

# Flood risk assessment data



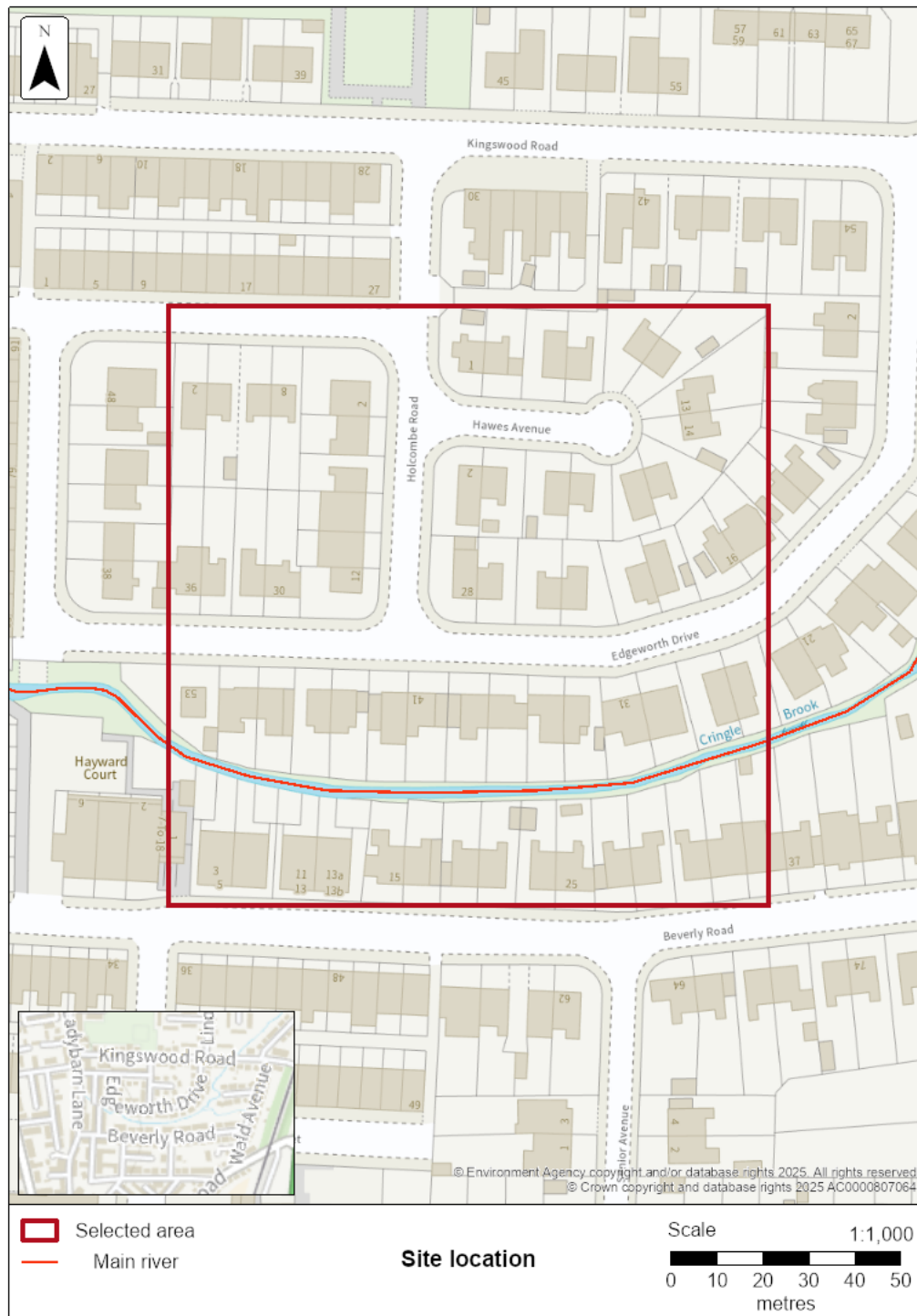
**Location of site:** 386073 / 393400 (shown as easting and northing coordinates)

**Document created on:** 7 July 2025

**This information was previously known as a product 4.**

**Customer reference number:** TNG6G33DDNY4

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
- flood defences and attributes
- information to help you assess if there is a reduced flood risk from rivers and the sea because of defences
- modelled data
- information about strategic flood risk assessments
- information about this data
- information about flood risk activity permits
- help and advice

## 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 Manchester District.

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

## **About the models used**

Model name: Cringle Black Brook 2017

Scenario(s): Defended fluvial, defences removed fluvial, defended climate change fluvial, defences removed climate change fluvial

Date: 1 April 2018

These models contain 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 3.

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

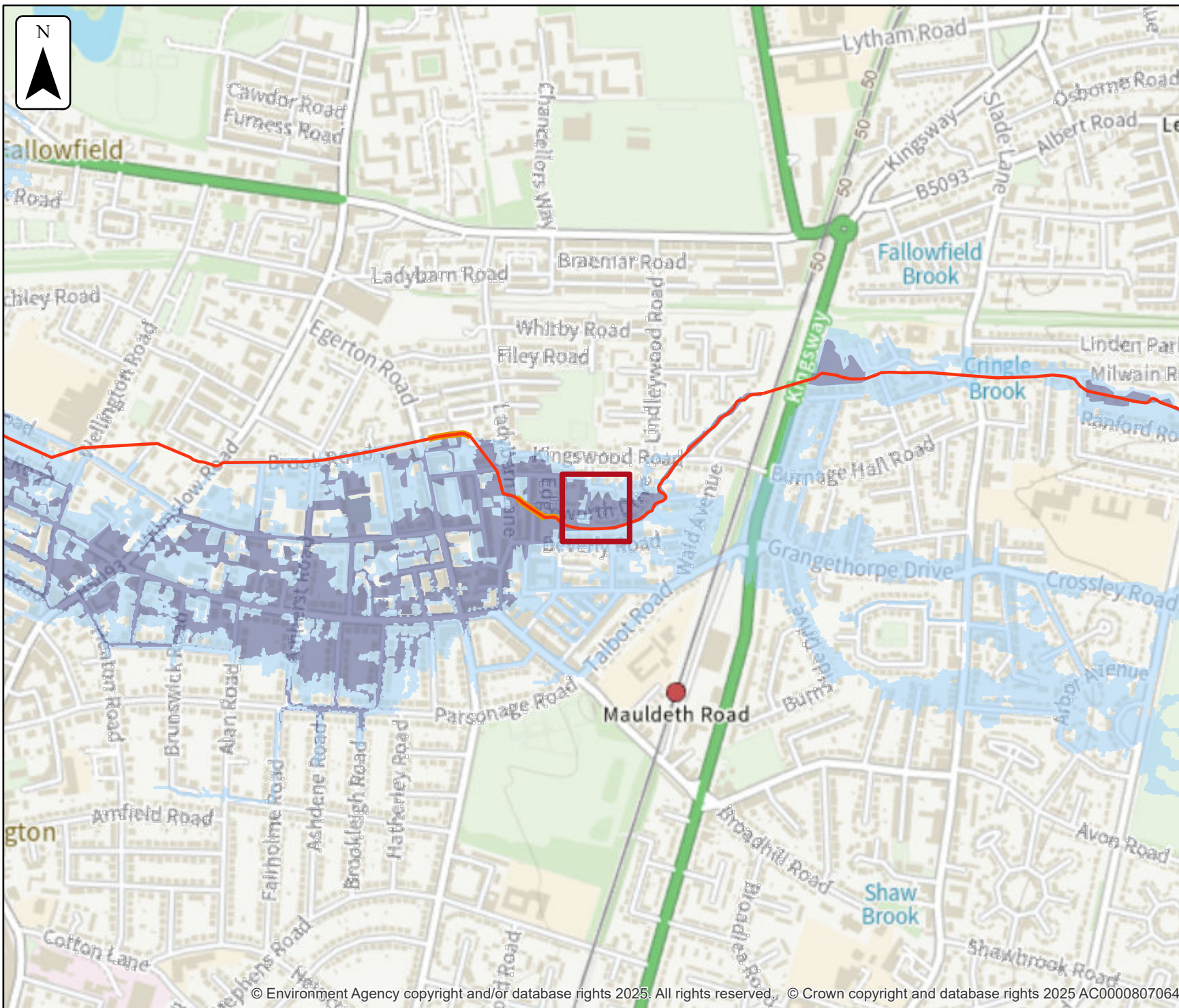
- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

