



Flood Risk Assessment for Planning

Prepared for:

Scratchings Ltd

Location:

Bacons Farm
Sloop Lane
Scaynes Hill
West Sussex
RH17 7NP

January 2025

Our reference:

92601-NFP-BcnsFrm-v3



Document Issue Record

Project: Flood Risk Assessment for Planning

Client: Scratchings Ltd

Location: Bacons Farm, Sloop Lane, Scaynes Hill, West Sussex RH17 7NP

Application: Construction of a barn

Our reference: 92601-NFP-BcnsFrm-v3

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Key Facts

Flood Risk Posed:

- EA Flood Zones 1 and 2.
- Fluvial risk from the River Ouse.
- Site is located within an area that has had flooding incidents reported by Southern Water however no further information has been provided.
- Location of the proposed building is entirely above the modelled 1:100 year flood level with 35% allowance for climate change.
- Site within a "Very Low" surface water flood risk area.
- Risk of groundwater and sewer surcharge flooding would appear to be low.

Flood Risk Management:

- Flood proofing of the building will be incorporated as appropriate.
- Safe escape will be provided by a Flood Warning and Evacuation Plan.
- The applicant will register with the free Environment Agency Floodline Warnings Direct service.

Assuming accordance with these flood risk management measures, Unda Consulting Limited consider the proposed application to be suitable in flood risk terms.

Introduction

Unda Consulting Limited have been appointed by Scratchings Ltd (hereinafter referred to as “the applicant”) to undertake a Site Specific Flood Risk Assessment (FRA) for Planning at Bacons Farm, Sloop Lane, Scaynes Hill, West Sussex RH17 7NP (hereinafter referred to as “the site”). The FRA has been undertaken in accordance with the National Planning Policy Framework (NPPF) and the associated technical guidance.

The site appears to be located within Flood Zones 1 and 2 as defined by the Environment Agency (EA) on their Flood Map for Planning. Under the National Planning Policy Framework (NPPF), a FRA is required if a proposed development:

- includes building or engineering works in Flood Zone 2 or 3;
- includes building or engineering works on land classified by the Environment Agency as having critical drainage problem;
- changes the use of land or buildings in a location at risk of flooding from rivers or the sea, or with critical drainage problems;
- changes the use of land or buildings in a way that increases the flood vulnerability of the development where it may be subject to other sources of flooding;
- is larger than 1 hectare.

The assessment should demonstrate to the Local Planning Authority (LPA) and EA how flood risk will be managed now and over the development’s lifetime, taking climate change into account, and with regard to the vulnerability of its potential users.

The objectives of a FRA to support a planning application are to establish:

- whether the proposed development is likely to be affected by current or future flooding from any source;
- whether it will increase flood risk elsewhere;
- whether the measures proposed to deal with these effects and risks are appropriate.

Existing Situation

Site Usage:

The site is located at Bacons Farm, Sloop Lane, Scaynes Hill, West Sussex, RH17 7NP.

Bacons Farm is understood to be a mixed enterprise of 24.71 hectares made up of approx. 11 hectares of grassland, 3.5 hectares of existing woodland, 2.5 hectares of new tree planting and an area being prepared for vineyard installation of 5.5 hectares.

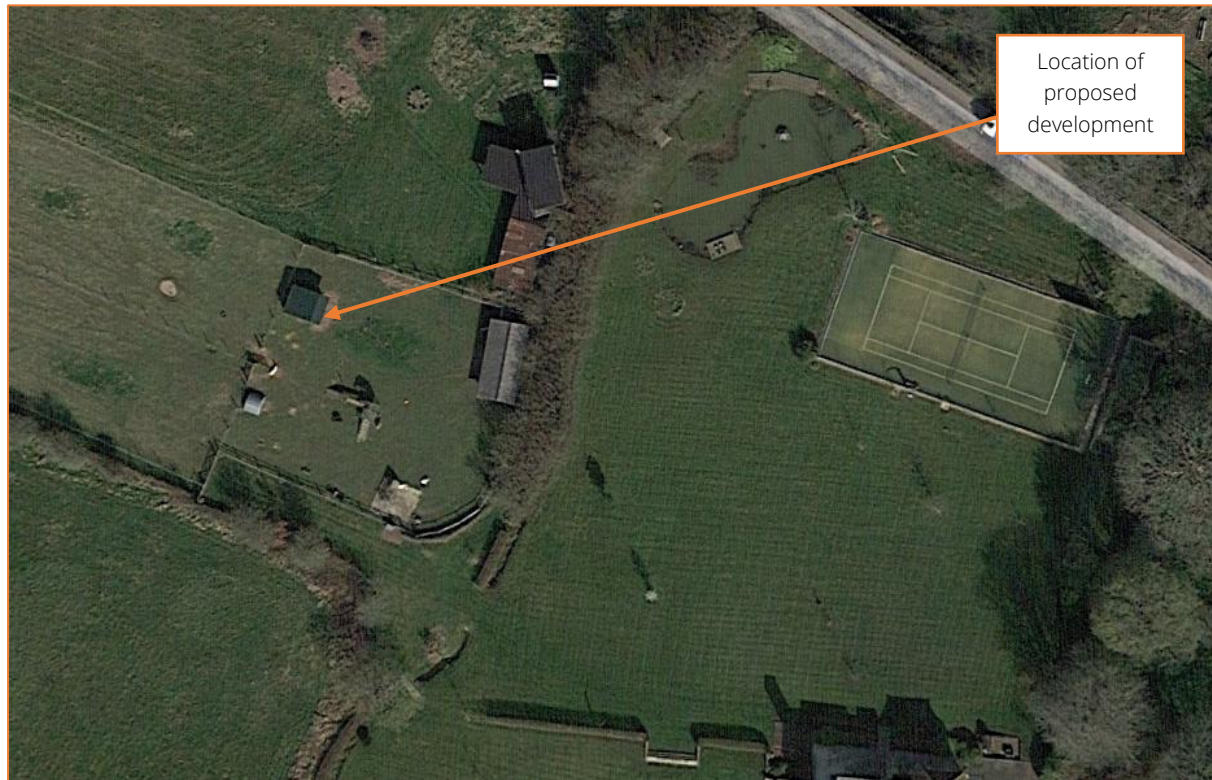


Figure 1: Aerial view of the site and immediate surrounding area (Source: Google Earth)

Topography:

Environment Agency LiDAR has been used to assess the topography across the site and wider area. Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground surface. Up to 100,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated at high spatial resolutions. The EA's LIDAR data archive contains digital elevation data derived from surveys carried out by the EA's specialist remote sensing team. Accurate elevation data is available for over 70% of England. The LiDAR technique records an elevation accurate to +0.3m every 2m. This dataset is derived from a combination of the full dataset which has been merged and re-sampled to give the best possible coverage. The dataset can be supplied as a Digital Surface Model (DSM) produced from the signal returned to the LIDAR (which includes heights of objects, such as vehicles, buildings and vegetation, as well as the terrain surface) or as a Digital Terrain Model (DTM) produced by removing objects from the Digital Surface Model. 1.0m horizontal resolution DTM LiDAR data has been used for the purposes of this study.

LiDAR remotely sensed digital elevation data suggests that the ground topography on the site in the location of the proposed barn ranges between approximately 24.30mAOD to 25.04mAOD.



