surface Water

Risk of Flooding from Surface Water (RoFSW)

Summary

The River Meon flows approximately 430m from the site. The entirety of the site is defined as Flood Zone 1. The RoFSW Map indicates that the site is at risk of flooding from surface water in the 0.1% AEP event with two flow paths in the south west corner (as shown in the surface water mapping above). The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, and potential for groundwater flooding to occur at surface. The site is not at risk of flooding from reservoirs in the event of a breach on a wet day, and 2.4% is at risk during a dry day. The site does not lie within a Priority Group. There is a recorded flood investigations within 500m of the site that occurred in Wykeham Field, Wickham, in 2015. There is a recorded flood outline within 500m of the site which occurred in winter 2000.

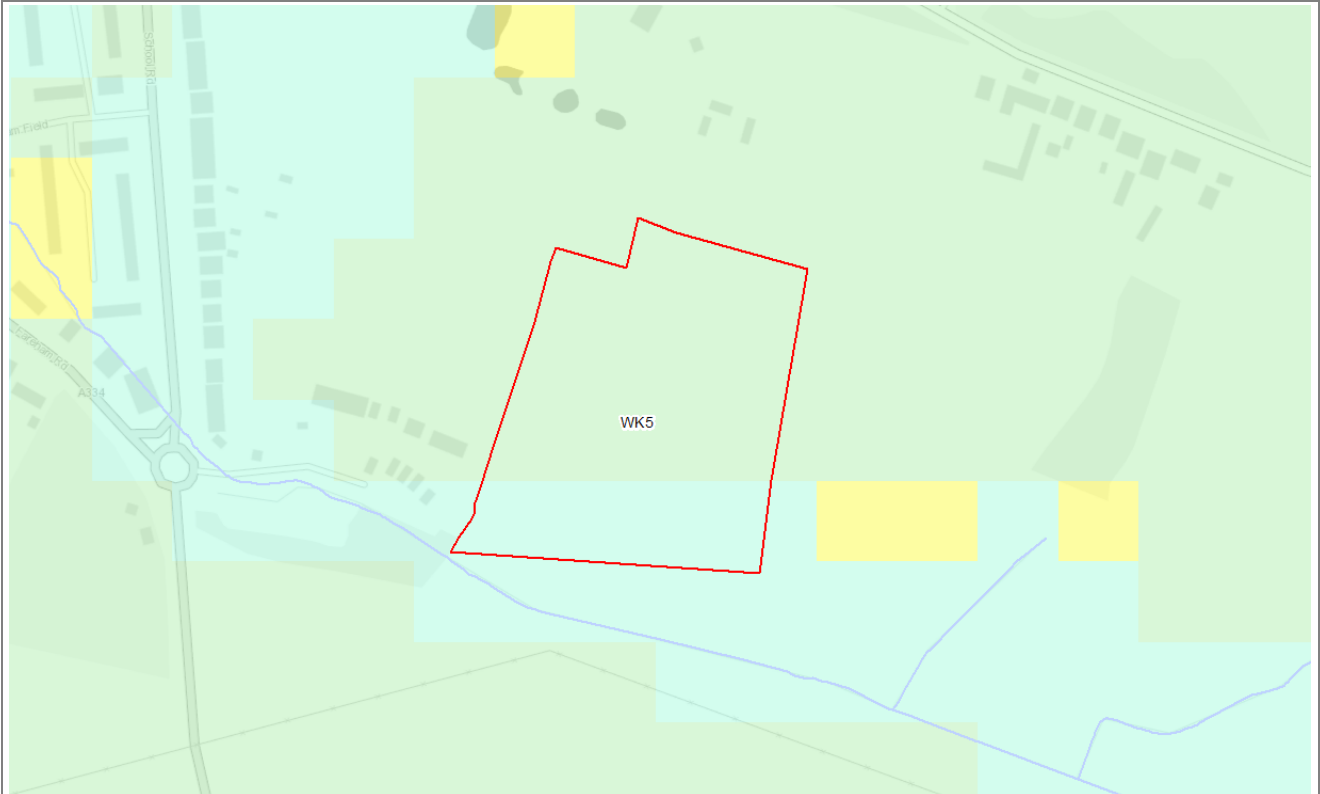
Site Specific Recommendations

60 residential units are proposed for this site. As the site is over 1 hectare a site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event, with flow paths crossing Grindall Field west of the site. Access/egress should be considered further as part of a site-specific FRA. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative

WK5: Land at Southwick Road/School Road (Wickham)

technologies; and incorporate soft landscaping, planting and permeable surfacing. A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. The site is within an area that has been shown from modelling to be potentially affected in the event of a reservoir breach or failure. This should be assessed appropriately to inform the development strategy and ensure that the masterplan includes appropriate measures to manage the potential for inundation within the site.

Groundwater Flooding

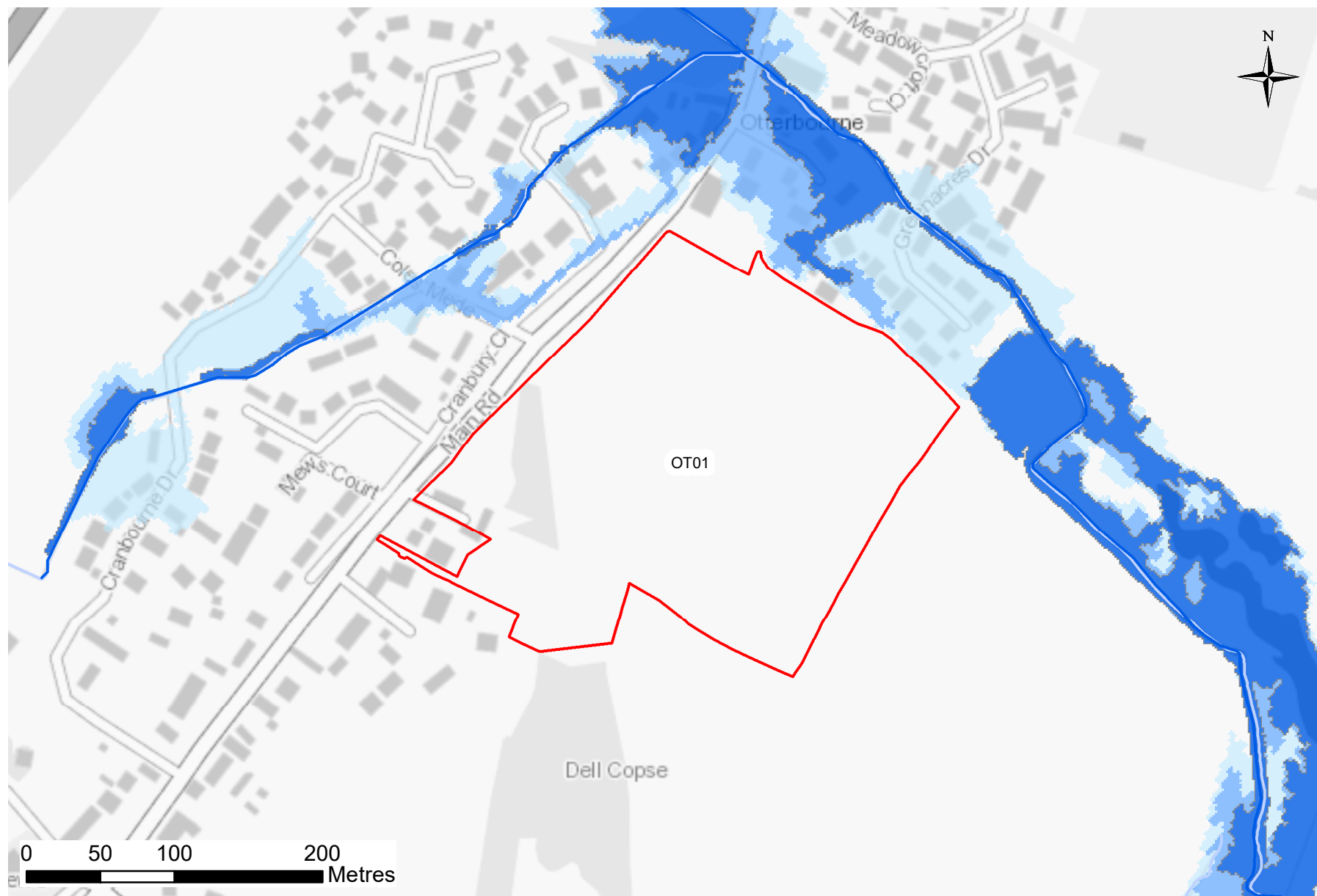


Legend

- Allocated Sites
- Main River
- Ordinary Watercourse
- Limited Potential
- Potential at surface
- Potential below ground

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Group 4: Sites within Flood Zones 2 and 3



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Flood Zones

- Flood Zone 2
- Flood Zone 3a
- Flood Zone 3b

PLEASE USE THE BUTTONS BELOW TO DISPLAY / HIDE DIFFERENT SOURCES OF FLOOD RISK TO THE ALLOCATION SITE.

