**CLIENT** Mr Simon Fenwick
**SITE** The Gallery, Hind Street, Ottery St Mary, EX11 1BW
**PROJECT** Alterations and extension to provide a residential unit above the existing retail unit.
**DATE** 18th March 2024

## 1.0 INTRODUCTION

1.0.1 This Flood Risk Assessment has been prepared to support the planning application for the proposed conversion and extension of 'The Gallery' into residential accommodation with the retention of the existing retail unit at ground floor.

## 2.0 SITE ASSESSMENT

2.0.1 The Gallery is an existing commercial premises, with a retail unit at ground floor and a workshop at first floor. It has now been vacant since the summer of 2023. The building is located approximately 400m north-east of the River Otter, and immediately south of Furzebrook, a small tributary of the River Ottery which runs through the town of Ottery St Mary.

## 3.0 DEVELOPMENT PROPOSALS

3.0.1 The proposed development retains the existing retail unit at ground floor level. A residential unit in the form of a duplex apartment, is proposed by conversion of the existing first floor, and a second floor extension. This apartment will be accessed through the existing side entrance door at ground floor.

3.0.2 The development proposals do **not** include any increase to the footprint of the property which currently occupies the entire site (see red line on site location plan 2326-SL which forms part of the planning application).

3.0.3 The development proposals do **not** affect the existing ground floor level of the retail unit.

## 4.0 FLOOD RISK ASSESSMENT

4.0.1 The property is located in Flood Zone 3 (see appendix A for the Environment Agency Flood Risk Map).

4.0.2 The flood risk vulnerability classification for the proposed development is categorised as 'Less Vulnerable' for the retail unit at ground floor, and 'More Vulnerable' for the residential dwelling on the upper floors.

4.0.3 The site is not subject to tidal (coastal) flooding. However, it is subject to fluvial (river flood) flooding and surface water flooding. It is worth noting that flood defences are present close to the site. The Environment Agency Product 4 data (see appendix B) details the flood risk data and indicates that the site has been recorded as flooding in August 1997 and October 2008. The summary of flood risk indicates that there is a 'high risk' of fluvial (river) and pluvial (surface water) events, but minimal risk from all other sources.

4.0.4 The Environment Agency Product 4 data depth grid maps for Q100 and Q1000 show the depth of flooding at the property access as 0-0.3m and 0.3-0.6m respectively. As the ground floor retail unit is an existing situation and no change is proposed, this is not relevant for this part of the property. Due to the fact that the residential dwelling has a floor level approximately 3m above the floor level of the retail unit and adjacent ground levels, any flooding will only affect the access to the dwelling and not any habitable part of the dwelling itself.

4.0.5 The proposed development does not involve the increase in any hard surfacing or roof scape. The existing property's roof occupies the full area of the site and currently drains into the existing surface water drainage system. The proposed development, whilst taking a slightly different 'flat' roof format, will

also occupy the full area of the site. It is proposed that the surface water drainage also discharges into the existing system in exactly the same manner as the current situation.

4.0.6 With the proposed development utilising the same footprint and retaining the existing retail unit at ground floor, there is no increased flood risk to the site, property or other properties in the area.

## 5.0 FLOOD WARNINGS

5.0.1 The site benefits from Warning and Alert systems provided by the Environment Agency for the River Otter (Lower) at Ottery St Mary and the River Otter and Sid, and Exmouth area. It is recommended that the owners of both the retail unit and the residential dwelling receive these flood warning and alerts as it will allow the property to be evacuated in advance of an event.

## 6.0 SAFE ACCESS AND EGRESS

6.0.1 With the benefit of early warning, the procedure for dealing with a flood event would be to evacuate in advance of the floor. However, if this is not possible, there are two options for the residents of the upper floor residential development. The first option is that subject to flood water heights, they are rescued by the emergency services. Emergency vehicles remain operable with water depths of up to 900mm, so based on the flood depth data the property would be accessible to emergency vehicles. The second options is that the occupants of the residential dwelling remain safely in their property. With all habitable areas of the apartment, apart from the entrance lobby and stairs, being at first or second floor level, they would be able to remain in the property until the flood water subsided.

## 7.0 FLOOD RESILIENT DESIGN

7.0.1 The ground floor access to the residential dwelling, the associated bike storage and the existing access to the retail unit are all at risk of flooding. As this is unavoidable, flood resilient installations are proposed as follows: -

- All external levels will be designed to fall away from the building.
- Where possible, the floor should be constructed of concrete with solid covering so it can be washed down in the event of a flood.
- Wall finishes should be solid, or if plasterboard is required it should be laid horizontally to reduce stripping out after a flood event.
- Where practical electrical services, wiring and switches to be positioned 900mm above ground floor level.