Figure 2: EA 1m LiDAR DTM showing topographic levels across the site. Site location plan overlain. Transect inset runs from north to south (Source: EA 1m LiDAR)

Geology and Soil:

The British Geological Survey (BGS) Map indicates that the bedrock underlying the site is Cuckfield Stone Bed – Sandstone, Calcareous.

The superficial geology underlying the site comprises of River Terrace Deposits, 1 – Sand and Gravel, and Alluvium – Clay, Silt, Sand and Gravel.

The soil type on site, taken from the UKSO data, is relatively deep soils from River Terrace Sand / Gravel soil parent material with a Sandy Loam soil texture and intermediate soils from Sandstone soil parent material with a Sand to Sandy Loam soil texture.

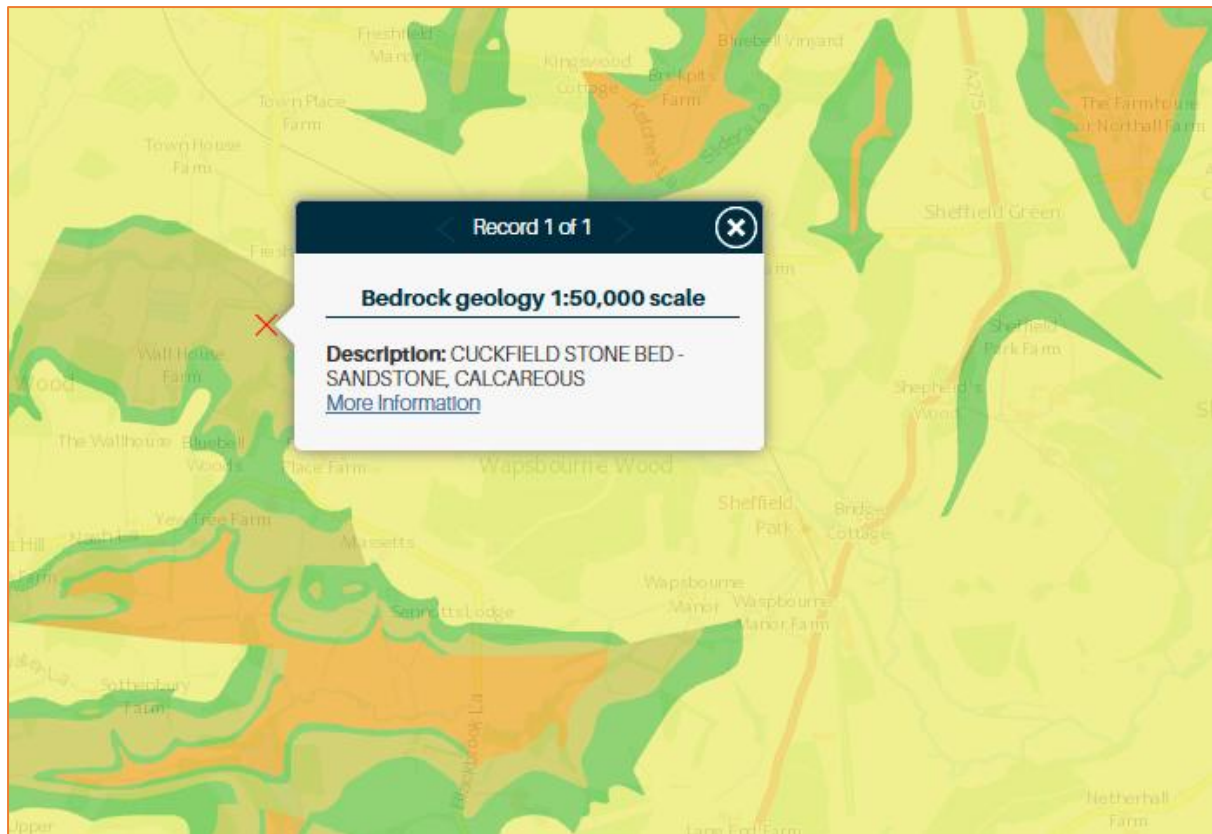


Figure 3: Local geology (Source: BGS)

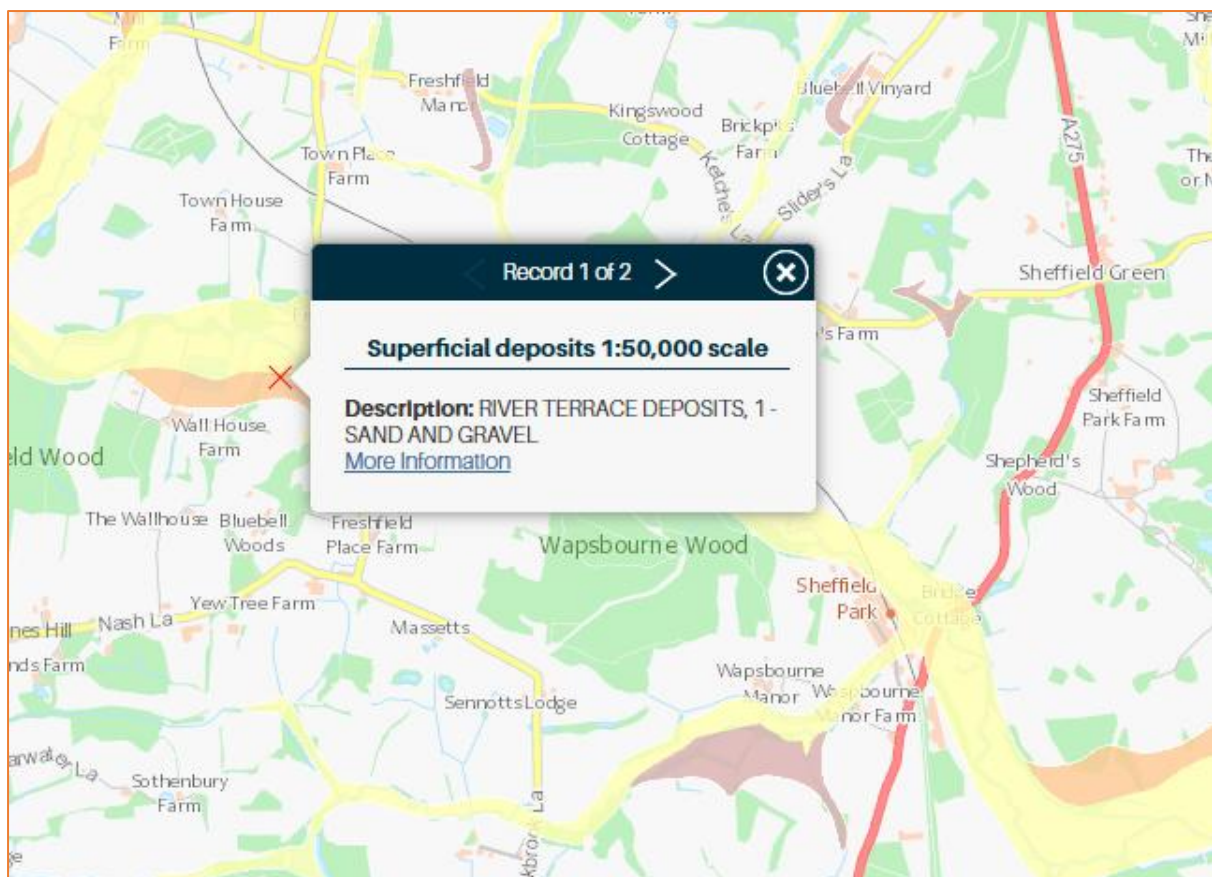


Figure 4: Superficial deposit geology (Source: BGS)



Figure 5: Local soil types (Source: UKSO)

Proposed Development

The proposal is for the construction of a barn.