FLOOD ZONES

MODELLED FLOOD EXTENTS

RISK OF FLOODING FROM SUFRACE WATER

HAZARD MAPPING

RESERVOIR FLOOD EXTENTS

SUSCEPTIBILITY TO GROUNDWATER FLOODING

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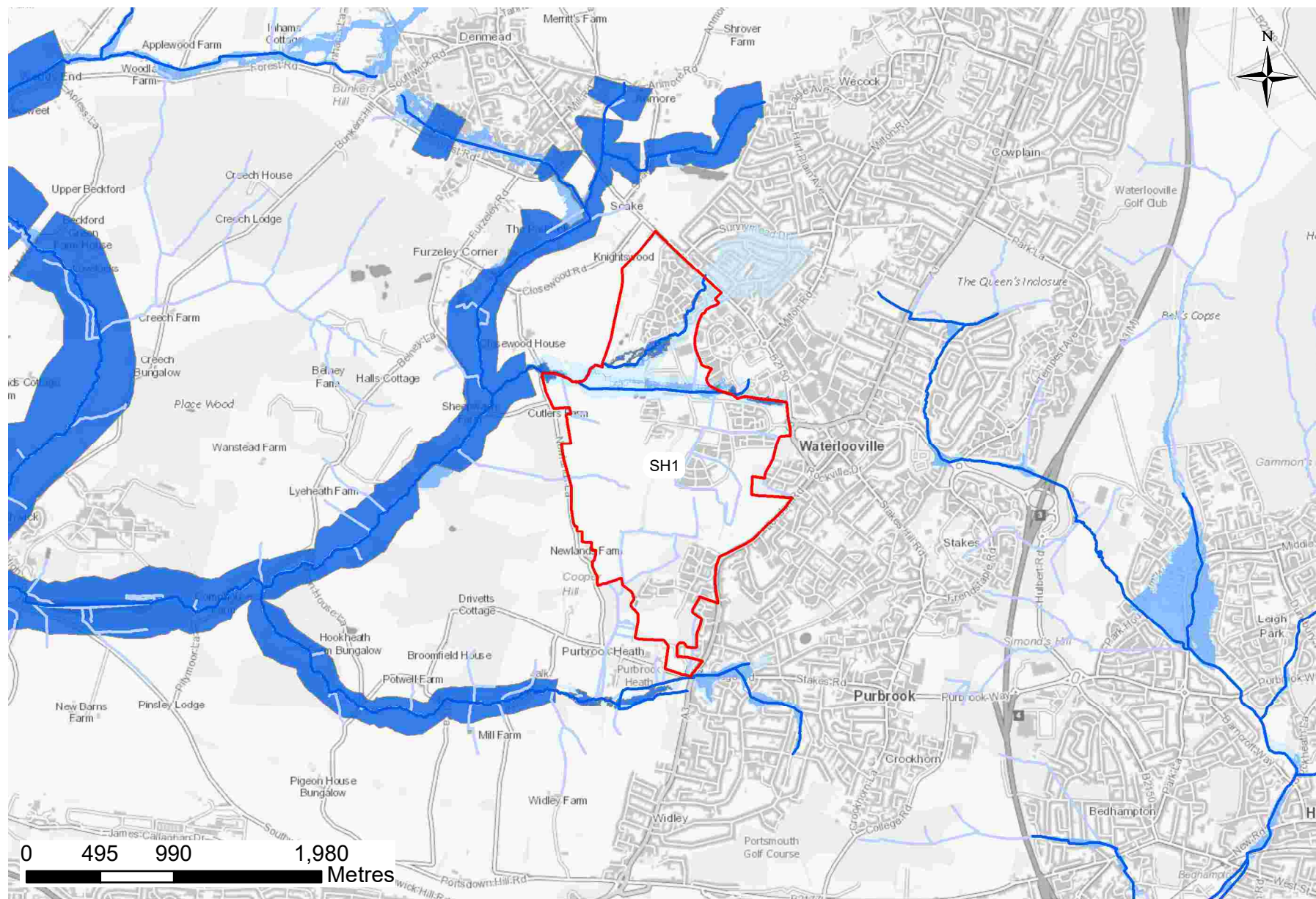
SITE ALLOCATION REFERENCE: OT01		SITE AREA: 6.4 ha	
SITE ADDRESS: Land East of Main Road			
PROPOSED USE: Residential			
VULNERABILITY CLASSIFICATION: More Vulnerable			
FLOOD PRIORITY GROUP: N/A			
PROXIMITY TO MAIN RIVER: 62.7m		NAME OF MAIN RIVER: Otterbourne Stream	
PROXIMITY TO NEAREST WATERCOURSE: 63.3m			
RECORDED FLOOD INCIDENTS WITHIN 500M OF THE SITE:		RECORDED FLOOD INVESTIGATIONS WITHIN 500M OF THE SITE:	
N/A		Kiln Lane, Hursley, SO21 2EN	

SURFACE WATER FLOODING			
Low (0.1% AEP): 1.0%		Medium (1% AEP): 0.3%	
High (3.33% AEP): 0%			
FLOOD ZONES AND HISTORIC FLOODING			
Flood Zone 1 (<0.1% AEP): 99.99%	Flood Zone 2 (0.1% AEP): 0.01%	Flood Zone 3a (1% AEP): 0%	Flood Zone 3b (defined in SFRA report): 0%
BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING			
Potential for groundwater flooding to occur at surface			
MAXIMUM WATER LEVELS FOR 1% AEP + CLIMATE CHANGE* 23.5 mAOD			
<small>* River Itchen: 1% + 35% CC Meon 0.1% Wallington: 0.1%</small>			
RISK OF FLOODING FROM RESERVOIRS			
PERCENTAGE OF SITE AT RISK OF FLOODING IN THE EVENT OF A BREACH OR FAILURE ON A:			
WET DAY: 0%		DRY DAY: 0%	

SITE ALLOCATION REFERENCE	OT01
SITE ADDRESS	Land East of Main Road (Otterbourne)

FLOOD RISK SUMMARY
<p>The main river Otterbourne Stream flows approximately 63m from the site. The majority of the site (99.99%) is defined as Flood Zone 1, with 0.01% in Flood Zone 2 (along the north eastern boundary). This site has been included in Group 4 as a conservative approach.</p> <p>Modelling included within this report shows part of the site to be at risk of flooding during the 1% + 35% AEP event, as well as a part of Main Road north of the site to be at risk during the 1% + 35% AEP event with a hazard rating of Very Low to Significant.</p> <p>The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with pooling at the west of the site.</p> <p>The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area.</p> <p>The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day.</p> <p>The site does not lie within a Priority Group.</p> <p>There is a recorded flood investigation within 500m of the site that occurred at Kiln Lane in 2014.</p> <p>There is a flood outline within 500m of the site that occurred in winter 2013/2014.</p>

SITE SPECIFIC RECOMMENDATIONS
<p>55 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.</p> <ul style="list-style-type: none"> - A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. away from the north boundary of the site, and where there is potential for groundwater flooding at surface. - This site will likely require further modelling to inform the site-specific FRA. - Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. - Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. - Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) is available for the site heading south along Main Road. Access/egress should be considered further as part of a site-specific FRA. - Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. - A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. <p>Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures.</p> <ul style="list-style-type: none"> - The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Flood Zones

- Flood Zone 2
- Flood Zone 3a
- Flood Zone 3b

PLEASE USE THE BUTTONS BELOW TO DISPLAY / HIDE DIFFERENT SOURCES OF FLOOD RISK TO THE ALLOCATION SITE.

