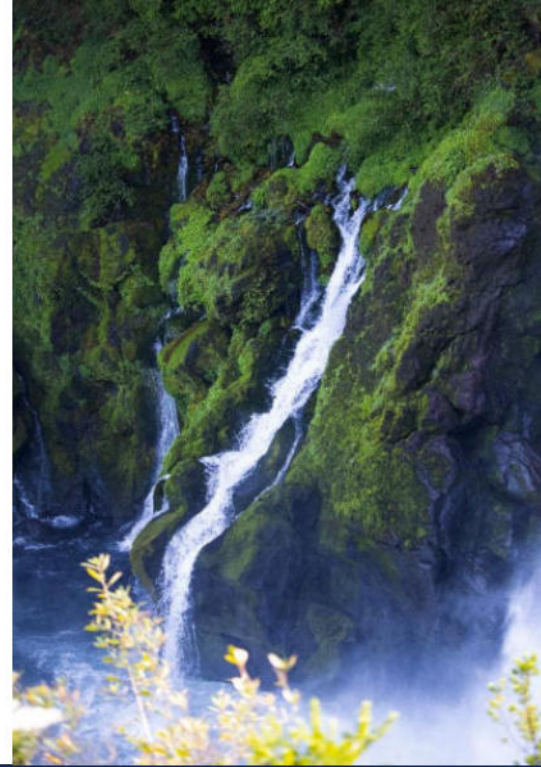
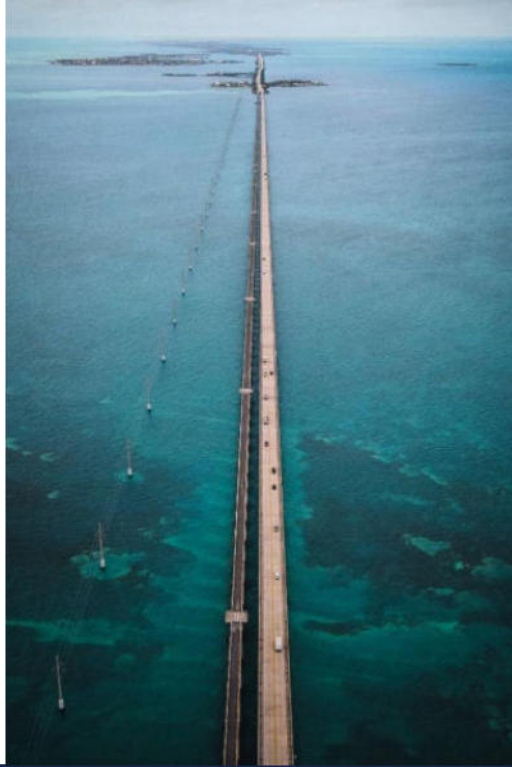




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Flood Risk Assessment AEG9118_SP4_Wiltshire_01

Site Address: 15 Water Street
Bulford
Wiltshire
SP4 9DZ

UK Experts in Flood Modelling, Flood Risk
Assessments, and Surface Water Drainage Strategies

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Document Issue Record

Project: Flood Risk Assessment

Prepared for: Mr Noel Claydon-Swales

Reference: AEG9118_SP4_Wiltshire_01

Site Location: 15 Water Street, Bulford, Wiltshire, SP4 9DZ

Issue	Date	Author	Check	Auth.	Comments
1	14/01/2026	Abbie Betts	ML	OH	First issue

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Summary

Development Description	Existing	Proposed
Development Type	A residential dwelling.	The proposal is for a two-storey extension to the existing property and alterations and landscaping to the existing dwelling.
EA Vulnerability Classification	More Vulnerable.	More Vulnerable.
Ground Floor Level	Approx. FFL of 73.19–73.23 m AOD (based on threshold levels from topographic survey)	Proposed extension: Approx. FFL of 73.20 m AOD (matching existing dwelling rear threshold level)
Level of Sleeping Accommodation	Existing: Approximately 75.9m AOD.	Proposed extension: 75.9m AOD.
Surface Water Drainage	N/A ¹	Proposed extension to manage runoff via existing surface water drains on site. Small scale SuDS such as rainwater planters and water butts should be utilised the manage runoff from the garage/workshop.
Site Size	Approximately 595m ²	No change.
Risk to Development	Summary	Comment
EA Flood Zone	Flood Zones 1, 2, and 3	
Flood Source	Fluvial	The proposed extension is predominantly located within Flood Zone 1, and a small area in Flood Zone 2. A very small area at the southern edge of the extension is shown to lie within the 1 in 100 year plus climate change and 1 in 1000 year extents, with estimated flood depths in the south of the extension at approximately 0.05 m and 0.30 m respectively.
SFRA Available	Wiltshire Council Level 1 Strategic Flood Risk Assessment (Wiltshire Council, 2024)	
Management Measures	Summary	Comment
Ground floor level above extreme flood levels	No	The proposed extension is within the 1 in 100 year + CC event and the 1 in 1000 year extent, with depths in the south of the extension at approximately 0.05m and 0.30m respectively.
Safe Access/Egress Route	N/A ¹	Proposals are considered a minor development (extension to existing dwelling) and as such,

Flood Resilient Design		access/ egress arrangements will not change compared to the existing.
	Yes	Refer to Section 5.
	N/A ¹	Proposed extension to manage runoff via existing surface water drains on site. Small scale SuDS such as rainwater planters and water butts should be utilised the manage runoff from the garage/workshop.
Flood Warning and Evacuation Plan	Yes	Recommended to sign up to the Groundwater flooding in the upper Avon valley and the Nine Mile river Environment Agency flood warning service.
Offsite Impacts	Summary	Comment
Displacement of floodwater	Negligible	Paragraph 051 of the Flood Risk and Coastal Change Planning Practice Guidance (PPG) states Minor developments are unlikely to raise significant flood issues. As such, the proposed development in isolation should have a negligible impact on flood risk elsewhere.
Increase in surface run-off generation	Negligible	Drainage arrangements will remain as existing. Small scale SuDS such as rainwater planters and water butts could be utilised the manage runoff.
Impact on hydraulic performance of channels	Negligible	The proposed development is approx. 25m north of the nearest watercourse.

¹ not required for this assessment

² data not available.

1. Introduction

- 1.1. Aegaea were commissioned by Mr Noel Claydon-Swales to undertake a Flood Risk Assessment (FRA) to facilitate a planning application for the proposed development. This FRA has been prepared in accordance with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance.
- 1.2. This FRA is intended to support a full planning application and as such the level of detail included is commensurate and subject to the nature of the proposals.

Site Overview

- 1.3. The site of the proposed development is 15 Water Street, Bulford, Wiltshire, SP4 9DZ. The site currently comprises of a residential building in the centre with associated garden space across the remainder of the site (Figure 1).

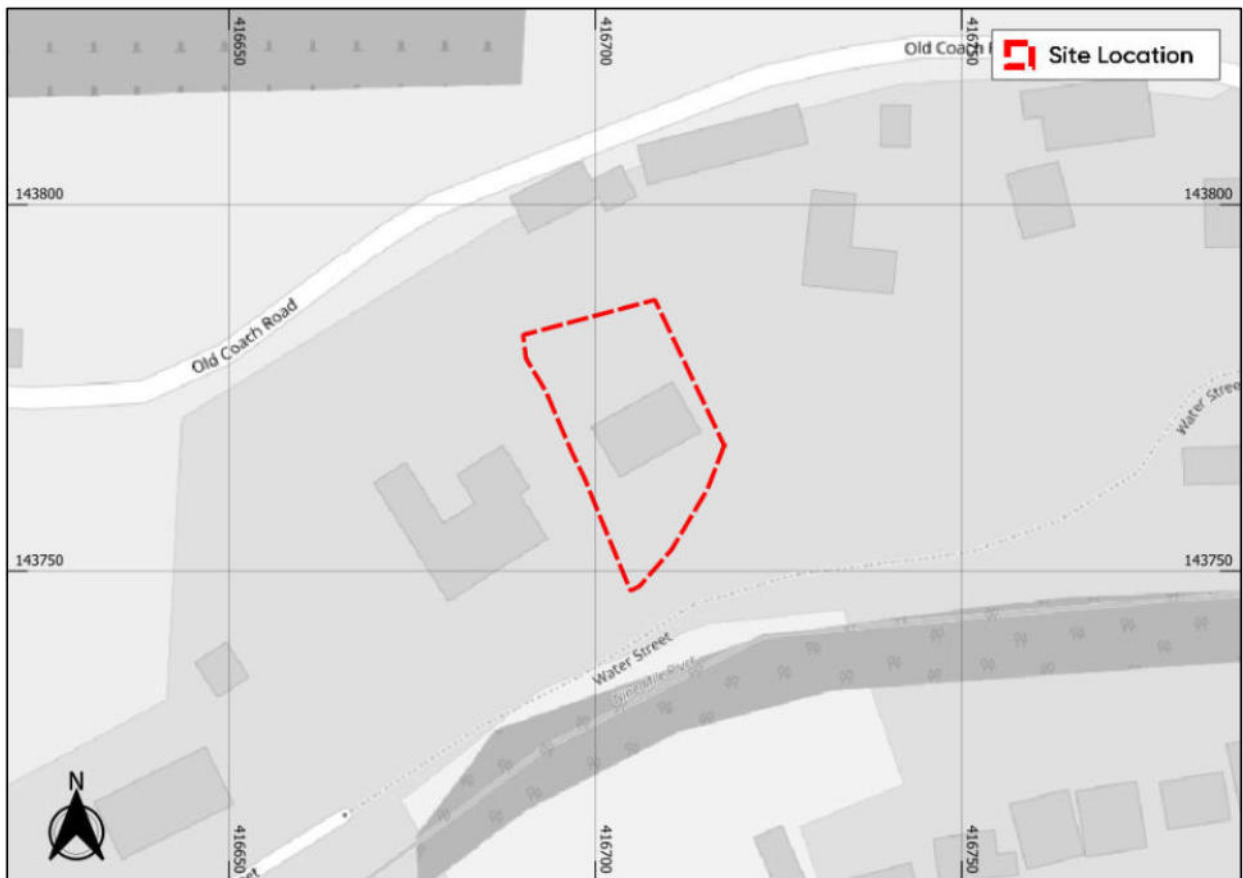


Figure 1: Site Location (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors)

- 1.4. The proposal is for a two-storey extension to the existing property and alterations and landscaping to the existing dwelling. Refer to Appendix A for full development proposals.

- 1.5. A topographic survey of the site was completed by Surveybase in November 2024 and is provided in Appendix B. The survey indicates that ground levels across the site range from approximately 72.99m AOD (south-western part of the site) up to around 74.12m AOD (north-western part of the site), demonstrating that the site generally falls from north to south.
- 1.6. The survey identifies a number of existing threshold levels around the perimeter of the dwelling, which range between 73.19m AOD and 73.23m AOD. The proposed extension is understood to connect to the existing ground floor at the same level as the dwelling. A threshold level of 73.20m AOD has therefore been adopted as the ground floor level for the extension, corresponding to the existing threshold level closest to the point of connection on the north elevation.
- 1.7. In the absence of confirmed first-floor level information on the submitted drawings, an indicative first-floor level has been estimated for assessment purposes. The existing ground floor level has been taken as approximately 73.19m AOD, based on the lowest recorded threshold level on the topographic survey. Applying a typical residential storey height of approximately 2.7m, the first-floor level is therefore estimated to be approximately 75.9m AOD.
- 1.8. EA Light Detection and Ranging (LiDAR) data Digital Terrain Model has also been used to visualise the topography of the site. The EA LiDAR data shows the ground elevation of the site varies between approximately 72.93m AOD (metres Above Ordnance Datum) and 74.20m AOD. Analysis of topographic levels indicates that the site generally slopes with a fall to the south.