Figure 6: Proposed site plan (Source: N Field Projects Ltd)

Assessment of Flood Risk

Flood Zones:

Within planning, Flood Zones refer to the probability of river and sea flooding, ignoring the presence of defences. They are shown on the Environment Agency's Flood Map for Planning (Rivers and Sea), available on the Environment Agency's web site.

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – 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. (Land shown in light blue on the Flood Map)
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. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. 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)

Table 1: Flood Zones

The Flood Zones shown on the Environment Agency's Flood Map for Planning (Rivers and Sea) do not take account of the possible impacts of climate change and consequent changes in the future probability of flooding.

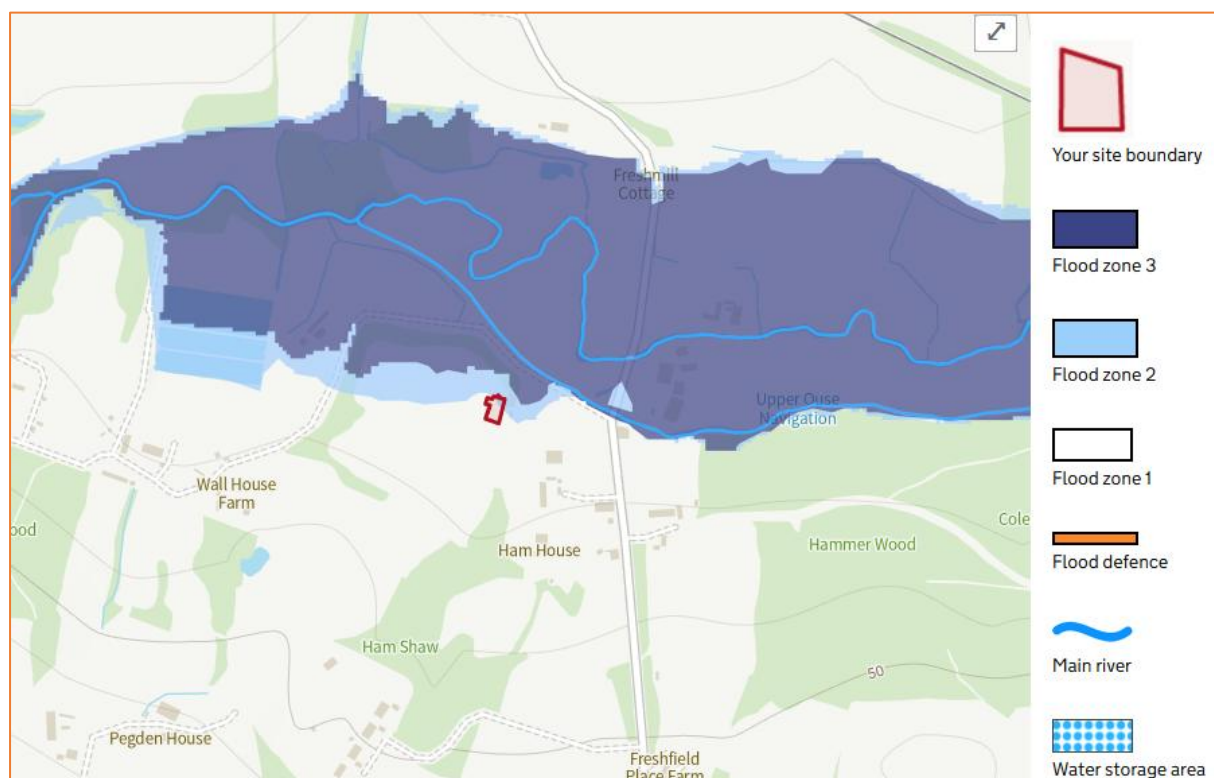


Figure 7: Environment Agency Flood Map for Planning (Source: EA)



Figure 8: Environment Agency Flood Zones at the site. Dark and light blue indicates Flood Zones 3 and 2 respectively (Source: EA)

The site is located partially within Flood Zone 1 (Low Probability), which means it is defined as land having a less than 1 in 1,000 annual probability of river and sea flooding and partially within Flood Zone 2 (Medium Probability), which means it is defined as land having between a 1 in 100 and 1 in 1,000 annual probability of river and sea flooding.

According to the Mid Sussex Strategic Flood Risk Assessment 2024 the site is located partially within future Flood Zone 3a.

The risk would appear to be predominantly fluvial. The River Ouse (Old Canal / Canal Cut / Freshfield) is located approximately 55m to the north of the proposed barn. The access track to the site is shown to be approximately 3.5m to the south of the River Ouse.

Fluvial (River Ouse):

The Ouse is a 35 mile (56 kilometre) long river in the English counties of West and East Sussex. It rises near Lower Beeding in West Sussex, and flows eastwards and then southwards to reach the sea at Newhaven. It skirts Haywards Heath and passes through Lewes. It forms the main spine of an extensive network of smaller streams, of which the River Uck is the main tributary.

Modelled flood levels and events:

Product 4 modelled flood levels and extents have been requested from the EA for use within this report. The EA has provided modelled flood levels from the Upper Ouse Flood Risk Mapping Study, Completed in 2012 by JBA consulting. Both defended and undefended scenarios have been modelled.

The location of the proposed barn is shown to be outside of all of the modelled defended flood extents, apart from the 1:1000 year extent which covers part of the area in which the proposed barn is located.

The location of the proposed barn is shown to be outside of all of the modelled undefended flood extents, apart from the 1:100 year extent with 35%, 45% and 105% climate change and 1:1000 year extent.

