

OBR-SMART-00-XX-DOC-A-1600_Flood_Risk_Assessment

119 Old Bath Road,
Charvil
Reading,
RG10 9QN

Job Reference: SMART_D_0001

This document forms a Flood Risk Assessment for the property as noted above in relation to the planning application for a proposed single storey outbuilding.

1. Flood Zone

The proposed development sits within Flood Zone 2, on the highest part of the site, but lower parts of the overall site are within Flood Zone 3. The Environment Agencies current flood zone map considers the overall site to have a high probability of flooding from rivers and the sea (more than 3.3% chance of a flood each year). The property is also identified as being at Very Low risk of surface water flooding (less than 0.1% chance of a flood each year). Flooding from groundwater is also unlikely in this area. Below are extracts taken from '[Your long term flood risk assessment - Check your long term flood risk - GOV.UK](#)' identifying the risks as stated above.

Rivers and the sea

[More about your rivers and sea flood risk](#)

Yearly chance of flooding

Very low Low Medium **High**

Yearly chance of flooding between 2036 and 2069

Very low Low Medium **High**

What makes rivers and sea flooding more likely

Low-lying areas that are close to rivers or the sea are more likely to flood when water levels rise.

This information takes into account any flood defences.

Surface water

[More about your surface water flood risk](#)

Yearly chance of flooding

Very low Low Medium High

Yearly chance of flooding between 2040 and 2060

Very low Low Medium High

What surface water is

Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.

► [Why surface water flooding is a problem](#)

Other flood risks

[More about groundwater and reservoirs](#)

Groundwater

Flooding from groundwater is unlikely in this area.

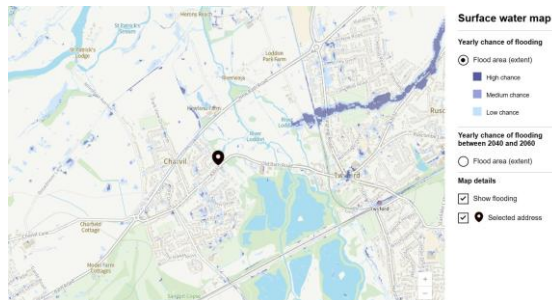
Reservoirs

There is a risk of flooding from reservoirs in this area.

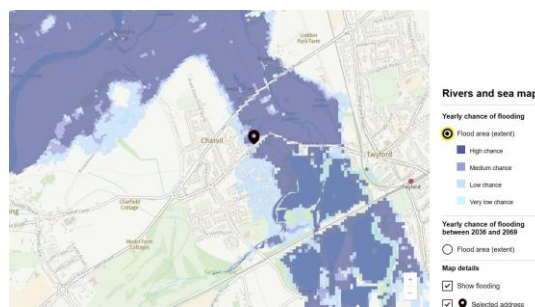
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Surface Water Map