FLOOD ZONES

MODELLED FLOOD EXTENTS

RISK OF FLOODING FROM SUFACE WATER

HAZARD MAPPING

RESERVOIR FLOOD EXTENTS

SUSCEPTIBILITY TO GROUNDWATER FLOODING

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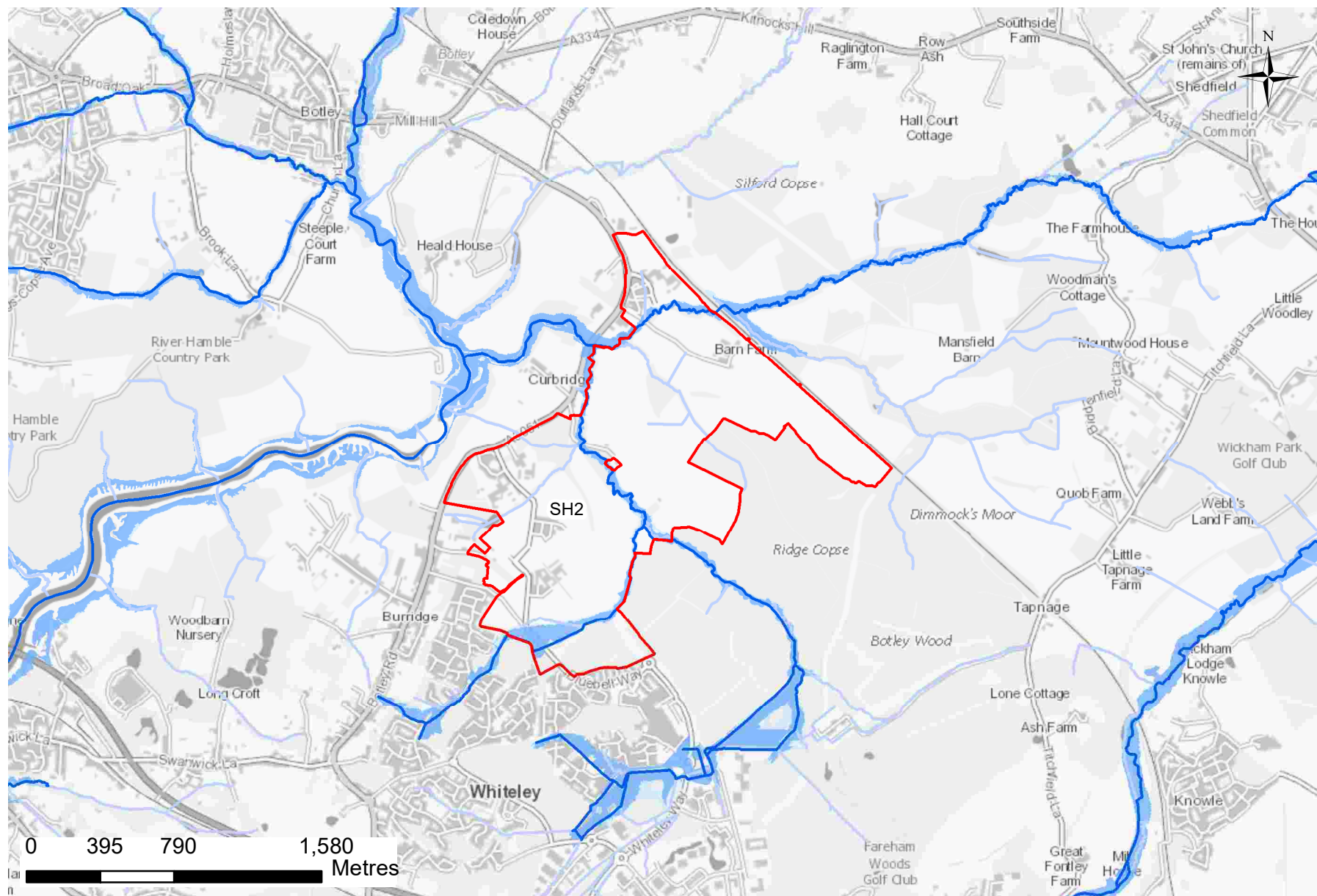
SITE ALLOCATION REFERENCE: SH1		SITE AREA: 245.0 ha	
SITE ADDRESS: West of Waterlooville (including Newlands)			
PROPOSED USE: Residential			
VULNERABILITY CLASSIFICATION: More Vulnerable			
FLOOD PRIORITY GROUP: N/A			
PROXIMITY TO MAIN RIVER: Within boundary		NAME OF MAIN RIVER: Old Park Stream	
PROXIMITY TO NEAREST WATERCOURSE: Within boundary			
RECORDED FLOOD INCIDENTS WITHIN 500M OF THE SITE:		RECORDED FLOOD INVESTIGATIONS WITHIN 500M OF THE SITE:	
N/A		Byngs Business Park, Hambledon Road, Soake, Denmead	

SURFACE WATER FLOODING			
Low (0.1% AEP): 11.4%		Medium (1% AEP): 2.7%	High (3.33% AEP): 1.0%
FLOOD ZONES AND HISTORIC FLOODING			
Flood Zone 1 (<0.1% AEP): 88%	Flood Zone 2 (0.1% AEP): 9%	Flood Zone 3a (1% AEP): 1%	Flood Zone 3b (defined in SFRA report): 2%
BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING			
Potential for groundwater flooding to occur at surface Potential for groundwater flooding of property situated below ground level Limited potential for groundwater flooding to occur			
MAXIMUM WATER LEVELS FOR 1% AEP + CLIMATE CHANGE* 37.0 mAOD			
* River Itchen: 1% + 35% CC Meon 0.1% Wallington: 0.1%			
RISK OF FLOODING FROM RESERVOIRS			
PERCENTAGE OF SITE AT RISK OF FLOODING IN THE EVENT OF A BREACH OR FAILURE ON A:			
WET DAY: 0%		DRY DAY: 0%	

SITE ALLOCATION REFERENCE	SH1
SITE ADDRESS	West of Waterlooville (Waterlooville)

FLOOD RISK SUMMARY
<p>The main river Old Park Stream as well as numerous ordinary watercourses flow through the site. The majority of the site (88%) is defined as Flood Zone 1, with 9% in Flood Zone 2 and the remainder in Flood Zone 3a and 3b.</p> <p>Modelling available for River Wallington shows part of the site to be at risk of flooding in the 0.1% AEP events, with access roads west and north of the site at risk during the 0.1% AEP events with a hazard rating of Very Low to Extreme.</p> <p>The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site.</p> <p>The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level in the area.</p> <p>The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day.</p> <p>The site does not lie within a Priority Group.</p> <p>There is a recorded flood investigation within 500m of the site that occurred at Byrnys Business Park in winter 2000. There are no flood outlines within 500m of the site.</p>

SITE SPECIFIC RECOMMENDATIONS
<p>300 residential units are proposed for this site and outline planning permission has been obtained. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.</p> <ul style="list-style-type: none"> - Modelling available for this site is considered to be outdated, and therefore site-specific modelling will be required for any new development. - A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding the main river and watercourses throughout the site, and where there is potential for groundwater flooding at surface. - Development is not permitted in areas of Flood Zone 3b Functional Floodplain. This part of the site should be retained as floodplain and steps taken to restore the land to provide a more natural edge of the river. - New development within 8 metres of a Main River or Ordinary Watercourse will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. - Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. - Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. - Dry access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) as well as safe refuge may be achievable for the site heading south along the A3 and heading east along Hambledon Road based on modelling available for the site. Dry access/egress for surface water is not likely to be achievable in either the 1% AEP or 0.1% AEP event due to surface water on all surrounding roads. Access/egress should be considered further as part of a site-specific FRA. Consultation with Emergency Planners will be required to discuss the safety of occupants, and not place an unacceptable additional burden on the emergency services. - Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. - A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. - The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.



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Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Flood Zones

- Flood Zone 2
- Flood Zone 3a
- Flood Zone 3b

PLEASE USE THE BUTTONS BELOW TO DISPLAY / HIDE DIFFERENT SOURCES OF FLOOD RISK TO THE ALLOCATION SITE.

