OAKHURST EQUESTRIAN

WEST CHILTINGTON LANE, CONEYHURST,

BILLINGSHURST, RH14 9DP

Flood Risk Assessment

November 2025

eas ltd
Environmental Assessment Services Ltd

REPORT DATA SHEET

Requirement	**Data**
Report Reference	747a/MMEPlanning/OakhurstEquestrian/AlternativeFRA
Date	November 2025
Client	Oguzhan Denizer
Report type	Flood Risk Assessment
Purpose	Submission to Planning
Revisions	
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1. INTRODUCTION

1.1 Environmental Assessment Services Ltd was instructed to prepare a Flood Risk Assessment (FRA) in relation to a planning application for the proposed redevelopment at Oakhurst Equestrian, West Chiltington Lane, Coneyhurst, Billingshurst.

1.2 The site-specific FRA is prepared generally in accordance with the Revised National Planning Policy Framework (NPPF) and its accompanying Update Planning Practice Guidance (PPG), published in July 2018.

1.3 This report has been prepared for the purposes of assisting a planning application and addressing any Environment Agency (EA) concerns over the flood risks relating to the proposed redevelopment. It should be appreciated that the potential for flooding at a site depends on many factors, some natural, some man-made and some arising from accident, and that these factors may change substantially over the life of the proposed redevelopment. The flood risk in this report is assessed on the basis of available information, which is generally catalogued in the report but does not take into account any special risks or requirements of the redevelopment unless we have been specifically informed of them.

1.4 Any construction levels suggested in this report should therefore be considered as minimum levels and the client and any person appointed to undertake the design of the redevelopment should satisfy themselves that any such level is in all respects suitable for their purposes.

2. EXISTING SITE & PROPOSED DEVELOPMENT

2.1 The flood risk assessment is prepared for the proposed redevelopment at the site to construct nine residential dwellings with associated soft landscaping and parking spaces for two cars.

2.2 The Ordnance Survey map reference for the site is TQ 10628 24565 and the site elevation is approximately +23 m AOD. The total site area is approximately 0.81 ha. See Figure 1 in Appendix A for the site location.

2.3 The site (as existing) is farmland (pasture) with agricultural and commercial buildings to the north and west. It is proposed to redevelop the site into nine residential dwellings with associated soft landscaping and parking for two cars, comprising four two-bedroom, three three-bedroom, and two four-bedroom houses. The proposed site is bordered on all sides by farmland. It is accessed by a private driveway from West Chiltington Road, which is bordered by agricultural buildings to the southeast. It is currently in use as an equestrian centre with paddocks surrounding the proposed redevelopment site and farm and equestrian buildings directly on the site footprint. The south of the site is laid to grass for grazing, with a permeable surfaced manége to the southeast.

2.4 The site was visited on 17 September 2024. At the time of the visit the site was in mixed equestrian and commercial (business units on site) use. The area to be developed was largely non-permeable hardstanding with agricultural buildings, a stable block and yard lying to the east, with a staff WC block and office directly adjacent (to remain). To the north of the plot lies an agricultural building used for storage and a parking area (hardcore). To the west is an industrial unit, currently used for car repairs, and another stable block. There are also some permeable areas, a grazing paddock to the south and a sand school to the southwest. To the north of the site is farmland/grazing fields with the River Adur passing adjacent to the site at its northeast corner. To the east of the site lies Kettlebridge Farm, (fields, stables and farmhouse). To the south lies Kettlebridge bungalow and the public highway (West Chiltington Lane), accessed by a private driveway leading to the site and Kettlebridge Farm. This road leads to Kettle Bridge where the highway crosses the River Adur which runs to the east of the site. To the west lies farmland, used for grazing. See Figure 1 for the site location and Figure 4 in Appendix A for photographs of the site.

2.5 The surface water at the site appears to drain as greenfield across the adjacent land to the west and into the paddock located at the southwest, bordering on the sand school. At the time of visit there was evidence of surface water pooling in this paddock. There appears to be an overgrown drainage ditch along the southern border of the site, visible in the paddocks to the west of the redevelopment area. The plot is bordered by a Leylandii hedge to the southeast and an established native hedge to the south. See Figure 2 in Appendix A for a map of the site as existing and figure 4 for site photographs.

2.6 According to the British Geological Survey, the site lies on late Weald Clay Formation – Sedimentary bedrock formed during the Cretaceous era. DEFRA classify the soil at the site as “slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils”.