## 8.0 SUMMARY

8.0.1 The proposed change of use of the first floor and extension at second floor to provide a residential dwelling above the existing retail unit, have been considered with reference to the associated flood risk.

With all habitable accommodation at first floor and above, there is no risk of the property itself being flooded.

Access and egress can be safely managed, and with the property being a part of the Environment Agency's Flood Warning Service, it will enable the early evacuation of the property.

Flood resilient measures have been recommended to mitigate the damage caused by a flood event.

There is no increase in surface water discharge from the property, therefore there is no increase in risk of flood elsewhere as a result of the development.

## APPENDIX A

**ENVIRONMENT AGENCY PLANNING FLOOD MAP**

# Flood map for planning

| Your reference | Location (easting/northing) | Created |
|---|---|---|
| **<Unspecified>** | **309771/95418** | **14 Feb 2024 13:05** |

**Your selected location is in flood zone 3, an area with a high probability of flooding.**

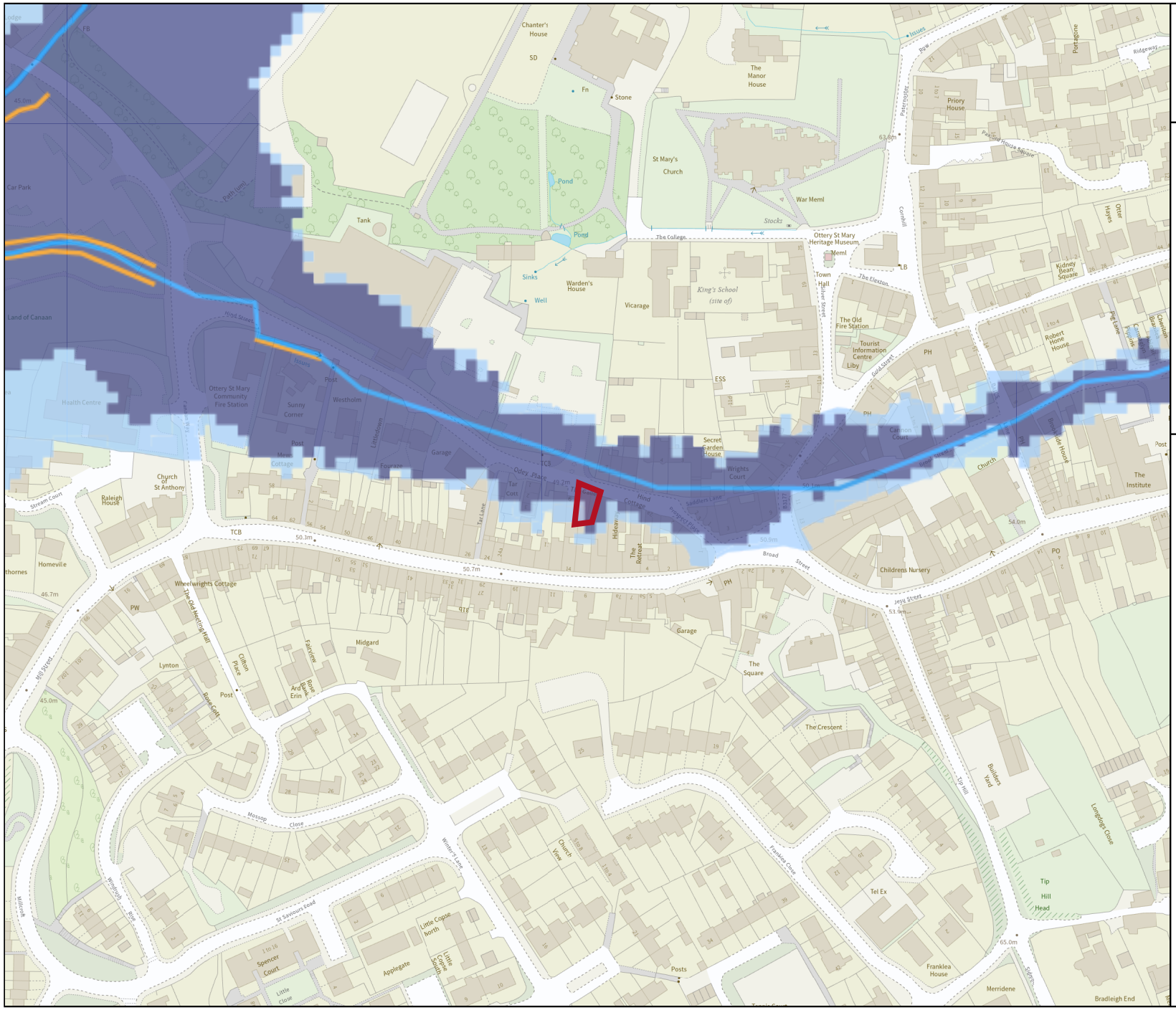
## This means:

- 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 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.




Environment Agency

## Flood map for planning

Your reference
**<Unspecified>**

Location (easting/northing)
**309771/95418**

Scale
**1:2500**

Created
**14 Feb 2024 13:05**

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

0 20 40 60m

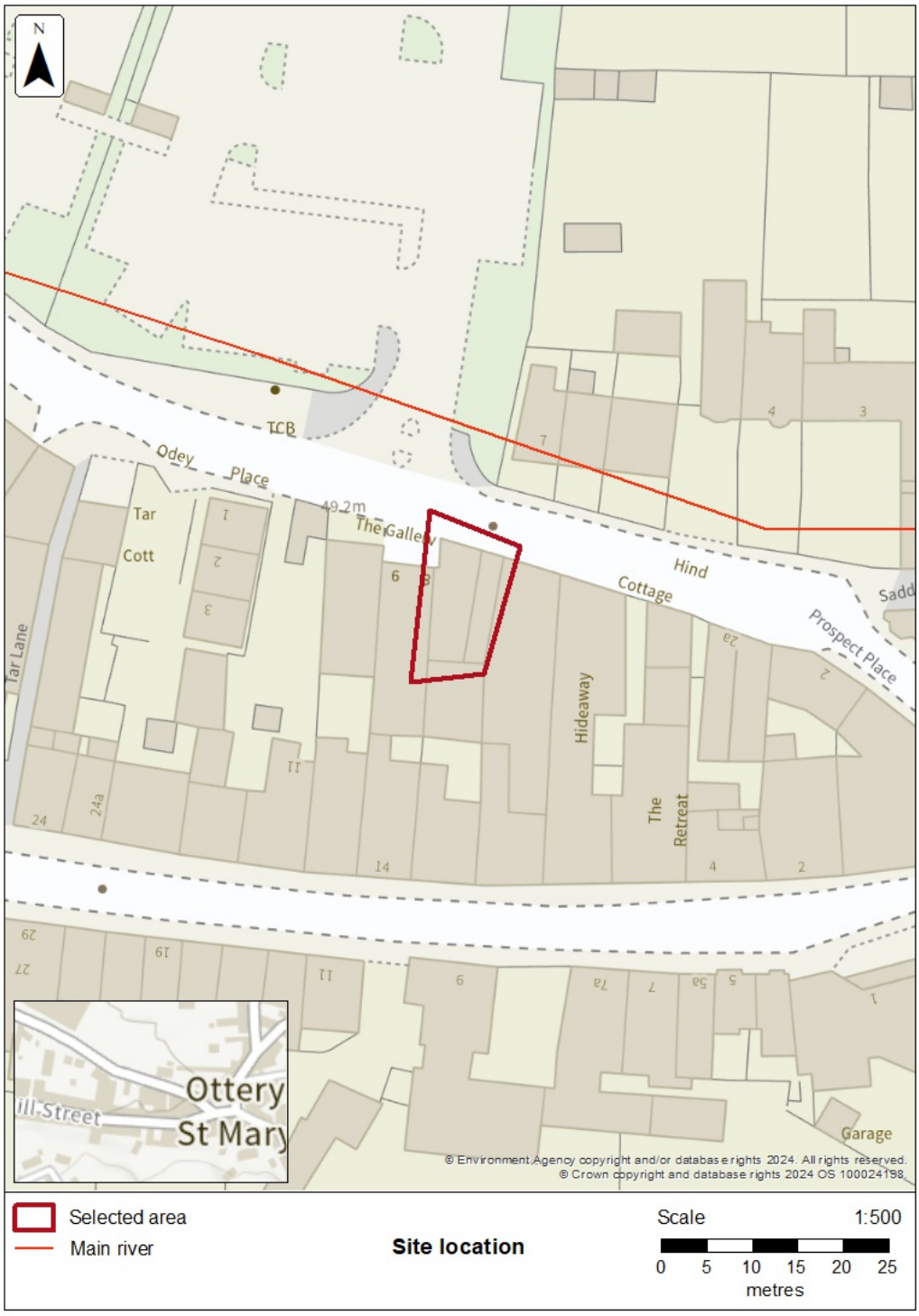
## APPENDIX B

**ENVIRONMENT AGENCY PRODUCT 4 FLOOD RISK DATA**

# Flood risk assessment data

**Location of site:** 309770 / 95418 (shown as easting and northing coordinates)
**Document created on:** 14 February 2024
**This information was previously known as a product 4.**
**Customer reference number:** 2NBT45P3THGK

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



## Flood map for planning (rivers and the sea)

Your selected location is in flood zone 3.

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

This data is updated on a quarterly basis as better data becomes available.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**Flood map for planning**

Location (easting/northing)
**309770/95418**

Scale
**1:10,000**

Created
**14 Feb 2024**

- Selected area