FLOOD ZONES

MODELLED FLOOD EXTENTS

RISK OF FLOODING FROM SUFACE WATER

HAZARD MAPPING

RESERVOIR FLOOD EXTENTS

SUSCEPTIBILITY TO GROUNDWATER FLOODING

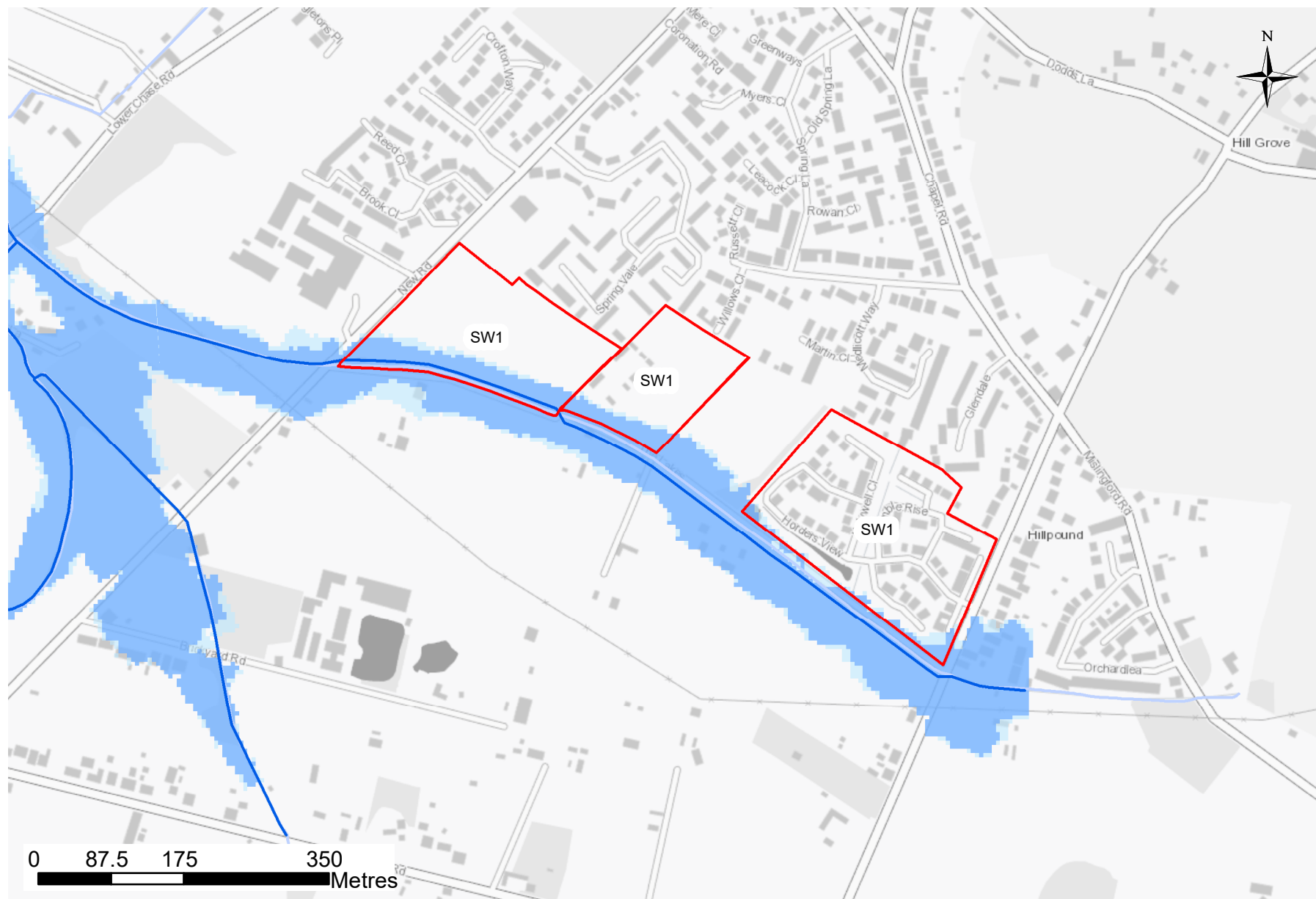
SITE ALLOCATION REFERENCE: SH2	SITE AREA: 210 ha
SITE ADDRESS: North Whiteley	
PROPOSED USE: Residential	
VULNERABILITY CLASSIFICATION: More Vulnerable	
FLOOD PRIORITY GROUP: N/A	
PROXIMITY TO MAIN RIVER: 0m	NAME OF MAIN RIVER: Curbridge Creek
PROXIMITY TO NEAREST WATERCOURSE: 0m	
RECORDED FLOOD INCIDENTS WITHIN 500M OF THE SITE:	RECORDED FLOOD INVESTIGATIONS WITHIN 500M OF THE SITE:
N/A	N/A

SURFACE WATER FLOODING			
Low (0.1% AEP): 11.2%	Medium (1% AEP): 4.3%	High (3.33% AEP): 2.7%	
FLOOD ZONES AND HISTORIC FLOODING			
Flood Zone 1 (<0.1% AEP): 93%	Flood Zone 2 (0.1% AEP): 1%	Flood Zone 3a (1% AEP): 6%	Flood Zone 3b (defined in SFRA report): 0%
BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING			
Potential for groundwater flooding to occur at surface Potential for groundwater flooding of property situated below ground level Limited potential for groundwater flooding to occur			
MAXIMUM WATER LEVELS FOR 1% AEP + CLIMATE CHANGE* N/A mAOD			
* River Itchen: 1% + 35% CC Meon 0.1% Wallington: 0.1%			
RISK OF FLOODING FROM RESERVOIRS			
PERCENTAGE OF SITE AT RISK OF FLOODING IN THE EVENT OF A BREACH OR FAILURE ON A:			
WET DAY: 0%		DRY DAY: 0%	

SITE ALLOCATION REFERENCE	SH2
SITE ADDRESS	North Whiteley (Curbridge)

FLOOD RISK SUMMARY
<p>The main river Curbridge Creek as well as three ordinary watercourses flow through the site. The majority of the site (93%) is defined as Flood Zone 1 with 1% in Flood Zone 2 and 6% in Flood Zone 3a.</p> <p>There are no available hydraulic model results covering the site.</p> <p>The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site.</p> <p>The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level in the area.</p> <p>The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day.</p> <p>The site does not lie within a Priority Group.</p> <p>There are no flood outlines or recorded flood investigations within 500m of the site.</p>

SITE SPECIFIC RECOMMENDATIONS
<p>200 residential units are proposed for this site and outline planning permission has been obtained. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.</p> <ul style="list-style-type: none"> - A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding areas around the main river where Flood Zones 2 and 3 are present, and where there is potential for groundwater flooding at surface. - Modelling is not available for this site, and therefore site-specific modelling will be required for any new development to confirm the flood risk during a 1% AEP event including climate change. - Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. For example, the built footprint of new development of the site should not exceed that of the existing building and where possible should be reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. - Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. - Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) will need to be designed into the site masterplan, informed by hydraulic modelling of the watercourses. The eastern part of the site is not currently well connected to areas outside the floodplain, and therefore appropriate crossings for the watercourses will need to be designed into the site. Access is then available along the A3051. - Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. - A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. - The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.



Legend

- Allocated Sites
 - Main River
 - Ordinary Watercourse
- Flood Zones**
- Flood Zone 2
 - Flood Zone 3a
 - Flood Zone 3b

PLEASE USE THE BUTTONS BELOW TO DISPLAY / HIDE DIFFERENT SOURCES OF FLOOD RISK TO THE ALLOCATION SITE.

FLOOD ZONES

MODELLED FLOOD EXTENTS

RISK OF FLOODING FROM SUFACE WATER

HAZARD MAPPING

RESERVOIR FLOOD EXTENTS

SUSCEPTIBILITY TO GROUNDWATER FLOODING

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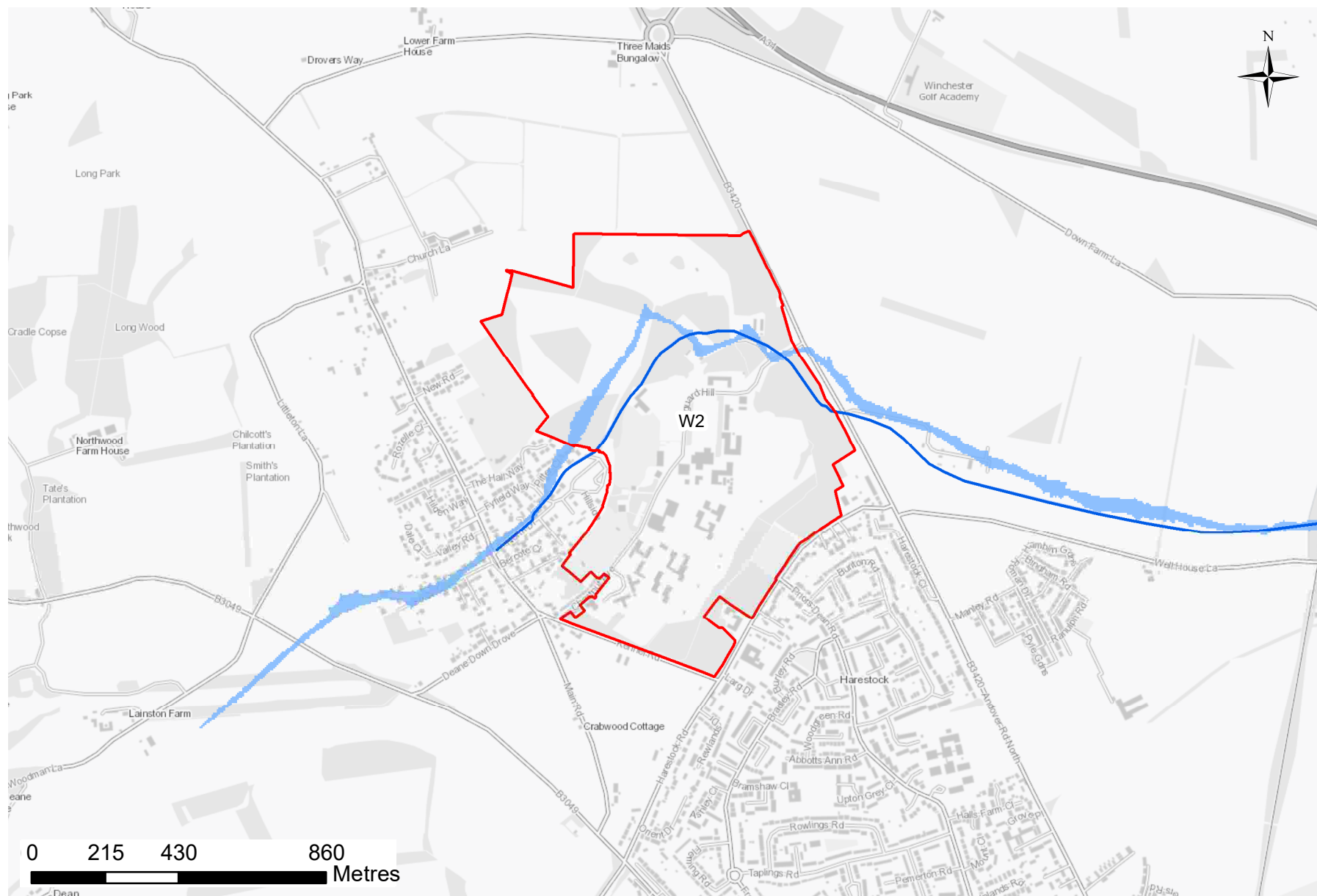
SITE ALLOCATION REFERENCE: SW1		SITE AREA: 10.0 ha	
SITE ADDRESS: The Lakes			
PROPOSED USE: Residential			
VULNERABILITY CLASSIFICATION: More Vulnerable			
FLOOD PRIORITY GROUP: N/A			
PROXIMITY TO MAIN RIVER: Within boundary		NAME OF MAIN RIVER: Unnamed tributary of River Hamble	
PROXIMITY TO NEAREST WATERCOURSE: Within boundary			
RECORDED FLOOD INCIDENTS WITHIN 500M OF THE SITE:		RECORDED FLOOD INVESTIGATIONS WITHIN 500M OF THE SITE:	
N/A		N/A	