2.7 The site lies partially on a Secondary A aquifer to the southwest, with the rest of the site on Unproductive Strata. The underlying bedrock at the site is on a Secondary A aquifer. It is in an area of Low groundwater vulnerability and not in a groundwater protection zone.

2.8 The site is to be redeveloped, for use as nine residential dwellings.

3. FLOOD RISK & DEFENCES

3.1 Outline Flood Risk

3.1.1 The EA Flood Maps for Planning shows the site as lying within Flood Zone 1, (less than 0.1% chance of flooding from rivers or the sea, in any given year, where defences are not considered). The majority of the site is not considered to be at risk of flooding from surface water but parts of the site to the northeast, and centre are considered at risk of surface water flooding in the present day/1 in 30-year return period scenario, with increasing risk in the 1 in 100 and 1 in 1000-year scenarios. These areas are to the west of the driveway/access track, in the centre of the site under the existing barn, to the northeast under the existing stable block. These areas are considered to be at Medium to High risk (up to and above 3.3% chance of flooding per year) except for the area to the centre of the site which is at Medium risk (between 0.1% and 3.3% chance per year). The site is not at risk of flooding from reservoirs. Flooding from groundwater is deemed unlikely in this area. See Appendix B for Environment Agency flood maps.

3.1.2 The EA provides long-term modelled flood data 'Flood Risk Assessment Data' and maps specific to the vicinity of the site. The modelled data (2039-2069) indicates that the site lies within an area of long-term Very-Low risk of flooding from rivers and the sea (less than 0.1% chance of flooding each year). The areas at risk of surface water flooding increase in size in the EA's long-term modelled 2040-2060 scenarios. Flooding from groundwater or reservoirs is considered unlikely at the site. See Appendix B for the Environment Agency's long-term surface water flood risk map. See Appendix C for Environment Agency Flood Risk Data.

3.2 Defences

3.2.1 Flood defences work by:

- Reducing the probability of flooding from a specific source (a river or the sea).
- They do not completely stop the chance of flooding because there may be a flood that is bigger than the one the defence is designed to protect against (this is called overtopping), or the defence may fail.
- They may provide reduced protection over time due to climate change increasing flood risk in the future.

There are different types of flood defence. They include:

- culverts
- embankments
- flood walls

3.3 The site is protected from flooding by culverts in the West Chiltington Lane highway leading to a drainage ditch that joins the River Adur under Kettle Bridge and maintained riverbanks on the River Adur.

3.4 A risk to the site would be an overspilling of the surface water drainage system following an extreme weather event which could result in flooding at the site

and vicinity. The flooding would probably quickly subside via the existing drainage patterns flowing east to join the River Adur to the east of the site.

3.5 The Horsham Borough Council SFRA (2020) indicates that there is no predicted change to the Flood Zone 1 status of the site for the expected duration of its lifetime (100 years for residential development).

3.6 Current climate change guidance suggests a possible rise in peak rainfall intensities by up to 40% by the year 2115. Hence, climate change would exert capacity pressure on surface water and combined sewers. The SFRA (2020) confirms the extent of the floodplain based on a 100-year lifespan of the redevelopment and indicated that the site would remain in Zone 1 for the duration of its life. Climate change data may be subject to adjustment.

4. ALTERNATIVE SOURCES OF FLOODING

An assessment of alternative sources of flooding potentially affecting the site has also been made from a review of the SFRA from Horsham Borough Council 2020, the West Sussex SFRA mapping form 2009 and the EA online flood maps for planning.

The SFRA addresses alternative sources of flooding including fluvial flooding, surface water flooding, groundwater flooding, flooding from sewers and flooding from reservoirs.

4.1 Coastal and Fluvial Flooding

4.1.1 Coastal flooding is a flood that occurs when sea or estuary water covers dry or low-lying land. Coastal flooding can be caused by storms, tides or surges that raise the level of the sea.

4.1.2 Fluvial flooding occurs when excessive rainfall over an extended period of time causes a river to exceed its capacity. The impact of coastal and fluvial flooding is dependent on the location and severity of the event.

4.1.3 According to the Environment Agency the site is at very low risk of flooding from fluvial and tidal sources (<0.1% chance of flooding by rivers and the sea).

4.2 Surface Water Flooding

4.2.1 Surface water flooding occurs when rainfall falls at a higher rate than the infiltration rate of the ground it is landing on. This is particularly problematic in developed areas where there is a high proportion of impermeable surfacing (concrete paving and tarmac).