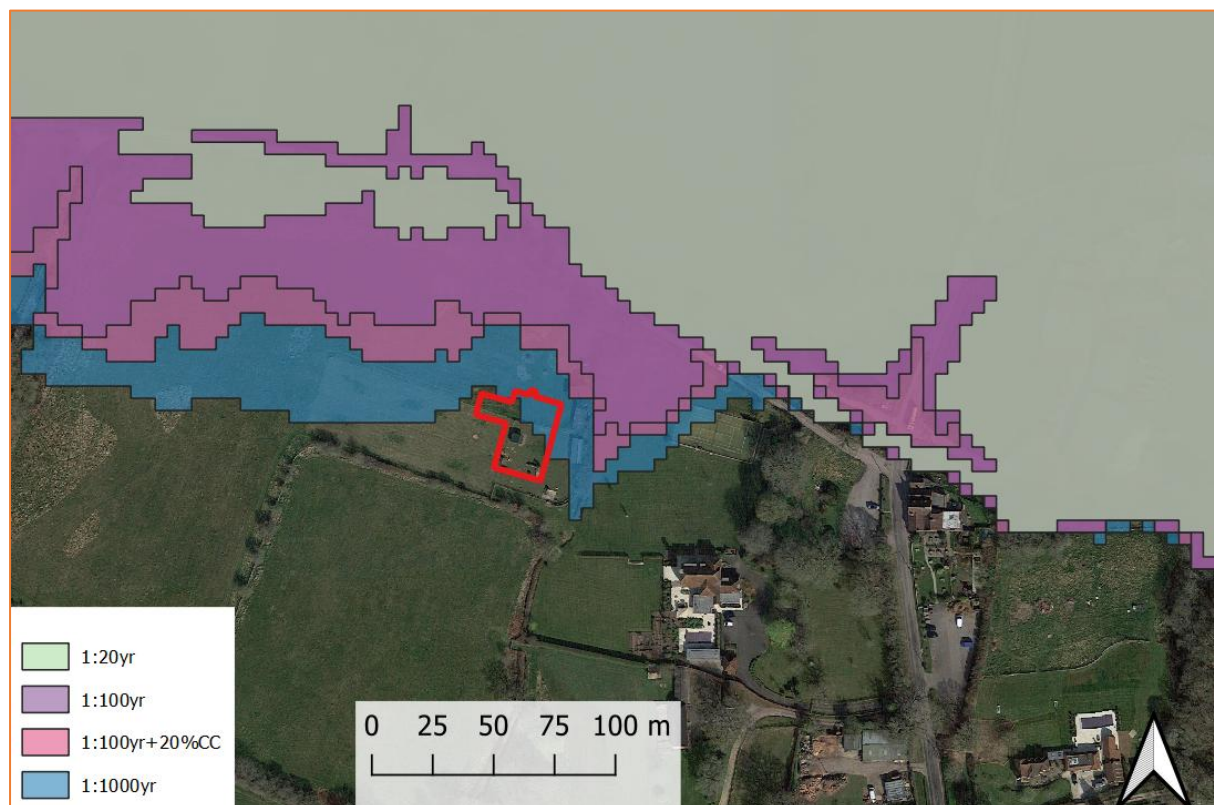


Figure 9: Modelled defended flood extents. Location of proposed barn shown in red (Source: EA)

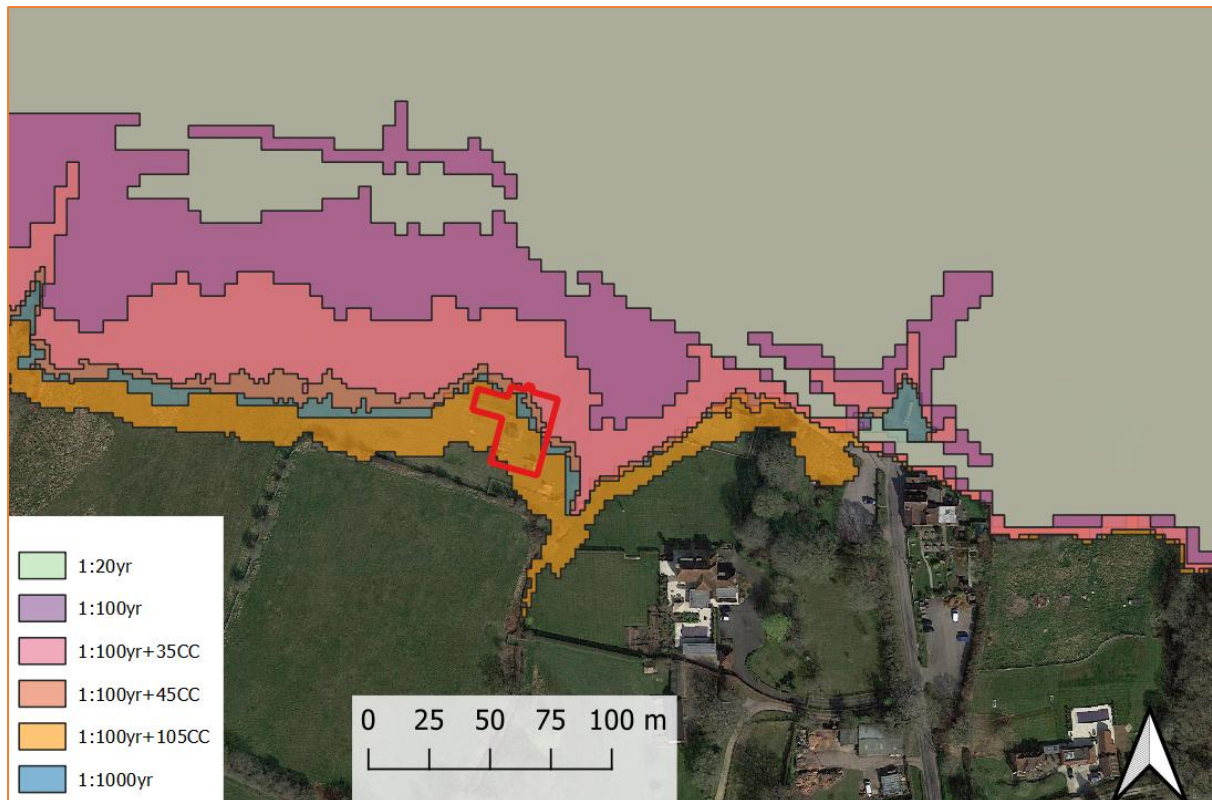


Figure 10: Modelled undefended flood extents. Location of proposed barn shown in red (Source: EA)

The site is located partially within Flood Zones 1 and 2, and is classified as “less vulnerable”. The Flood Risk Assessments: climate change allowances guidance – updated May 2022, states that the Central climate change allowance should be applied. The site falls within the Adur and Ouse Management Catchment, where the Central climate change allowance for the 2080’s is a 37% increase in river flows.

As such, the most suitable modelled flood data provided in the Ouse modelling is a 35% increase in flows, and as such this will be used for this assessment.

The maximum on-site flood level for the undefended 1:100 year + 35% climate change event is shown to be 24.24mAOD near the area of the proposed barn. Comparison of this modelled flood level with topographic site levels in the location of the proposed barn (24.30mAOD to 25.04mAOD) shows that the barn is located entirely above the flood level.

Flood defences:

Flood defences are structures which affect flow in times of flooding in order to reduce the risk water entering property. They generally fall into one of two categories; ‘formal’ or ‘informal’.

A ‘formal’ flood defence is a structure which has been specifically built to control floodwater. It is maintained by its owner or statutory undertaker so that it remains in the necessary condition to function. In accordance with the Flood and Water Management Act, the Environment Agency has powers to construct and maintain defences to help against flooding. An ‘informal’ defence is a structure that has not necessarily been built to control floodwater and is not maintained for this purpose. This includes road and rail embankments and other linear infrastructure (buildings and boundary walls) which may act as water retaining structures or create enclosures to form flood storage areas in addition to their primary function.

The EA has stated that there are no formal EA defences in the vicinity of this site.

Historical flood records:

The EA hold records of historic flood events from rivers and the sea. The EA map flooding to land, not individual properties. Their historic flood event record outlines are an indication of the geographical extent of an observed flood event. Their historic flood event outlines do not give any indication of flood levels for individual properties. They also do not imply that any property within the outline has flooded internally.

