

FLOOD RISK ASSESSMENT

Location: 10 Rhodes Close, Winnersh, RG41 5SL

Proposal: Single Storey Part Rear Extension & Loft Conversion

Prepared for: Planning Application Submission

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1. Introduction

This Flood Risk Assessment (FRA) has been prepared by Arcadia Design Consultants in support of a planning application for a single storey rear extension and loft conversion at 10 Rhodes Close, Winnersh. It has been produced because the Environment Agency's Flood Map for Planning confirms the site lies within Flood Zone 2.

The report follows the Environment Agency's national flood risk standing advice, specifically the advice for minor extensions, which applies to householder extensions of no more than 250 square metres in Flood Zone 2 or 3. It also has regard to the National Planning Policy Framework (NPPF), national Planning Practice Guidance (PPG) on flood risk, and Wokingham Borough Council's Strategic Flood Risk Assessment (SFRA) and Local Flood Risk Management Strategy as the Local Planning Authority and Lead Local Flood Authority (LLFA).

2. Site Description and Proposed Development

2.1 Site description

10 Rhodes Close is an existing two storey detached dwelling within a residential cul-de-sac in Winnersh. The site is set back from Rhodes Close itself, which runs along the edge of an area of Flood Zone 3 associated with a watercourse to the west and north-west of the close. The dwelling has a private rear garden and an attached garage to the side.

2.2 Proposed development

The proposal comprises:

- A single storey rear extension measuring 2.5 m deep by 4.375 m wide (approximately 10.9 m² of additional footprint), with a flat roof, enlarging the existing kitchen. Part of this footprint sits over the existing rear patio, which is already paved.
- A loft conversion within the existing roof space, providing two bedrooms, an en-suite, a study and associated hall space, formed using rear and side dormers with GRP flat roofs and, to the front roof slope, conservation-style rooflights.

The rear extension adds approximately 10.9 m² of new ground floor footprint; the loft conversion adds no additional footprint at ground level at all. The combined additional floor space is well below the 250 m² threshold that defines a minor extension under the Environment Agency's standing advice.

3. Flood Risk Context and Applicable Guidance

The NPPF and PPG direct that development should be steered to areas of lowest flood risk, and that where development in Flood Zone 2 or 3 is necessary, it should be safe, should not increase flood risk elsewhere, and should reduce flood risk where possible. For minor householder extensions, the Environment Agency's standing advice recognises that a full site-specific FRA is disproportionate and instead sets out a simplified route: the advice for minor extensions.

This route applies here because:

- The site is in Flood Zone 2, as confirmed by the Flood Map for Planning.
- The development is a householder extension (including the associated loft conversion) with additional floor space of under 250 m².
- No additional dwelling is being created; this remains a single dwellinghouse.

On this basis, a full site-specific FRA with detailed hydraulic modelling is not required. This report instead demonstrates that the standing advice requirements are met.

4. Flood Risk Identification

4.1 Fluvial and tidal flood risk

The Environment Agency's Flood Map for Planning (checked 3 September 2026, location reference 477182/170843) confirms the site falls within Flood Zone 2, defined as land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding, or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding, in any given year. The accompanying map shows an area of Flood Zone 3 (high probability) to the west and north-west, associated with a watercourse and a mapped water storage area, with the application property sitting within the Flood Zone 2 buffer beyond that higher risk area.

The property sits toward the eastern edge of the mapped Zone 2 extent, adjoining the unshaded Zone 1 (low probability) area that covers most of the surrounding Rhodes Close and Miller Drive development. The site is therefore at the lower-risk end of Zone 2, with Zone 3 itself well clear of the property to the west.

No part of the site lies within Flood Zone 3, and the proposal does not fall within Flood Zone 3b (functional floodplain).

4.2 Other sources of flooding

The Flood Map for Planning covers river and sea flooding only. It does not show surface water, groundwater or sewer flooding risk. Wokingham Borough Council's Strategic Flood Risk Assessment and surface water mapping should be checked by the Council as part of its determination of the application; nothing in the information reviewed for this report indicates the site is in an area of known surface water flood risk, but this has not been independently verified against the Long Term Flood Risk Information service and should be confirmed with the Council if required.

