

FLOOD RISK ASSESSMENT

LOFT CONVERSION & SINGLE STOREY SIDE EXTENSION**1 MEADOW CROFT, CHILTON FOLIAT, RG17 0UA**

1. Introduction

This Flood Risk Assessment (FRA) has been prepared in support of a householder planning application for a proposed 25m² single-storey rear extension to an existing bungalow at RG17 0UA, within the administrative area of Wiltshire Council.

The site lies within Flood Zone 2 (medium probability of fluvial flooding) according to the Environment Agency Flood Map for Planning.

This report demonstrates that:

- The development is classified as minor development.
 - The Sequential Test is not required.
 - The proposal will not increase flood risk elsewhere.
 - Appropriate and proportionate flood resilience measures will be incorporated.
 - The proposal complies with the National Planning Policy Framework (NPPF) and Policy 67 of Wiltshire council's Core Strategy.
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2. Site Location and Description

The application site comprises an existing single-storey bungalow and associated residential curtilage with a total site area of approximately 252m².

The site is located in Chilton Foliat, near Hungerford near the border of Wiltshire and West Berkshire and lies within the catchment of the River Kennet.

The property is currently in established residential use and benefits from existing access, drainage, and utility connections.

3. Proposed Development

The proposed development consists of:

- A 25m² single-storey side extension and dormer loft conversion
- No increase in the number of residential units
- No basement development
- No raising of ground levels
- No change in site access

The extension represents approximately 10% of the total site area and remains within the existing residential curtilage.

4. Planning Policy Context

4.1 National Policy

This assessment has been prepared in accordance with:

- The National Planning Policy Framework (NPPF)
- Planning Practice Guidance: Flood Risk and Coastal Change

Flood Zone 2 is defined as land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding.

Householder extensions are considered minor development. In accordance with national guidance, the Sequential Test is not required for minor development proposals.

4.2 Local Planning Policy

The application site lies within Flood Zone 2 as defined by the Environment Agency Flood Map for Planning and is located within the catchment of the River Kennet.

This Flood Risk Assessment has been prepared having regard to:

- The National Planning Policy Framework (NPPF)
- Planning Practice Guidance – Flood Risk and Coastal Change
- Core Policy 67 (Flood Risk) of the Wiltshire Core Strategy
- Wiltshire Council Sustainable Drainage guidance

Core Policy 67 requires that development:

- Is directed away from areas at highest risk of flooding
- Is supported by a site-specific Flood Risk Assessment where required
- Does not increase flood risk elsewhere
- Incorporates appropriate mitigation and resilience measures
- Incorporates Sustainable Drainage Systems where appropriate

The proposed development constitutes minor development (25m² extension) to an existing dwelling. In accordance with national guidance, the Sequential Test is not required for minor development proposals.

This FRA has been prepared to satisfy those requirements.

5. Flood Risk Assessment

5.1 Flood Zone Classification

According to mapping published by the Environment Agency, the site lies within Flood Zone 2.

Flood Zone 2 indicates a medium probability of fluvial flooding.

5.2 Sources of Flooding

The following potential sources of flooding have been considered:

Source	Risk to Site	Commentary
Fluvial (River)	Medium	Associated with River Kennet floodplain
Surface Water	Low-Moderate	Typical urban runoff risk
Groundwater	Low	No known groundwater flooding incidents
Sewer	Low	Existing residential network
Reservoir	Low	No proximity to major reservoir inundation

The primary source of risk is fluvial flooding from the River Kennet.

6. Impact of the Proposed Development

The proposed extension:

- Does not extend beyond the established built footprint significantly.
- Does not materially increase impermeable area relative to the overall site.
- Does not involve raising ground levels.

- Does not displace meaningful floodplain storage.
- Does not alter overland flow routes.

Given the modest scale of the proposal, it will not increase flood risk on-site or elsewhere.

7. Flood Mitigation and Resilience Measures

Proportionate resilience measures will be incorporated as follows:

7.1 Finished Floor Levels

- The extension finished floor level will match or exceed the existing dwelling finished floor level.
- The finished floor level will be set a minimum of 150mm above adjacent external ground level.
- Green roof to extension will minimise surface water discharge.

7.2 Flood-Resilient Construction

The following measures are recommended:

- Solid concrete ground-bearing slab.
- Closed-cell insulation below slab.
- Cement-based plaster finishes.
- Moisture-resistant skirting and joinery.
- Raised electrical sockets (minimum 300mm above finished floor level).
- Boiler and services positioned above potential flood depth where feasible.