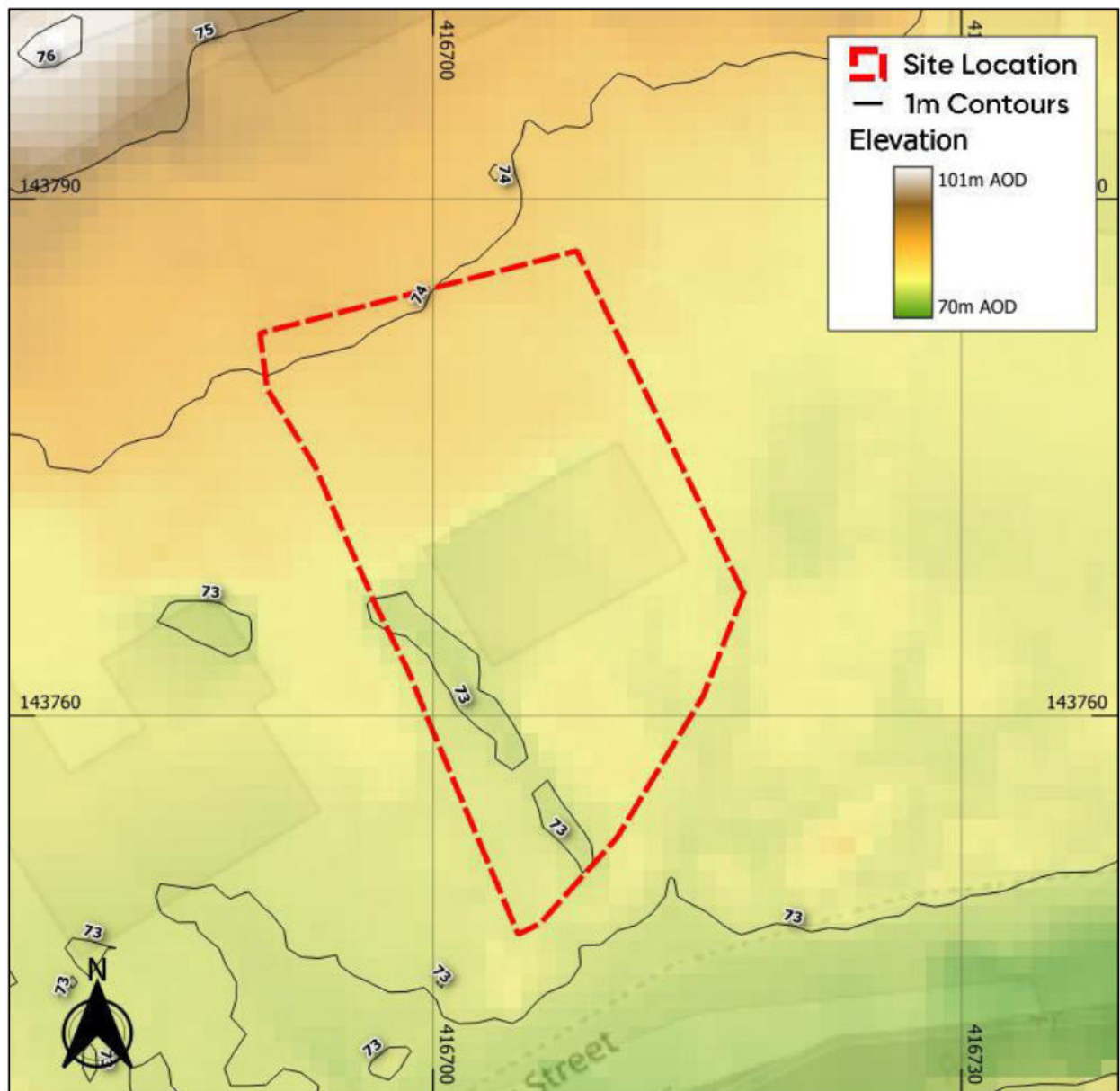


Figure 2: Site Topography (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 1.9. Wiltshire Council is the Local Planning Authority (LPA) for the site and also the designated Lead Local Flood Authority (LLFA). The site sits within the Environment Agency's Wessex region.

Planning Policy and Guidance

- 1.10. UK government planning guidance states¹ that an FRA is required for developments which are:

¹ <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#when-you-need-an-assessment>

- *in flood zones 2 or 3 including minor development and change of use*
- *more than 1 hectare (ha) in flood zone 1*
- *less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)*
- *in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency*

- 1.11. The site is located within areas of Flood Zones 2 and 3, with the southern and central portions affected; therefore, in accordance with UK Government planning guidance, an FRA is required to support the proposed development.
- 1.12. The objective of this FRA is to demonstrate that the proposals are acceptable in terms of flood risk. This report summarises the findings of the study and specifically addresses the following issues in the context of the current legislative regime:
- Fluvial/tidal flood risk
 - Surface water flood risk
 - Risk of flooding from other sources

2. Planning Policy

- 2.1. Inappropriate development in a flood risk area could pose significant risk in terms of personal safety and damage to property for the occupiers of the development or for people elsewhere. The approach taken in the assessment of flood risk at the planning stage is set out in national, regional, and local planning policy and associated guidance. This section summarises the key policies and guidance relevant to the proposed development.

National Planning Policy Framework (NPPF)

- 2.2. The National Planning Policy Framework² (NPPF) (MHCLG, 2024) which includes UK Government policy on development and flood risk states:

170. 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.

181. 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.*

176. Applications for some minor development and changes of use should also not be subject to the sequential test, nor the exception test [set out below], but should still meet the requirements for site-specific flood risk assessments set out in footnote 63.

- 2.3. Paragraph 051 of the Flood Risk and Coastal Change Planning Practice Guidance (PPG) states:

² <https://www.gov.uk/guidance/national-planning-policy-framework>, last updated Dec 2024

Minor development means:

- *minor non-residential extensions (industrial/commercial/leisure etc): extensions with a floorspace not in excess of 250 square metres.*
- *alterations: development that does not increase the size of buildings, e.g. alterations to external appearance.*
- *householder development: for example, sheds, garages, games rooms etc within the curtilage of the existing dwelling, **in addition to physical extensions to the existing dwelling itself**. This definition excludes any proposed development that would create a separate dwelling within the curtilage of the existing dwelling (e.g. subdivision of houses into flats) or any other development with a purpose not incidental to the enjoyment of the dwelling.*

2.4. As such, the proposal would be considered a Minor Development under the PPG.

2.5. Footnote 63 of the NPPF states:

A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

2.6. Flood Zones in England are defined as follows:

Table 1: Flood Zone Definitions

Flood Zone	Definition
Zone 1 Low Probability	Land having less than 1 in 1,000 annual probability of river or sea flooding (all land outside Zones 2 and 3).
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding.
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or

land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding).

Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

- 2.7. An FRA should be appropriate to the scale, nature, and location of the development. It should identify and assess the risk from all sources of flooding to and from the development and demonstrate how any flood risks will be managed over the lifetime of the development.
- 2.8. An assessment of hydrological impacts should be undertaken, including to surface water runoff and impacts to drainage networks in order to demonstrate how flood risk to others will be managed following development and taking climate change into account.

Local Plan

- 2.9. The Local Plan prepared by the Local Planning Authority, Wiltshire Council, sets out the policies for development in the local area.
- 2.10. Policy 95 Flood risk outlines the requirements for new development within the area. It states:

The council will follow a sequential approach to flood risk management, in line with national policy and guidance. All development proposals will be required to consider the effect of the proposed development on flood risk from all sources, both on and offsite, commensurate with the scale and impact of the development.

Where required, a Site-Specific Flood Risk Assessment, Surface Water Drainage Strategy and Groundwater Assessment should be conducted. This must take account of all flood risk sources and cumulative effects and should incorporate suitable flood risk measures to account for site conditions.

- 2.11. Policy 67 Flood Risk outlines the requirements for new development within the area. It states:

Development proposed in Flood Zones 2 and 3 as identified within the Strategic Flood Risk Assessment will need to refer to the Strategic Housing Land Availability Assessment when providing evidence to the local planning authority in order to apply the sequential test in line with the requirements of national policy and established best practice. All new development will include measures to reduce the rate of rainwater run-off and improve rainwater infiltration to soil and ground (sustainable urban drainage) unless site or environmental conditions make these measures unsuitable.

Sequential and Exception Tests

- 2.12. The Sequential and Exception Tests are applied in specific cases defined by UK Government policy. Their purpose is to drive development to areas of low flood risk and to support developments which improve flood risk for developments in areas at risk of flooding.

2.13. Under the NPPF, all new planning applications should undergo a Sequential Test in accordance with Paragraph 172. This test should be implemented by local planning authorities with a view to location, particularly vulnerable new developments outside of the floodplain.

2.14. However, Paragraph 176 of the NPPF states:

*176. Applications for some **minor development** and change of use should also not be subject to the sequential test nor the exception test but should still meet the requirements for site-specific flood risk assessments set out in footnote 63.*

2.15. As such, a site-specific Sequential and Exception Test for the proposed minor development is not considered necessary in line with the NPPF.

Summary

2.16. This flood risk assessment has been prepared with due consideration to the above local and national policy.

3. Consultation and Review

Consultation

- 3.1. The EA were contacted to ascertain if there is flood modelled data available for the area surrounding the site. A response was received in October 2025, including JFLOW Q100 and Q1000 indicative depth grid maps. Full correspondences are attached in Appendix C.

Documents and Online Mapping

- 3.2. Local Governments and Lead Local Flood Authorities provide documents which contain data and policies on flood risk and new development in their areas. These documents are introduced and briefly summarised below. For the purposes of this FRA, these documents have been reviewed for relevant information and any relevant data is discussed within the appropriate sub heading of this report.
- 3.3. The following sources of information have been reviewed for this assessment:
- Flood Map for Planning on the Environment Agency website <https://flood-map-for-planning.service.gov.uk/>
 - Long Term Flood Risk Information on the Environment Agency website <https://www.gov.uk/check-long-term-flood-risk>
 - National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2024)
 - Planning Practice Guidance - Flood Risk and Coastal Change (Ministry of Housing, Communities and Local Government, 2022)
 - Geoindex Onshore (British Geological Survey, 2024)
 - Wiltshire Local Plan 2020-2038, Regulation 19 (Wiltshire Council, emerging 2023)³ and Wiltshire Core Strategy (Wiltshire Council, 2015)⁴
 - Preliminary Flood Risk Assessment Addendum (Wiltshire Council, 2017)⁵ and Preliminary Flood Risk Assessment (Wiltshire Council, 2011)⁶
 - Wiltshire Council Level 1 Strategic Flood Risk Assessment (Wiltshire Council, 2024)⁷

³ <https://www.wiltshire.gov.uk/article/8048/Regulation-19-consultation-autumn-2023?>

⁴ <https://www.wiltshire.gov.uk/planning-policy-core-strategy?>

⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/698754/PFRA_Wiltshire__County_Council_2017.pdf?

⁶ https://www.wiltshire.gov.uk/media/203/Wiltshire-preliminary-flood-risk-assessment/pdf/Flood_Risk_Assessment_-_Appendix_1.pdf?

⁷ https://www.wiltshire.gov.uk/media/14497/SD67-Wiltshire-Level-1-Strategic-Flood-Risk-Assessment-2024/pdf/SD67_Wiltshire_Level_1_Strategic-Flood-Risk-Assessment-2024.pdf

- Wiltshire Local Flood Risk Management Strategy (Wiltshire Council, 2015)⁸

Preliminary Flood Risk Assessment (PFRA)

- 3.4. The PFRA, published in 2011 and 2017, is a high-level appraisal of flood risk across Lead Local Flood Authority Wiltshire Council. The flood risk from all sources, including fluvial, surface water, groundwater, and surcharged sewers is evaluated. It is the basis upon which the Local Flood Risk Management Strategy is produced.
- 3.5. The PFRA summarises historical flood incidents in Wiltshire Council. The site is not recorded as having been affected by any flood event.