4.2.2 In addition to flood risk from surface water runoff; surface water flooding can also occur as a result of water flowing out of manholes and gullies. This is the result of extreme storm events where the pipe network system becomes overwhelmed. Water then escapes at critical low points in the network through surcharged manholes and gullies.

4.2.3 The EA's online surface water flood risk map shows that the majority of the site is not at risk of surface water flooding, but areas to the north and centre are at Medium to High risk (up to and exceeding 3.3% change of flooding per year) as previously stated these areas enlarge in size in the 1 in 100 and 1000 year and with the long-term modelled scenario for 2040-2060. See Appendix B for Surface Water Flood Map.

4.3 Sewer Flooding

4.3.1 Sewer flooding occurs when sewage or foul water leaks from the sewerage system (through pipes, drains or manholes) or floods up through toilets, sinks or shower outlets inside a building.

4.3.2 There does not appear to be any record of sewer flooding affecting the site.

4.4 Groundwater Flooding

4.4.1 Groundwater flooding occurs when the water table rises above the ground surface, normally as a result of persistent rainfall over a prolonged period. Increased levels of redevelopment in an area can increase the risk of groundwater flooding.

4.4.2 The EA online flood maps for planning show that the site is very unlikely to flood from groundwater.

4.5 Reservoirs

4.5.1 Flooding from reservoirs is extremely unlikely. An area is considered at risk if people's lives could be threatened in the event of a dam or reservoir failure.

4.5.2 The EA online flood maps for planning show that the site is not at risk of flooding from reservoirs.

5. HISTORY OF FLOODING

5.1 There have been several recorded incidents of historic flooding within the Billingshurst and Coneyhurst area, most notably in 1981 when a surface water flash flood caused flooding on the High Street and Rosehill areas. Also in 2013, 2015, 2018 and 2023. There are not any records of the site being flooded but records exist of the neighbouring Coneyhurst Road (A272) being affected by flooding in 2023 and in 2024.

6. PLANNING STATUS WITH RESPECT TO FLOODING

6.1 The site is shown on the current Environment Agency (EA) flood risk for planning maps as being within Flood Risk Zone 1 (<0.1% risk of flooding in any year), but at risk of surface water flooding in places.

6.2 The extent to which information relating to flood risk required at a site is presently based on the level of 'Flood Risk' at the proposed redevelopment (i.e.

how likely an area is to flood), and the 'vulnerability' of the proposed development/future site users to flooding.

6.3 The Sequential Test is designed to move development towards sites within a lower flood risk zone, in this case away from areas at High risk of surface water flooding. The applicant must demonstrate that there are no reasonably available alternative sites within the local area of lower flood risk that are suitable for the proposed development, in this case nine residential dwellings within the local area, in Flood Zone 1 and at Low risk of flooding from surface water and with a reasonable prospect that the site is available to be developed at the point in time envisaged for the redevelopment. The guidance on applying the Sequential Test was updated in September 2025 and now states that a site-specific Flood Risk Assessment (FRA) can exempt a development from the test if it demonstrates the site will be safe from *surface water* flooding for its lifetime, without increasing risk elsewhere. In other words, the proposed layout, design, and mitigation measures would ensure that occupiers and users would remain safe from current and future flood risk for the lifetime of the development without increasing flood risk elsewhere.

6.4 In the event that development takes place in Flood Zones 2 or 3, or in areas of High risk from surface water flooding, the Council will require flood resistance and resilience measures in line with current Environment Agency advice. New developments will need to contain SuDS. All development within Flood Zones 2 and 3, or within areas at High risk of flooding from surface water, will require surface water runoff to be controlled, as near to its source as possible, and at greenfield rates. Where SuDS have not been used in these areas the applicant should justify these reasons.

6.5 The site users are not at risk from fluvial, and the majority of the site is not at risk from surface water flooding (except for two areas in the northeast and centre of the site). The finished floor level of the buildings is proposed to be either 600 mm above the design flood level or 300 mm above the ground level (whichever is the higher); as standard the FFL is 75 mm above the DPC. This provides a robust buffer to protect the future residents from any risk from surface water flooding at the two locations mentioned above. The use of SuDS measures in the form of permeable surfacing in the paths, patios and driveways will help to capture, slow and soak away any excess rainfall, further reducing the risk from surface water flooding. As the impermeable area of the site is slightly less than the existing, the proposed redevelopment is not expected to increase flood risk elsewhere. The access driveway onto West Chiltington Lane remains free from flood risk in all modelled scenarios, allowing for safe access and escape for the occupiers in all eventualities.