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



## Flood map for planning

Location (easting/northing)  
**386073/393400**

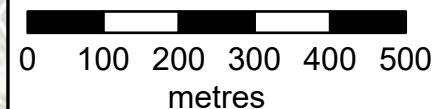
Scale

**1:10,000**

Created

**7 Jul 2025**

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



## Flood defences and attributes

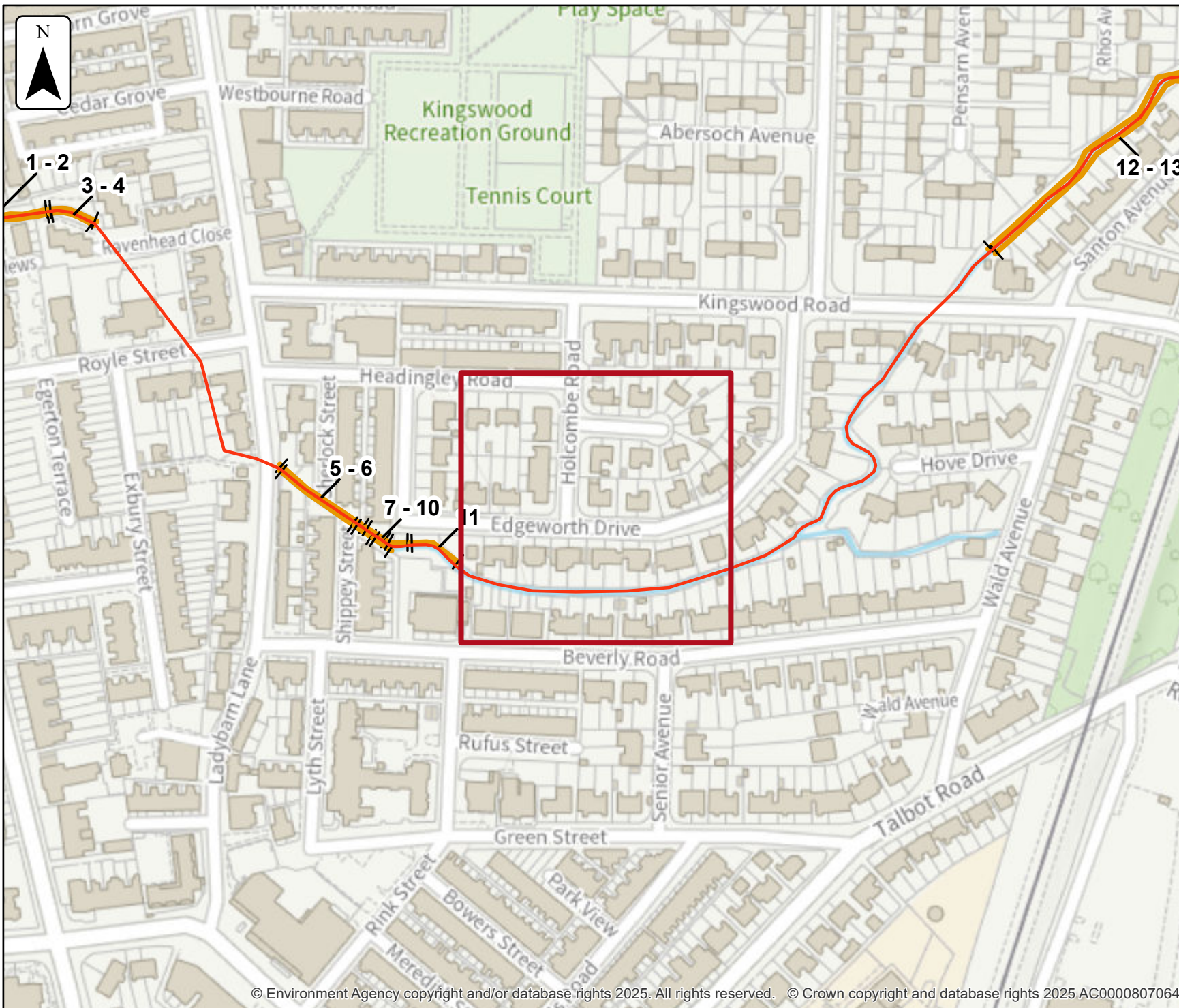
The flood defences map shows the location of the flood defences present.