Strategic Flood Risk Assessment (SFRA)

- 3.6. The SFRA, published in 2024, provides the evidence base for the Local Planning Authority Wiltshire Council Local Plan and guidance for consideration when determining planning applications. The SFRA seeks to place new development into areas of lower flood risk taking into account current flood risk, future flood risk, and the effect a proposed development would have on the risk of flooding.
- 3.7. The SFRA mapping provided by Wiltshire Council has been used throughout production of this report as a source of information, particularly pertaining to historical flood incidents.

Local Flood Risk Management Strategy (LFRMS)

- 3.8. The Local Flood Risk Management Strategy sets out roles and responsibilities for flood risk management, assesses the risk of flooding in the area, where funding can be found to manage flood risk, and the policies, objectives, and actions of the Lead Local Flood Authority.
- 3.9. The Wiltshire Council LFRMS is used within this report to identify any flood management infrastructure and historical incidences of flooding.

⁸ <https://www.wiltshire.gov.uk/media/204/Wiltshire-local-flood-risk-management-strategy/pdf/Flood-risk-management-strategy-civil-emergencies.pdf?>

4. Sources of Flood Risk

Fluvial

- 4.1. Flooding from watercourses arises when flows exceed the capacity of the channel, or where a restrictive structure is encountered, resulting in water overtopping the banks into the floodplain.

Main Rivers and Ordinary Watercourses

- 4.2. The closest watercourse to the site is the Nine Mile River (an Ordinary Watercourse), located approximately 7m south of the site boundary and approximately 25m south of the proposed development.
- 4.3. The River Avon, a Main River, is located approximately 220m north-west of the site.
- 4.4. There are no other mapped watercourses within 1km according to OS mapping.

EA Flood Map for Planning

- 4.5. The proposed extension is located in the northern part of the site and is predominantly within Flood Zone 1 (Figure 3), which is land assessed as having a low probability of flooding, with an annual probability of flooding of less than 1 in 1,000 (<0.1%). A small area at the southern edge of the proposed extension footprint extends into Flood Zone 2, which is defined as land having a medium probability of flooding from rivers, with an annual probability of flooding of between 1 in 100 and 1 in 1,000 (1%–0.1%). The central and southern areas of the site are located within Flood Zone 2, and a small area in the south-western part of the site lies within Flood Zone 3, which represents land with a high probability of fluvial flooding, defined as having an annual probability of flooding of 1 in 100 or greater ($\geq 1\%$).
- 4.6. The EA Flood Zone mapping also includes an allowance for climate change which has been reviewed. These extents represent the potential future increase in fluvial flood risk associated with projected changes in peak river flows. The climate change flood extents indicate that some areas on site currently located within Flood Zone 1, including parts of the eastern area of the site and a small area in the west, may be at risk of fluvial flooding in the future.

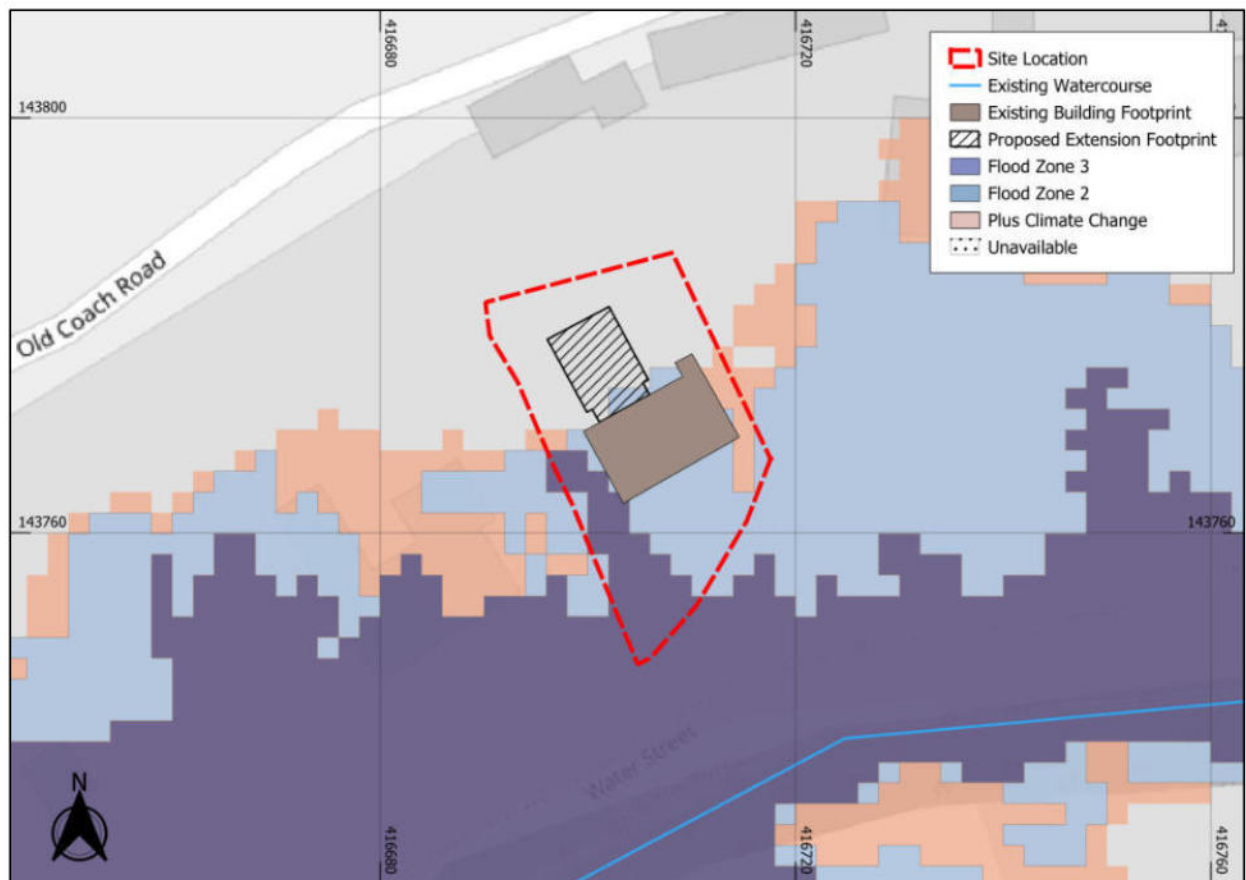


Figure 3: EA Flood Map for Planning (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

Historical Fluvial Flooding

- 4.7. According to the EA's recorded flood outlines and historic flooding datasets, the site has not been historically impacted by fluvial flooding (Figure 4). The closest recorded historic flood event to the site occurred approximately 45m to the south-west during the winter of 2013/2014, when flooding arose as a result of the Nine Mile River exceeding its channel capacity.

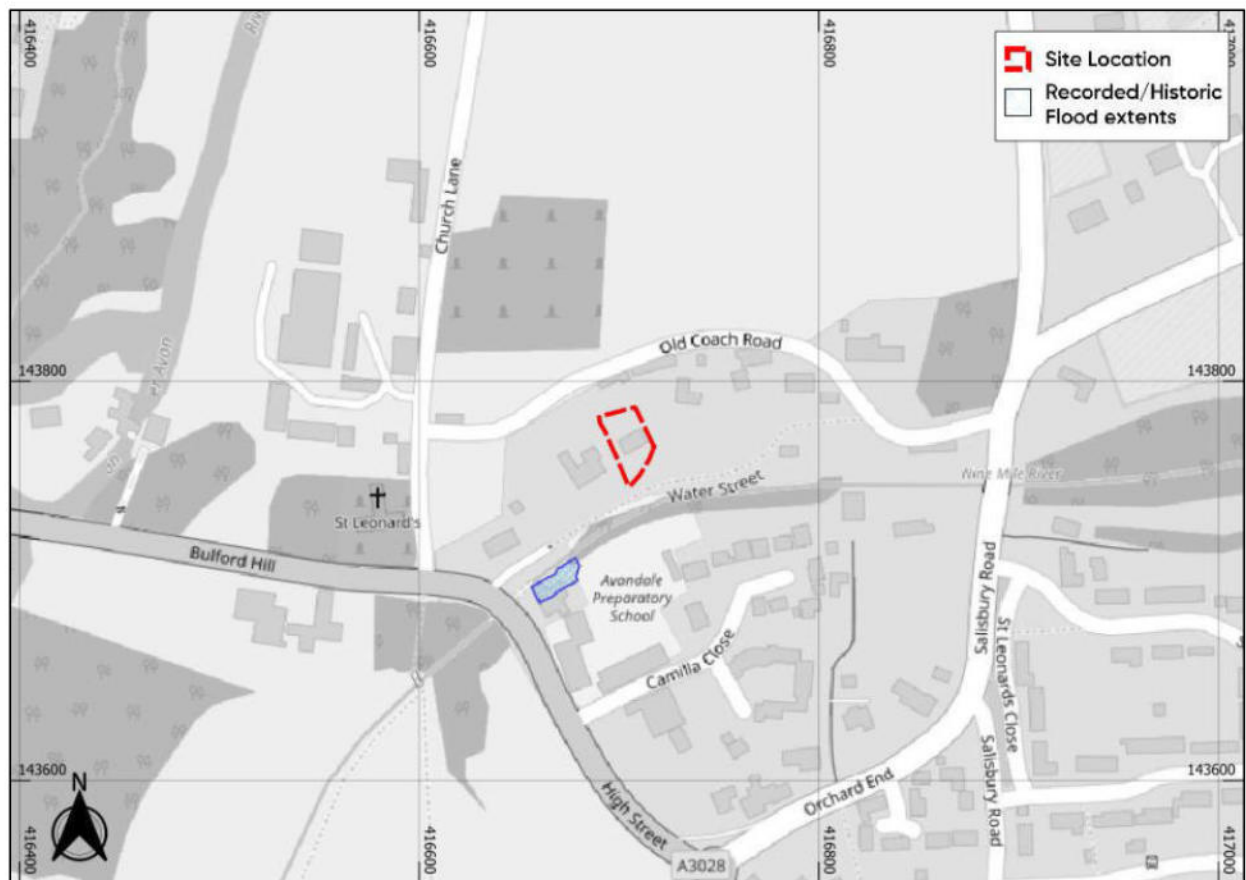


Figure 4: EA Historic Flood Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

NaFRA2 Data Analysis

- 4.8. The EA provided fluvial model information in response to the data request, including JFLOW indicative depth grid maps for the 1 in 100 year and 1 in 1,000 year events. The EA indicate that JFLOW modelled data is considered a national level flood model and is not deemed appropriate for site specific flood risk analysis, therefore the JFLOW grids will not be used as part of the analysis within this FRA.
- 4.9. In lieu of detailed site-specific hydraulic model outputs with verified flood levels, the assessment of fluvial flood risk has therefore been informed using the best available information, including the EA Flood Map for Planning, National Flood Risk Assessment 2 (NaFRA2) flood extent mapping, and associated datasets, together with site-specific topographic survey information to analyse present day and climate change flood risk.

Present Day

- 4.10. According to NaFRA2 1 In 100 year flood extent mapping, the proposed development is not located within the 1 in 100 year (1% AEP) fluvial flood extent, as demonstrated in Figure 5. However, southern areas of the proposed extension are located within the 1 In 1000 year flood extent.