6.6 Due to the mitigation measures listed above reducing the flood risk to the proposed dwellings and future occupiers, it can be safely assumed that the Sequential Test will not need to be applied to this site. There is no need to apply the Exception Test.

6.7 The risk to property and future site users from fluvial and surface water flooding is considered in the following sections of the report, together with an assessment

of the likely impact of the proposed redevelopment on flood risk elsewhere. Where appropriate, recommendations to reduce the flood risk have been given.

7. RISK TO PROPERTY

7.1 The site is in Flood Zone 1, and therefore at low risk of flooding from rivers or the sea. There is a risk of surface water flooding to parts of the site in the northeast and centre. The site is currently in agricultural use (equestrian), much of the ground surface is permeable (the manége, grazing paddock to the south and southwest of the site). However, the proposed redevelopment of the site includes areas of soft landscaping, and the paths, patios and driveways are to be of permeable surfacing. This will slow and contain the rainfall reducing the flood risk to the proposed dwellings. The overall redevelopment will slightly decrease the impermeable surfacing compared with the existing, decreasing the surface water runoff and therefore the risk of surface water flooding. The FFL is to be 600 mm above the design flood level or 300 mm above the ground level (whichever is higher), this adds additional protection to the buildings from surface water ingress. The sustainability of the redevelopment could be further improved by the implementation of rainwater gardens or the use of water butts to collect surface water from the roof area of the houses for irrigation purposes.

8. RISK TO OCCUPIERS OF THE PROPOSED DEVELOPMENT

8.1 As the site lies in Flood Zone 1, there should be minimal flood related risk to the proposed residents. Parts of the site to the northeast and centre are at Medium-High risk of surface water flooding (up to and exceeding 3.3% chance of flooding per year). Should surface water flooding occur in these areas, the residents will have an escape route along the access driveway to West Chiltington Lane, this is not shown to be at risk of flooding in all scenarios.

9. LIKELY IMPACT ON FLOOD RISK ELSEWHERE

9.1 The site is presently used as an equestrian centre, with agricultural buildings to the north and east, a manége/sand school to the south and areas of grazing to the southwest. The proposed redevelopment will decrease the amount of impermeable hardstanding across the site as a whole, improving its sustainability by containing, slowing and soaking away the excess rainfall and helping to mitigate any risk of surface water flooding. The proposed redevelopments will not increase the risk of surface water flooding elsewhere. This is due to the site design incorporating soft landscaping and permeable surfacing to the access driveway and the driveways to the individual dwellings in order to reduce the surface water runoff; the residences also include permeable garden areas surrounding each residence.

10 FLOOD WARNINGS

10.1 The EA operates a flood forecasting and flood warning service in areas at risk of flooding from rivers of the sea. The site is not located in a Flood Warning Area. It is not considered necessary to include an evacuation plan in this assessment.

11. SUMMARY

11.1 The site lies within Flood Risk Zone 1 and is at Low risk of flooding from the rivers and the sea. The majority of the site is not at risk of surface water flooding, however there are three areas that the Environment Agency's Flood Maps for Planning has categorised as Medium-High risk of surface water flooding (the northeast and centre of the site). There are no other flood risks identified as possibly affecting the site. See Appendix B for the Environment Agency's Flood Maps for Planning.

11.2 The site has areas of Medium to High risk of surface water flooding in places, however, the mitigation measures in the design, including: permeable paving and soft landscaping to slow and reduce the surface water flow from the site and raised finished floor levels, as well as the reduction in the impermeable area of the site show that the future residents will remain safe from flooding for the lifetime of there development and the redevelopment will not increase the risk of flooding elsewhere. The updated guidance on the Sequential Test indicated that it will not need to be applied to this redevelopment.

12. RECOMMENDATIONS

12.1 Areas of permeable hardstanding in the parking areas and sustainable drainage systems (SuDS) will reduce the peak loading on surface water discharging from the site.

12.2 The use of rainwater harvesting for irrigation and/or toilet flushing, rain gardens or water butts on the drainpipe downpipes could increase the sustainability of the redevelopment.