SURFACE WATER FLOODING			
Low (0.1% AEP): 17.7%		Medium (1% AEP): 8.4%	High (3.33% AEP): 4.7%
FLOOD ZONES AND HISTORIC FLOODING			
Flood Zone 1 (<0.1% AEP): 85%	Flood Zone 2 (0.1% AEP): 3%	Flood Zone 3a (1% AEP): 12%	Flood Zone 3b (defined in SFRA report): 0%
BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING			
N/A			
MAXIMUM WATER LEVELS FOR 1% AEP + CLIMATE CHANGE* N/A mAOD			
* River Itchen: 1% + 35% CC Meon 0.1% Wallington: 0.1%			
RISK OF FLOODING FROM RESERVOIRS			
PERCENTAGE OF SITE AT RISK OF FLOODING IN THE EVENT OF A BREACH OR FAILURE ON A:			
WET DAY: 0%		DRY DAY: 0%	

SITE ALLOCATION REFERENCE	SW1
SITE ADDRESS	The Lakes (Swanmore)

FLOOD RISK SUMMARY
<p>An unnamed main river which is a tributary of the River Hamble flows through the site. The majority of the site (85%) is defined as Flood Zone 1, with 3% in Flood Zone 2 and 12% in Flood Zone 3a.</p> <p>There are no available hydraulic model results covering the site.</p> <p>The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site.</p> <p>The BGS Susceptibility to Groundwater Flooding dataset indicates that there is no potential for groundwater flooding to occur in the area.</p> <p>The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day.</p> <p>The site does not lie within a Priority Group.</p> <p>There are no recorded flood investigations or flood outlines within 500m of the site.</p>

SITE SPECIFIC RECOMMENDATIONS
<p>100 residential units are proposed for this site and outline planning permission has been obtained. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.</p> <ul style="list-style-type: none"> - A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. away from the main river along the south border of the site where Flood Zones 2 and 3 are present. - Modelling is not available for this site, and therefore site-specific modelling will be required for any new development to confirm the flood risk during a 1% AEP event including climate change. - Retain an 8 metre wide undeveloped buffer strip alongside Main Rivers and explore opportunities for riverside restoration. Retain a 5 metre wide buffer strip alongside Ordinary Watercourses. New development within 8 metres of a Main River or Ordinary Watercourse will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. - Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. - Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. - Dry access/egress for surface water is likely to be achievable heading north along New Road and Hill Pound. Access/egress should be considered further as part of a site-specific FRA. - Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. - A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. - The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.



Legend

- Allocated Sites
 - Main River
 - Ordinary Watercourse
- Flood Zones**
- Flood Zone 2
 - Flood Zone 3a
 - Flood Zone 3b

PLEASE USE THE BUTTONS BELOW TO DISPLAY / HIDE DIFFERENT SOURCES OF FLOOD RISK TO THE ALLOCATION SITE.

FLOOD ZONES

MODELLED FLOOD EXTENTS

RISK OF FLOODING FROM SUFACE WATER

HAZARD MAPPING

RESERVOIR FLOOD EXTENTS

SUSCEPTIBILITY TO GROUNDWATER FLOODING

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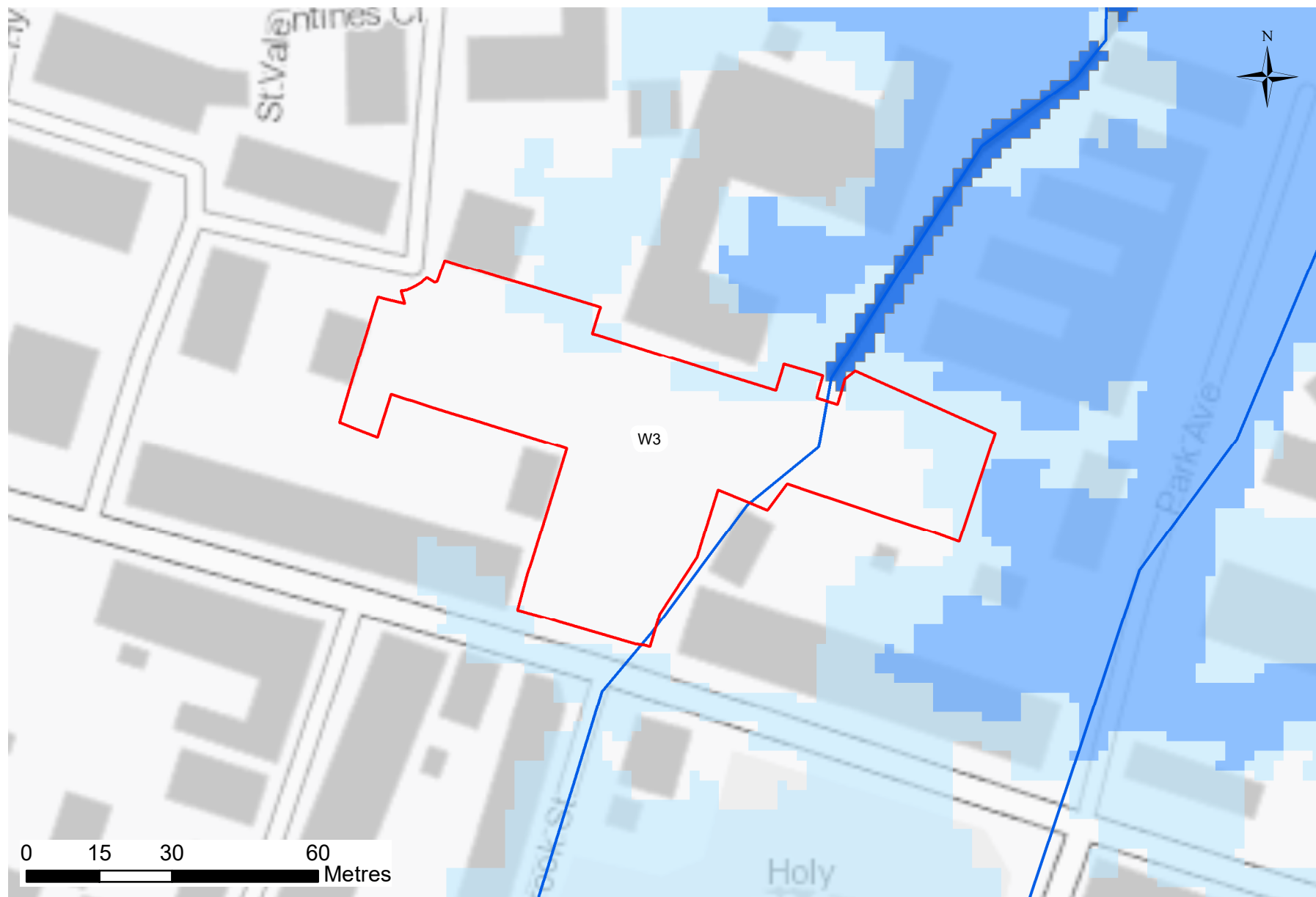
SITE ALLOCATION REFERENCE: W2		SITE AREA: 84.3 ha	
SITE ADDRESS: Sir John Moore Barracks			
PROPOSED USE: Residential			
VULNERABILITY CLASSIFICATION: More Vulnerable			
FLOOD PRIORITY GROUP: N/A			
PROXIMITY TO MAIN RIVER: 0m		NAME OF MAIN RIVER: Unnamed tributary of River Itchen	
PROXIMITY TO NEAREST WATERCOURSE: 0m			
RECORDED FLOOD INCIDENTS WITHIN 500M OF THE SITE:		RECORDED FLOOD INVESTIGATIONS WITHIN 500M OF THE SITE:	
Winter 2000/01gw_Nunswalk St_Littleton(1) Fyfield Way, Littleton, Winter 13/14 Winter1995_Nuns Walk Stream_Harestock		Littleton, Winchester, SO22 6BY	