These measures will reduce damage in the event of flooding and improve recovery times.

8. Drainage Strategy

The new dormers to the existing roof will connect to the existing surface water drainage system. A new green roof is proposed for the new ground floor extension which will soak up the majority of the surface water falling on it. Water butts will be provided on the rear elevation to take up any overflow.

Given the small scale of development (25m²), the increase in impermeable area is minimal and does not warrant a formal attenuation system.

The development will:

- Maintain existing runoff characteristics.
 - Not increase discharge rates to the wider drainage network.
 - Not increase flood risk elsewhere.
-

9. Safe Access and Egress

The proposal:

- Does not increase site occupancy.
- Does not introduce sleeping accommodation at lower levels.
- Retains existing access arrangements.

Occupants will be advised to register for flood warnings via the Environment Agency Flood Warning Service for the River Kennet catchment.

Safe access arrangements remain as existing.

10. Residual Risk

Residual risks include:

- Flood events exceeding modelled design levels.
- Blockage of drainage systems.
- Extreme climate change scenarios.

As the proposal does not materially alter the site's vulnerability or occupancy, residual risk is unchanged from the existing baseline condition.

The incorporation of resilient construction measures reduces potential impact.

10. Conclusion

This Flood Risk Assessment demonstrates that the proposed 25m² single-storey extension:

- Is located within Flood Zone 2.
- Constitutes minor development.
- Does not require the Sequential Test.
- Will not increase flood risk elsewhere.
- Does not increase floodplain displacement.
- Incorporates proportionate flood resilience measures.
- Complies with Core Policy 67 of the Wiltshire Core Strategy and national planning policy.

The development is therefore considered acceptable in flood risk terms and suitable for approval.

Flood risk assessment data



Location of site: 432029 / 170431 (shown as easting and northing coordinates)

Document created on: 27 September 2025

This information was previously known as a product 4.

Customer reference number: 3GET1NMDB9B7

Map showing the location that flood risk assessment data has been requested for.



How to use this information

You can use this information as part of a flood risk assessment for a planning application. To do this, you should include it in the appendix of your flood risk assessment.

We recommend that you work with a flood risk consultant to get your flood risk assessment.

Included in this document

In this document you'll find:

- how to find information about surface water and other sources of flooding
- information on the models used
- definitions for the terminology used throughout
- flood map for planning (rivers and the sea)
- past floods
- modelled data
- information about strategic flood risk assessments
- information about this data
- information about flood risk activity permits
- help and advice

Information that's unavailable

This document **does not** contain:

- flood defences and attributes

We aren't able to display flood defence locations and attributes as there are no formal flood defences in the area of interest.

Surface water and other sources of flooding

When using the surface water map on the [check your long term flood risk service](#) the following considerations apply:

- surface water extents are suitable for use in planning
- surface water climate change scenarios may help to inform risk assessments, but the available data fall short of what is required to assess planned development
- surface water depth information should not be used for planning purposes

To find out about other factors that might affect the flood risk of this location, you should also check:

- [reservoir flood risk](#)
- groundwater flood risk - you could use the [British Geological Survey groundwater flooding data](#), [groundwater: current status and flood risk](#) and the guide on [mining and groundwater constraints for development](#) - further information may be available from the lead local flood authority (LLFA)
- your local planning authority's SFRA, which includes future flood risk

Your Lead Local Flood Authority is Wiltshire.

For information about sewer flooding, contact the relevant water company for the area.

About the models used

Model name: Kennet (Marlborough to Newbury) 2007

Scenario(s): No defences exist fluvial, no defences exist climate change fluvial

Date: 1 October 2007

This model contains the most relevant data for your area of interest.

Terminology used

Annual exceedance probability (AEP)

This refers to the probability of a flood event occurring in any year. The probability is expressed as a percentage. For example, a large flood which is calculated to have a 1% chance of occurring in any one year, is described as 1% AEP.

Metres above ordnance datum (mAOD)

All flood levels are given in metres above ordnance datum which is defined as the mean sea level at Newlyn, Cornwall.

Flood map for planning (rivers and the sea)

Your selected location is in flood zone 2.

