

FLOOD RISK ASSESSMENT

Proposed Single-Storey Rear Extension

Property	1 Meadow Sweet, Watermans Way, Wargrave, Wokingham, RG10 8HR
Client	Mrs N Bridges
Date	21 September 2026

1. Introduction

This Flood Risk Assessment (FRA) has been prepared in support of a proposal for a single-storey rear extension to the existing dwelling at 1 Meadow Sweet, Watermans Way, Wargrave, Wokingham, RG10 8HR.

The assessment has been prepared using the site-specific flood information contained within the Flood Risk Assessment prepared by Hydro-Logic Services for the Meadowsweet site, dated January 2017, together with the supplied proposed plans and elevations. The earlier assessment relates to the same Meadowsweet site in Wargrave and provides the principal flood-risk evidence used in this assessment.

The existing dwelling has now been constructed. The raised rear patio/decking, which was previously approved, is also existing. This raised platform has been constructed in a manner similar to the house foundations, with beams and a beam-and-block floor, rather than being formed by raising or infilling the surrounding ground.

The current proposal is to construct a single-storey rear extension over part of this existing raised platform. The extension therefore does not involve the creation of a new conventional ground-supported floor or the raising of ground levels within the floodplain.

2. Site and Development Description

The supplied Architects drawings show the existing dwelling and the raised rear patio/decking, together with the proposed single-storey rear extension. The rear elevation and sectional rear elevation show the extension positioned over the raised platform.

For the purposes of this FRA, the existing raised decking/platform is treated as an existing feature of the site. The proposal does not include new earth filling beneath the extension and does not propose to alter the surrounding ground levels.

The development is residential in nature and comprises a minor extension to an existing dwelling. The extension will be used as additional domestic accommodation.

3. Flood Zone and Sources of Flood Risk

The January 2017 Hydro-Logic Services FRA states that the Meadowsweet site lies wholly within Environment Agency Flood Zone 3. It identifies the River Thames to the north and River Loddon to the west as the predominant sources of flood risk.

The earlier FRA also identifies groundwater flooding as potentially associated with high river levels, while the risk of surface-water flooding was described as generally very low across most of the site, with some higher-risk areas associated with the eastern patio/driveway area. No tidal or infrastructure-failure source was identified for the site.

The earlier assessment recorded historic flooding at the site and noted that the site had flooded during the February 2014 event. It also recorded historic flooding in 1947, 1974, 2000 and 2003. These records demonstrate that fluvial flooding is a material consideration and that the proposed extension should not be considered on the assumption that flooding cannot occur.

4. Flood Levels and Climate Change

The previous site-specific FRA recorded an Environment Agency Product 4 modelled 1 in 100 year flood level of 34.487m AOD at model node 100 and a corresponding 1 in 100 year plus 35% climate-change level of 35.019m AOD. The report used the latter as the key design flood level for the development then under consideration.

The previous FRA also recorded an average site ground level of approximately 33.50mAOD. The information is retained here as historical site-specific evidence. It should be noted that the data originates from the 2017 assessment and has not been independently updated as part of this simple FRA.

5. Effect of the Existing Raised Patio/Decking

The raised rear patio/decking is an existing feature and, as understood for this assessment, was constructed as a structural platform with beams and a beam-and-block floor. It is therefore materially different from a solid earth-filled platform or a conventional ground-supported extension slab.

The proposed extension is to be constructed over this existing platform. Consequently, the proposal does not require additional filling of the floodplain beneath the extension and does not involve raising the surrounding land. The existing voids beneath the beam-and-block floor should remain open and unobstructed so far as practicable.

The extension should not introduce storage, solid fencing, materials or other obstructions beneath the raised floor which could materially impede floodwater movement. Any new foundations or supports should be limited to those necessary for the structure and should be designed by the project structural engineer.

6. Flood Risk to the Proposed Extension

The principal residual risk to the development is fluvial flooding from the River Thames and River Loddon. The proposal is not intended to make the site flood-free; rather, the objective is to ensure that the small extension does not materially worsen flood risk to the property or neighbouring land.

Because the extension is positioned over the existing raised platform, there is no proposal to create a new ground-level habitable floor or to import fill to raise the site. This limits the potential effect of the extension on floodplain storage compared with a conventional ground-supported extension.

The extension should be designed so that flood-sensitive electrical equipment, controls and other vulnerable services are kept at appropriate levels wherever practicable. Materials and construction should be capable of tolerating occasional exposure to a flood environment where relevant.

7. Surface Water and Drainage

The earlier FRA recorded an infiltration rate of 8.27×10^{-6} m/s from testing undertaken in accordance with BRE Digest 365. That assessment concluded that infiltration was a viable means of managing surface-water runoff at the site.

The earlier report recommended routing runoff from impermeable areas to on-site infiltration/soakaway systems, rather than increasing discharge to the local surface-water drainage network. It also recommended that soakaways be located away from building support structures and be capable of inspection and maintenance.

For the current extension, roof runoff should, where practicable, be connected to the existing approved surface-water drainage arrangement or an appropriately designed infiltration system. The extension should not discharge uncontrolled onto neighbouring land, the public highway or the raised deck structure.

8. Mitigation and Management Measures

The following measures are considered appropriate to the current minor extension proposal:

- No new land raising or earth filling beneath or around the extension.
- Retain the existing raised beam-and-block platform and keep voids beneath it substantially open and unobstructed.
- Do not use the void beneath the raised floor for storage of materials, plant or other items that could obstruct floodwater.
- Keep electrical and other flood-sensitive services at suitable levels where practicable.
- Manage roof water through an appropriate existing or designed infiltration/drainage system, subject to confirmation at construction stage.

- Maintain access and egress arrangements and make use of available flood warnings.
- Any new structural supports or foundations to be designed so that they do not unnecessarily obstruct flood flows.

9. Impact on Flood Risk Elsewhere

The proposal is small in scale and is located above an existing raised patio/decking structure. It does not involve significant land raising, infilling or alteration of the surrounding ground profile. On that basis, the extension is not expected to result in a material loss of floodplain storage or a material increase in flood levels on neighbouring land.

The proposal also does not require a new surface-water discharge to neighbouring property. Subject to the drainage arrangements described above, the development is therefore considered unlikely to materially increase flood risk elsewhere.

11. Residual Risk and Conclusions

The site is known to be within a high-risk fluvial flood area and flood risk remains a material consideration. The historical site-specific assessment provides evidence that the wider Meadowsweet site has previously flooded and that flood warning and evacuation are important components of risk management.

The proposed single-storey rear extension is, however, materially different from a new ground-supported building. It is to be constructed over an existing raised structural patio/decking platform, with the existing beam-and-block floor retained. No new earth filling or raising of surrounding ground levels is proposed.

Provided the existing raised platform and its voids are retained as described, no storage or significant obstruction is introduced beneath the platform, and surface water is appropriately managed, the proposal is considered unlikely to materially increase flood risk to the site or elsewhere.

This simple FRA should be read alongside the submitted architectural drawings and the original site-specific Hydro-Logic Services FRA. It is based on the historical flood information contained in that report and has not included new hydraulic modelling, a new topographical survey, or a fresh Environment Agency Product 4 data request.

12. Source Documents

1. Hydro-Logic Services, Flood Risk Assessment for the proposed development at Meadowsweet, Loddon Drive, Wargrave RG10 8HD, Report K0505/2 (Rev 0), January 2017.
2. Bonney Architecture drawings BA0301-50a, 51a, 55a and 57a