SURFACE WATER FLOODING			
Low (0.1% AEP): 9.8%		Medium (1% AEP): 2.6%	
High (3.33% AEP): 0.7%			
FLOOD ZONES AND HISTORIC FLOODING			
Flood Zone 1 (<0.1% AEP): 97%	Flood Zone 2 (0.1% AEP): 0%	Flood Zone 3a (1% AEP): 3%	Flood Zone 3b (defined in SFRA report): 0%
BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING			
Potential for groundwater flooding to occur at surface Potential for groundwater flooding of property situated below ground level Limited potential for groundwater flooding to occur			
MAXIMUM WATER LEVELS FOR 1% AEP + CLIMATE CHANGE* N/A mAOD			
* River Itchen: 1% + 35% CC Meon 0.1% Wallington: 0.1%			
RISK OF FLOODING FROM RESERVOIRS			
PERCENTAGE OF SITE AT RISK OF FLOODING IN THE EVENT OF A BREACH OR FAILURE ON A:			
WET DAY: 0%		DRY DAY: 0%	

SITE ALLOCATION REFERENCE	W2
SITE ADDRESS	Sir John Moore Barracks (Winchester)

FLOOD RISK SUMMARY
<p>An unnamed main river which is a tributary of the River Itchen flows through the site. Two tributaries of the unnamed main river flow through the site. The majority of the site (97%) is defined as Flood Zone 1, with 3% in Flood Zone 3a.</p> <p>There are no available hydraulic model results covering the site.</p> <p>The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site.</p> <p>The BGS Susceptibility to Groundwater Flooding dataset indicates that there is limited potential for groundwater flooding to occur, potential for groundwater flooding to occur at surface, and potential for groundwater flooding of property situated below ground level in the area.</p> <p>The site is not at risk of flooding from reservoirs in the event of a breach on a wet or dry day.</p> <p>The site does not lie within a Priority Group.</p> <p>There is a recorded flood investigation within 500m of the site which occurred in 2014 in Littleton.</p> <p>There are recorded flood outlines within 500m of the site, occurring in winter 2000/2001 at Nunswalk, winter 2013/2014 at Fyfield Way, and winter 1995 at Nunswalk.</p>

SITE SPECIFIC RECOMMENDATIONS
<p>900 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.</p> <ul style="list-style-type: none"> - A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding areas around the main river where Flood Zones 2 and 3 are present, the tributaries of the main river, and where there is potential for groundwater flooding at surface. - Modelling is not available for this site, and therefore site-specific modelling will be required for any new development to confirm the flood risk during a 1% AEP event including climate change. - Retain an 8 metre wide undeveloped buffer strip alongside Main Rivers and explore opportunities for riverside restoration. New development within 8 metres of a Main River will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. - Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. - Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. - Dry access/egress for surface water is likely to be achievable heading north along Andover Road North and south along Main Road. Access/egress should be considered further as part of a site-specific FRA. - Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. - A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. - The site is not within an area that has been shown to be potentially affected in the event of a reservoir breach or failure.



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Flood Zones

- Flood Zone 2
- Flood Zone 3a
- Flood Zone 3b

PLEASE USE THE BUTTONS BELOW TO DISPLAY / HIDE DIFFERENT SOURCES OF FLOOD RISK TO THE ALLOCATION SITE.

FLOOD ZONES

MODELLED FLOOD EXTENTS

RISK OF FLOODING FROM SUFRACE WATER

HAZARD MAPPING

RESERVOIR FLOOD EXTENTS

SUSCEPTIBILITY TO GROUNDWATER FLOODING

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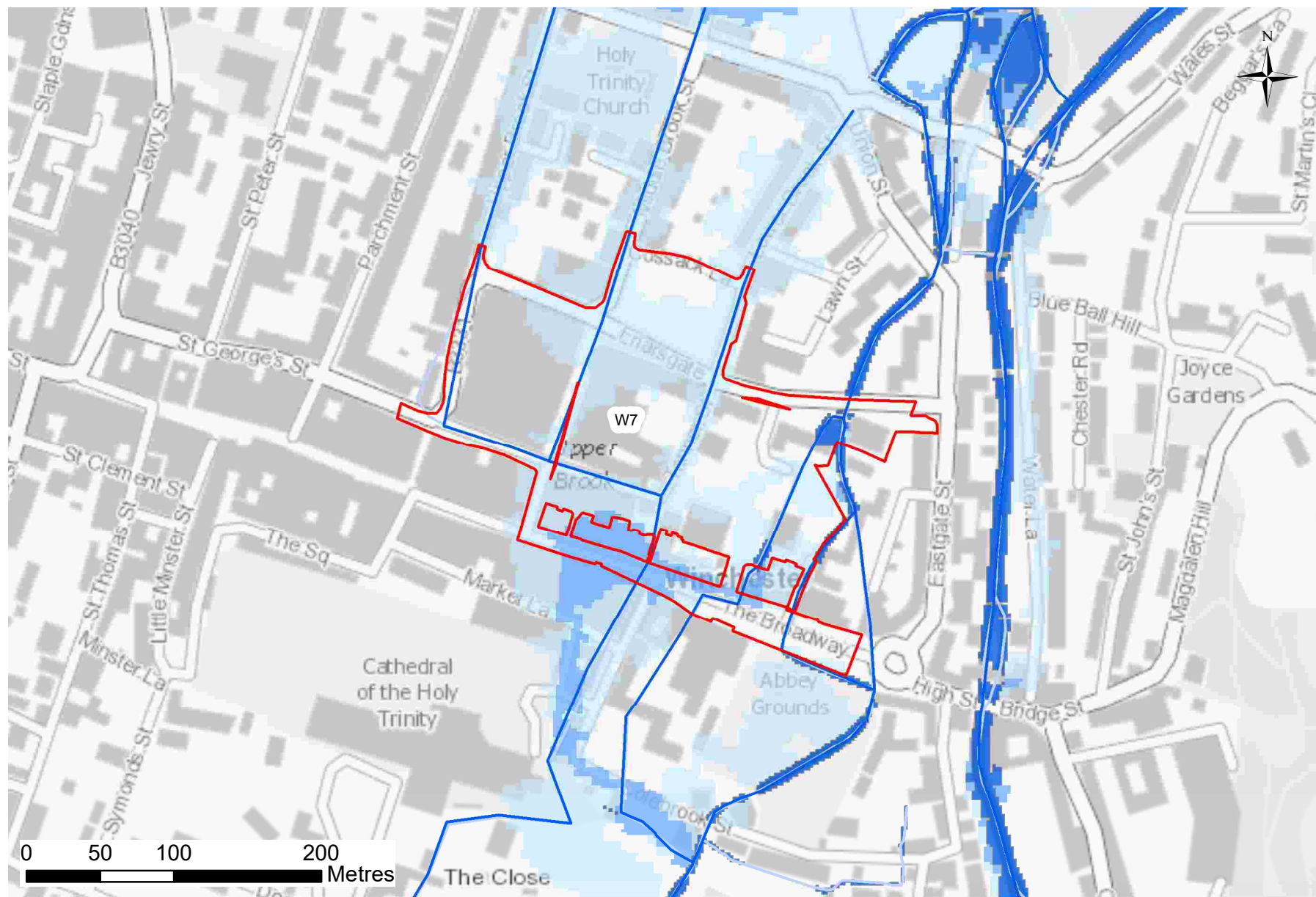
SITE ALLOCATION REFERENCE: W3		SITE AREA: 0.4 ha	
SITE ADDRESS: St Peter's Car Park			
PROPOSED USE: Residential			
VULNERABILITY CLASSIFICATION: More Vulnerable			
FLOOD PRIORITY GROUP: Central_Winchester			
PROXIMITY TO MAIN RIVER: Within boundary		NAME OF MAIN RIVER: Unnamed watercourse	
PROXIMITY TO NEAREST WATERCOURSE: 0.1km			
RECORDED FLOOD INCIDENTS WITHIN 500M OF THE SITE:		RECORDED FLOOD INVESTIGATIONS WITHIN 500M OF THE SITE:	
Park Avenue, Winchester, Winter 13/14 Winchester Leisure Centre, Winter 13/14 Water Lane, Winchester, Winter 13/14 Winter 2000/01gw_River Itchen_Winchester(4)		N/A	

SURFACE WATER FLOODING			
Low (0.1% AEP): 1.3%		Medium (1% AEP): 0%	
High (3.33% AEP): 0%			
FLOOD ZONES AND HISTORIC FLOODING			
Flood Zone 1 (<0.1% AEP): 85%	Flood Zone 2 (0.1% AEP): 15%	Flood Zone 3a (1% AEP): 0%	Flood Zone 3b (defined in SFRA report):0%
BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING			
Potential for groundwater flooding to occur at surface			
MAXIMUM WATER LEVELS FOR 1% AEP + CLIMATE CHANGE* 36.9 mAOD			
<small>* River Itchen: 1% + 35% CC Meon 0.1% Wallington: 0.1%</small>			
RISK OF FLOODING FROM RESERVOIRS			
PERCENTAGE OF SITE AT RISK OF FLOODING IN THE EVENT OF A BREACH OR FAILURE ON A:			
WET DAY: 74.7%		DRY DAY: 0%	