The flood defences data table shows the type of defences, their condition and the standard of protection. 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



### Flood defences

Location (easting/northing)  
**386073/393400**

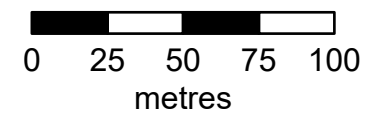
Scale

**1:2,500**

Created

**7 Jul 2025**

- Selected area
- Main river
- Flood defence



## Flood defences data

| Label | Asset ID | Asset Type | Standard of protection (years) | Current condition | Downstream actual crest level (mAOD) | Upstream actual crest level (mAOD) | Effective crest level (mAOD) |
|-------|----------|------------|--------------------------------|-------------------|--------------------------------------|------------------------------------|------------------------------|
| 1     | 121699   | Wall       | 100                            | Fair              | 39.28                                | 39.24                              |                              |
| 2     | 32270    | Wall       | 100                            | Fair              | 39.21                                | 39.28                              |                              |
| 3     | 32271    | Wall       | 100                            | Fair              | 39.40                                | 39.73                              |                              |
| 4     | 32836    | Wall       | 100                            | Fair              | 39.40                                | 39.36                              |                              |
| 5     | 32357    | Wall       | 100                            | Good              | 40.67                                | 40.97                              |                              |
| 6     | 121698   | Wall       | 100                            | Good              | 40.70                                | 40.96                              |                              |
| 7     | 32358    | Wall       | 100                            | Good              | 40.72                                | 40.71                              |                              |
| 8     | 59161    | Wall       | 100                            | Good              | 40.13                                | 40.13                              |                              |
| 9     | 8870     | Wall       | 100                            | Good              | 39.84                                | 39.83                              |                              |
| 10    | 8872     | Embankment | 100                            | Fair              | 39.78                                | 39.77                              |                              |

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

| Label | Asset ID | Asset Type             | Standard of protection (years) | Current condition | Downstream actual crest level (mAOD) | Upstream actual crest level (mAOD) | Effective crest level (mAOD) |
|-------|----------|------------------------|--------------------------------|-------------------|--------------------------------------|------------------------------------|------------------------------|
| 11    | 9557     | Engineered High Ground | 100                            | Fair              | 39.86                                | 39.89                              |                              |
| 12    | 7427     | Engineered High Ground | 100                            | Poor              | 40.24                                | 44.26                              |                              |
| 13    | 9636     | Engineered High Ground | 100                            | Poor              | 43.83                                | 41.26                              |                              |

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

## 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
- modelled node point map(s) showing the points used to get the data to model the scenarios and table(s) providing details of the flood risk for different return periods
- map(s) showing the approximate water levels for the return period with the largest flood extent for a scenario and table(s) of sample points providing details of the flood risk for different return periods

## Climate change

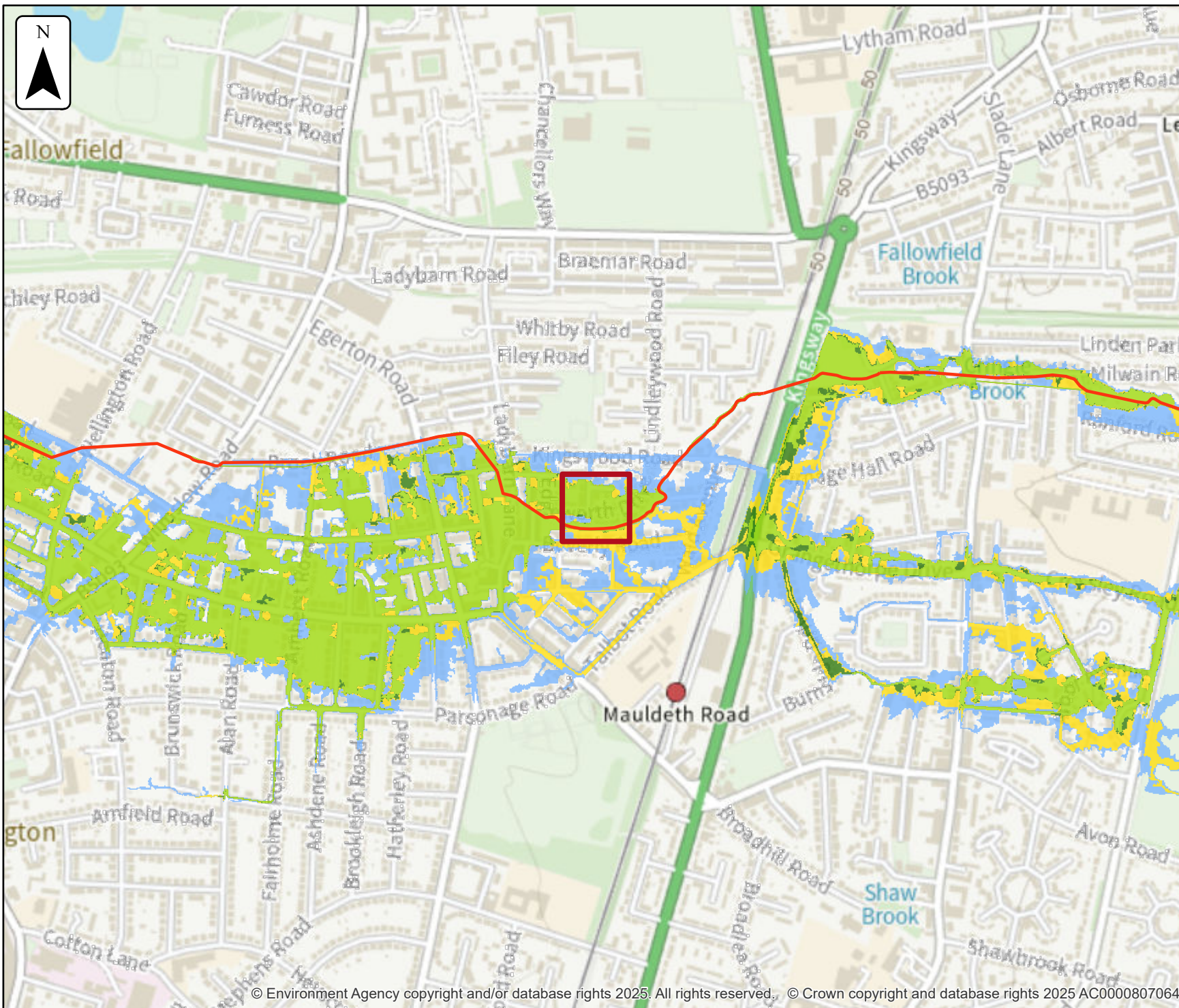
The climate change data included in the models may not include the latest [flood risk assessment climate change allowances](#). Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

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:

- Defended modelled fluvial: risk of flooding from rivers where there are flood defences
- Defences removed modelled fluvial: risk of flooding from rivers where flood defences have been removed
- Defended climate change modelled fluvial: risk of flooding from rivers where there are flood defences, including estimated impact of climate change
- Defences removed climate change modelled fluvial: risk of flooding from rivers where flood defences have been removed, including estimated impact of climate change



# Defences removed climate change modelled fluvial extent

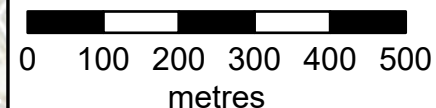
Location (easting/northing)  
**386073/393400**