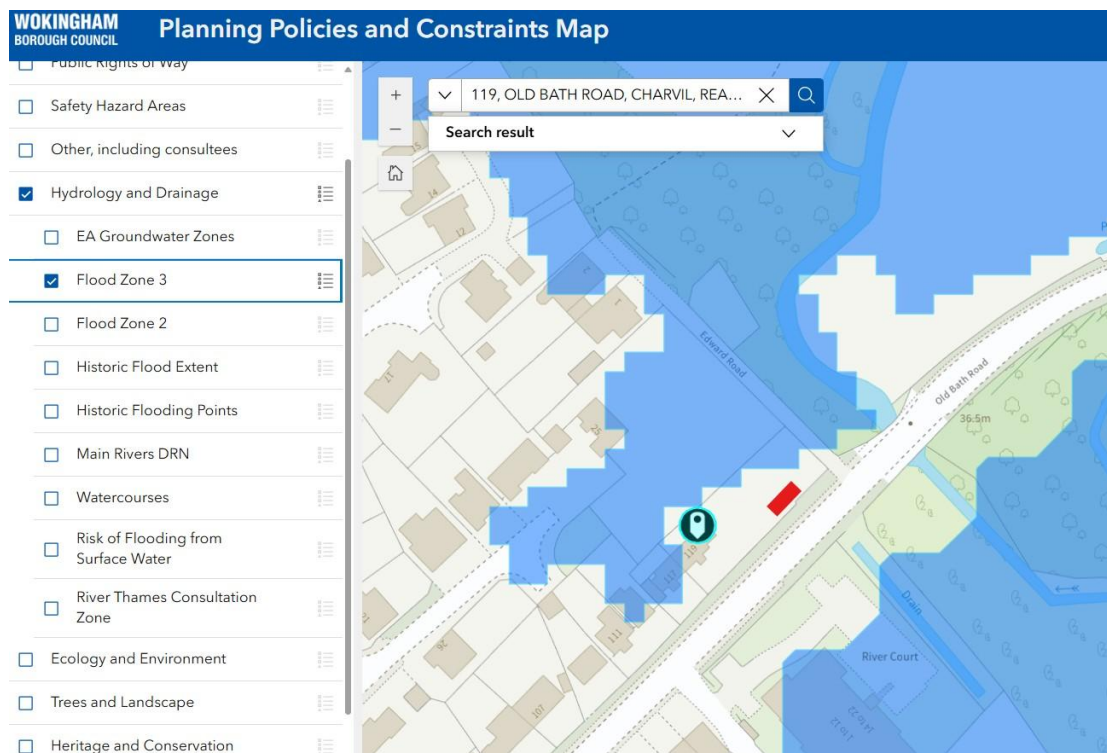


Rivers & Sea Map



The extents of Flood Zone 3, and its proximity to the proposed outbuilding (red) can be seen in the below Planning Policies and Constraints Map:

<https://experience.arcgis.com/experience/d76c713282874f3da74b3e46bc473d3f>



2. Flood Level:

The external level outside the property on Old Bath Road is 36.5m above Ordnance Datum (AOD) as noted on Ordnance Survey Plan obtained for the property. A tributary of the River Loddon is 35m above Ordnance Datum (AOD) and runs behind Edwards road, approximately 40m away from the proposed outbuilding. The proposed outbuilding sits on the highest part of the site and has a raised internal FFL of 36.2m above Ordnance Datum (AOD).

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3. Flood Defences:

There are no flood defences identified on the Environmental Agencies current on line plan for this area.

4. Existing GF Level:

The existing garage adjacent to the proposed outbuilding has a finished ground floor level of 36.2m above Ordnance Datum (AOD), whilst the existing main house has a finished ground floor level of 36.0m above Ordnance Datum (AOD) as surveyed on site.

5. Proposed Development Levels:

The proposed outbuildings ground floor level will match the garage at 36.2m above Ordnance Datum (AOD) sitting at a height of 300mm above finished external ground level and approximately 1.2m above the current water level below bank.

The proposed ground floor will consist of a suspended floor construction with a void below down to ground. A Damp Proof Course will be installed a minimum of 150mm above external Finished Ground Level.

Whilst the proposed property will be constructed from concrete foundations, the proposed surface materials around the property and also below it will be permeable materials to improve water dispersion across the site.

The outbuilding is on the highest part of the site and has been raised off the ground in order to prevent damage to the property in the event water levels were to rise to 36.2m above Ordnance Datum (AOD), but records identify that flood levels from either surface water or rivers have never exceeded this.

6. Surface Water Drainage:

The proposal will be to drain all surface water into suitably designed soakaway's 5m away from the building facade, and appropriate permeable drainage will be installed around and below the building to drain water away.

7. Personal Flood Plan:

The current occupiers have signed up to the Environment Agencies early warning scheme in order to make them aware of any floods which are imminent to their site. In order to ensure the house remains safe the occupants would switch off all main services including, electricity, gas and water supplies which will be designed for easy accessibility and in known locations within the property. Any moveable furnishings would be located within the property at a higher level to the floodable areas to avoid damage. A flood kit would be kept in the outbuilding.

8. Flood Mitigation:

The following flood mitigation steps are also proposed in the design of the outbuilding:

- Damp proof course 150mm above ground
- SUDS including permeable paving and soakaway
- Air brick covers to prevent water from entering through air vents.
- Removable flood barriers to doors.
- Non-return valves to prevent backflow of sewage.
- Use of water-resistant sealants around windows, pipes, and joints.
- Waterproof membranes at ground floors to reduce ingress.
- Raised electrical sockets / wiring.
- Waterproof materials where possible
- Fit tiled floors with waterproof grout
- Appliances on raised plinths or wall-mounted.

Yours Sincerely,

Smart Developments Ltd