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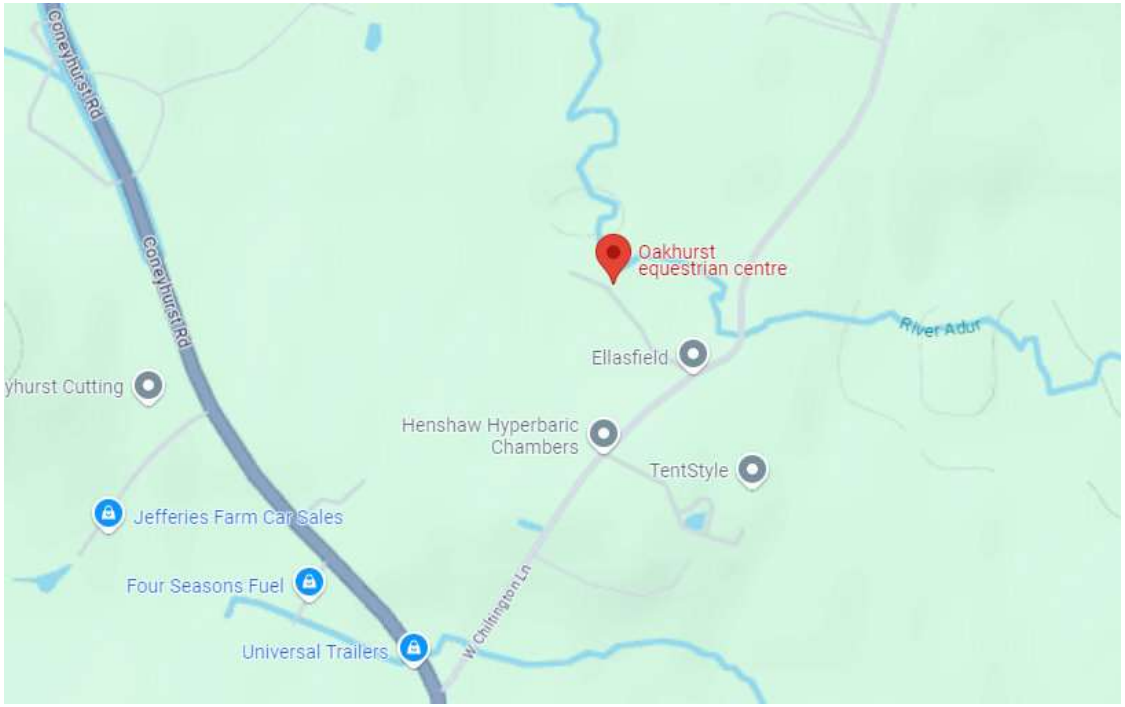
APPENDIX A

Figure 1: Site Location
Figure 2: Site As Existing
Figure 3: Proposed Development
Figure 4: Site Photographs



Oakhurst Equestrian

West Chiltington Lane, Coneyhurst,
Billingshurst, RH14 9DP

Figure 1: Site Location

Scale as shown

November 2025

Scale as shown

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Figure 2: Site As Existing

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Figure 3: Proposed Development

Scale as shown

November 2025

Figure 4: Site Photographs

Track leading to the site.

Sand school to the south of the site.

Grazing paddock adjacent to sand school.

Evidence of surface water pooling in paddock.

Track leading from the northeastern corner of the site towards the River Adur.

Barn used for storage to the northeast of the site.

Staff toilets to the left (to remain) and mobile home.

Stable block and yard facing west towards the sand school.

2nd stable block facing south towards the sand school and the grazing paddock.

Former agricultural building repurposed as an industrial unit (car repair).

Gates at the northern border of the site leading to grazing paddocks (to remain).

Existing drainage ditch along the western border of the site (overgrown).

Farm track leading south towards West Chiltington Lane. Storage barn and stable block seen on the left and car repair unit and stable block seen on the right.

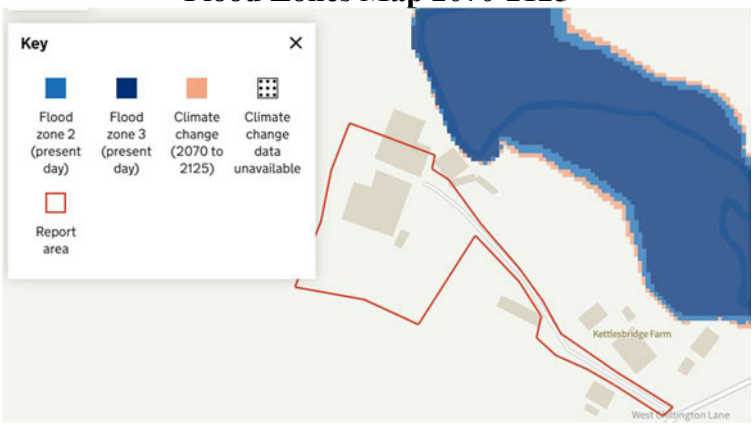
River Adur under Kettle Bridge to the east of the site.