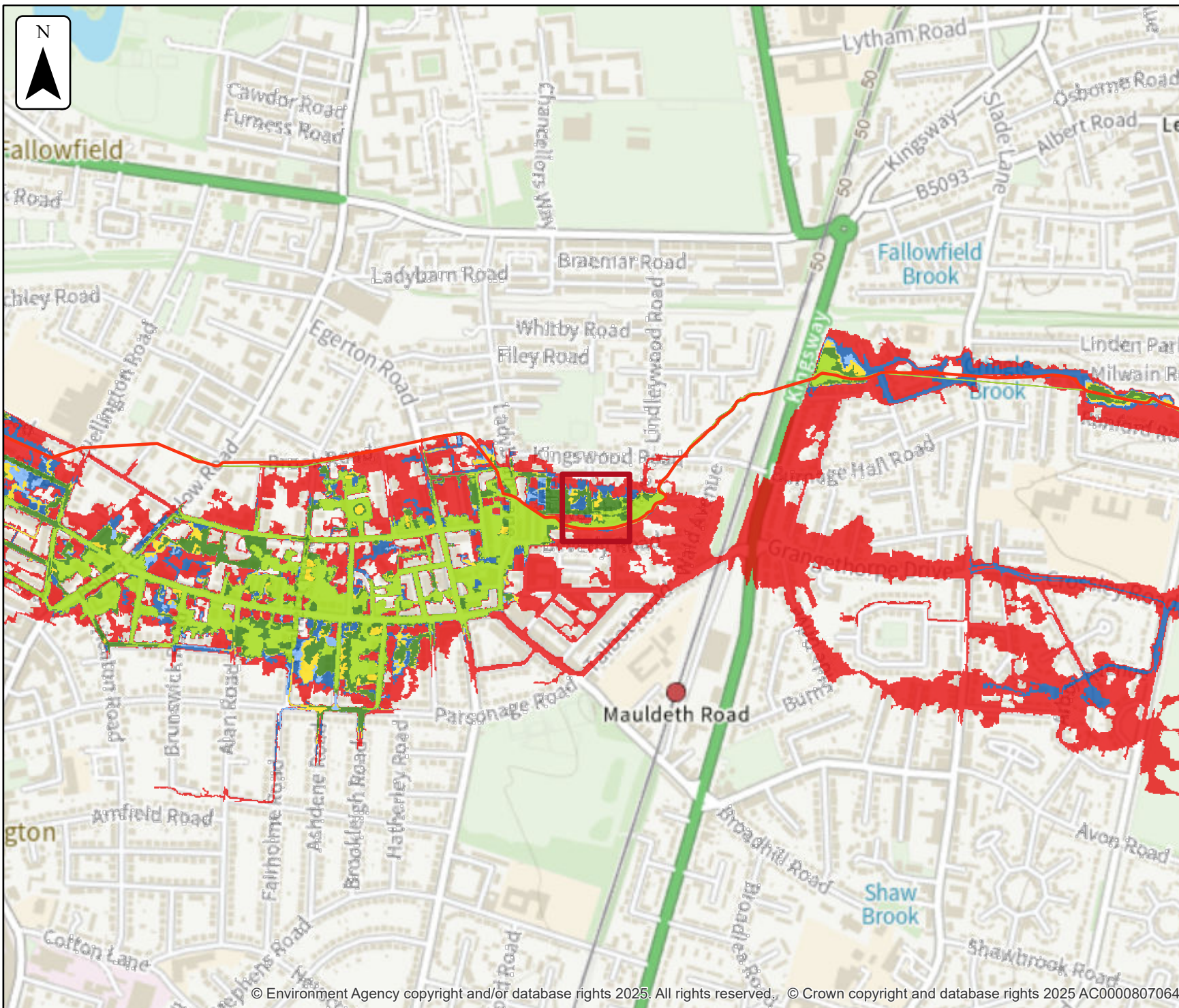
Scale Created  
**1:10,000 7 Jul 2025**

Model name  
**Cringle Black Brook  
2017**

- Selected area
- Main river
- Modelled flood extent
  - 1% AEP (+30%)
  - 1% AEP (+35%)
  - 1% AEP (+70%)
  - 0.1% AEP (+30%)

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





## Defences removed modelled fluvial extent

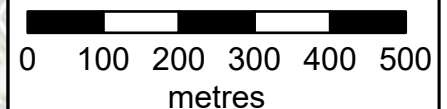
Location (easting/northing)  
**386073/393400**