4.3 Vulnerability classification

A residential extension falls within the 'more vulnerable' classification under Annex 3 of the NPPF. However, because the development qualifies as a minor extension under the Environment Agency's standing advice, it is assessed against the advice for minor extensions rather than the standing advice for vulnerable developments, which applies to new-build vulnerable development rather than modest extensions to an existing dwelling.

5. Flood Risk Mitigation Measures

5.1 Finished floor levels

The finished floor level of the rear extension will be set to match the existing ground floor level of the dwelling, and will not be lowered below it. This is consistent with the Environment Agency's standing advice, which permits floor levels to be set no lower than existing levels as an alternative to setting them against a modelled flood level; on that basis, no separate estimated flood level calculation is required for this minor extension.

5.2 Flood resilient and resistant construction

The following measures are recommended and will be incorporated into the technical design and Building Regulations package for the extension:

- Flood-resistant construction (engineering brick or blockwork below damp-proof course, and water-resistant renders/finishes) to at least 300 mm above external ground level.
- Electrical sockets, consumer unit and switches in the new extension set at a minimum of 450 mm above finished floor level, with services designed to allow isolation and cleaning after any flood event.
- Solid, easily cleaned floor finishes in the new kitchen area rather than sensitive floor coverings.
- Any external doors set at or above existing threshold levels, with no reduction in threshold upstand.

5.3 Surface water management

The rear extension footprint of approximately 10.9 m² sits partly over the existing rear patio, which is already paved and impermeable. The true net increase in impermeable area across the site is therefore less than the full extension footprint, as part of the ground beneath the extension is already hardstanding rather than lawn or other permeable ground. Rainwater from the new roof will be collected by gutters and downpipes and directed to the existing site drainage or a soakaway, in line with the drainage hierarchy in Building Regulations Part H. No new impermeable hardstanding is proposed beyond the extension itself. On this scale of development, with part of the footprint already impermeable, the increase in surface water run-off is not considered material, and no formal SuDS scheme beyond standard roof drainage is required.

5.4 Safe access, egress and residual risk

The rear extension is single storey and sits at existing ground floor level; the loft conversion is above first floor level and introduces no new ground floor access. Normal access and egress to the dwelling is via

the existing front door from Rhodes Close, which is unaffected by the proposal. In a flood event, occupants would use the existing egress routes; no new basement, sunken area or below-ground habitable space is proposed.

As the site is within a mapped flood zone, it is recommended that the occupiers register for Environment Agency flood warnings for the local watercourse (via Floodline, 0345 988 1188, or gov.uk/sign-up-for-flood-warnings) and keep a simple personal flood plan, covering what to do, who to contact and what to move in the event of a warning.

6. Conclusion

The proposed rear extension and loft conversion at 10 Rhodes Close, Winnersh, fall within the scope of the Environment Agency's standing advice for minor extensions in Flood Zone 2. The additional floor space is well below the 250 m² threshold, no additional dwelling is created, and no part of the site lies within the higher-risk Flood Zone 3.

With finished floor levels set no lower than the existing dwelling, flood-resistant construction to the lower part of the new walls, raised electrical fittings, and standard roof drainage to the existing system, the development is considered safe for its lifetime, will not increase flood risk to the site or elsewhere, and is in accordance with the NPPF, PPG and the Environment Agency's standing advice. No objection to the proposal is anticipated from the Environment Agency on flood risk grounds, and a full site-specific FRA is not required.

7. Limitations

This assessment has been prepared using the Environment Agency's Flood Map for Planning, published flood risk guidance, and information provided by the client and shown on drawings PL/A735/03 and PL/A735/05. It is proportionate to the scale of the development, consistent with the Environment Agency's standing advice for minor extensions, which does not require a topographical survey or site-specific hydraulic modelling for development of this size.