- Main river
- Flood defence
- Flood zone 3
- Flood zone 2

0 100 200 300 400 500
metres

# Historic Information

The map below is an indicative outline of areas that have previously flooded.

Historic outlines may not be visible where they overlap. You can download the outlines separately via the link below.

Download recorded flood outlines in GIS format

Our historic flood event outlines:

- are an indication of the geographical extent of an observed flood event. We map flooding to land, not individual properties.
- do not give any indication of flood levels for individual properties. They also do not imply that any property within the outline has flooded internally.
- are based on a combination of anecdotal evidence, Environment Agency staff observations and survey.
- do not provide a definitive record of flooding.

It is possible that there will be an absence of data in places where we have not been able to record the extent of flooding. It is also possible for errors to occur in the digitisation of historic records of flooding.

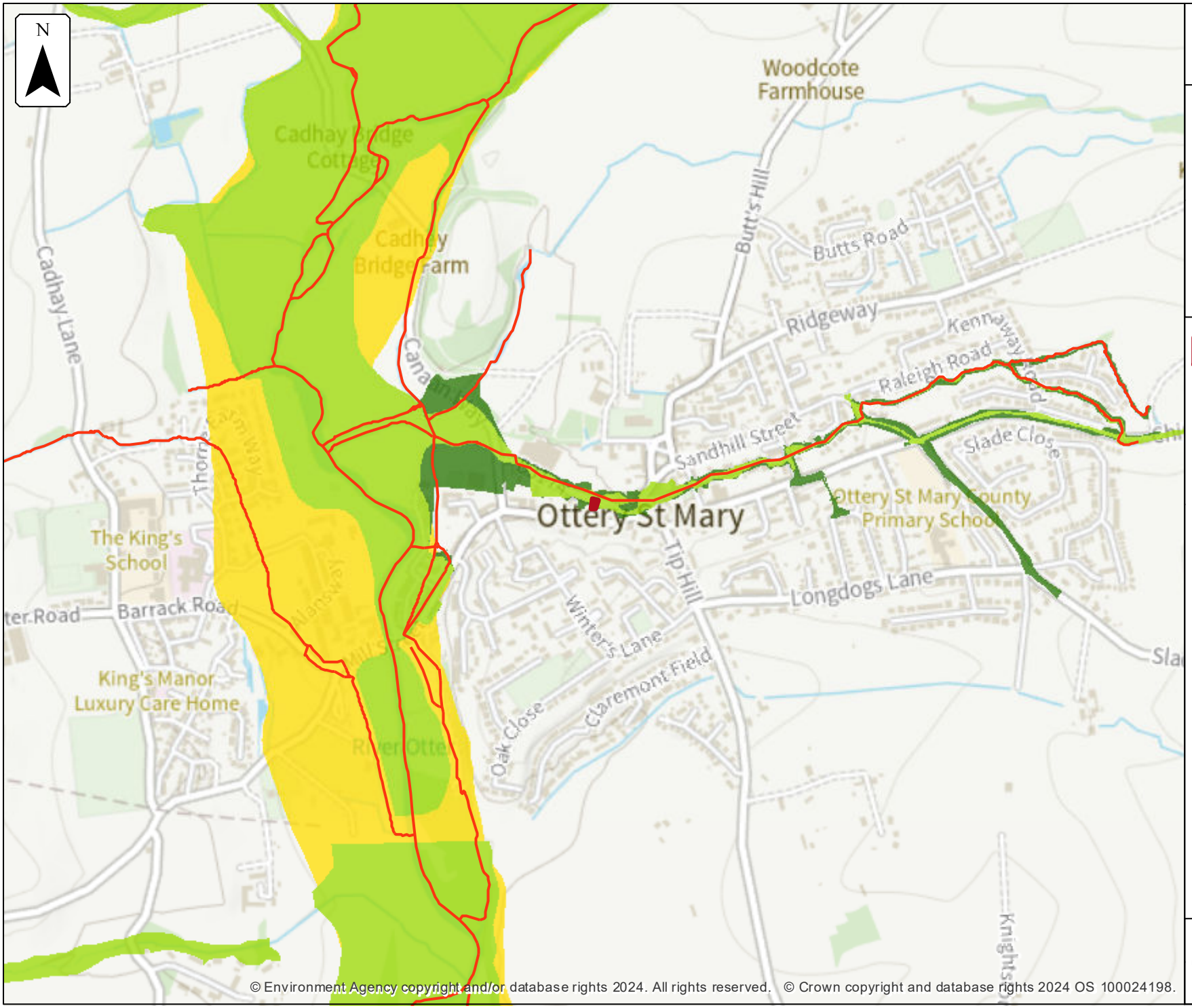
In addition to the Historic Flood Map we also hold historic flood information locally.

