

FLOOD RISK ASSESSMENT

Proposed Single Storey Rear Extension

19 Champion Road, Caversham, Reading, RG4 8EL

Prepared in support of a Householder Planning Application

Prepared by:

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Date:

July 2026

1. Introduction

This Flood Risk Assessment (FRA) has been prepared in support of a Householder Planning Application for the following proposal:

Single storey rear extension with flat roof light and new flat roof over existing rear and new rear extension. Associated internal structural alterations.

The application site is located at 19 Champion Road, Caversham, Reading, RG4 8EL.

Reading Borough Council requested the submission of a Flood Risk Assessment as part of the validation process due to the site being located within Flood Zone 3.

The purpose of this assessment is to demonstrate that the proposed development:

- is appropriate in relation to flood risk;
- will remain safe for its lifetime;
- will not increase flood risk elsewhere; and
- incorporates suitable flood resilience measures.

2. Site Description

The application site comprises an existing Victorian mid-terraced dwelling currently in residential use as a single dwellinghouse (Use Class C3).

The existing dwelling includes an original suspended timber ground floor together with a later rear kitchen extension constructed with a solid concrete floor.

The proposal comprises a modest single-storey rear extension measuring approximately:

- Projection: 1.60m

- Width: 3.90m
- Maximum height: 2.85m

The works also include the replacement of the existing rear kitchen floor with a new insulated solid concrete floor together with associated internal structural alterations.

There will be:

- no change of use;
- no increase in the number of dwellings;
- no increase in sleeping accommodation; and
- no increase in occupancy.

The proposal therefore represents a small-scale extension to an existing residential property.

3. Flood Risk

Flood Zone

The application site lies within Flood Zone 3, as shown on the Environment Agency Flood Map for Planning.

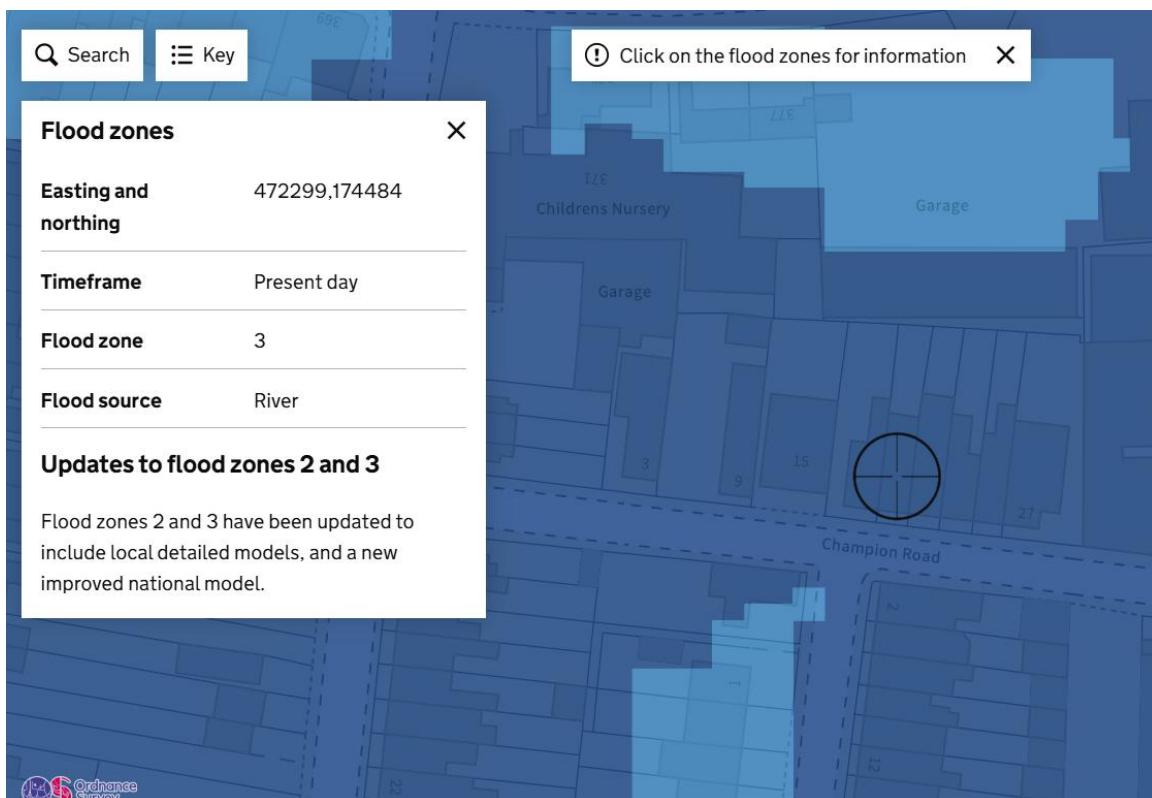


Figure 1 – Environment Agency Flood Map for Planning

Existing Flood Risk

A Groundsure Avista environmental search undertaken during the purchase of the property identifies the following flood characteristics:

- High risk from river flooding;
- Moderate to High groundwater flood risk;
- Negligible surface water flood risk; and
- No identified flood storage areas affecting the site.

