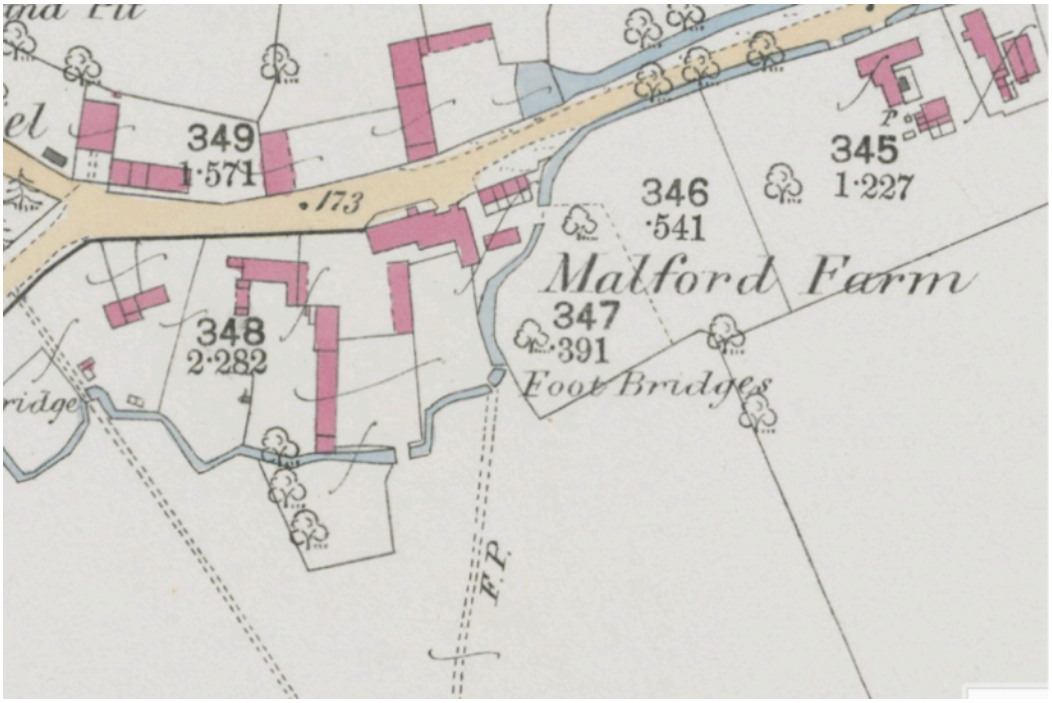
FLOOD RISK ASSESSMENT
MALFORD FARMHOUSE

Site

The farmhouse and an array of farm buildings has been on the site in almost its present form for over a hundred years as can be seen in the map from 1885. Part of the farmhouse dates back to 1667.
The site slopes down towards the south and a water course runs through the site from the eastern to southern boundary.
The river is approximately 175m from the property. There is no documented case of flooding within the property caused by either the river or surface water.
The applicants have resided at the property for the last 31 years and during this time no building has flooded.