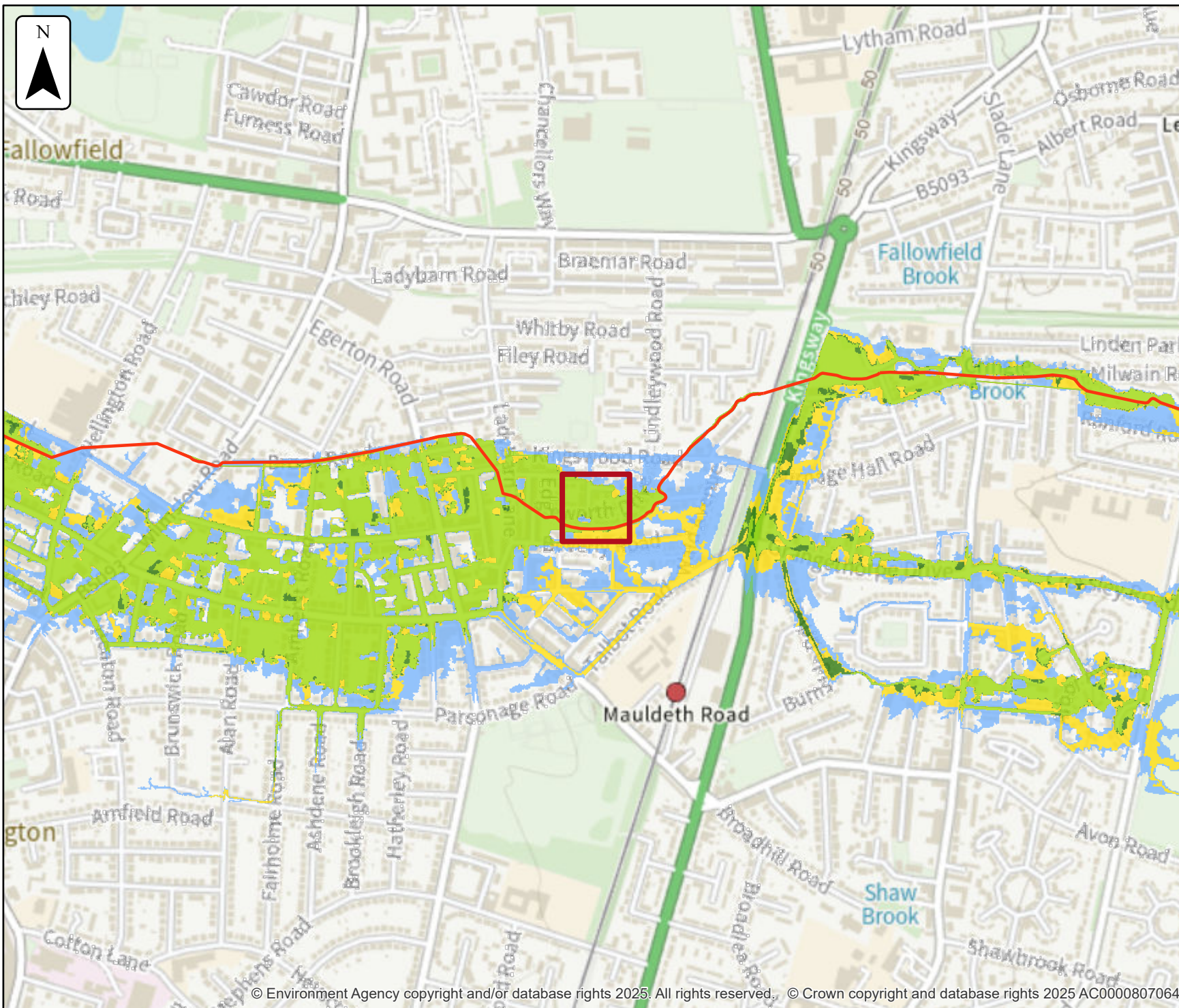
Scale Created  
**1:10,000 7 Jul 2025**

Model name  
**Cringle Black Brook  
2017**

- Selected area
- Main river
- Modelled flood extent
- 5% AEP
- 2% AEP
- 1.33% AEP
- 1% AEP
- 0.5% AEP
- 0.1% AEP

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





## Defended climate change modelled fluvial extent

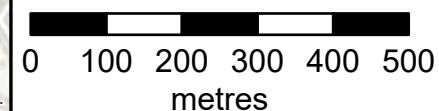
Location (easting/northing)  
**386073/393400**

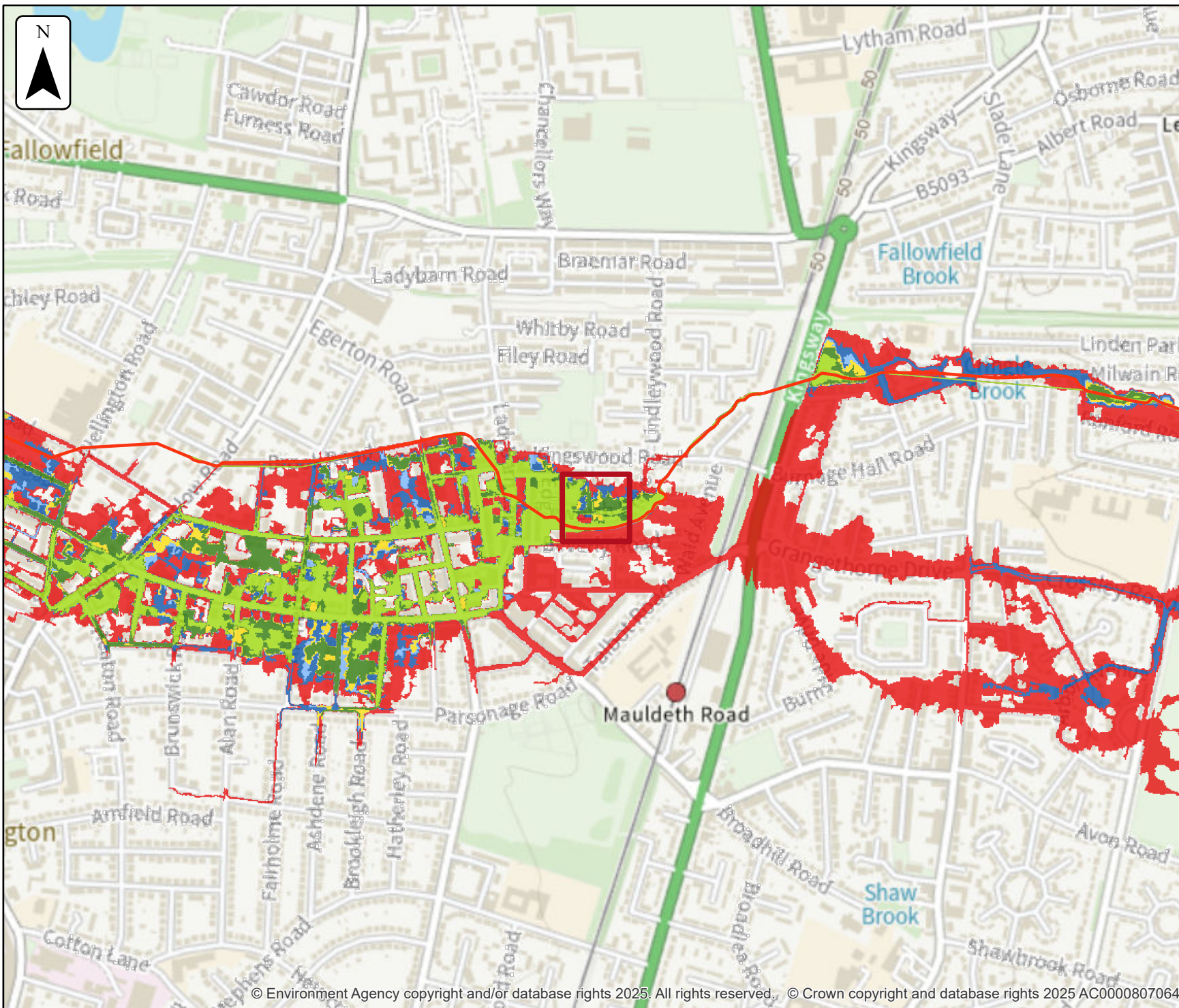
Scale Created  
**1:10,000 7 Jul 2025**

Model name  
**Cringle Black Brook  
2017**

-  Selected area
-  Main river
- Modelled flood extent
  -  1% AEP (+30%)
  -  1% AEP (+35%)
  -  1% AEP (+70%)
  -  0.1% AEP (+30%)

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





## Defended modelled fluvial extent

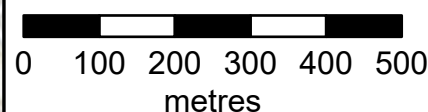
Location (easting/northing)  
**386073/393400**