Flood zone 3 shows the area at risk of flooding for an undefended flood event with a:

- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

- between a 0.1% and 0.5% probability of occurring in any year for flooding from the sea
- between a 0.1% and 1% probability of occurring in any year for fluvial (river) flooding

It's important to remember that the flood zones on this map:

- refer to the land at risk of flooding and do not refer to individual properties
- refer to the probability of river and sea flooding, ignoring the presence of defences
- do not take into account potential impacts of climate change



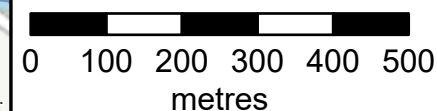
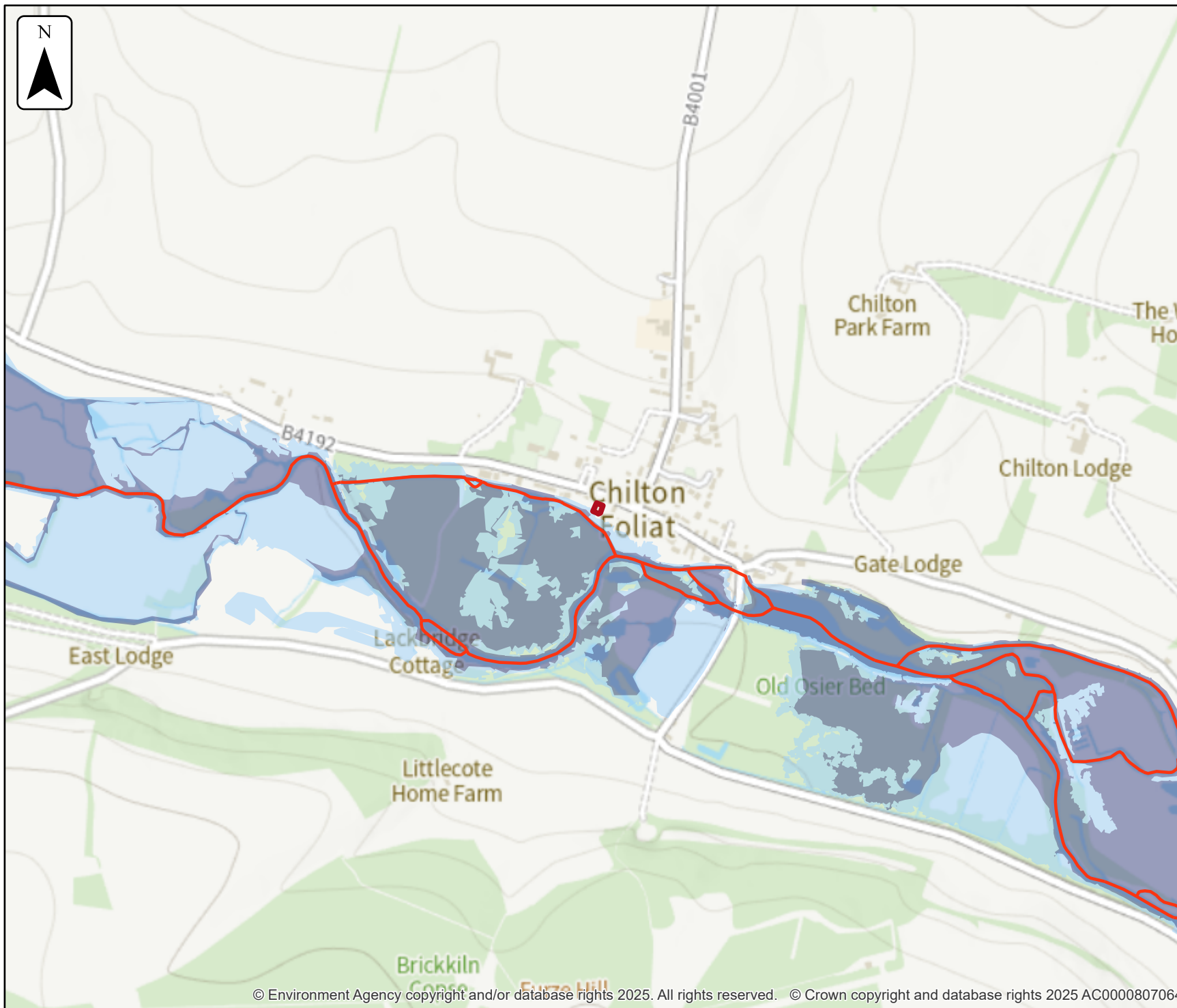
Flood map for planning