APPENDIX B

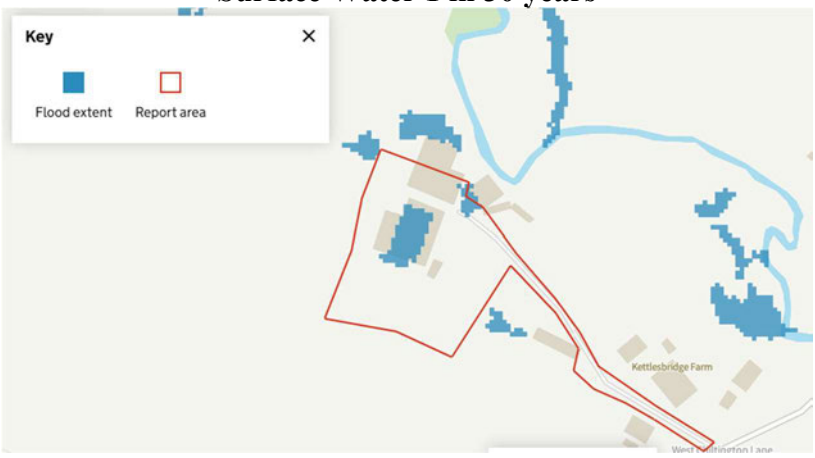
Environment Agency Flood Mapping

Flood Zones Map

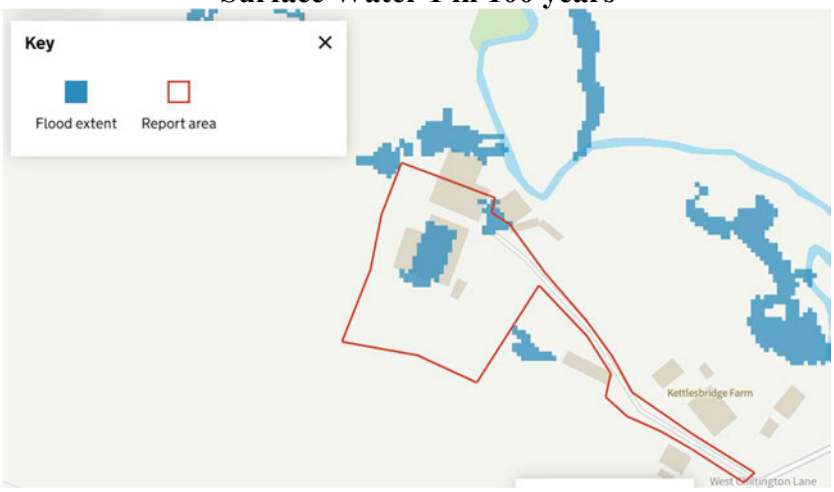
Flood Zones Map 2070-2125



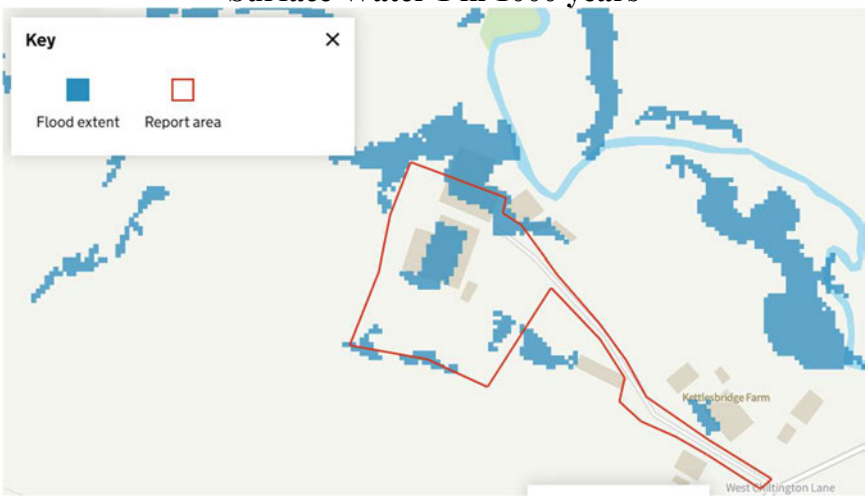
Surface Water 1 in 30 years



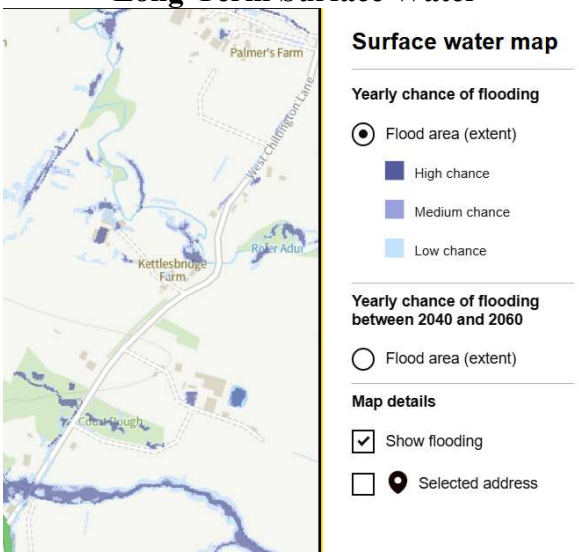
Surface Water 1 in 100 years