We have records of this area flooding in: August 1997, October 2005 and October 2008

Please see attached maps/photographs if available.

Remember that other flooding may have occurred that we do not have records for.

Please note that our records are not comprehensive. Therefore, we advise that you make further enquiries locally with specific reference to flooding at this location. You should consider contacting the relevant Local Planning Authority and/or water/sewerage provider for the area.

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## Historic flood map

Location (easting/northing)
**309770/95418**

Scale
**1:10,000**

Created
**14 Feb 2024**

Selected area

Main river

Date of flood event

October, 2008

August, 1997

July, 1968

0 100 200 300 400 500
metres

## Flood defences and attributes

The flood defences map shows the location of the flood defences present.

The flood defences data table shows the type of defences, their condition. It shows the height above sea level of the top of the flood defence (crest level). The height is In mAOD which is the metres above the mean sea level at Newlyn, Cornwall.

It's important to remember that flood defence data may not be updated on a regular basis. The information here is based on the best available data.

Use this information:

- to help you assess if there is a reduced flood risk for this location because of defences
- with any information in the modelled data section to find out the impact of defences on flood risk


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## Flood defences

Location (easting/northing)
**309770/95418**

Scale
**1:2,500**

Created
**14 Feb 2024**

- Selected area
- Main river
- Flood defence

0 25 50 75 100
metres

## Flood defences data

| Label | Asset ID | Asset Type | Current condition | Downstream actual crest level (mAOD) | Upstream actual crest level (mAOD) | Effective crest level (mAOD) |
|---|---|---|---|---|---|---|
| 1 | 172253 | Wall | Good | 44.67 | 45.10 | |
| 2 | 79431 | Embankment | Good | 45.36 | 46.13 | |
| 3 | 172121 | Embankment | Good | 45.35 | 46.05 | |
| 4 | 79433 | Wall | Good | 47.49 | 47.63 | |
| 5 | 172281 | Wall | Good | 47.19 | 47.63 | |

Any blank cells show where a particular value has not been recorded for an asset.

# Modelled data

# About the models used

Model name: JFLOW

Date: 2007

Model name: Small Catchment Project (Sub 3km²)
Date: 2010

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

You will need to consider the latest flood risk assessment climate change allowances and factor in the new allowances to demonstrate the development will be safe from flooding.