Location (easting/northing)
432029/170431

Scale
1:10,000

Created
27 Sep 2025

-  Selected area
-  Main river
-  Flood Zone 3
-  Flood Zone 2



Past floods

Past flood events included in this document

The recorded flood outlines included in this document are for areas of land local to your site location that have been flooded by any of these sources:

- ephemeral water
- main rivers
- ordinary watercourses
- the sea
- unknown

Data limitations

The outlines do not include flooding from:

- drainage where rainfall has led to surface water ponding or overland runoff
- artificial, water-bearing sewer, water supply and wastewater treatment pipelines

Changes to flood defences

The defences (also known as assets) that were in place may also have changed. For example, assets may have been built more recently than the last recorded flood outline.

What the recorded flood outlines dataset is

The recorded flood outlines are a geographical information system (GIS) data layer that show our verified records of areas that have flooded in the past from:

- rivers
- the sea
- groundwater
- surface water

[Download the complete recorded flood outlines dataset](#), which includes data quality flags for outlines recorded after April 2020. This indicates the confidence we have in an outline.

Get flood information from other organisations

Contact Wiltshire Lead Local Flood Authority (LLFA) and your drainage board to get information about past flooding caused by surface water or drainage systems.



Past floods

Location (easting/northing)
432029/170431

Scale
1:10,000

Created
27 Sep 2025

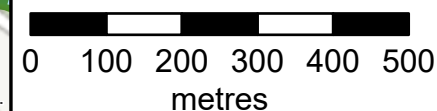
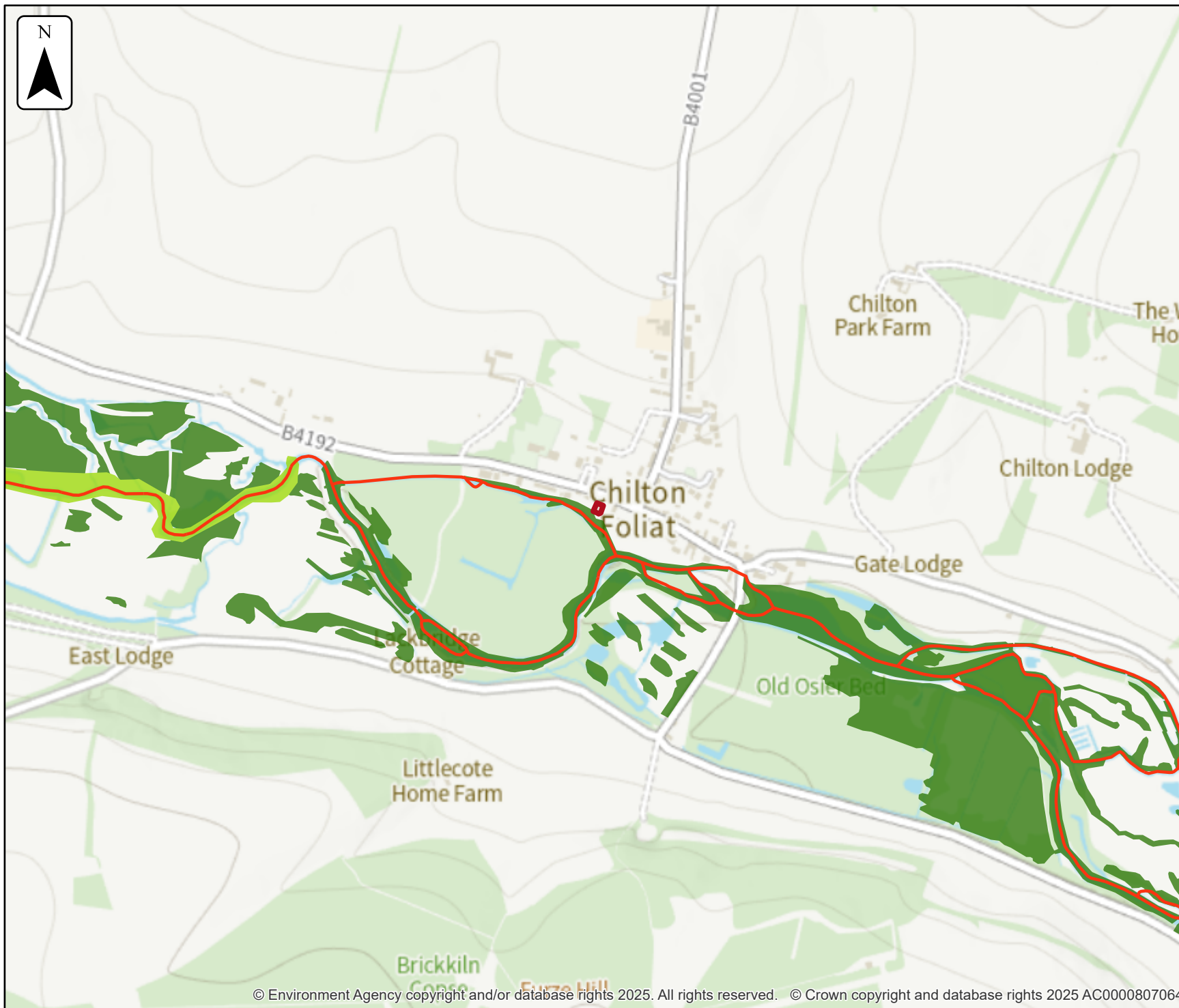
 Selected area