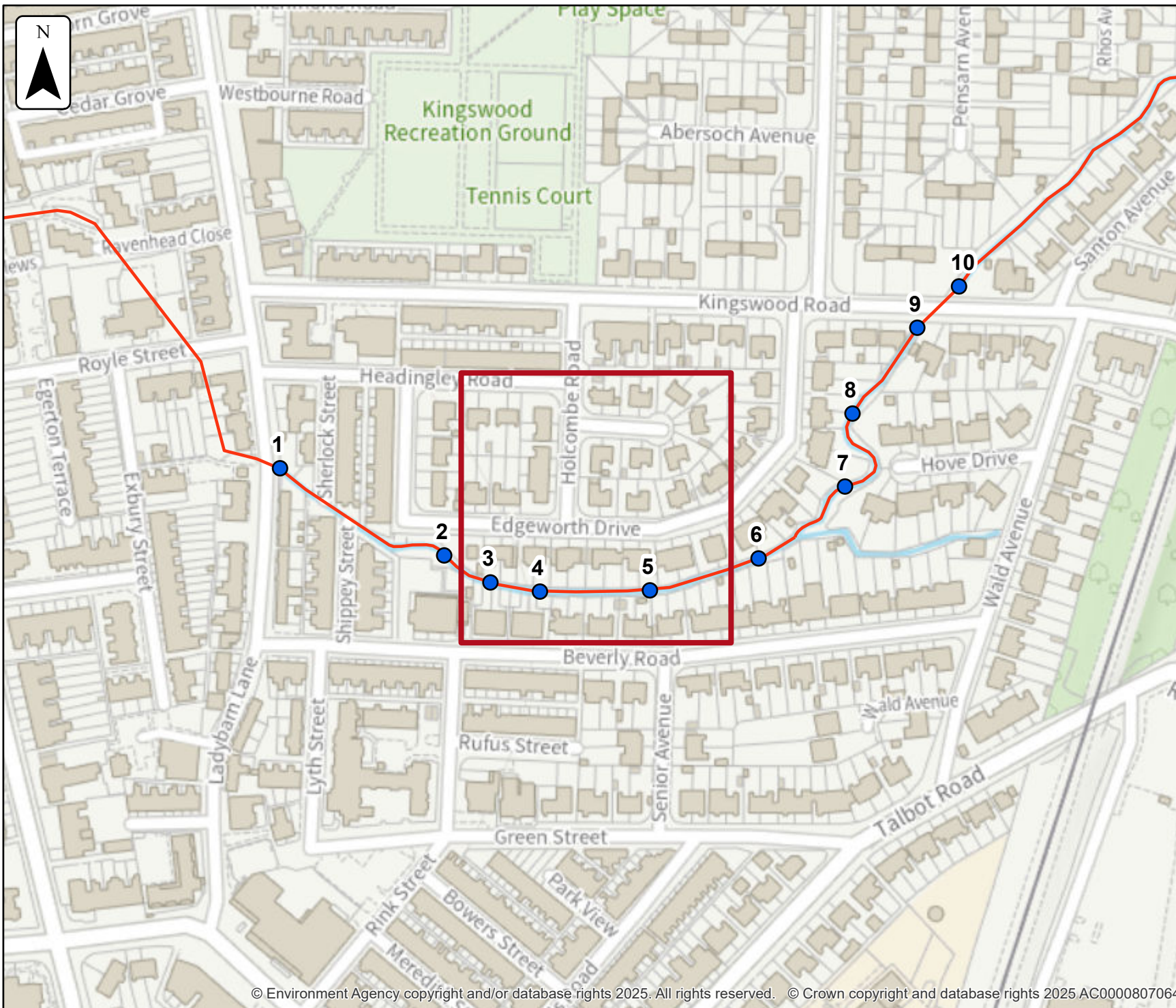
Scale Created  
**1:10,000 7 Jul 2025**

Model name  
**Cringle Black Brook 2017**

- Selected area
- Main river
- Modelled flood extent
- 5% AEP
- 2% AEP
- 1.33% AEP
- 1% AEP
- 0.5% AEP
- 0.1% AEP

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





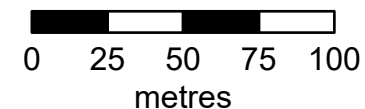
## Defences removed climate change modelled fluvial node locations

Location (easting/northing)  
**386073/393400**

Scale      Created  
**1:2,500      7 Jul 2025**

Model name  
**Cringle Black Brook  
2017**

-  Selected area
-  Modelled location
-  Main river



## Modelled node locations data

### Defences removed climate change

| Label | Modelled location ID | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|----------------------|---------|----------|---------------|---------------|---------------|-----------------|
|       |                      |         |          | Level         | Level         | Level         | Level           |
| 1     | 1440079              | 385920  | 393420   | 39.37         | 39.38         | 39.39         | 39.46           |
| 2     | 1440131              | 385999  | 393377   | 39.84         | 39.84         | 39.85         | 39.91           |
| 3     | 1440066              | 386022  | 393364   | 39.78         | 39.78         | 39.80         | 39.91           |
| 4     | 1440092              | 386046  | 393360   | 39.91         | 39.91         | 39.95         | 40.16           |
| 5     | 1440070              | 386099  | 393360   | 40.17         | 40.18         | 40.23         | 40.31           |
| 6     | 1440144              | 386152  | 393376   | 40.42         | 40.43         | 40.50         | 40.71           |
| 7     | 1440143              | 386194  | 393411   | 40.69         | 40.70         | 40.72         | 40.81           |
| 8     | 1440040              | 386197  | 393446   | 40.67         | 40.68         | 40.70         | 40.79           |
| 9     | 1440069              | 386229  | 393488   | 40.75         | 40.76         | 40.79         | 40.88           |
| 10    | 1440032              | 386249  | 393508   | 41.04         | 41.05         | 41.13         | 41.32           |

Data in this table comes from the Cringle Black Brook 2017 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second.

Any blank cells show where a particular scenario has not been modelled for this location.