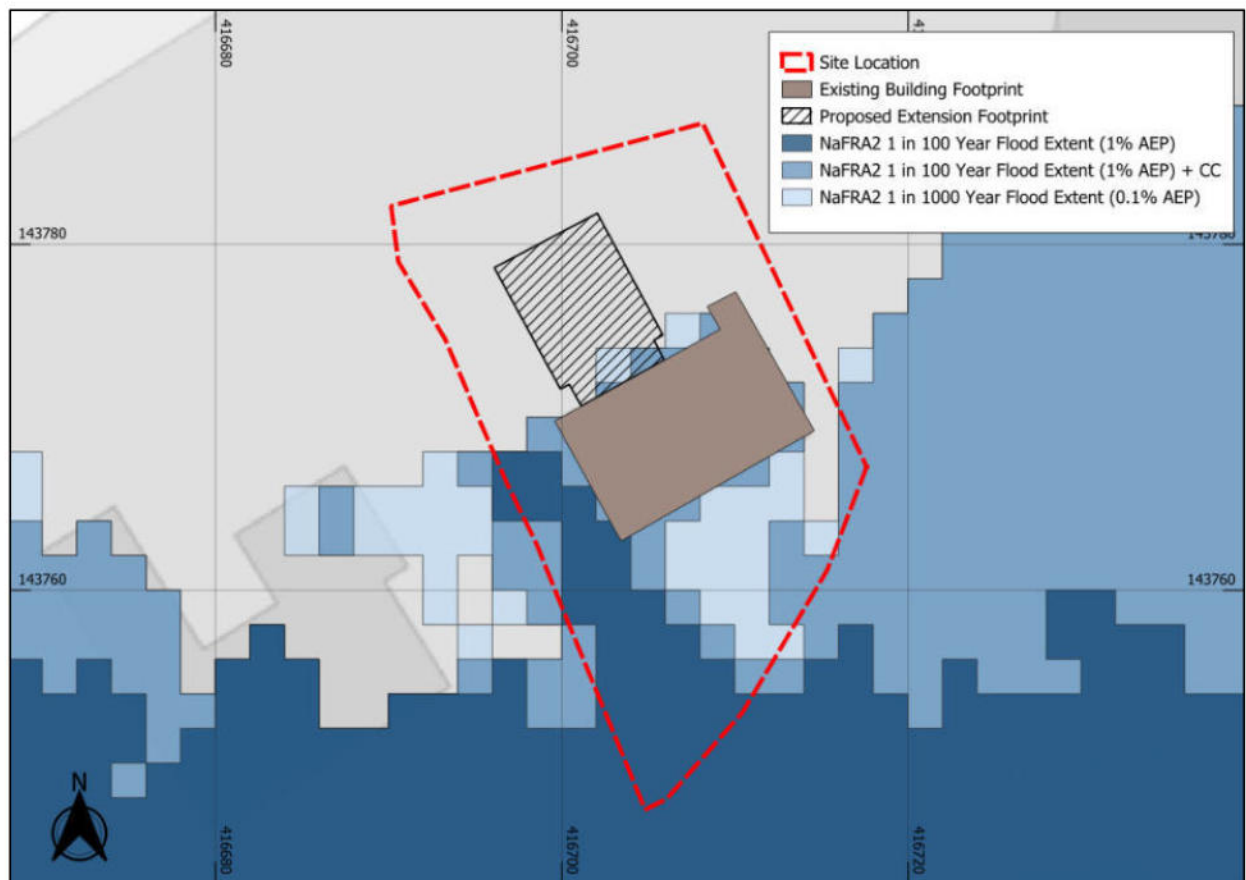


Figure 5: NaFRA2 present day and climate change flood extents (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 4.11. To provide an indication of potential flood depths affecting the southern edge of the proposed extension during the 1 In 1000 year event, the mapped flood extent for the relevant fluvial event was compared against the site topographic survey.
- 4.12. At the limit of the 1 in 1,000 year flood extent nearest to the extension footprint, the corresponding ground level is approximately **73.50m AOD**, this location represents the point at which floodwater would be expected to meet the ground surface and has therefore been used as a reasonable proxy for the flood level for this event.
- 4.13. As stated in Section 2, the ground floor FFL for the proposed extension is approximately 73.20m AOD. On this basis, the estimated flood depth at the southern edge of the extension footprint is approximately **0.30m**. This estimate is provided as a screening-level indication only, in the absence of verified site-specific modelled flood levels.

Climate Change

- 4.14. A very small area at the southern edge of the proposed extension footprint is shown to lie within the 1 in 100 year plus climate change flood extent. At the limit of this extent nearest to the extension, the corresponding ground level on the topographic survey is approximately **73.25m AOD**; this location

represents the point at which floodwater would be expected to meet the ground surface and has therefore been used as a proxy for the flood level for the climate change event.

- 4.15. Taking the proposed extension ground floor FFL as **73.20m AOD**, this indicates an estimated flood depth of approximately **0.05m** affecting a very limited area at the southern edge of the extension footprint.

Fluvial Flood Risk Summary

- 4.16. Environment Agency Flood Map for Planning indicates the proposed extension is located predominantly within Flood Zone 1, with a small area at the southern edge extending into Flood Zone 2. The wider site includes areas of Flood Zone 2 and a small area of Flood Zone 3 to the south-west. Historic flood mapping indicates no recorded fluvial flooding affecting the site.
- 4.17. In the absence of verified site-specific hydraulic modelled flood levels, fluvial flood risk has been assessed using NaFRA2 flood extents and the site topographic survey. NaFRA2 mapping indicates the proposed development is outside the 1% AEP (1 in 100 year) present-day flood extent, with a limited overlap at the southern edge of the extension within the 0.1% AEP (1 in 1,000 year) extent, with an estimated flood depths of 0.30m at the southern edge of the extension.
- 4.18. NaFRA2 climate change mapping indicates a very small area at the southern edge of the extension lies within the 1% AEP plus climate change extent, with an estimated flood level of approximately 73.25m AOD, equating to a depth of approximately 0.05m.
- 4.19. The majority of the proposed extension footprint remains outside the mapped present-day and climate change flood extents.
- 4.20. Based on the information reviewed, the proposed development is considered to be at low to moderate risk of fluvial flooding. Flood risk mitigation measures have been recommended in Section 5.

Tidal

- 4.21. Tidal flooding occurs when a high tide and high winds combine to elevate sea levels. An area behind coastal flood defences can still flood if waves overtop the defences or break through them. Tidal flooding can also occur a long way from the coast by raising river levels.
- 4.22. The site is a significant distance from any tidal source, approximately 50km, and above the anticipated extreme tidal levels, even when considering the impacts of climate change. There is no record of historical tidal or sea flooding on-site.
- 4.23. The risk of flooding from tidal sources is therefore considered to be low.

Canals

- 4.24. The Canal and River Trust (CRT) generally maintains canal levels using reservoirs, feeders, and boreholes and manages water levels by transferring it within the canal system.

- 4.25. According to UK CRT Network mapping⁹, there are no canals identified within 1km of the site.
- 4.26. Therefore, the risk of flooding from canals is considered to be low.

Pluvial

- 4.27. Pluvial flooding can occur during prolonged or intense storm events when the infiltration potential of soils, or the capacity of drainage infrastructure is overwhelmed leading to the accumulation of surface water and the generation of overland flow routes.
- 4.28. The National Flood Risk Assessment (NaFRA2) has updated the Risk of Flooding from Surface Water (RoFSW) products, which shows the likelihood of flooding from surface water to areas of land. The RoFSW products are an assessment of where surface water flooding may occur when rainwater does not drain away through normal drainage systems or soak into the ground but lies in or flows over the ground instead. It includes information about flooding extents and depths, including the potential impact of climate change on flood risk based on the latest UK climate projections (UKCP18).
- 4.29. Risk is displayed as one of three likelihood categories:
- High - greater than or equal to 1 in 30 (3.3%) likelihood of flooding in any year.
 - Medium - Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) likelihood of flooding in any given year.
 - Low - Less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) likelihood of flooding in any given year.
- 4.30. The RoFSW depth mapping shows the annual likelihood of flooding (based on the three risk categories listed above) beyond a specific depth, for depths at the following intervals from 20cm to 120cm. The maps provide information on flood depths to show the likelihood that different depths of flooding could be reached or exceeded¹⁰ :
- 0.2m, 0.3m, 0.6m, 0.9m, 1.2m
- 4.31. Examination of the EA's Flood Risk from Surface Water mapping for High Risk, Medium Risk, and Low Risk AEP flood events shows no indicated risk of surface water flooding. Review of present day and climate change extents are similar, thus the 'worst-case' scenario climate change extents and modelling have been assessed below.

RoFSW Climate Change Analysis

- 4.32. According to the EA's Flood Risk from Surface Water (RoFSW) mapping, the entire site lies outside the modelled low, medium, and high likelihood surface water flood extents (Figure 6) and therefore is

⁹ <https://canalrivertrust.org.uk/canals-and-rivers>

¹⁰ <https://www.gov.uk/government/publications/flood-risk-maps-for-surface-water-how-to-use-the-map/risk-of-flooding-from-surface-water-understanding-and-using-the-map>

located outside of all surface water flood depth intervals. There is an area with a low likelihood of flooding adjacent to the western boundary of the site, however this risk does not extend into the site boundary. Old Coach Road, to the north of the site, is also located outside of the modelled surface water flood extents.

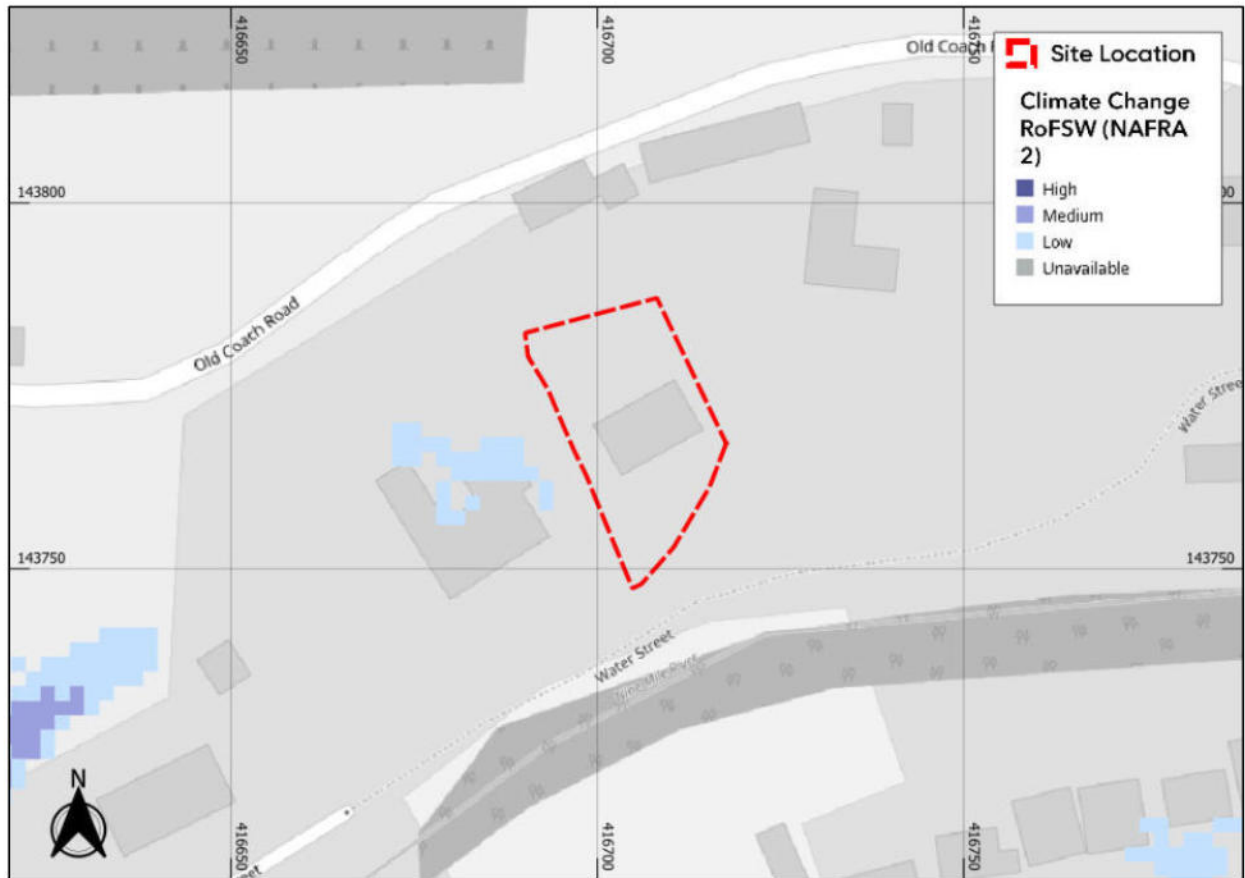


Figure 6: EA Surface Water Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0

Pluvial Summary

- 4.33. EA RoFSW mapping shows the proposed development and Old Coach Road lie entirely outside the modelled high, medium and low likelihood surface water flood extents and associated flood depth intervals.
- 4.34. Therefore, the risk of pluvial flooding to the site is considered low.