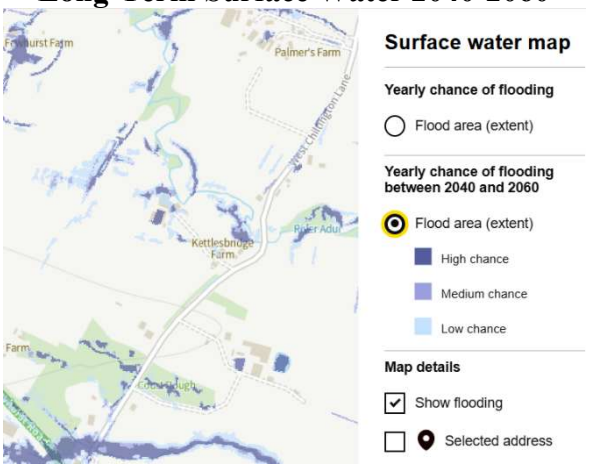
Surface Water 1 in 1000 years



Long-Term Surface Water

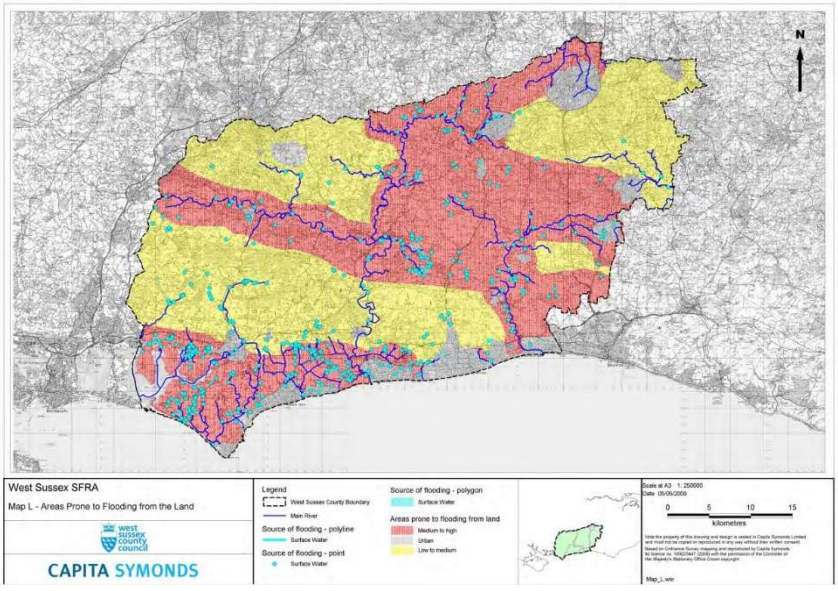


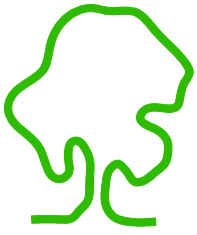
Long-Term Surface Water 2040-2060



Long-Term Rivers and the Sea 2030-2069

SFRA Map of Areas Prone to Land Flooding





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