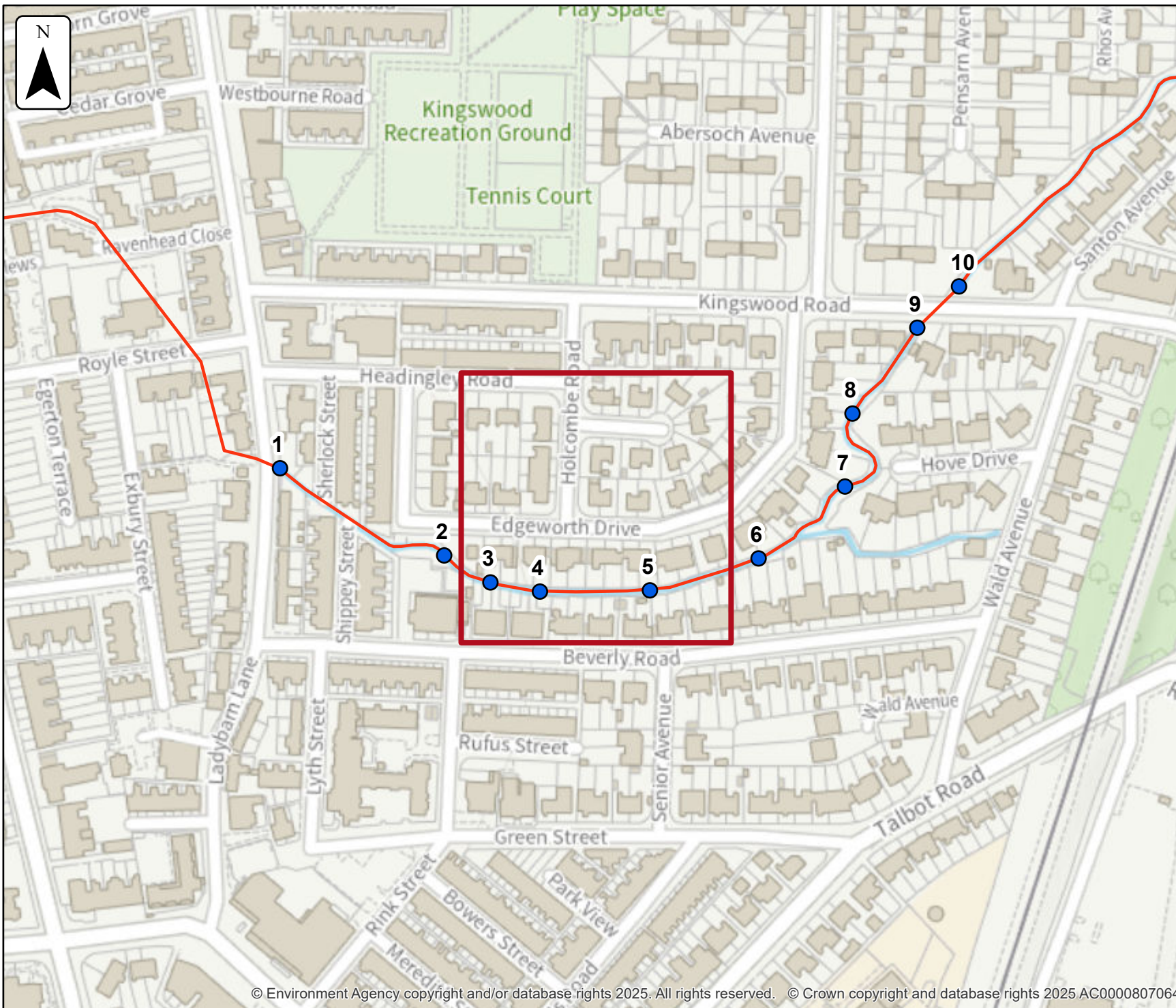
## Defences removed climate change

| Label | Modelled location ID | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|----------------------|---------|----------|---------------|---------------|---------------|-----------------|
|       |                      |         |          | Flow          | Flow          | Flow          | Flow            |
| 1     | 1440079              | 385920  | 393420   | 4.44          | 4.44          | 4.49          | 4.50            |
| 2     | 1440131              | 385999  | 393377   | 6.70          | 6.80          | 7.65          | 10.93           |
| 3     | 1440066              | 386022  | 393364   | 6.78          | 6.88          | 7.74          | 10.79           |
| 4     | 1440092              | 386046  | 393360   | 6.42          | 6.52          | 7.26          | 9.24            |
| 5     | 1440070              | 386099  | 393360   | 6.37          | 6.46          | 7.27          | 10.57           |
| 6     | 1440144              | 386152  | 393376   | 6.38          | 6.46          | 7.27          | 10.45           |
| 7     | 1440143              | 386194  | 393411   | 6.33          | 6.49          | 7.76          | 13.25           |
| 8     | 1440040              | 386197  | 393446   | 4.73          | 4.79          | 5.06          | 5.79            |
| 9     | 1440069              | 386229  | 393488   | 4.73          | 4.79          | 5.06          | 5.78            |
| 10    | 1440032              | 386249  | 393508   | 4.73          | 4.79          | 5.06          | 5.78            |

Data in this table comes from the Cringle Black Brook 2017 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second.

Any blank cells show where a particular scenario has not been modelled for this location.



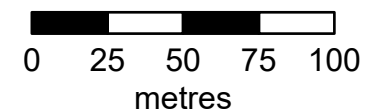
## Defences removed modelled fluvial node locations

Location (easting/northing)  
**386073/393400**

Scale Created  
**1:2,500 7 Jul 2025**

Model name  
**Cringle Black Brook  
2017**

- Selected area
- Modelled location
- Main river



## Modelled node locations data

### Defences removed

| Label | Modelled location ID | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|----------------------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |                      |         |          | Level   | Level   | Level   | Level  | Level  | Level     | Level  | Level     | Level  | Level    | Level    |
| 1     | 1440079              | 385920  | 393420   | 38.45   | 38.77   | 39.31   | 39.33  | 39.34  | 39.34     | 39.35  | 39.35     | 39.36  | 39.37    | 39.43    |
| 2     | 1440131              | 385999  | 393377   | 39.27   | 39.41   | 39.73   | 39.76  | 39.77  | 39.78     | 39.80  | 39.81     | 39.81  | 39.83    | 39.89    |
| 3     | 1440066              | 386022  | 393364   | 39.31   | 39.43   | 39.70   | 39.73  | 39.74  | 39.75     | 39.76  | 39.77     | 39.77  | 39.78    | 39.87    |
| 4     | 1440092              | 386046  | 393360   | 39.47   | 39.57   | 39.73   | 39.78  | 39.79  | 39.80     | 39.83  | 39.85     | 39.86  | 39.89    | 40.08    |
| 5     | 1440070              | 386099  | 393360   | 39.77   | 39.87   | 39.98   | 40.04  | 40.05  | 40.06     | 40.09  | 40.11     | 40.12  | 40.16    | 40.29    |
| 6     | 1440144              | 386152  | 393376   | 39.95   | 40.06   | 40.19   | 40.26  | 40.27  | 40.28     | 40.32  | 40.34     | 40.35  | 40.40    | 40.62    |
| 7     | 1440143              | 386194  | 393411   | 40.13   | 40.26   | 40.41   | 40.51  | 40.53  | 40.55     | 40.60  | 40.62     | 40.63  | 40.67    | 40.78    |
| 8     | 1440040              | 386197  | 393446   | 40.21   | 40.34   | 40.49   | 40.55  | 40.56  | 40.58     | 40.60  | 40.62     | 40.63  | 40.66    | 40.75    |
| 9     | 1440069              | 386229  | 393488   | 40.27   | 40.40   | 40.56   | 40.63  | 40.64  | 40.65     | 40.68  | 40.70     | 40.71  | 40.73    | 40.84    |
| 10    | 1440032              | 386249  | 393508   | 40.34   | 40.48   | 40.71   | 40.81  | 40.83  | 40.85     | 40.89  | 40.93     | 40.95  | 41.01    | 41.25    |

Data in this table comes from the Cringle Black Brook 2017 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second.