Reservoirs

- 4.35. Large waterbodies or reservoirs that have walls built above the surrounding ground level pose a risk of flooding. Walls could fail due to old age, accident, or because excess flood water has been added to the reservoir. Although a breach is unlikely the consequences would be significant, leading to rapid inundation of the downstream floodplain.

- 4.36. The site has not been flagged as being at risk of flooding following a reservoir failure. According to the EA's Flood Risk from Reservoirs mapping the site is outside flood extents in the event of reservoir flooding (Figure 7).
- 4.37. Therefore, the risk of reservoir flooding to the site is considered low.

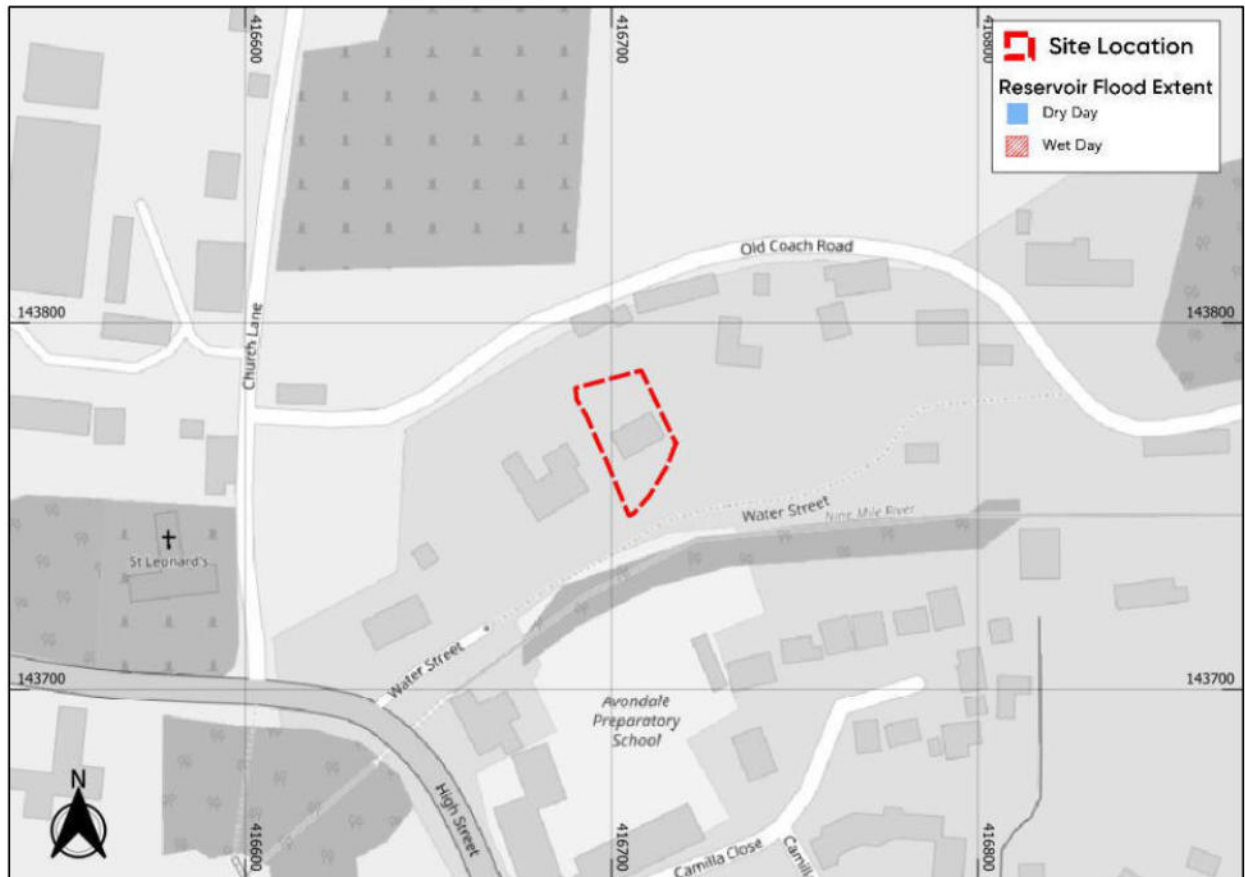


Figure 7: EA Reservoir Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). ©<https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

Groundwater

- 4.38. Groundwater flooding occurs in areas where underlying geology is permeable, and water can rise within the strata sufficiently to breach the surface.
- 4.39. The British Geological Survey's (BGS) mapping shows that there are no superficial deposits underlying the majority of the site, with the exception of a small area of Alluvium (clay, sand, and gravel) in the far south of the site. The bedrock underlying the site is Seaford Chalk Formation.
- 4.40. A review of historical BGS boreholes, indicate that there are no boreholes within 100m of the site.
- 4.41. The 2024 SFRA identifies groundwater flooding as a notable risk primarily within the south and south-east of the county, where chalk aquifers dominate the underlying geology. While the SFRA does not identify Bulford specifically as a confirmed hotspot for historic groundwater flooding, the village lies

within an area underlain by chalk geology associated with an increased susceptibility to groundwater emergence.

- 4.42. The SFRA presents JBA Consulting's Groundwater Emergence mapping, which has been used to inform the assessment of groundwater flood risk across the county. The mapping assesses the potential for groundwater levels to rise to, or close to, the ground surface during extreme conditions. The dataset categorises areas into risk bands depending on whether groundwater is predicted to be at or near the ground surface, shallow below ground, or at greater depth. The SFRA notes that this mapping identifies the risk of groundwater emergence rather than actual surface flooding, and is therefore suitable for strategic, broad-scale assessment only, rather than property-specific conclusions.
- 4.43. The mapping indicates site is within an area where "there is a risk of flooding to subsurface assets, but surface manifestation of groundwater is unlikely" (Figure 8). This may reflect the site's proximity to the Nine Mile River, where groundwater levels can be elevated and more variable due to proximity to the river, meaning shallow groundwater conditions may fluctuate seasonally and during prolonged wet periods.

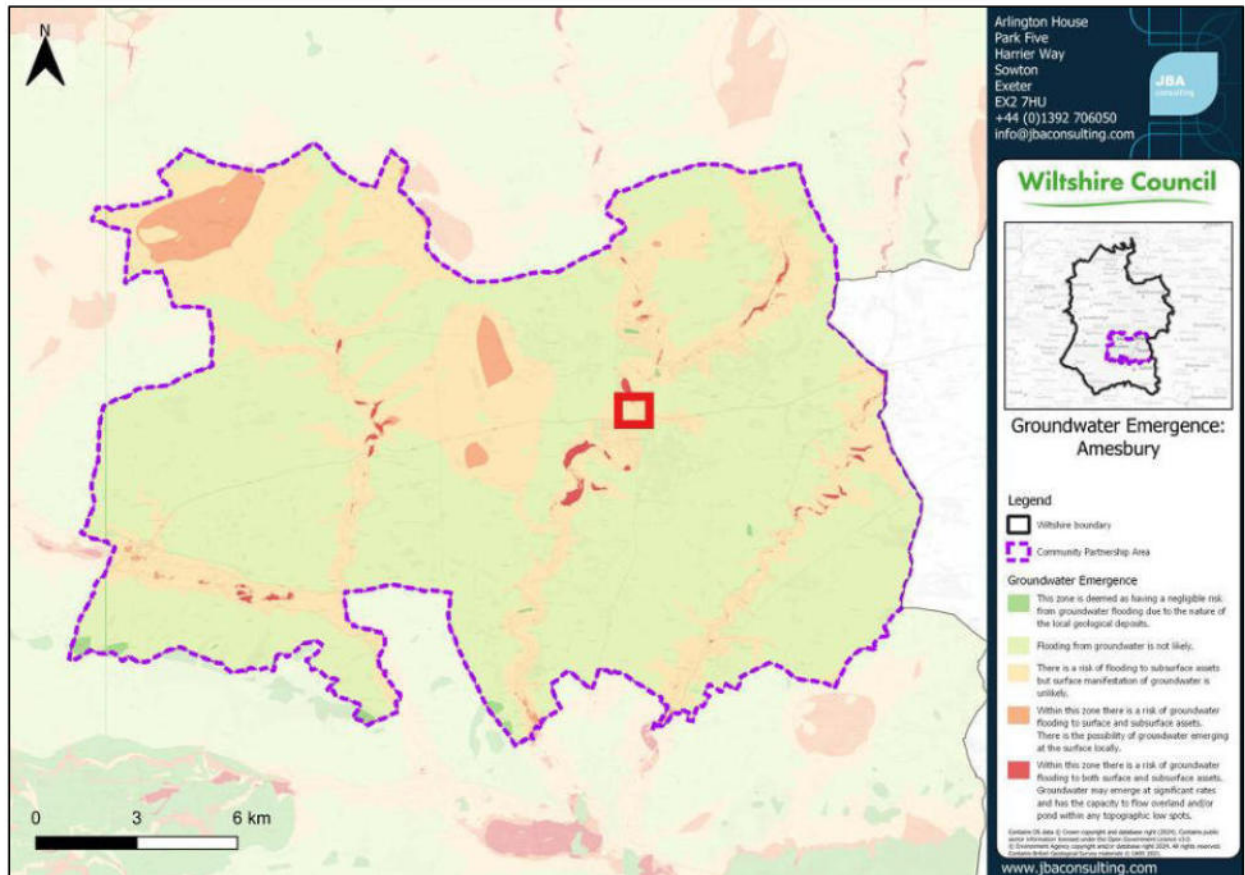


Figure 8: Extract from 2024 SFRA - JBA Groundwater Emergence Map. Source Wiltshire SFRA (2024). Approximate site location is represented by the red square.

- 4.44. The 2024 SFRA does not indicate that historic groundwater flooding has occurred in Bulford or on the site itself. The development proposals also do not include any proposed basements or subsurface assets.

- 4.45. Therefore, based on the information reviewed, the risk from groundwater to the development is considered to be low.

Sewers

- 4.46. Foul or surface water sewers can be a cause of flooding if the drainage network becomes overwhelmed, either by blockage or due to local development beyond the designed capabilities of the drainage system.
- 4.47. The 2024 SFRA provides historic sewer flooding incident data supplied by Thames Water and Southern Water, and Wessex Water. The SFRA presents sewer flooding information at a strategic postcode level and indicates that six historic sewer flooding incidents has been recorded within the SP4 postcode (Figure 9), however, no specific sewer flooding incidents are identified within the SP9 postcode or on site.