According to EA data the site is not located within a historic flood extent. The Mid Sussex District Council Strategic Flood Risk Assessment 2024 confirms that the site is located within an area that has had flooding incidents reported by Southern Water however no further information has been provided.

Pluvial (Surface Water):

Pluvial (surface water) flooding happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

In 2013 the EA, working with Lead Local Flood Authorities (LLFAs), produced an updated Flood Map for Surface Water. It is considered to represent a significant improvement on the previous surface water flood maps available, both in terms of method and representation of the risk of flooding. The modelling techniques and data used and considerably improved, and also incorporated locally produced mapping where this is available to represent features best modelled at a local scale.

The Flood Map for Surface Water assesses flooding scenarios as a result of rainfall with the following chance of occurring in any given year (annual probability of flooding is shown in brackets):

- High: Greater than or equal to 3.3% (1 in 30) chance in any given year (3.3%)
- Medium: Less than 3.3% (1 in 30) but greater than or equal to 1% (1 in 100) chance in any given year
- Low: Less than 1% (1 in 100) but greater than or equal to 0.1% (1 in 1,000) chance in any given year
- Very Low: Less than 0.1% (1 in 1,000) chance in any given year

The mapping below shows the Risk of Flooding from Surface Water centred on the site. Please note that the EA do not consider this information suitable to be used to identify the risk to individual properties or sites. It is useful to raise awareness in areas which may be at risk and may require additional investigation.

The EA Surface Water Flood Map suggests that the location of the proposed barn is within an area at "Very Low" risk of flooding from surface water.

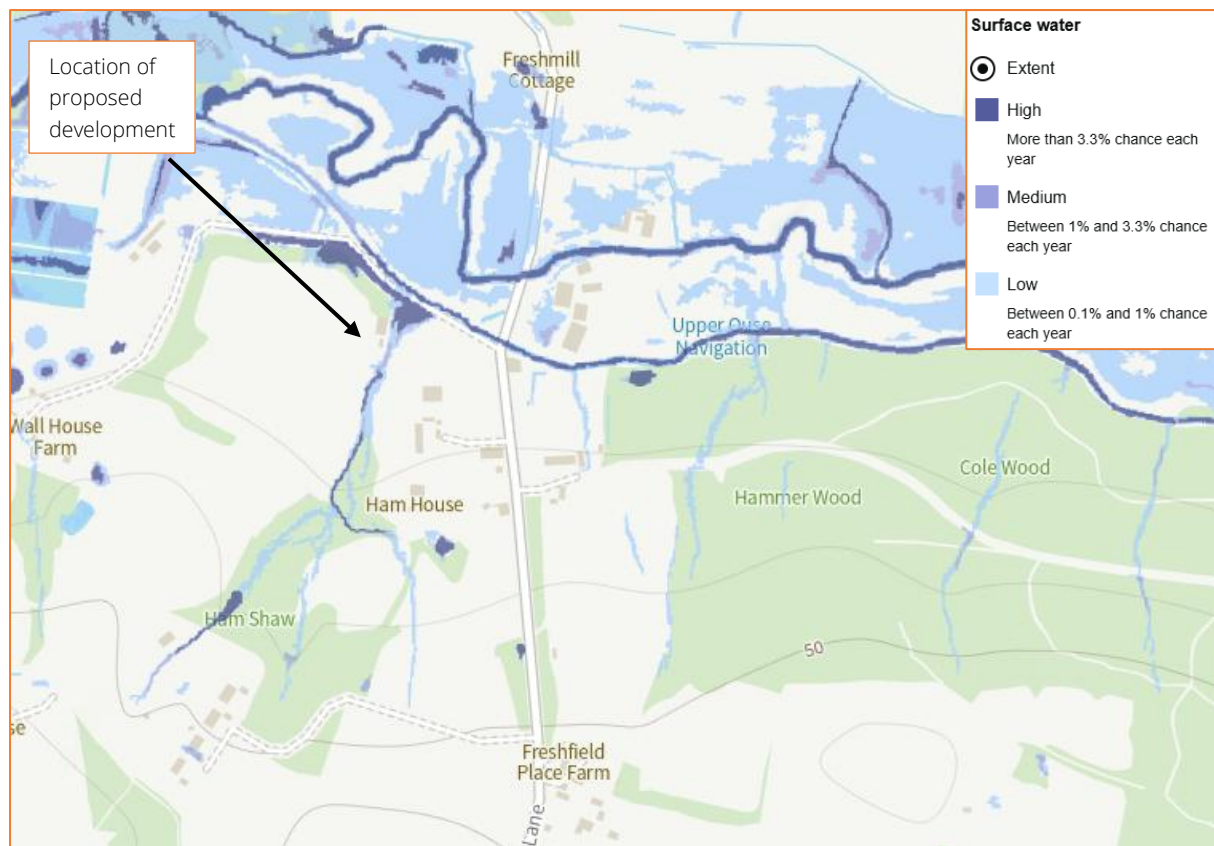


Figure 11: Extract from Environment Agency Surface Water Flood Map (Source: EA)