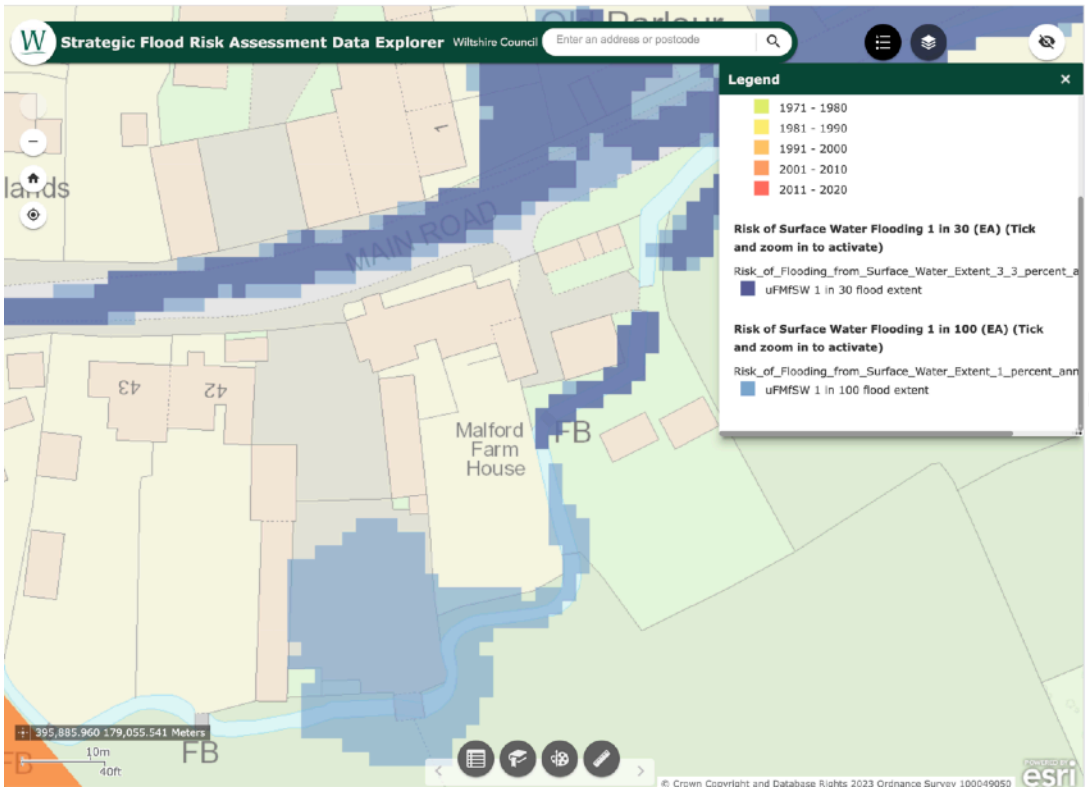
Only land within the blue ownership boundary lies within flood zone 2, all the buildings lie with the flood zone 1 low risk area. (Appendix A)

The Wiltshire Strategic Flood Risk Assessment Data Explorer suggests the farmhouse and out buildings are clear of an anticipated potential 1:100 surface water flood risk.