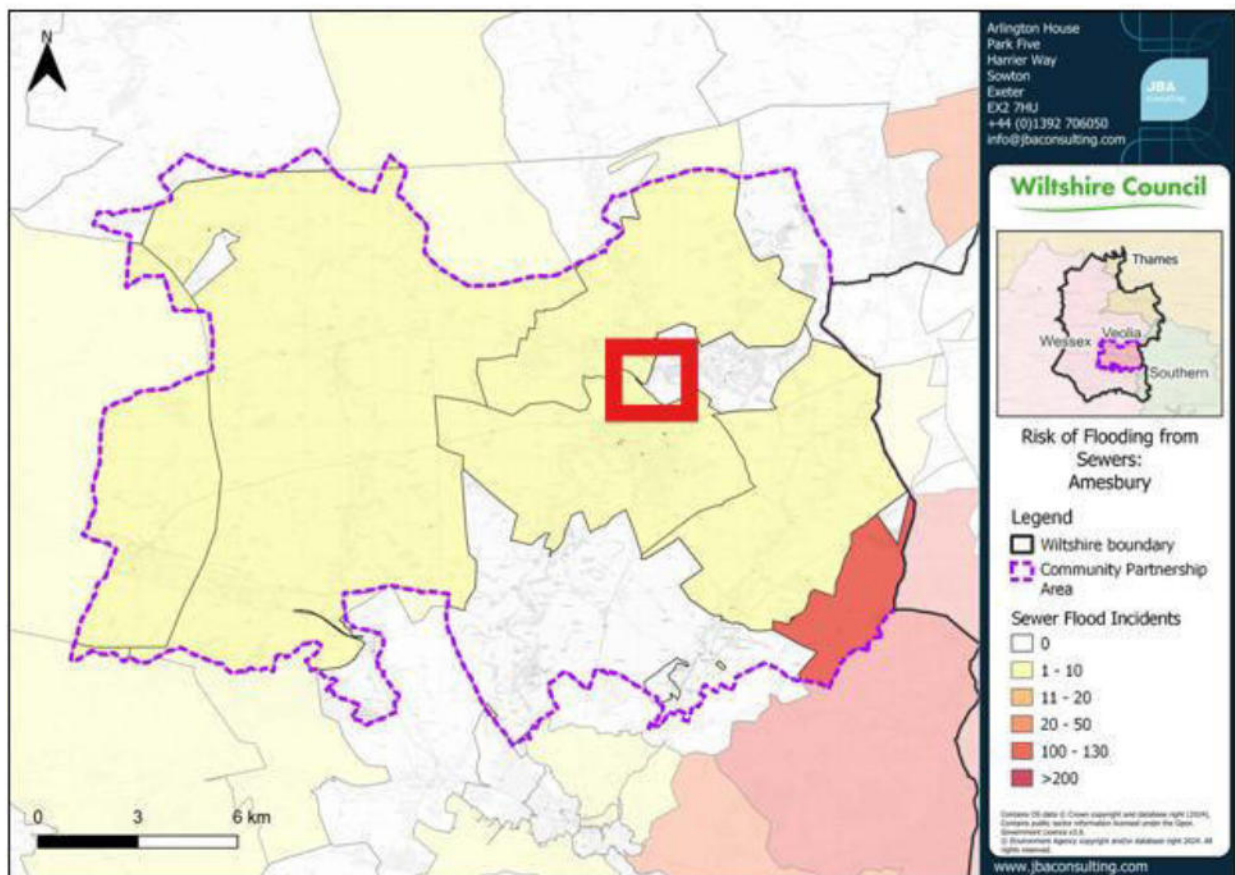


Figure 9: Extract from 2024 SFRA - historic sewer flooding incident data. Source Wiltshire SFRA (2024). Approximate site location is represented by the red square.

- 4.48. Furthermore, the proposals comprise an extension to the existing property. Therefore, the scale of development is unlikely to result in a significant increase in discharge to the public sewer network.
- 4.49. Based on the information reviewed, the development is therefore considered to be at low risk of flooding from sewers.

5. Flood Risk Mitigation

Fluvial

- 5.1. The EA Flood Map for Planning indicates the proposed extension is located predominantly within Flood Zone 1, with a small area at the southern edge extending into Flood Zone 2; the wider site includes areas of Flood Zone 2 and a small area of Flood Zone 3 to the south-west.
- 5.2. In the absence of site-specific hydraulic modelled flood levels, fluvial flood risk has been assessed using the best available information, including NaFRA2 flood extents and the site topographic survey. NaFRA2 mapping indicates the proposed development is outside the 1 in 100 year present-day flood extent, with a small area at the southern edge of the extension within the 1 in 1000 year extent. A screening comparison of the 0.1% AEP extent against site levels indicates an estimated flood level of approximately 73.50m AOD, corresponding to a depth of 0.30m at the southern edge of the extension.
- 5.3. Climate change mapping indicates a very small area at the southern edge of the extension lies within the 1% AEP plus climate change extent, with a screening estimate flood level of approximately 73.25m AOD, equating to an indicative depth of approximately 0.05 m. The majority of the proposed extension footprint remains outside the mapped present-day and climate change flood extents.
- 5.4. Flood resistance and resilience measures are recommended as part of the proposed extension below as part of *Improving the Flood Performance of New Building' Flood Resistant Construction (2007)*¹¹. Measures should include;

- Use flood-resilient materials and fittings at ground floor level that be easily cleaned/replaced (e.g., closed-cell materials, stainless/plastic components, water-resistant finishes).
- Seal service entrances (pipes/cables/ducts) through external walls and floors using appropriate seals to reduce water ingress.
- Locate electrical services (sockets, cabling routes, consumer unit where relevant) and any mechanical plant/appliances above the level of potential inundation where feasible.
- Specify closed-cell insulation to cavities and around pipework to reduce moisture uptake and retain integrity following potential flooding.
- Incorporate a suitable damp proof membrane and appropriate detailing at the ground floor slab/wall junctions to limit ingress and aid recovery.

¹¹ https://assets.publishing.service.gov.uk/media/602d673ee90e0709e8d085d8/Improving_the_Flood_Resilience_of_Buildings_Through_Improved_Materials_Methods_and_Details_Technical_Report.pdf

- Consider non-return valves on new drainage connections (foul/surface water as applicable) to reduce the risk of surcharge/backflow during flood conditions.

5.5. Furthermore, it is recommended that the site owner sign up to and monitor flood warnings for the area.

Tidal, Pluvial, Canals, Reservoirs, Groundwater and Sewers

5.6. Flood risk from other sources is deemed to be low, therefore further mitigation is not required.

Increase to Flood Risk Elsewhere

5.7. The proposed development is for the construction of an extension to the existing dwelling on site. The proposal is for a two-storey extension and alterations and landscaping to the existing dwelling. As such, the proposal constitutes a Minor Development under the NPPF.

5.8. Paragraph 051 of the Flood Risk and Coastal Change Planning Practice Guidance (PPG) states:

Minor developments are unlikely to raise significant flood issues unless:

- they would have an adverse effect on a watercourse, floodplain or its flood defences;
- they would impede access to flood defence and management facilities, or;
- where the cumulative impact of such developments would have a significant effect on local flood storage capacity or flood flows.

5.9. As such, the proposed development in isolation should have a negligible impact on flood risk elsewhere.

Flood Warnings

5.10. The site is in the Environment Agency Hampshire and Wiltshire Flood Alert Area and a Flood Warning Area (areas in Upavon, Haxton, Haxton Bridge, Netheravon, Milston, Durrington and Bulford in close proximity to the River Avon). The Flood Warning Service allows site owners to register an address along with contact details so that, in the event of a flood being forecast, they are sent an alert. As a further precaution and risk reduction, the owner of the site should sign up.

5.11. Flood warnings/alerts can be enforced at any time of the day or night. Signing up for this service provides occupants some notice before a flood event. The amount of time afforded before a flood occurs depends on the site-specific location (e.g. proximity to the source of flooding, topography of the surrounding area) and the flood mechanism (e.g. bank over topping versus a breach event). Flood alerts and warnings provide occupants with time to take necessary action, e.g. communication of the risk of flooding to occupants etc, evacuation of occupants offsite or to a safe level, and removal of valuable items out of reach of flooding.

Safe Access and Egress

- 5.12. As the proposal comprises a minor development, safe access and egress are to remain as the existing scenario. The extension includes separate ground floor access and is largely outside the mapped fluvial flood extents. In the event of flooding affecting the extension, access, egress and safe refuge would remain available via the existing dwelling.

6. Conclusions

- 6.1. This FRA has been undertaken with reference to the requirements of NPPF and Planning Practice Guidance with respect to the development at 15 Water Street, Bulford, Wiltshire, SP4 9DZ. It has been written to support a planning application and prepared with due consideration to the nature of the proposed development to provide the appropriate level of detail.
- 6.2. An assessment of the risk of flooding from all sources has been undertaken and is summarised in the table below:

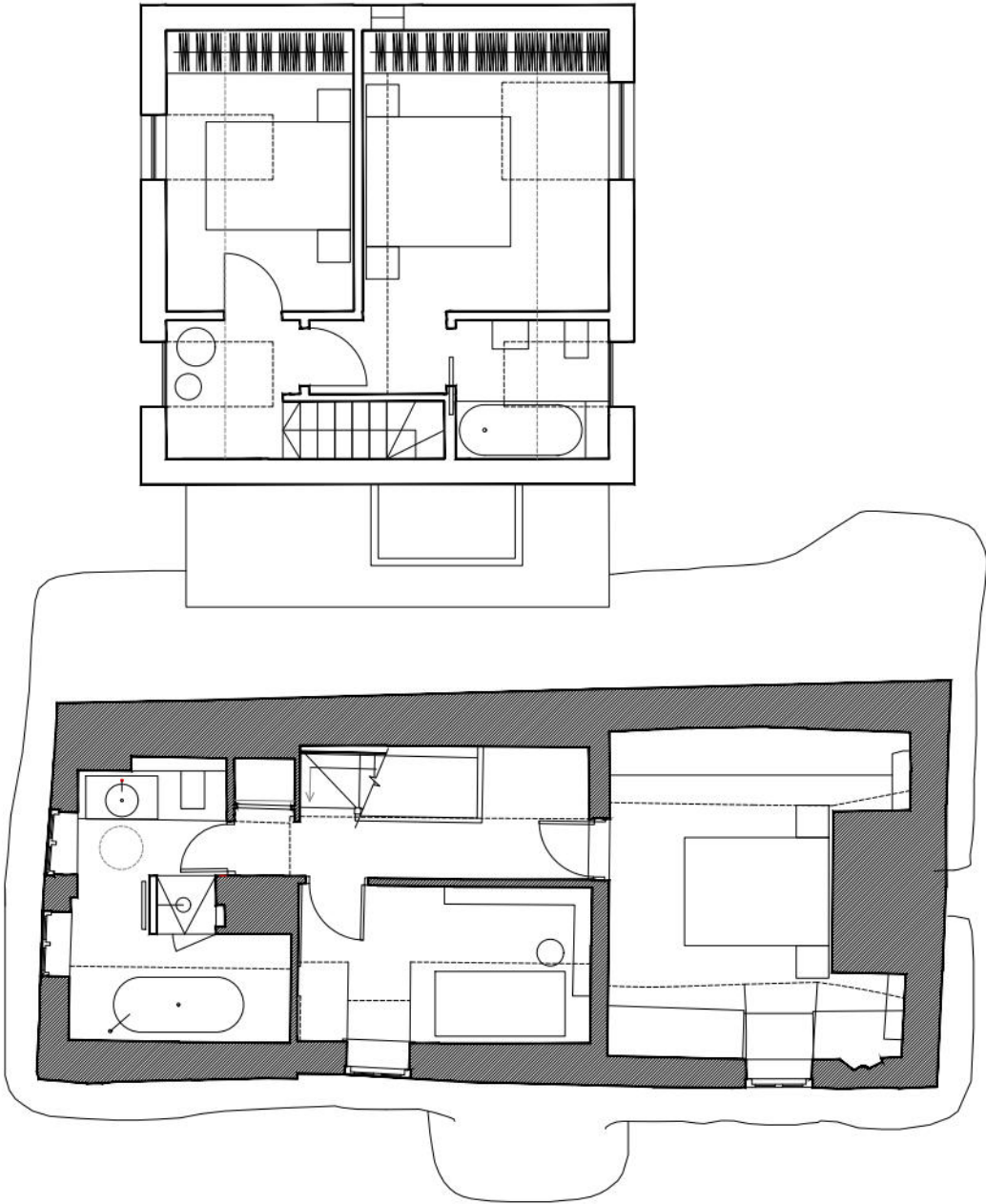
Source of Flooding	Flood Risk Summary
Fluvial	The proposed extension is located predominantly within Flood Zone 1, with a small area at the southern edge extending into Flood Zone 2. NaFRA2 mapping indicates the proposed development is outside the 1 in 100 year present-day flood extent, with a small area at the southern edge of the extension within the 1 in 1000 year extent. A screening comparison indicates an estimated flood level of approximately 73.50m AOD, corresponding to a depth of 0.30m at the southern edge of the extension. Climate change mapping indicates a very small area at the southern edge of the extension lies within the 1% AEP plus climate change extent, with an estimated flood level of approximately 73.25m AOD, equating to an indicative depth of approximately 0.05m. The majority of the proposed extension footprint remains outside the mapped present-day and climate change flood extents. Flood mitigation measures are recommended in Section 5.
Tidal Pluvial Reservoirs Groundwater Sewers Canals	The site is considered to be at low risk from other sources.