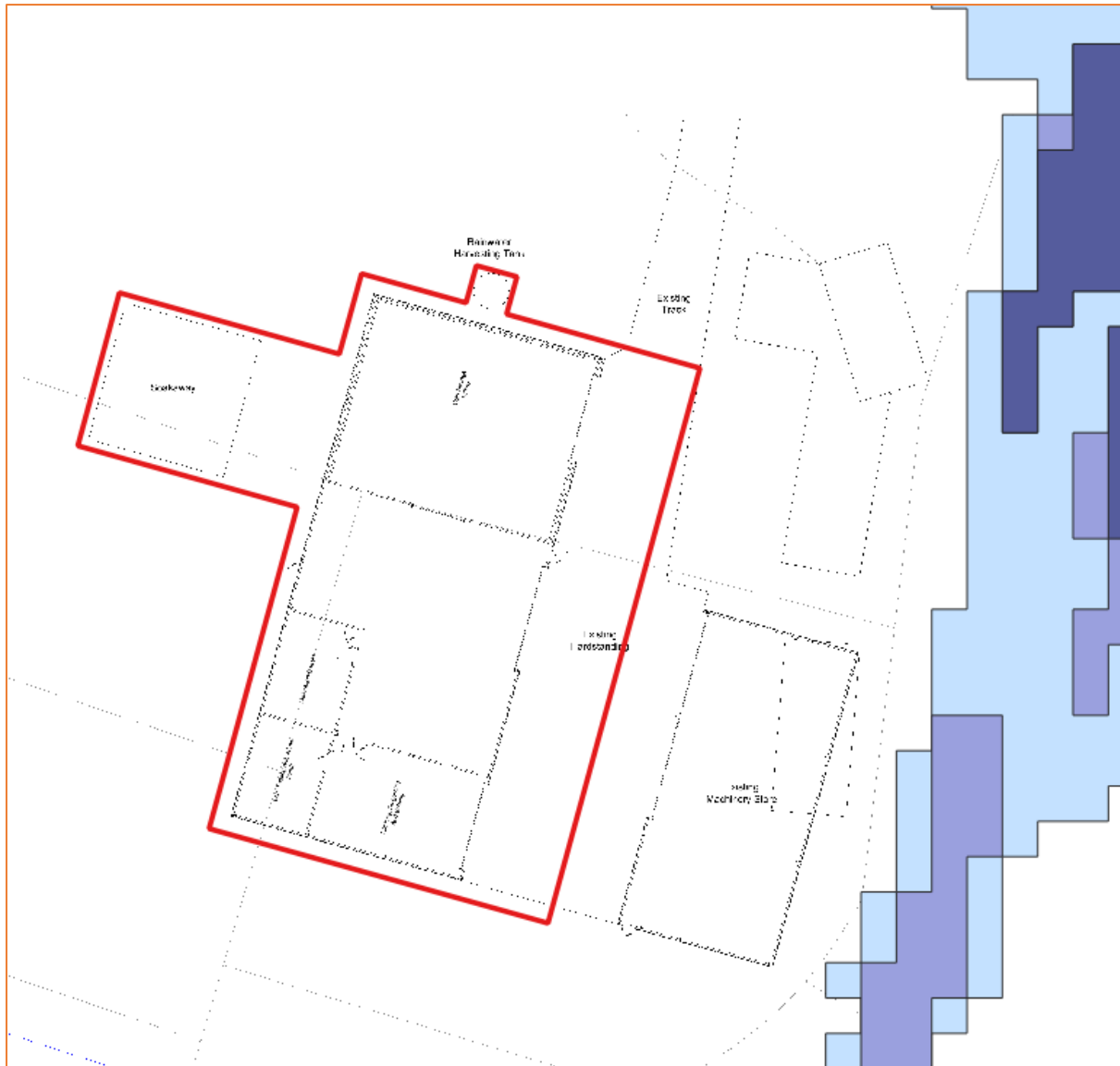


Figure 12: Closer view of Environment Agency Surface Water Flood Map at the site (Source: EA)

Groundwater:

Groundwater flooding occurs as a result of water rising up from the underlying rocks or from water flowing from abnormal springs. This tends to occur after much longer periods of sustained high rainfall. Higher rainfall means more water will infiltrate into the ground and cause the water table to rise above normal levels. Groundwater tends to flow from areas where the ground level is high, to areas where the ground level is low. In low-lying areas the water table is usually at shallower depths anyway, but during very wet periods, with all the additional groundwater flowing towards these areas, the water table can rise up to the surface causing groundwater flooding.

Groundwater flooding is most likely to occur in low-lying areas underlain by permeable rocks (aquifers). These may be extensive, regional aquifers, such as chalk or sandstone, or may be localised sands or river gravels in valley bottoms underlain by less permeable rocks. Groundwater flooding takes longer to dissipate because groundwater moves much more slowly than surface water and will take time to flow away underground.

No records have been provided to suggest that the site has flooded from groundwater sources previously. According to the EA website flooding from groundwater is unlikely in this area.

Sewer Surcharge:

Sewer flooding occurs when the sewer network cannot cope with the volume of water that is entering it. It is often experienced during times of heavy rainfall when large amounts of surface water overwhelm the sewer network causing flooding. Temporary problems such as blockages, siltation, collapses and equipment or operational failures can also result in sewer flooding.

All Water Companies have a statutory obligation to maintain a register of properties/areas which have reported records of flooding from the public sewerage system, and this is shown on the DG5 Flood Register. This includes records of flooding from foul sewers, combined sewers and surface water sewers which are deemed to be public and therefore maintained by the Water Company. The DG5 register records of flood incidents resulting in both internal property flooding and external flooding incidents. Once a property is identified on the DG5 register, water companies can typically put funding in place to address the issues and hence enable the property to be removed from the register. It should be noted that flooding from land drainage, highway drainage, rivers/watercourses and private sewers is not recorded within the register.

According to the Mid Sussex District Council Strategic Flood Risk Assessment 2024 in the postcode area in which the site is located (RH17 7) there has been 1 internal sewer flooding incident recorded by Sothorn Water. No further information has been provided to suggest the site itself is susceptible to sewer flooding.

Other Sources:

Reservoirs with an impounded volume in excess of 25,000 cubic metres (measured above natural ground level) are governed by the Reservoirs Act and are listed on a register held by the Environment Agency. The site is partially within the maximum inundation extent on the EA Reservoir Inundation Map when there is also flooding from rivers. The EA also advise on their website that there is a risk of reservoir flooding in this area. There has been no loss of life in the UK from reservoir flooding since 1925. All major reservoirs have to be inspected by specialist dam and reservoir Engineers. In accordance with the Reservoirs Act 1975 in England, these inspections are monitored and enforced by the EA themselves. The risk to the site from reservoir flooding is therefore minimal and is far lower than that relating to the potential for fluvial / tidal flooding to occur. The Environment Agency Reservoir Flood Map illustrated below, illustrates the largest area that might be flooded if the storage area were to fail and release the water it is designed to hold during a flood event.

Records of flooding from reservoirs and canals are erratic as there is no requirement for the Environment Agency to provide information on historic flooding from canals and raised reservoirs on plans. In particular, the NPPF does not require flood risk from canals and raised reservoirs to be shown on the Environment Agency flood zones.

Overflows from canals can be common as they are often fed by land drainage, and often do not have controlled overflow spillways. Occasionally, major bank breaches also occur, leading to rapid and deep flooding of adjacent land.

No further information has been provided to suggest the site is susceptible to from the failure of canals or other artificial infrastructure from the risk of flooding.