 Main river

Date of flood event

 1992

 1979



Data on past flood events

Start date	End date	Source of flood	Cause of flood	Affects location
1992	1992	main river	channel capacity exceeded (no raised defences)	No
1979	1979	main river	channel capacity exceeded (no raised defences)	Yes

Modelled data

This section provides details of different scenarios we have modelled and includes the following (where available):

- outline maps showing the area at risk from flooding in different modelled scenarios

Climate change

The climate change data included in the models may not include the latest [flood risk assessment climate change allowances](#). Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

The Environment Agency will incorporate the new allowances into future modelling studies. For now, it's your responsibility to demonstrate that new developments will be safe in flood risk terms for their lifetime.

Modelled scenarios

The following scenarios are included:

- No defences exist modelled fluvial: risk of flooding from rivers where there are no flood defences
- No defences exist climate change modelled fluvial: risk of flooding from rivers where there are no flood defences, including estimated impact of climate change



No defences exist climate change modelled fluvial extent

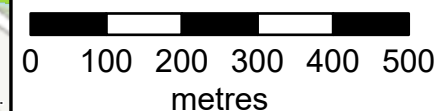
Location (easting/northing)
432029/170431

Scale Created
1:10,000 27 Sep 2025

Model name
**Kennet (Marlborough
to Newbury) 2007**

-  Selected area
-  Main river
- Modelled flood extent
-  1% AEP (+15%)
 -  1% AEP (+25%)
 -  1% AEP (+35%)
 -  1% AEP (+70%)

Flood extents may not be
visible where they overlap
other return periods





No defences exist modelled fluvial extent

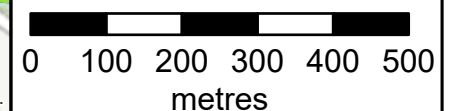
Location (easting/northing)
432029/170431

Scale Created
1:10,000 27 Sep 2025

Model name
**Kennet (Marlborough
to Newbury) 2007**

-  Selected area
-  Main river
- Modelled flood extent**
-  5% AEP
-  2% AEP
-  1% AEP
-  0.5% AEP
-  0.1% AEP

Flood extents may not be
visible where they overlap
other return periods



Strategic flood risk assessments

We recommend that you check the relevant local authority's strategic flood risk assessment (SFRA) as part of your work to prepare a site specific flood risk assessment.

This should give you information about:

- the potential impacts of climate change in this catchment
- areas defined as functional floodplain
- flooding from other sources, such as surface water, ground water and reservoirs

Your Lead Local Flood Authority is Wiltshire.

About this data

This data has been generated by strategic scale flood models and is not intended for use at the individual property scale. If you're intending to use this data as part of a flood risk assessment, please include an appropriate modelling tolerance as part of your assessment. The Environment Agency regularly updates its modelling. We recommend that you check the data provided is the most recent, before submitting your flood risk assessment.

Flood risk activity permits

Under the Environmental Permitting (England and Wales) Regulations 2016 some developments may require an environmental permit for flood risk activities from the Environment Agency. This includes any permanent or temporary works that are in, over, under, or nearby a designated main river or flood defence structure.