The report also records historic fluvial flooding within the area during 1947 associated with the River Thames catchment.

The principal source of flood risk affecting the property is therefore considered to be fluvial flooding associated with the nearby River Thames rather than surface water flooding.

4. Existing and Proposed Development

The proposal comprises a modest extension to the existing kitchen.

The existing solid concrete kitchen floor is approximately 220mm below the finished floor level of the original dwelling.

As part of the proposal, the existing kitchen floor will be removed and replaced with a new insulated solid concrete floor.

The finished floor level of the new kitchen and extension will be approximately 170mm below the original house floor level, representing an improvement of approximately 50mm compared with the existing arrangement.

External ground levels surrounding the property will remain unchanged.

Existing surface water drainage arrangements will be retained.

The proposal does not introduce any additional habitable accommodation or increase the flood vulnerability classification of the development.

5. Planning Policy Considerations

The proposal consists solely of a modest extension to an existing dwellinghouse.

The proposal:

- does not create a new dwelling;

- does not intensify the residential use;
- does not introduce a more vulnerable land use; and
- does not alter the existing flood vulnerability classification.

The proposal therefore represents proportionate householder development within an existing residential curtilage.

6. Impact on Flood Risk

The proposed extension is modest in scale, increasing the building footprint by approximately 6.2m².

The development will not:

- significantly reduce floodplain storage;
- divert flood flows;
- increase flood depths elsewhere;
- alter existing ground levels;
- increase surface water runoff; or
- adversely affect neighbouring land.

Existing drainage arrangements are retained and no significant alterations are proposed to the surrounding site levels.

Owing to the limited scale of the extension and the retention of existing external ground levels, the proposal will not materially affect flood storage capacity or the conveyance of flood water across the site.

Accordingly, the proposal is not expected to increase flood risk either on-site or elsewhere.

7. Flood Resilience Measures

Although the proposal is relatively small, a number of flood resilience measures have been incorporated into the design or are recommended for implementation as part of the detailed Building Regulations design.

Construction

- New reinforced insulated solid concrete floor construction.
- PIR insulation within the floor construction.

- Warm deck flat roof construction.
- Masonry cavity wall construction.

Floor Levels

- New finished kitchen floor raised approximately 50mm above the existing kitchen floor level.

Existing Building Ventilation

The existing suspended timber floor to the original dwelling currently relies upon underfloor ventilation.

To maintain this ventilation following construction of the extension, telescopic air brick extensions will be provided beneath the new solid floor, discharging through ventilated air bricks within the new rear elevation.

This arrangement will maintain airflow beneath the existing suspended timber floor and reduce the risk of moisture accumulation.

Internal Finishes (Building Regulations Stage)

Where practicable, the following flood resilience measures are recommended:

- cement-based plaster to lower wall areas;
- moisture-resistant insulation materials;
- ceramic or porcelain tiled floor finishes;
- moisture-resistant skirting boards;
- removable kitchen plinths;
- raised electrical sockets where practicable;
- electrical services routed above anticipated flood levels where reasonably achievable; and
- non-return valves to drainage systems where future drainage alterations require them.

These measures would improve the resilience of the building following any future flood event.

8. Safe Access and Occupation

The proposal does not introduce any additional dwelling or sleeping accommodation.

Occupants will continue to occupy the existing dwelling in the same manner as at present.

As no increase in occupancy or change of use is proposed, the development does not alter existing emergency access or evacuation arrangements.

Occupants may continue to register for Environment Agency Flood Warning services where appropriate.

9. Conclusion

This Flood Risk Assessment has been prepared in support of a Householder Planning Application for a modest single-storey rear extension at 19 Champion Road, Caversham, Reading.

The proposal:

- retains the existing residential use;
- does not increase the number of dwellings;
- does not increase flood vulnerability;
- does not significantly affect floodplain storage;
- does not increase flood risk elsewhere;
- retains existing drainage arrangements;
- maintains underfloor ventilation to the existing suspended timber floor via telescopic air brick extensions; and
- incorporates improved floor construction together with appropriate flood resilience measures.

The proposal is proportionate to the scale of development and demonstrates that the works can proceed without resulting in an unacceptable increase in flood risk.

It is therefore concluded that the proposed development is appropriate in flood risk terms, will remain safe for its lifetime without increasing flood risk elsewhere, and is considered suitable for planning permission.