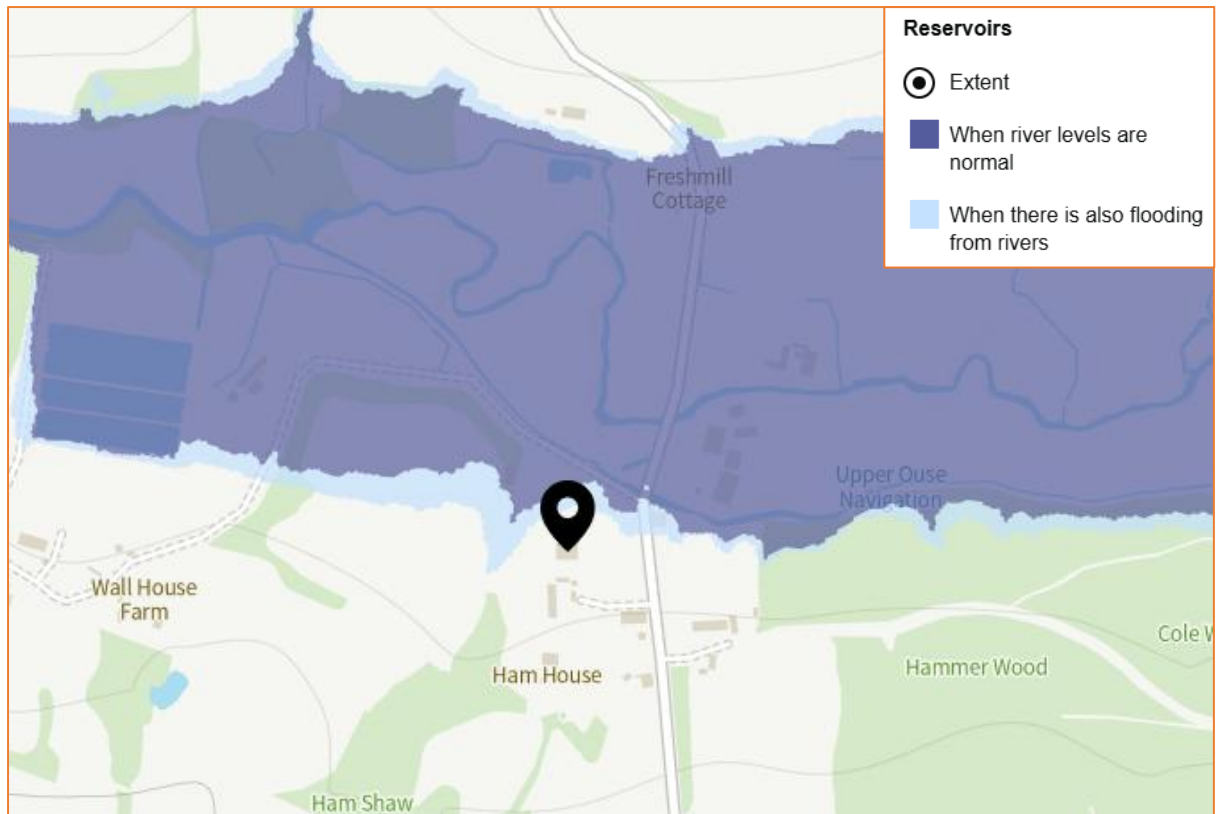


Figure 13: Extract from Environment Agency Reservoir Inundation Map (Source: EA)

Flood Risk Management Measures

Vulnerability to flooding:

The NPPF classifies property usage by vulnerability to flooding.

Post development, the site will remain “less vulnerable”, as the application is for the construction of a barn.

Accordingly, it is considered that the vulnerability of the site as a whole will not increase post development.

Physical Design Measures:

The application is for the construction of a barn.

Comparison of the modelled undefended 1:100 year + 35% climate change flood level with topographic site levels in the area of the proposed barn shows that the location of the proposed barn is above the 1:100 year +35% climate change flood level.

To help protect against flooding during extreme events, the applicant has agreed to implement flood resistant design measures into the development, in consultation with the Local Authority building control department.

These measures could include the following where possible:

- Solid (concrete) ground floor;
- Closed-cell foam used in wall cavities;
- Waterproof ground floor internal render;
- External walls rendered resistant to flooding;
- Exterior ventilation outlets, utility points and air bricks fitted with removable waterproof covers;
- Ground floor electrical main ring run from high level;
- Electrical incomer and meter situated at high level;
- Boilers, control and water storage / immersion installed at high level;
- Gas meter installed at high level;
- Plumbing insulation of closed-cell design;
- Non-return valves fitted to all drain and sewer outlets;
- Manhole covers secured;
- Anti-syphon fitted to all toilets;
- Kitchen units of solid, water resistant material;
- Use of MDF carpentry (i.e. skirting, architrave, built-in storage) avoided;
- Stairs of solid hardwood construction with wood faces treated to resist water penetration.

The applicant should also consider the use of demountable flood defence barriers to defend ground level doorways and low windows.

Safe Escape:

The NPPF requires a route of safe escape for all residents and users to be provided from new residential properties in Flood Zone 3. Safe escape is usually defined as being through slow moving flood water no deeper than 25cm.

Owners, occupants and tenants should follow the warning and evacuation procedure detailed in the following section.

Safe escape will be provided by a Flood Warning and Evacuation Plan.

Flood Warning:

The EA is responsible for issuing flood warnings. Flood warnings are issued to the emergency services and local authorities. Both private individuals and organisations can sign-up to receive warnings via phone, text or email. This system of receiving warnings is currently voluntary.

Advice regarding severe flood warnings will generally be given during weather forecasts on local radio and TV. In the case of extreme events, warnings can also be disseminated via door to door visits by the police or locally appointed flood wardens.

The applicant has agreed to implement a flood warning and evacuation plan post development, and subscribe to the EA's flood warning service.

The EA issue flood warnings to specific areas when flooding is expected. It is recommended that the applicant registers online with the free Environment Agency Floodline Warnings Direct service at <https://fwd.environment-agency.gov.uk/app/olr/register> to receive flood warnings by phone, text or email.

The flood warning service has three types of warnings that will help you prepare for flooding and take action:

Flood Warning	Flood Alert	Flood Warning	Severe Flood Warning
			
What it means?	Flooding is possible. Be prepared.	Flooding is expected. Immediate action required.	Severe flooding. Danger to life.
When it's used?	Two hours to two days in advance of flooding.	Half an hour to one day in advance of flooding.	When flooding poses a significant threat to life.
What to do?	Be prepared to act on your flood plan. Prepare a flood kit of essential items. Monitor local water levels and the flood forecast on our website.	Move family, pets and valuables to a safe place. Turn off gas, electricity and water supplies if safe to do so. Put flood protection equipment in place.	Stay in a safe place with a means of escape. Be ready should you need to evacuate from your home. Co-operate with the emergency services. Call 999 if you are in immediate danger.

Table 2: Flood Warnings

Flood Plan:

It is recommended that the applicant and future owners, occupiers and Landlords of the proposed development prepare a flood plan to protect life and property during a flood event:

Before a flood:

- Find out if you are at risk of flooding.
- Find out if you can receive flood warnings.
- Prepare and keep a list of all your important contacts to hand or save them on your mobile phone.
- Think about what items you can move now and what you would want to move to safety during a flood such as pets, cars, furniture, and electrical equipment.
- Know how to turn off gas, electricity and water supplies.
- Prepare a flood kit of essential items and keep it handy. It can include copies of important documents, a torch, a battery-powered or wind-up radio, blankets and warm clothing, waterproofs, rubber gloves and a first aid kit including all essential medication.
- Consider buying flood protection products such as flood boards and airbrick covers to help reduce flood water getting into your property.

During a flood:

- Tune into your local radio station on a battery or wind-up radio.
- Fill jugs and saucepans with water.
- Grab your flood kit - if you have prepared one.
- Collect blankets, torch, first aid kit, medication and food.
- Move important documents, personal items, valuables, and lightweight belongings upstairs or to high shelves.
- Raise large items of furniture, or put them in large bags if you have them.
- Move people, outdoor belongings, cars and pets to higher ground.
- Switch off water, gas and electricity at mains when water is about to enter your home. Do not touch sources of electricity when standing in water.
- Fit flood protection products, if you have them, for example flood boards, airbrick covers, sandbags.
- Put plugs in sinks and baths. Weigh them down with a pillowcase or plastic bag filled with soil.
- If you do not have non-return valves fitted, plug water inlet pipes with towels or cloths.
- Move your family and pets upstairs or to a high place with a means of escape.
- Listen to the advice of the emergency service and evacuate if told to do so.
- Avoid walking or driving through flood water. Six inches of fast-flowing water can knock over an adult and two feet of water can move a car.

After a flood:

- If you have flooded, contact your insurance company as soon as possible.
- Take photographs and videos of your damaged property as a record for your insurance company.
- If you don't have insurance, contact your local authority for information on grants and charities that may help you.
- Flood water can contain sewage, chemicals and animal waste. Always wear waterproof outerwear, including gloves, wellington boots and a face mask.
- Have your electrics, central heating and water checked by qualified engineers before switching them back on.