- 6.3. The FRA supports the planning application and demonstrates that there is an acceptable level of flood risk to the site if the mitigation strategies recommended are implemented in the scheme. The development does not increase flood risk off site or to the wider area.
- 6.4. This Flood Risk Assessment should be submitted as part of the planning application to satisfy the requirements under NPPF.

Appendix A - Development Proposals



A110 | Proposed First floor plan
01 | Scale: 1:100 @ A3



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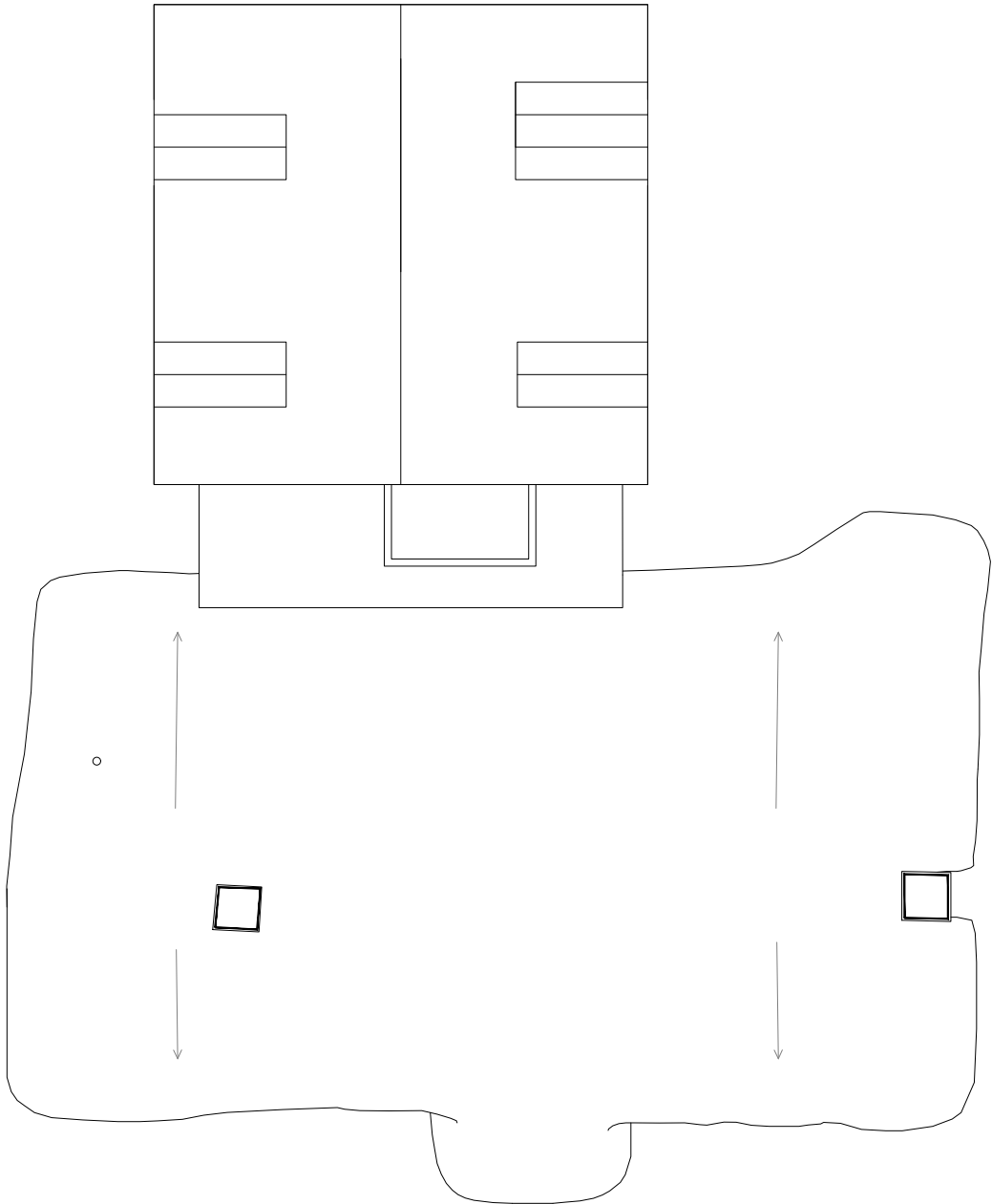
Revisions:
12.02.25 01 First issue

Scale 1:100 @ A3
0 1 2 5m

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drawing number:	A110
revision:	01
drawing title:	Proposed First floor plan
project number:	1072
client:	Nine Mile Cottage
date:	12.02.26
scale:	1: 100 @ A3

A120 | Proposed Roof plan
01 | Scale: 1:100 @ A3



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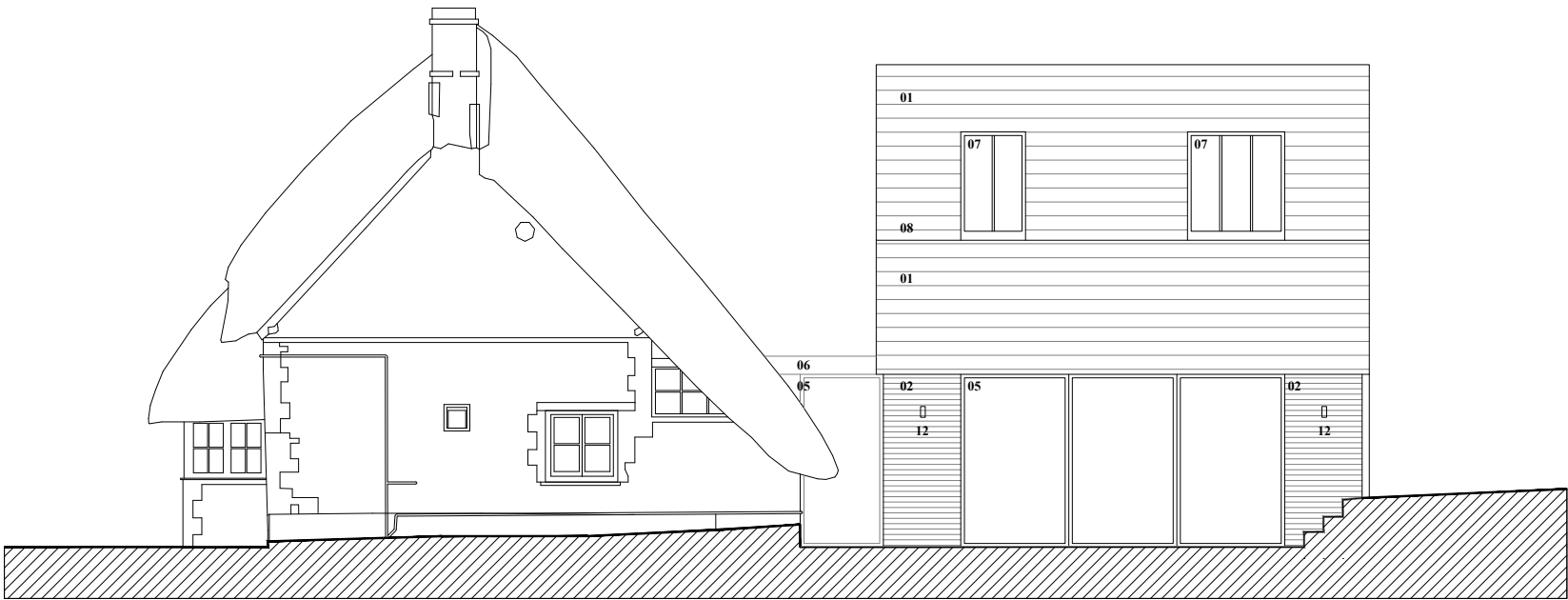
Revisions:
12.02.25 01 First issue

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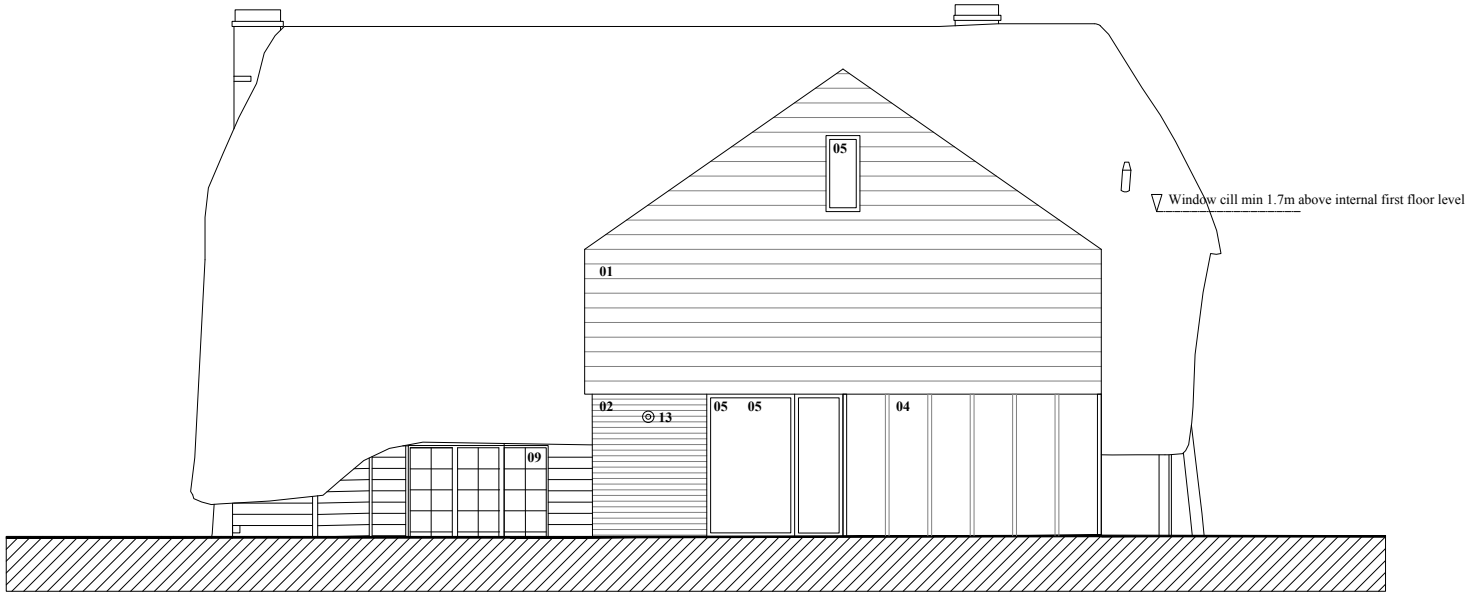
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drawing number: A120
revision: 01
drawing title: Proposed Roof plan
project number: 1072
client: Nine Mile Cottage
date: 12.02.26
scale: 1: 100 @ A3