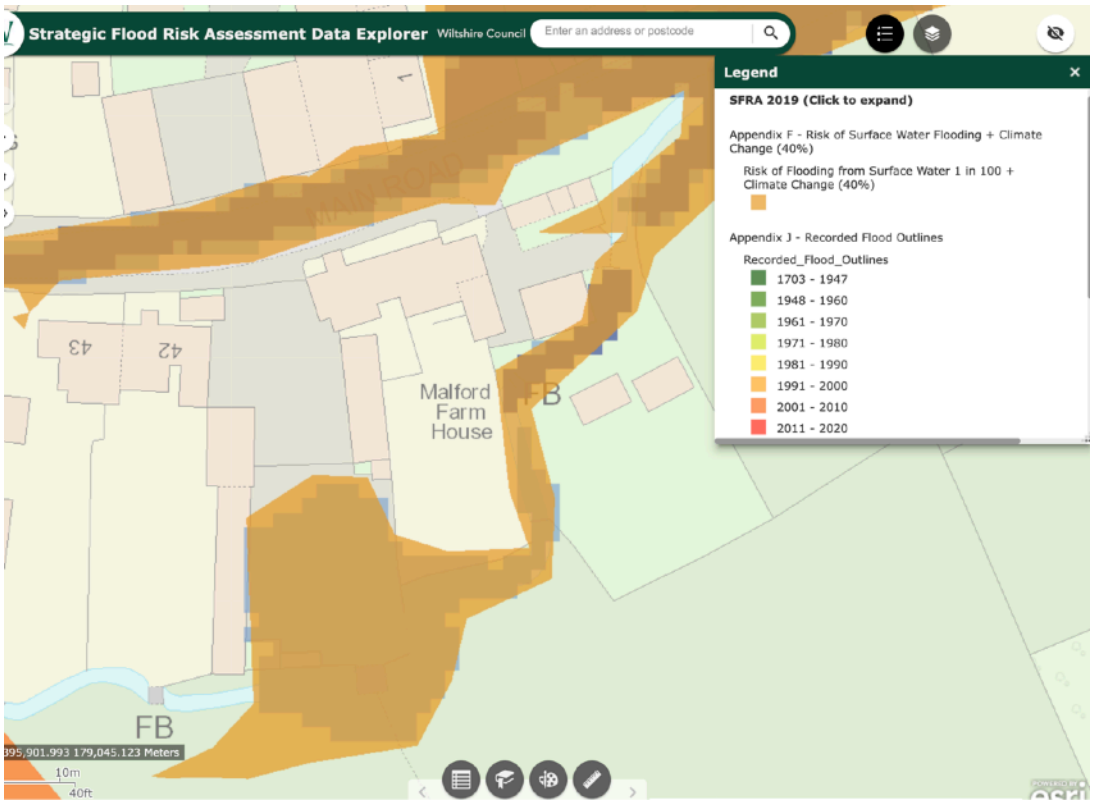


Map 1885

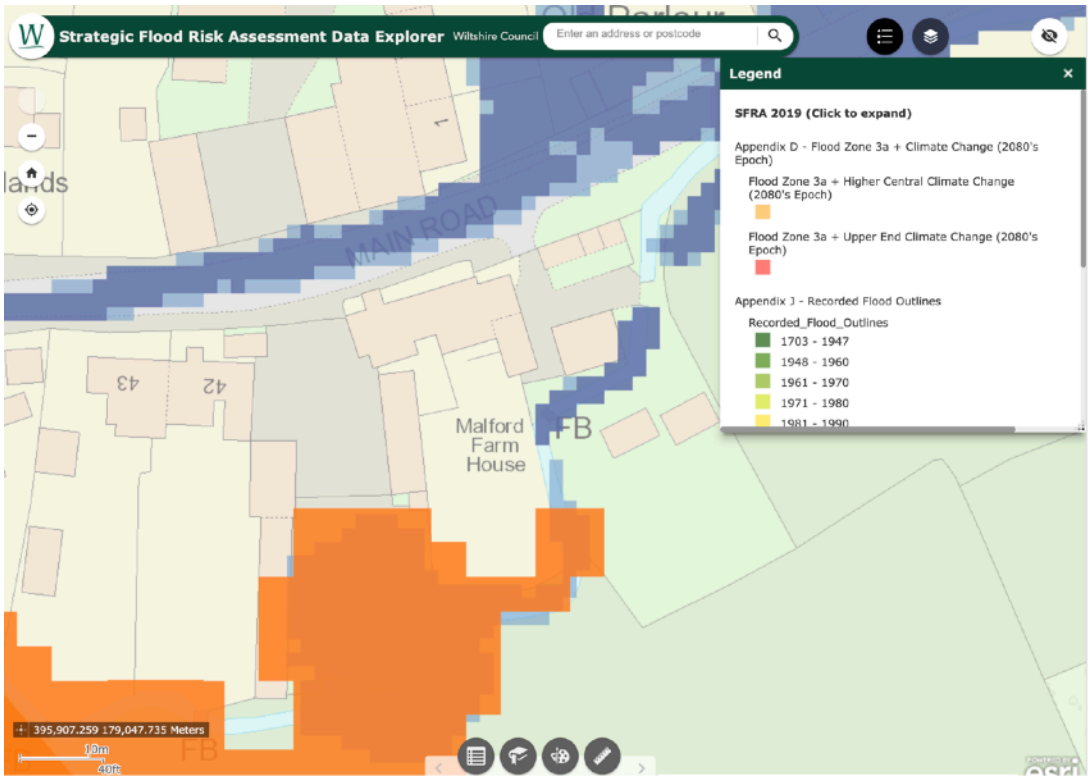
Risk of surface water flooding 1:100



Risk of surface water flooding 1:100+40% Climate Change



Risk of river water flooding - Upper End of Climate change



Geotechnical

- Ground Conditions
  Geological map data published on the BGS website indicates the geology of the site to comprise of Oxford Clay Formation Mudstone sedimentary bedrock with River Terrace, sand and gravel superficial deposits.

- Soilscape (England) have identified the geology as lime rich loamy and clayey soils with impeded drainage characteristics.

- Hydrology
  The nearest water feature is an existing watercourse which traverses the eastern and southern boundary of the site. The nearest EA designated main river is the River Avon located 175m west of the site (as illustrated in Extract Figure 2 below).

- Hydrogeology
  Groundwater mapping published by the EA indicates the bedrock aquifer designation as unproductive. The site does not lie within any EA designated source protection zones and is located within a flood risk zone 1.