Off-Site Impacts:

Fluvial floodplain storage:

The NPPF requires that where development is proposed in undefended areas of floodplain, which lie outside of the functional floodplain, the implications of ground raising operations for flood risk elsewhere needs to be considered. Raising existing ground levels may reduce the capacity of the floodplain to accommodate floodwater and increase the risk of flooding by either increasing the depth of flooding to existing properties at risk or by extending the floodplain to cover properties normally outside of the floodplain. Flood storage capacity can be

maintained by lowering ground levels either within the curtilage of the development or elsewhere in the floodplain, in order to maintain at least the same volume of flood storage capacity within the floodplain.

In undefended tidal areas, raising ground levels is unlikely to impact on maximum tidal levels so the provision of compensatory storage should not be necessary.

For development in a defended flood risk area, the impact on residual flood risk to other properties needs to be considered. New development behind flood defences can increase the residual risk of flooding if the flood defences are breached or overtopped by changing the conveyance of the flow paths or by displacing flood water elsewhere. If the potential impact on residual risk is unacceptable then mitigation should be provided.

The proposed building is located on land which is entirely above the modelled 1:100 year flood level with 35% allowance for climate change.

Post development, there will be no unacceptable loss of floodplain storage.

Sequential and Exception Test

The Sequential Test aims to ensure that development does not take place in areas at high risk of flooding when appropriate areas of lower risk are reasonably available.

The Sequential Test is applied to developments in areas identified as being at risk of any source of flooding now or in the future. The Sequential Test ensures that a sequential, risk-based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account.

The sequential approach is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding. Other forms of flooding need to be treated consistently with river and tidal flooding in mapping probability and assessing vulnerability, so that the sequential approach can be applied across all areas of flood risk

The site is situated within Flood Zones 1 and 2 when using the Environment Agency Flood Map for Planning (Rivers and Sea), and within an area at “Very Low” risk of flooding from surface water.

Post development, the site will remain “less vulnerable” throughout, as the application is for the construction of a barn.

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a	Exception Test required	X	Exception Test required	✓	✓
Zone 3b	Exception Test required	X	X	X	✓

Table 3: Flood risk vulnerability and flood zone ‘compatibility’

Using the table above, the application is considered to be suitable for within Flood Zones 1 and 2.

Conclusion

Unda Consulting Limited have been appointed by Scratchings Ltd to undertake a Site Specific Flood Risk Assessment (FRA) for Planning Bacons Farm, Sloop Lane, Scaynes Hill, West Sussex RH17 7NP. The FRA has been undertaken in accordance with the National Planning Policy Framework (NPPF) and the associated technical guidance.

The site is located at Bacons Farm, Sloop Lane, Scaynes Hill, West Sussex RH17 7NP.

Bacons Farm is a mixed enterprise of 24.71 hectares made up of approx. 11 hectares of grassland, 3.5 hectares of existing woodland, 2.5 hectares of new tree planting and an area being prepared for vineyard installation of 5.5 hectares.

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Accordingly, it is considered that the vulnerability of the site as a whole will not increase post development.

The site is situated within Flood Zones 1 and 2 when using the Environment Agency Flood Map for Planning (Rivers and Sea).

The risk would appear to be predominantly fluvial. The River Ouse (Old Canal / Canal Cut / Freshfield) is located approximately 55m to the north of the proposed barn. The access track to the site is shown to be approximately 3.5m to the south of the River Ouse.

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The location of the proposed barn is shown to be outside of all of the modelled undefended flood extents, apart from the 1:100 year extent with 35%, 45% and 105% climate change and 1:1000 year extent.

The site is located partially within Flood Zones 1 and 2, and is classified as "less vulnerable". The Flood Risk Assessments: climate change allowances guidance – updated May 2022, states that the Central climate change allowance should be applied. The site falls within the Adur and Ouse Management Catchment, where the Central climate change allowance for the 2080's is a 37% increase in river flows

As such, the most suitable modelled flood data provided in the Ouse modelling is a 35% increase in flows, and as such this will be used for this assessment.

The maximum on-site flood level for the undefended 1:100 year + 35% climate change event is shown to be 24.24mAOD near the area of the proposed barn. Comparison of this modelled flood level with topographic site levels in the location of the proposed barn (24.30mAOD to 25.04mAOD) shows that the barn is located entirely above the flood level.

The EA has stated that there are no formal EA defences in the vicinity of this site.

According to EA data the site is not located within a historic flood extent. The Mid Sussex District Council Strategic Flood Risk Assessment 2024 confirms that the site is located within an area that has had flooding incidents reported by Southern Water however no further information has been provided.

The EA Surface Water Flood Map suggests that the location of the proposed barn is within an area at "Very Low" risk of flooding from surface water.

No records have been provided to suggest that the site has flooded from groundwater sources previously. According to the EA website flooding from groundwater is unlikely in this area.

According to the Mid Sussex District Council Strategic Flood Risk Assessment 2024 in the postcode area in which the site is located (RH17 7) there has been 1 internal sewer flooding incident recorded by Sothorn Water. No further information has been provided to suggest the site is susceptible to sewer flooding.

The site is partially within the maximum inundation extent on the EA Reservoir Inundation Map when there is also flooding from rivers. The EA also advise on their website that there is a risk of reservoir flooding in this area.

To help protect against flooding during extreme events, the applicant has agreed to implement flood resistant design measures into the development, in consultation with the Local Authority building control department.

Safe escape will be provided by a Flood Warning and Evacuation Plan.

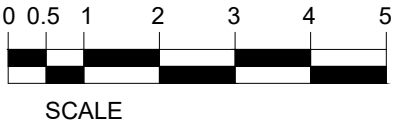
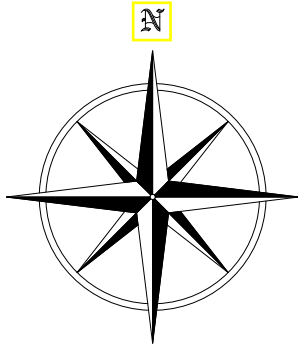
In summary:

- EA Flood Zones 1 and 2.
- Fluvial risk from the River Ouse.
- Site is located within an area that has had flooding incidents reported by Southern Water however no further information has been provided.
- Location of the proposed building is entirely above the modelled 1:100 year flood level with 35% allowance for climate change.
- Site within a "Very Low" surface water flood risk area.
- Risk of groundwater and sewer surcharge flooding would appear to be low.
- Flood proofing of the building will be incorporated as appropriate.
- Safe escape will be provided by a Flood Warning and Evacuation Plan.
- The applicant will register with the free Environment Agency Floodline Warnings Direct service.

Assuming accordance with these flood risk management measures, Unda Consulting Limited consider the proposed application to be suitable in flood risk terms.

Appendix

- Proposed Plans.



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Tel: 07738 703498
E-mail: nick@nfieldprojects.co.uk

PROJECT TITLE
Bacons Farm, Sloop Lane, Scaynes Hill, RH17 7NP

DRAWING
Winery Site Plan

REV	DESCRIPTION	DATE	BY

SCALE 1:100 on A1	DRAWN NRF
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DATE 14/01/2025	DRAWING No. NFP194S004
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