[Find out more about flood risk activity permits](#)

Help and advice

Contact the Thames Environment Agency team at enquiries_thm@environment-agency.gov.uk for:

- [more information about getting a product 5, 6, 7 or 8](#)
- general help and advice about the site you're requesting data for

Flood map for planning

Your reference	Location (easting/northing)	Created
Unspecified	432029/170431	27 September 2025 12:32

Your selected location is in flood zone 2, an area with a medium probability of flooding.

This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see <https://www.gov.uk/guidance/flood-risk-assessment-standing-advice>)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2025 AC0000807064. <https://flood-map-for-planning.service.gov.uk/os-terms>



Flood map for planning

Your reference

Unspecified

Location (easting/northing)
432029/170431

Scale
1:2,500

Created
27 Sep 2025 12:32

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area


0 20 40 60m

Product 4 (Detailed Flood Risk) for RG17 0UA

Our Ref: EIR2025/34322

Product 4 is designed for developers where Flood Risk Standing Advice FRA (Flood Risk Assessment) Guidance Note 3 Applies. This is:

- i) "all applications in Flood Zone 3, other than non-domestic extensions less than 250 sq metres; and all domestic extensions", and
- ii) "all applications with a site area greater than 1 ha" in Flood Zone 2.

Product 4 includes the following information:

Ordnance Survey 1:25k colour raster base mapping;
Flood Zone 2 and Flood Zone 3;
Relevant model node locations and unique identifiers (for cross referencing to the water levels, depths and flows table);
Model extents showing *defended* scenarios;
FRA site boundary (where a suitable GIS layer is supplied);
Flood defence locations (where available/relevant) and unique identifiers; (supplied separately)
Flood Map flood storage areas (where available/relevant);
Historic flood events outlines (where available/relevant, not the Historic Flood Map) and unique identifiers;

Statutory (Sealed) Main River (where available within map extents);

A table showing:

- i) Model node X/Y coordinate locations, unique identifiers, and levels and flows for *defended* scenarios.
- ii) Flood defence locations unique identifiers and attributes; (supplied separately)
- iii) Historic flood events outlines unique identifiers and attributes; and
- iv) Local flood history data (where available/relevant).

Please note:

If you will be carrying out computer modelling as part of your Flood Risk Assessment, please request our guidance which sets out the requirements and best practice for computer river modelling.

This information is based on that currently available as of the date of this letter. You may feel it is appropriate to contact our office at regular intervals, to check whether any amendments/ improvements have been made. Should you re-contact us after a period of time, please quote the above reference in order to help us deal with your query.

This information is provided subject to the enclosed notice which you should read.

This letter is not a Flood Risk Assessment. The information supplied can be used to form part of your Flood Risk Assessment. Further advice and guidance regarding Flood Risk Assessments can be found on our website at:

<https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities>

If you would like advice from us regarding your development proposals you can complete our pre application enquiry form which can be found at:

<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

Defence information

Defence Location: No defences on Main River

Description: This location is not currently protected by any formal defences and we do not currently have any flood alleviation works planned for the area. However we continue to maintain certain watercourses and the schedule of these can be found on our internet pages.

Model information

EIR2025/34322

Model: **Kennet (Marlborough to Newbury) 2007**

Description: The information provided is taken from the Kennet (Marlborough to Tyle Mill) & Lambourn-Enbourne 2007. Model re-run to include new climate change allowances in July 2017. The study consisted of five model areas:

Kennet (Marlborough to Newbury) using 1D modelling software (ISIS)

Kennet and Lambourn (Newbury) now superceeded by the project Kennet & Lambourn (Newbury) 2010

Kennet (Newbury to Tyle Mill) using 1D modelling software (ISIS)

Lambourn (MRL to Shaw) using 1D modelling software (ISIS)

Enbourne (MRL to confluence with Kennet) using 1D modelling software (ISIS)

Model design runs and Mapped Outputs:

- 1 in 5 / 20% AEP
- 1 in 20 / 5% AEP
- 1 in 100 / 1% AEP
- 1 in 100+20% / 1% AEP with 20% AEP climate change allowance
- 1 in 100+25% / 1% AEP with 25% AEP climate change allowance
- 1 in 100+35% / 1% AEP with 35% AEP climate change allowance
- 1 in 100+70% / 1% AEP with 70% AEP climate change allowance
- 1 in 1000 / 0.1% AEP

Model accuracy:

Levels $\pm$ 250mm