Surface water drainage from current buildings

The surface water from the current buildings are drained into soakaway and can be assumed to then drain into the brook.

The proposals within the application see a reduction in the overall built up area. See the breakdown below.

- Road side outbuilding

Current area built up over = 52m^2

Proposed area built over = 13m^2

Net loss = 39m^2

- Potting Shed

Current area built up over = 69m^2

Proposed area built over = 36m^2

Net loss = 33m^2

- Proposed additional area built over to the Farmhouse

Proposed area built over = 48m^2

- Overall area no longer built upon is 24m^2

It is proposed that the area of land previously built over is returned to a permeable surface.

Conclusion

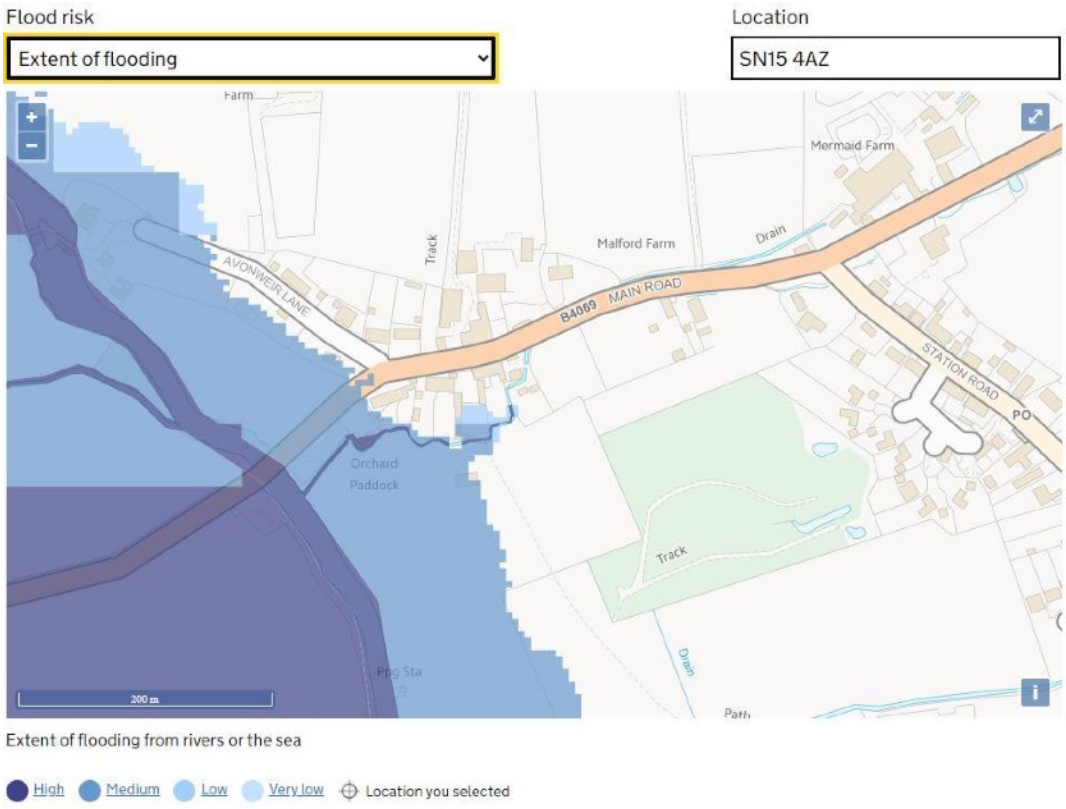
Following an inspection of the Environment Agency's website, the site is confirmed as being located wholly within a Flood Risk Zone 1 (area considered as having a low probability of flooding from rivers and seas).

In regard to providing an acceptable standard of protection against flooding for new development, no flooding of properties should occur as a result of the 'design flood' corresponding to a 1 in 100 year fluvial flood event, taking climate change into account.

It is proposed that the area of land previously built over is returned to a permeable surface thus meeting best practice.

The overall conclusions are:-

- The Development is situated wholly within the Flood Risk Zone 1 area
- The Development and its occupants are not at an increased risk of flooding
- The Development does not increase the risk of flooding elsewhere
- The Development will be appropriately safe for its lifetime



Extract Rivers or the Sea Flood Map from Gov.uk website

- SITE LOCATION PLAN - APPENDIX A