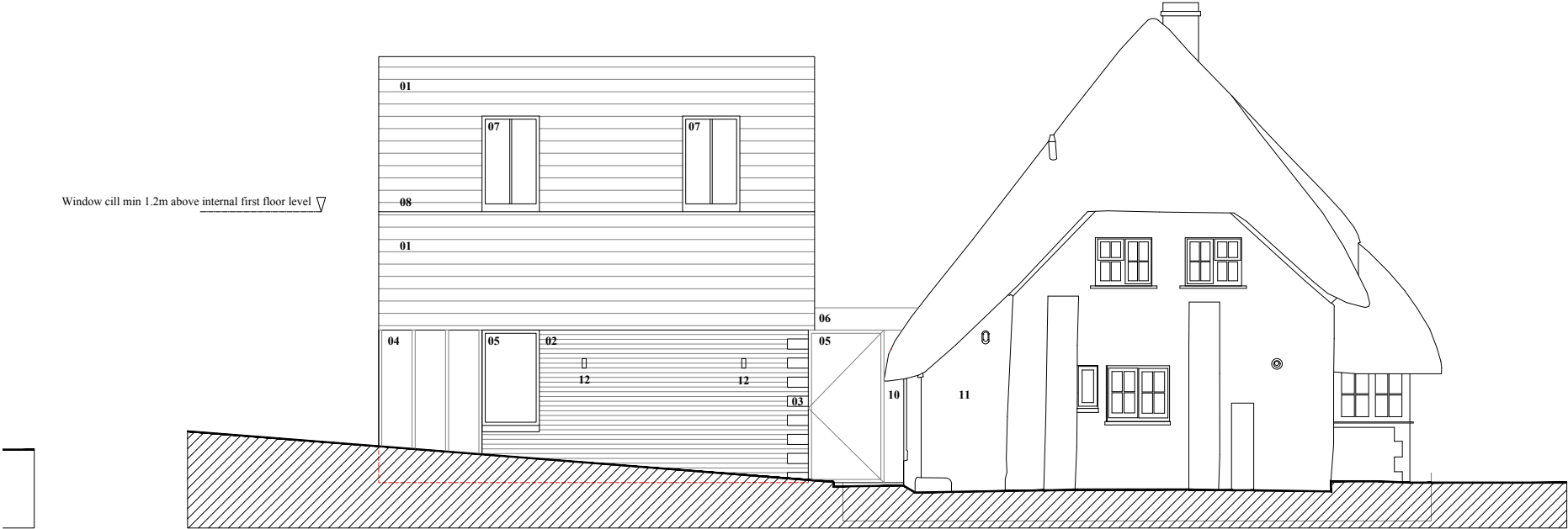
A150 | Proposed North-East Elevation
01 | Scale: 1:100 @ A3



A150 | Proposed North-West Elevation
02 | Scale: 1:100 @ A3



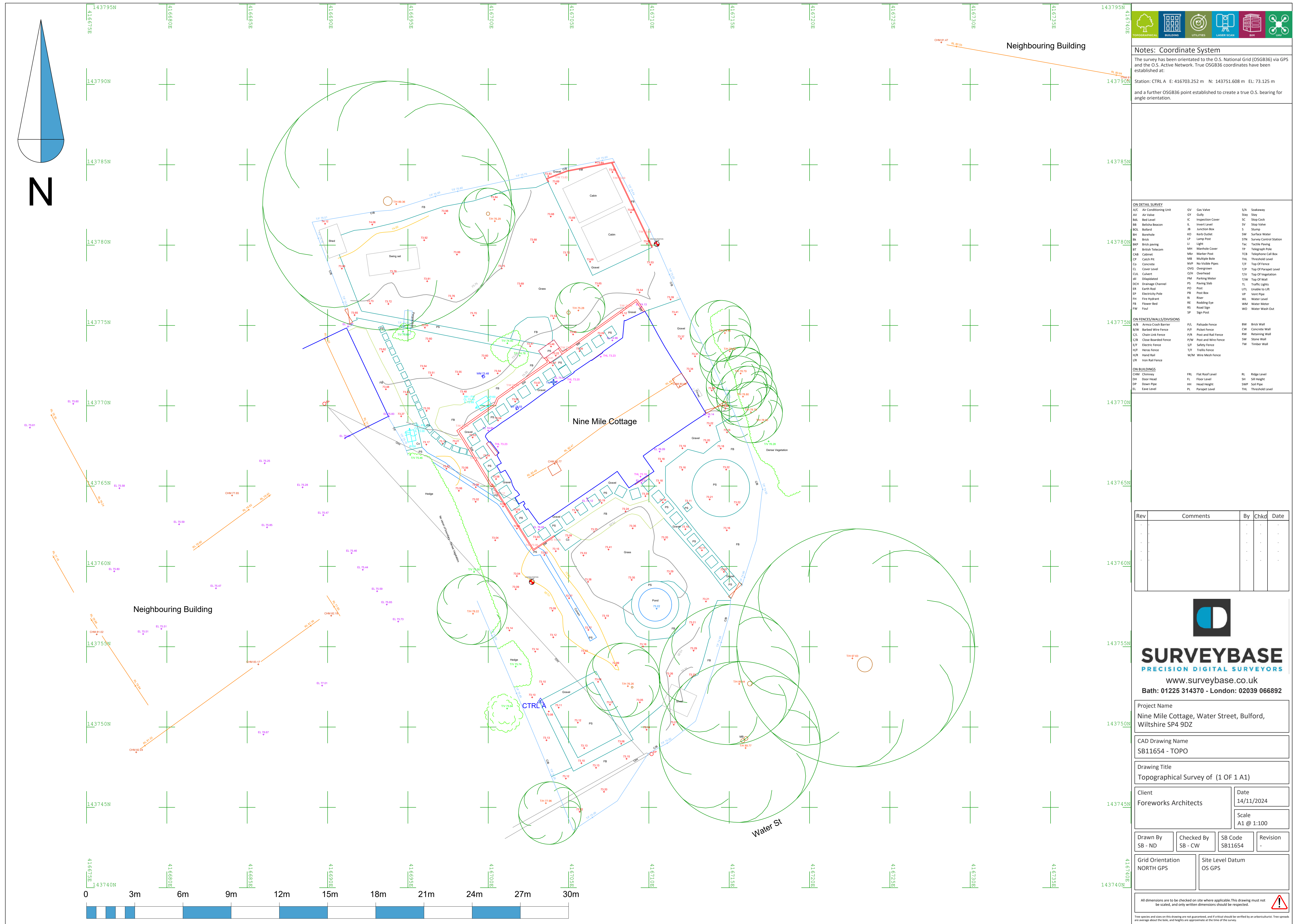
A150 | Proposed South-West Elevation
03 | Scale: 1:100 @ A3



DRAFT ISSUE

Forgeworks

Appendix B - Topo Survey



Appendix C - Consultation

Karen Terry
[REDACTED]

Our ref: EIR2025/33349
Date: 16th October 2025

Dear Karen Terry,

Thank you for your enquiry which was received on 1st October 2025. We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004.

Abstract

Name	Product 4
Description	Detailed Flood Risk Assessment Map for 15 Water Street, SP4 9DZ NGR: SU1670743769
Licence	Open Government Licence
Information Warnings	<i>The mapping of features provided as a background in this product is © Ordnance Survey. It is provided to give context to this product. The Open Government Licence does not apply to this background mapping. You are granted a non-exclusive, royalty free, revocable licence solely to view the Licensed Data for non-commercial purposes for the period during which the Environment Agency makes it available. You are not permitted to copy, sub-license, distribute, sell or otherwise make available the Licensed Data to third parties in any form. Third party rights to enforce the terms of this licence shall be reserved to OS.</i>
Attribution	Contains Environment Agency information © Environment Agency and/or database rights. Contains Ordnance Survey data © Crown copyright 2025 Ordnance Survey AC0000807064.

Open Data and Historic Flood Events

The Environment Agency no longer provides PDF copies of the Historic Flood Map. Instead, datasets are freely available via the Government's Open Data portal: [Find open data - data.gov.uk](#)

Examples of datasets you may require:

- Flood Map for Planning
- Recorded Flood Outlines
- Historic Flood Map
- Surface Water for Spatial Planning extents
- Main River Consultation Area

You can access the Flood Map for Planning here: <https://flood-map-for-planning.service.gov.uk/>

Please note: we cannot guarantee that we hold an exhaustive list of all past flood events. All reasonable care has been taken to ensure that the historical flood event data is as accurate as possible. The Environment Agency will update its records if new evidence emerges.

Planning Guidance

We recommend you read the following items to inform your Flood Risk Assessment (FRA):

Summary	Link
Guidance on using Environment Agency information to inform a development proposal	Flood risk assessments – GOV.UK
How to use modelling data to support your FRA	Using modelling for FRAs – GOV.UK
Planning considerations for areas at risk of flooding	Flood risk and coastal change – GOV.UK
Template and advice to help increase the chances of your FRA includes the right information first time	Planning Portal – FRA Guidance
Information on getting planning advice from the Environment Agency, including paid services	EA Planning Advice – GOV.UK Email: wx.sp@environment-agency.gov.uk
Check with your Lead Local Flood Authority (LLFA) or Local Planning Authority (LPA) for additional policies or guidance for FRAs.	Find your local council – GOV.UK Local Plans & Strategic Flood Risk Assessments (SFRA)

Flood Levels and Updates to National Modelling

The flood zones available on the Flood Map for Planning service were published on 25th March 2025. However, the flood level and depth data are not currently available for all locations identified as at risk in this area.

Therefore, for your information we have supplied maps showing the water depths derived from JFLOW for the 1% AEP (100yr) and 0.1% AEP (1000yr) fluvial modelled flood scenarios. This modelling is fit for the purpose of the Flood Zones. However, it is not based on a specific channel survey. Neither water depths nor water levels were outputs specified when we commissioned this generalised modelling for the Flood Zones. Whilst the modelling process does provide some information on depth of water, it would have been possible to produce the flood extents without storing the water depth values, since water depth is only a 'by-product' of the calculation process. As this type of modelling was developed, tested and reviewed for production of the Flood Zone extents only, we have no information on the accuracy of the water depth data. Water depth or level outputs from this model are only suitable to be used for decision making at a broad catchment scale and is not fit for the purpose of a site-specific flood risk assessment.

Alternatively, you could contact us again later when we might be able to provide flood level and depth associated with our new National Flood Risk Assessment system. Visit this page <https://environment.data.gov.uk/support/faqs/778338325> to understand more how the Flood Zones have been produced.

You can find further information on the NaFRA2 project here: <https://www.gov.uk/guidance/updates-to-national-flood-and-coastal-erosion-risk-information>

Flood Defences

If there are any formal flood defences within 1km of the site boundary provided, a PDF containing flood defence information will be enclosed. This information has been taken from our Asset Information Management System database (AIMS). A data download can be accessed here: [AIMS Asset Bundle](#)

Please note that flood defences can increase water levels elsewhere e.g. through channels being restricted by defences, or because defences prevent flood water flowing back into the river channel.

Further Guidance

customer service line 03708 506 506
gov.uk/environment-agency

If you intend to use any climate change data supplied in this letter, you should consider its appropriateness in light of a range of potential allowances as described in the latest guidance: [Flood risk assessments: climate change allowances - GOV.UK](#) This information is subject to change, please check the guidance regularly. Our Sustainable places team would be happy to discuss the issues around Climate Change and how information should be used.

In some locations, the predicted Still Water Tide Level data from the Coastal Flood Boundary Study 2018 is higher than the locally modelled water levels provided. When this is the case the higher water levels should be considered in your FRA. More information can be found here [Coastal flood boundary conditions for the UK: 2018 update - GOV.UK](#) and by downloading 'Coastal Design Sea Levels' from [Find open data - data.gov.uk](#)

Information on environmental permits for work in, under, over, or near a main river, culvert, flood defence, or in the floodplain is available here: [Flood risk activities: environmental permits - GOV.UK/](#). For any further advice, please contact blandford.frap@environment-agency.gov.uk.

We hope you find this information helpful.

Yours sincerely

Nicola Jess

Customer & Engagement, Wessex
Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS
Email: wessexenquiries@environment-agency.gov.uk

Enc: EIR2025/33349 - 1% AEP JFLOW Depth Map
EIR2025/33349 - 0.1% AEP JFLOW Depth Map
EIR2025/33349 Defences Map & Data (if applicable)