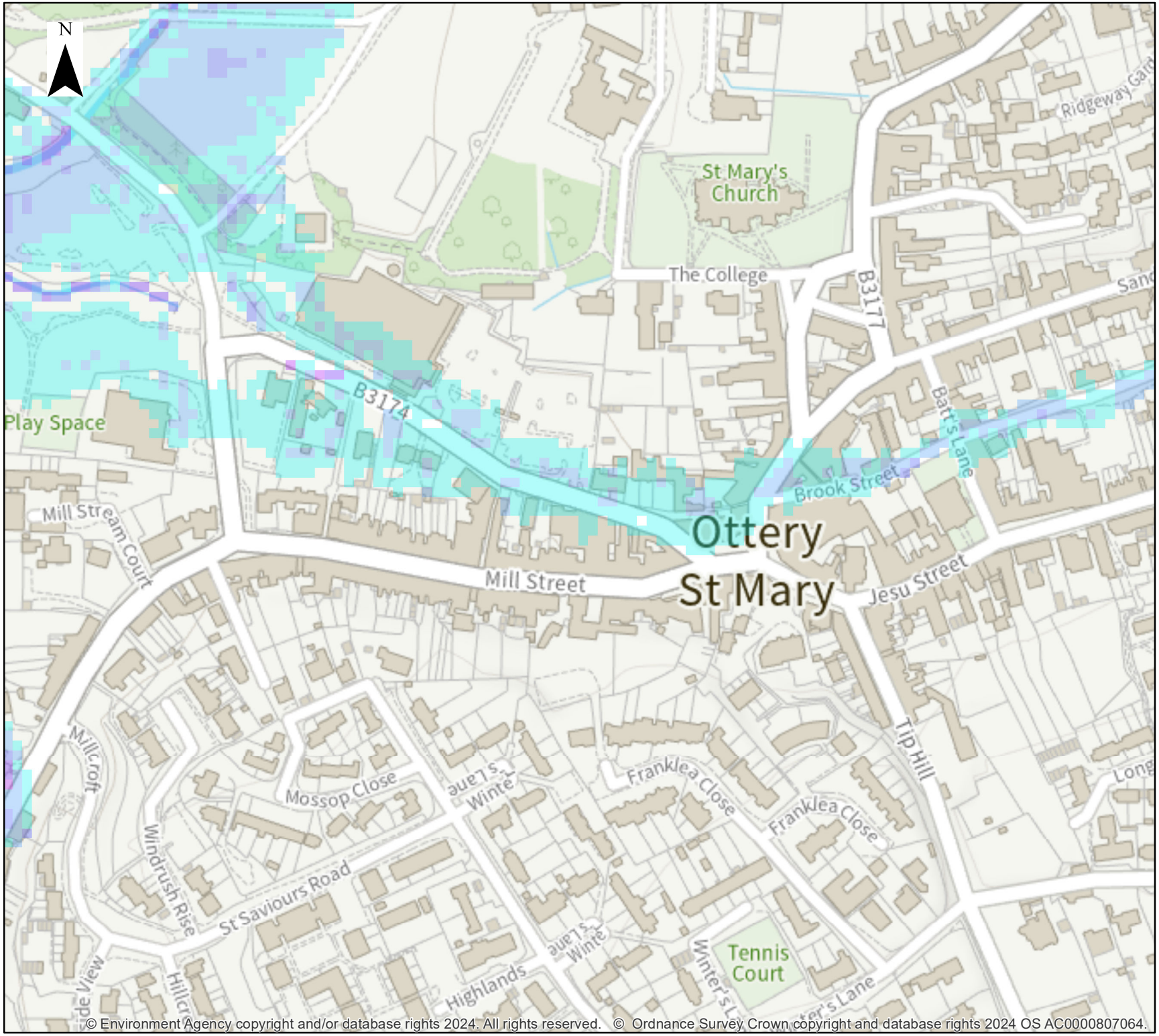
# Terminology used

## 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 occuring 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.



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# Undefended Modelled Fluvial Depth Map