SITE ALLOCATION REFERENCE	W3
SITE ADDRESS	St Peter's Car Park (Winchester)

FLOOD RISK SUMMARY
<p>An unnamed main river is culverted through the site. The majority of the site (85%) is defined as Flood Zone 1, with 15% in Flood Zone 2. Flood Zone 3a and 3b are located at the northern boundary of the site.</p> <p>Modelling available for the River Itchen shows flooding in the 1% AEP +35% climate change event adjacent to the northern boundary, with the main access roads unaffected.</p> <p>The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running along the north of the site.</p> <p>The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area. The site is not at risk of flooding from reservoirs in the event of a breach on a dry day, and is at risk of 74.7% of the site flooding on a wet day.</p> <p>The site lies within the Central Winchester Priority Group, details of relevant policies can be seen in Section 2.7 of the Level 2 SFRA.</p> <p>There are no recorded flood investigations within 500m of the site. There are four recorded flood outlines within 500m of the site, three of which occurred in winter 2013/2014 at Park Avenue, Water Lane, and Winchester Leisure Centre, and one which occurred in winter 2000/2001.</p>

SITE SPECIFIC RECOMMENDATIONS
<p>30 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.</p> <ul style="list-style-type: none"> - A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding areas around the main river where Flood Zones 2 and 3 are present, and where there is residual risk of reservoir flooding. - This site will likely require further modelling to inform the site-specific FRA. - Retain an 8 metre wide undeveloped buffer strip alongside Main Rivers and explore opportunities for riverside restoration including deculverting. New development within 8m of a Main River will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. - Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites is required for any increase in building footprint. - Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. - Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) is available for the site along North Walls. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading east along North Walls. Access/egress should be considered further as part of a site-specific FRA. - The site is located within the Central Winchester Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site. - Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. - A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. - The site is within an area that has been shown from modelling to be potentially affected in the event of a reservoir breach or failure. This should be assessed appropriately to inform the development strategy and ensure that the masterplan includes appropriate measures to manage the potential for inundation within the site.



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Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Flood Zones

- Flood Zone 2
- Flood Zone 3a
- Flood Zone 3b

PLEASE USE THE BUTTONS BELOW TO DISPLAY / HIDE DIFFERENT SOURCES OF FLOOD RISK TO THE ALLOCATION SITE.

FLOOD ZONES

MODELLED FLOOD EXTENTS

RISK OF FLOODING FROM SUFACE WATER

HAZARD MAPPING

RESERVOIR FLOOD EXTENTS

SUSCEPTIBILITY TO GROUNDWATER FLOODING

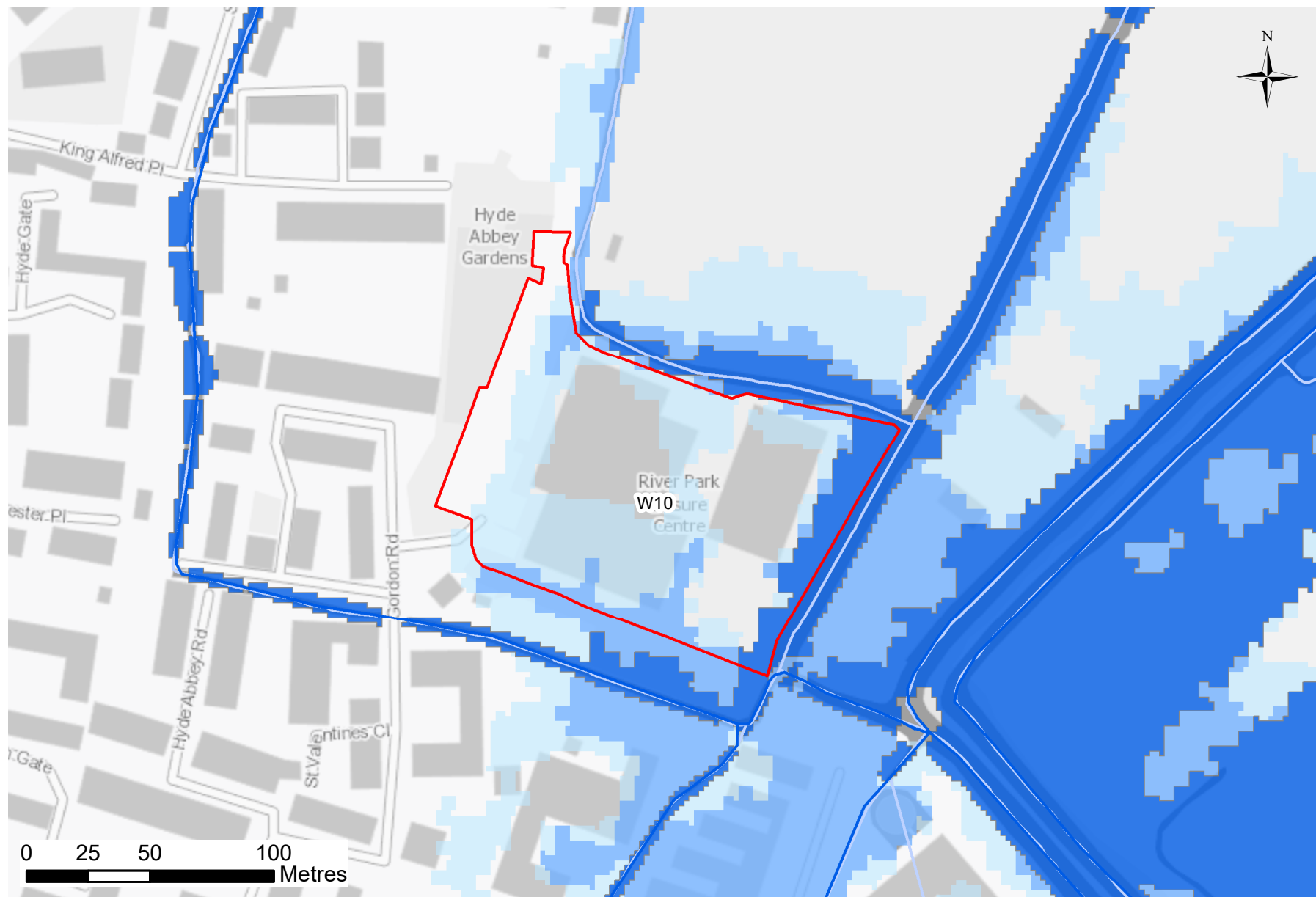
SITE ALLOCATION REFERENCE: W7		SITE AREA: 4.6 ha	
SITE ADDRESS: Central Winchester Regeneration			
PROPOSED USE: Residential			
VULNERABILITY CLASSIFICATION: More Vulnerable			
FLOOD PRIORITY GROUP: Central_Winchester			
PROXIMITY TO MAIN RIVER: Within boundary		NAME OF MAIN RIVER: Unnamed tributary of River Itchen	
PROXIMITY TO NEAREST WATERCOURSE: Within boundary			
RECORDED FLOOD INCIDENTS WITHIN 500M OF THE SITE:		RECORDED FLOOD INVESTIGATIONS WITHIN 500M OF THE SITE:	
Winter 2000/01gw_River Itchen_Winchester(2) Water Lane, Winchester, Winter 13/14 Park Avenue, Winchester, Winter 13/14 Winchester Leisure Centre, Winter 13/14		Culverwell Gardens , Winchester, SO23 9JG	

SURFACE WATER FLOODING			
Low (0.1% AEP): 21.3%	Medium (1% AEP): 7.8%	High (3.33% AEP): 3.9%	
FLOOD ZONES AND HISTORIC FLOODING			
Flood Zone 1 (<0.1% AEP): 55%	Flood Zone 2 (0.1% AEP): 40%	Flood Zone 3a (1% AEP): 4%	Flood Zone 3b (defined in SFRA report): 1%
BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING			
Potential for groundwater flooding to occur at surface			
MAXIMUM WATER LEVELS FOR 1% AEP + CLIMATE CHANGE*			
37.0 mAOD			
<small>* River Itchen: 1% + 35% CC Meon 0.1% Wallington: 0.1%</small>			
RISK OF FLOODING FROM RESERVOIRS			
PERCENTAGE OF SITE AT RISK OF FLOODING IN THE EVENT OF A BREACH OR FAILURE ON A:			
WET DAY: 83.9%		DRY DAY: 0%	

SITE ALLOCATION REFERENCE	W7
SITE ADDRESS	Central Winchester Regeneration (Winchester)