Location (easting/northing)
**309770/95418**

Scale
**1:2,600**

Created
**8 Mar 2024**

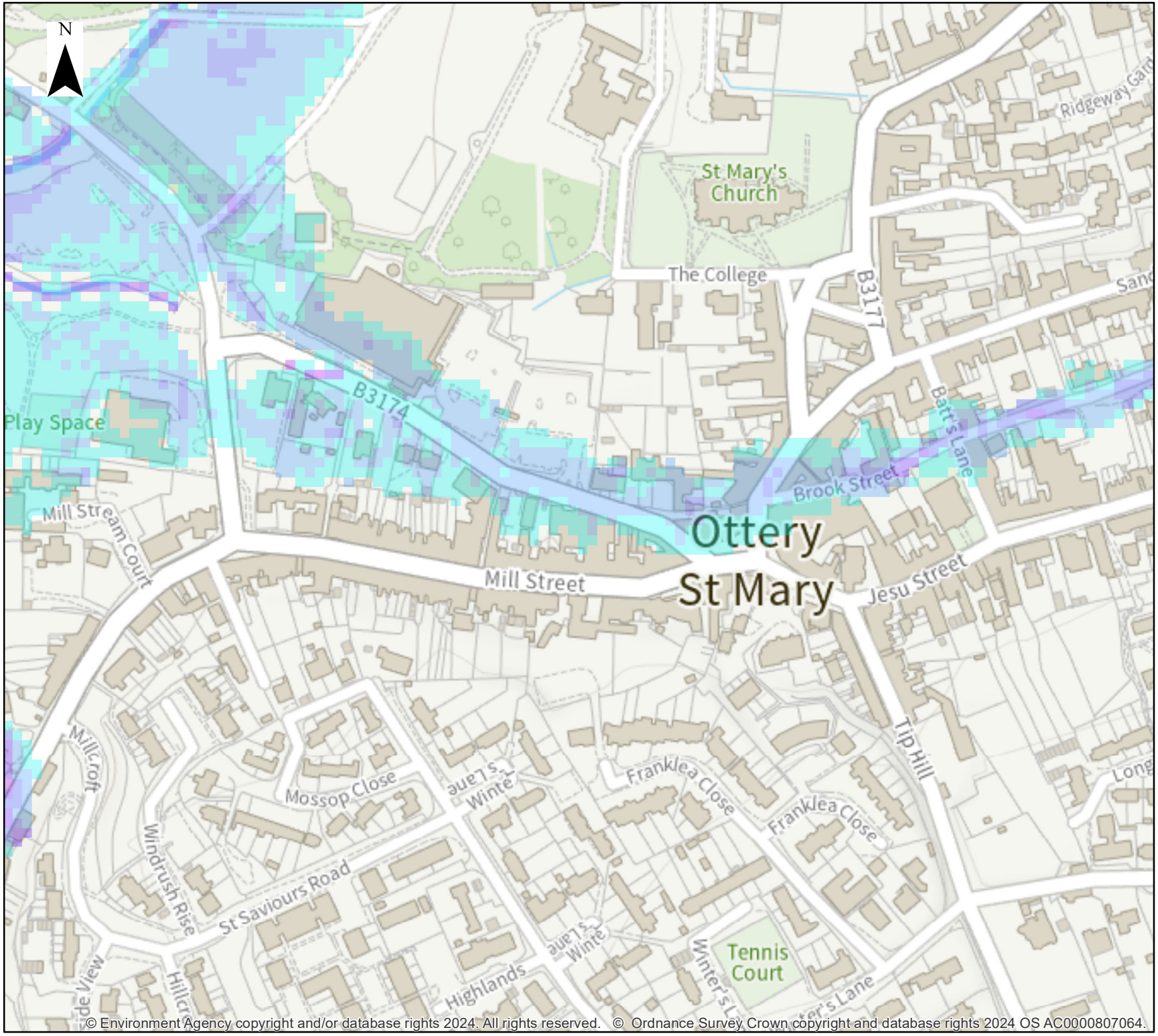
Model name
**JFLOW 2007**

**Legend**

**East Devon Undefended Q100 Depths**

**Meters**

- 0 - 0.3
- 0.3 - 0.6
- 0.6 - 0.8
- 0.8 - 1.5
- 1.5 - 2.5
- 2.5 +






Environment Agency

# Undefended Modelled Fluvial Depth Map

Location (easting/northing)
**309770/95418**

Scale
**1:2,600**

Created
**8 Mar 2024**

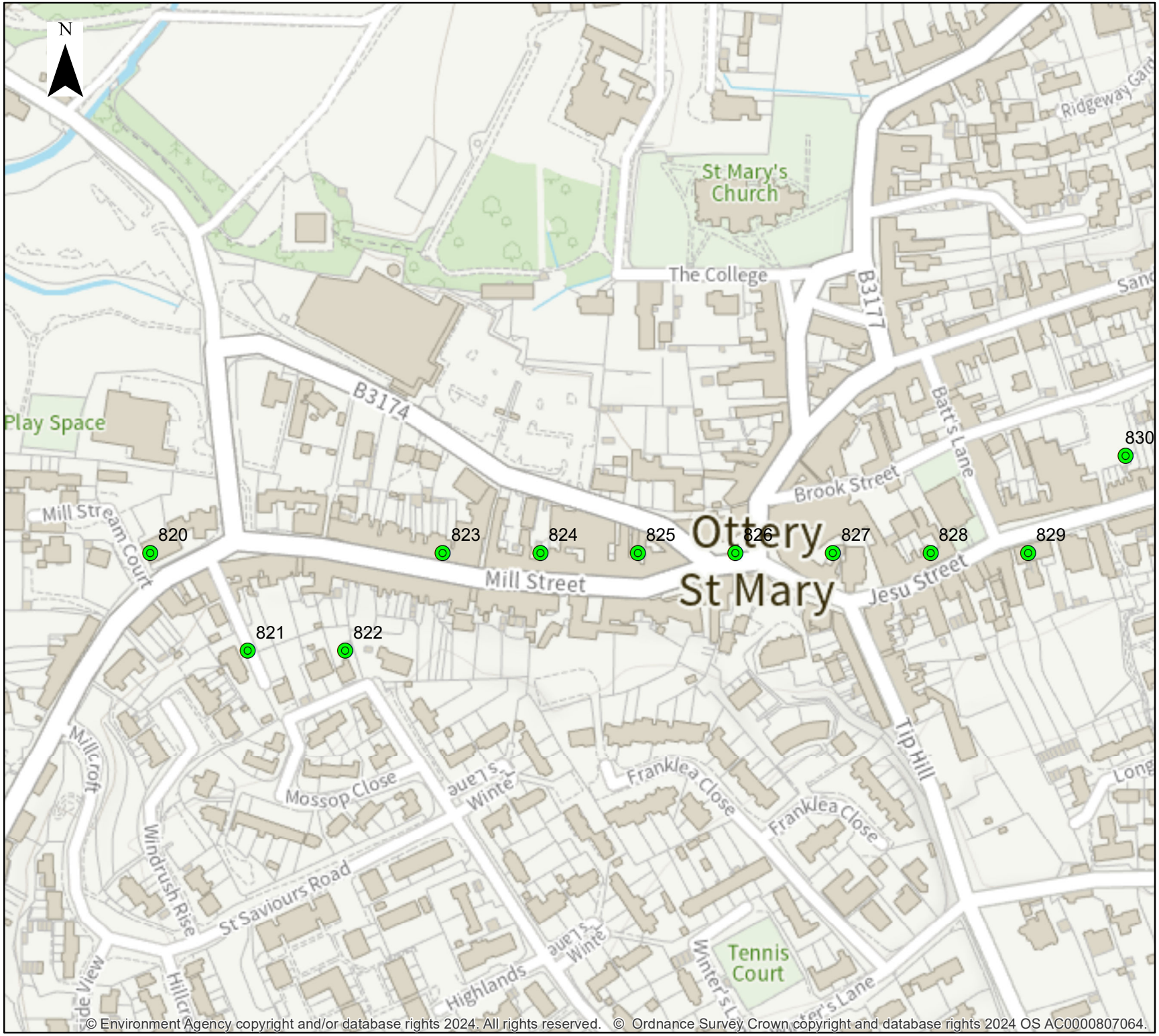
Model name
**JFLOW 2007**

**Legend**

**East Devon Undefended Q1000 Depths**

**Meters**

- 0 - 0.3
- 0.3 - 0.6
- 0.6 - 0.8
- 0.8 - 1.5
- 1.5 - 2.5
- 2.5 +






Environment Agency

# Flow Node Map

Location (easting/northing)
**309770/95418**

Scale
**1:2,600**

Created
**8 Mar 2024**

Model name
**Small Catchment Project 2010 (Sub 3km²)**

**Legend**

- Small Catchment Project 2010 (Sub 3km²)

# Modelled Flood Flows

| Node Reference | Easting | Northing | m3/s | |
|---|---|---|---|---|
| | | | Q100 | Q1000 |
| 820 | 309550 | 95400 | 2.50 | 4.20 |
| 821 | 309600 | 95350 | 2.49 | 4.18 |
| 822 | 309650 | 95350 | 2.47 | 4.16 |
| 823 | 309700 | 95400 | 2.48 | 4.18 |
| 824 | 309750 | 95400 | 2.46 | 4.16 |
| 825 | 309800 | 95400 | 2.46 | 4.16 |
| 826 | 309850 | 95400 | 2.44 | 4.14 |
| 827 | 309900 | 95400 | 2.44 | 4.14 |
| 828 | 309950 | 95400 | 2.41 | 4.09 |
| 829 | 310000 | 95400 | 2.4 | 4.08 |
| 830 | 310050 | 95450 | 2.39 | 4.06 |
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Data in this table comes from the Small Catchment Project 2010 (Sub 3km²)
created 08/03/2024

## 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

## 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 Devon Cornwall and the Isles of Scilly Environment Agency team at dcisenquiries@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