FLOOD RISK SUMMARY
<p>Numerous unnamed main rivers which are tributaries of the River Itchen are culverted through the site. Much of the site (55%) is defined as Flood Zone 1, with 40% in Flood Zone 2, 4% in Flood Zone 3a, and 1% in Flood Zone 3b.</p> <p>Modelling available for the River Itchen shows part of the site to be at risk of flooding in the 1%+35%CC AEP event, with access roads to the north, south, and east of the site at risk during the 1%+35%CC AEP event with a hazard rating of Very Low to Significant.</p> <p>The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 1% and 0.1% AEP events, with flow paths running throughout the site.</p> <p>The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area.</p> <p>The site is not at risk of flooding from reservoirs in the event of a breach on a dry day, and for 83.9% to be at risk during a wet day.</p> <p>The site lies within the Central Winchester Priority Group, details of relevant policies can be seen in Section 2.7 of the Level 2 SFRA.</p> <p>There is a recorded flood investigations within 500m of the site which occurred at the Culverwell Gardens in 2014. There are recorded flood outlines within 500m of the site, three of which occurred in winter 2013/2014 at Water Lane, Park Avenue, and Winchester Leisure Centre, as well as one which occurred in winter 2000/2001.</p>

SITE SPECIFIC RECOMMENDATIONS
<p>300 residential units are proposed for this site. A site-specific FRA will be required to satisfy part 2) of the Exception Test, i.e. to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.</p> <ul style="list-style-type: none"> - A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding areas around the main river where Flood Zones 2 and 3 are present, and where there is residual risk of reservoir flooding. - This site will likely require further modelling to inform the site-specific FRA. - Development is not permitted in areas of Flood Zone 3b Functional Floodplain. This part of the site should be retained as floodplain and steps taken to restore the land to provide a more natural edge of the river. - Retain an 8 metre wide undeveloped buffer strip alongside Main Rivers and explore opportunities for riverside restoration including deculverting. New development within 8m of a Main River or Ordinary Watercourse will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively. - Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites will be required. - Finished Floor Levels for residential accommodation must be above the design flood event (1% AEP including central climate change allowance) plus a minimum 300mm freeboard. - Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) is available for the site along St George's Street. Dry access/egress for surface water is likely to be achievable in the 1% AEP event heading east along St George's Street. Dry access/egress for surface water is not likely to be achievable in the 0.1% AEP event. Access/egress should be considered further as part of a site-specific FRA. - The site is located within the Central Winchester Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site. - Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing. - A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures. - The site is within an area that has been shown from modelling to be potentially affected in the event of a reservoir breach or failure. This should be assessed appropriately to inform the development strategy and ensure that the masterplan includes appropriate measures to manage the potential for inundation within the site.



Legend

- Allocated Sites
- Main River
- Ordinary Watercourse

Flood Zones

- Flood Zone 2
- Flood Zone 3a
- Flood Zone 3b

PLEASE USE THE BUTTONS BELOW TO DISPLAY / HIDE DIFFERENT SOURCES OF FLOOD RISK TO THE ALLOCATION SITE.

FLOOD ZONES

MODELLED FLOOD EXTENTS

RISK OF FLOODING FROM SUFRACE WATER

HAZARD MAPPING

RESERVOIR FLOOD EXTENTS

SUSCEPTIBILITY TO GROUNDWATER FLOODING

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SITE ALLOCATION REFERENCE: W10		SITE AREA: 1.6 ha	
SITE ADDRESS: River Park			
PROPOSED USE: Employment			
VULNERABILITY CLASSIFICATION: Less Vulnerable			
FLOOD PRIORITY GROUP: Central_Winchester			
PROXIMITY TO MAIN RIVER: 1.9m		NAME OF MAIN RIVER: River Itchen	
PROXIMITY TO NEAREST WATERCOURSE: 2.8m			
RECORDED FLOOD INCIDENTS WITHIN 500M OF THE SITE:		RECORDED FLOOD INVESTIGATIONS WITHIN 500M OF THE SITE:	
Park Avenue, Winchester, Winter 13/14 Winchester Leisure Centre, Winter 13/14 Winter 2000/01gw_River Itchen_Winchester(1)		N/A	

SURFACE WATER FLOODING			
Low (0.1% AEP): 11.8%		Medium (1% AEP): 0.2%	High (3.33% AEP): 0.002%
FLOOD ZONES AND HISTORIC FLOODING			
Flood Zone 1 (<0.1% AEP): 51%	Flood Zone 2 (0.1% AEP): 31%	Flood Zone 3a (1% AEP): 9%	Flood Zone 3b (defined in SFRA report): 9%
BGS SUSCEPTIBILITY TO GROUNDWATER FLOODING			
Potential for groundwater flooding to occur at surface			
MAXIMUM WATER LEVELS FOR 1% AEP + CLIMATE CHANGE* 37.4 mAOD			
<small>* River Itchen: 1% + 35% CC Meon 0.1% Wallington: 0.1%</small>			
RISK OF FLOODING FROM RESERVOIRS			
PERCENTAGE OF SITE AT RISK OF FLOODING IN THE EVENT OF A BREACH OR FAILURE ON A:			
WET DAY: 87.9%		DRY DAY: 0%	

SITE ALLOCATION REFERENCE	W10
SITE ADDRESS	River Park (Winchester)

FLOOD RISK SUMMARY

The River Itchen (main river) flows approximately 1.9m from the southern boundary of the site, and an ordinary watercourse runs 2.8m from the northern and eastern boundary of the site. Much of the site is defined as Flood Zone 1, with 31% in Flood Zone 2, 9% in Flood Zone 3a, and 9% in Flood Zone 3b.

Modelling available for the River Itchen shows part of the site to be at risk of flooding in the 1%+35%CC AEP event, with access roads to the north unaffected.

The Risk of Flooding from Surface Water Map indicates that the site is at risk of flooding from surface water in the 0.1% AEP event, with a flow path running through the east of the site.

The BGS Susceptibility to Groundwater Flooding dataset indicates that there is potential for groundwater flooding to occur at surface in the area.

The site is not at risk of flooding from reservoirs in the event of a breach on a dry day, and that 87.9% is at risk during a wet day.

The site lies within the Central Winchester Priority Group, details of relevant policies can be seen in Section 2.7 of the Level 2 SFRA.

There are no recorded flood investigations within 500m of the site. There are recorded flood outlines within 500m of the site, two of which occurred in winter 2013/2014 at Park Avenue and Winchester Leisure Centre, and one which occurred in winter 2000/2001.

SITE SPECIFIC RECOMMENDATIONS

Employment space is proposed for this site. A site-specific FRA will be required to demonstrate that the proposed development will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.

- A sequential approach should be taken when designing the layout of the site, steering development away from areas of flood risk. i.e. avoiding areas around the main river and ordinary watercourse where Flood Zones 2 and 3 are present, and where there is residual risk of reservoir flooding.
- This site will likely require further modelling to inform the site-specific FRA.
- Development is not permitted in areas of Flood Zone 3b Functional Floodplain. This part of the site should be retained as floodplain and steps taken to restore the land to provide a more natural edge of the river.
- Retain an 8 metre wide undeveloped buffer strip alongside Main Rivers and explore opportunities for riverside restoration. New development within 8m of a Main River or Ordinary Watercourse will require consent from either the Environment Agency or Hampshire County Council (as LLFA) respectively.
- Development of the site must ensure that the risk of flooding to surrounding areas is not increased, and where possible reduced. If development is proposed within the design flood extent, level-for-level and volume-for-volume floodplain compensation storage within the development sites is required for any increase in building footprint.
- Finished Floor Levels for Less Vulnerable development should be set above the design flood where possible (1% AEP including central climate change allowance) level, but as a minimum steps should be taken to ensure that the development is appropriately flood resistant and resilient
- Safe access/egress (i.e. that is dry or Low hazard during the 1% AEP event including central climate change allowance) is likely to be achievable heading south along Gordon Road. Dry access/egress for surface water is not likely to be achievable, with flow paths along Gordon Road. Access/egress should be considered further as part of a site-specific FRA.
- The site is located within the Central Winchester Priority Group. Policies for this Priority Group set out by Hampshire County Council must be adhered to throughout the development of this site.
- Development proposals for the site should seek to restrict surface water runoff rates to greenfield rates; demonstrate sustainable approaches to the management of surface water making use of SuDS including green roofs, rainwater harvesting and other innovative technologies; and incorporate soft landscaping, planting and permeable surfacing.
- A Site Investigation should be undertaken to determine ground conditions and groundwater levels in proximity to the site. Consideration should be made as to whether the proposed development will impact on groundwater, either from subsurface construction or changes to surface water drainage. Should the initial assessment identify potential for impact, a detailed Hydrogeological Impact Assessment should be prepared to identify proposed mitigation measures.
- The site is within an area that has been shown from modelling to be potentially affected in the event of a reservoir breach or failure. This should be assessed appropriately to inform the development strategy and ensure that the masterplan includes appropriate measures to manage the potential for inundation within the site.