Any blank cells show where a particular scenario has not been modelled for this location.

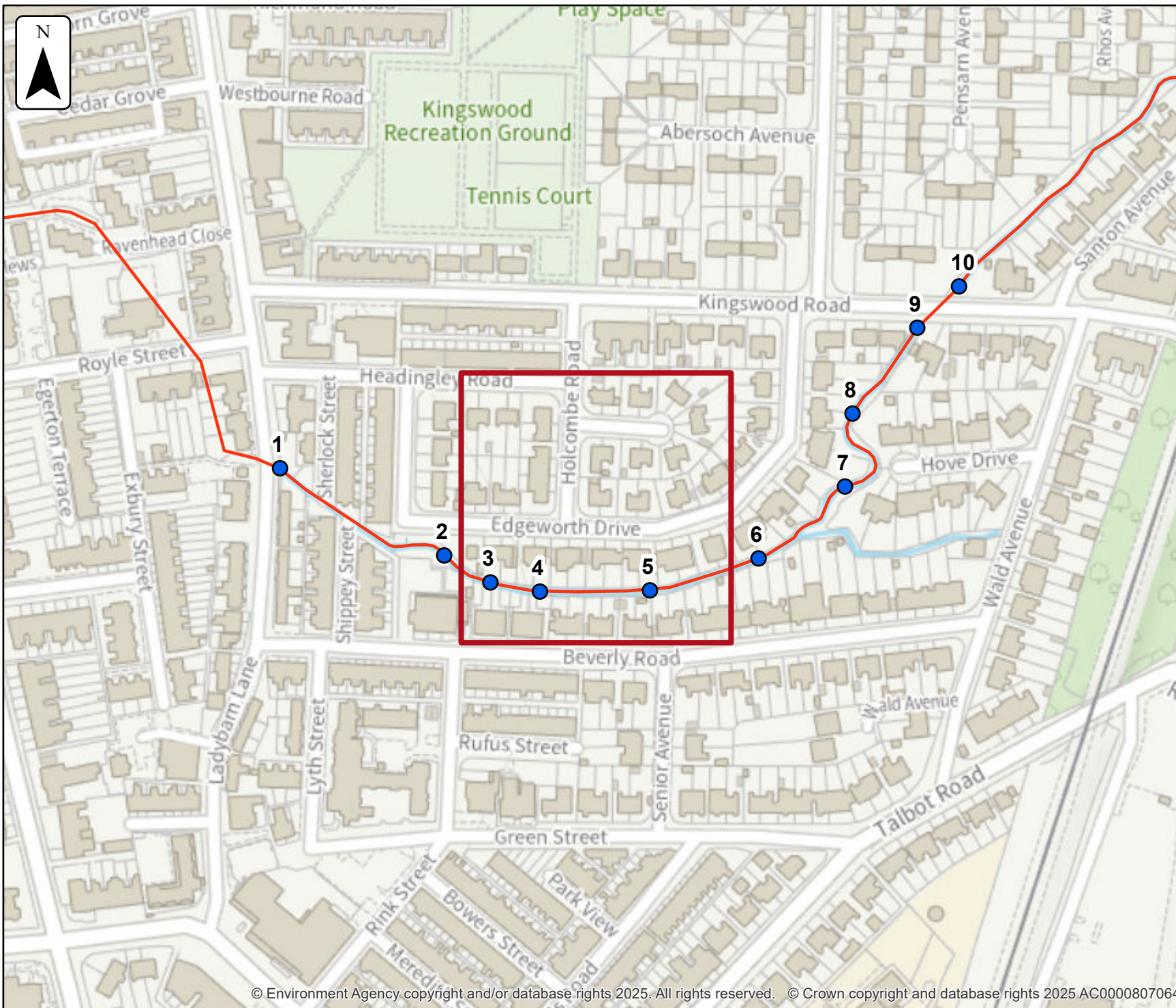
## Defences removed

| Label | Modelled location ID | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|----------------------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |                      |         |          | Flow    | Flow    | Flow    | Flow   | Flow   | Flow      | Flow   | Flow      | Flow   | Flow     | Flow     |
| 1     | 1440079              | 385920  | 393420   | 3.03    | 3.69    | 4.28    | 4.39   | 4.38   | 4.39      | 4.40   | 4.41      | 4.42   | 4.44     | 4.48     |
| 2     | 1440131              | 385999  | 393377   | 3.03    | 3.69    | 4.57    | 5.04   | 5.13   | 5.25      | 5.61   | 5.84      | 5.97   | 6.43     | 9.67     |
| 3     | 1440066              | 386022  | 393364   | 3.03    | 3.69    | 4.57    | 5.07   | 5.17   | 5.29      | 5.66   | 5.90      | 6.04   | 6.51     | 9.72     |
| 4     | 1440092              | 386046  | 393360   | 3.03    | 3.70    | 4.57    | 5.07   | 5.17   | 5.27      | 5.53   | 5.72      | 5.82   | 6.19     | 8.56     |
| 5     | 1440070              | 386099  | 393360   | 3.03    | 3.70    | 4.57    | 5.07   | 5.17   | 5.27      | 5.54   | 5.71      | 5.81   | 6.16     | 9.19     |
| 6     | 1440144              | 386152  | 393376   | 3.03    | 3.70    | 4.58    | 5.07   | 5.17   | 5.27      | 5.54   | 5.71      | 5.81   | 6.16     | 9.18     |
| 7     | 1440143              | 386194  | 393411   | 3.03    | 3.70    | 4.57    | 4.83   | 4.87   | 4.92      | 5.10   | 5.29      | 5.42   | 5.97     | 10.89    |
| 8     | 1440040              | 386197  | 393446   | 2.15    | 2.72    | 3.47    | 3.80   | 3.86   | 3.94      | 4.12   | 4.29      | 4.37   | 4.57     | 5.54     |
| 9     | 1440069              | 386229  | 393488   | 2.15    | 2.72    | 3.47    | 3.80   | 3.86   | 3.93      | 4.11   | 4.29      | 4.37   | 4.57     | 5.54     |
| 10    | 1440032              | 386249  | 393508   | 2.15    | 2.72    | 3.47    | 3.80   | 3.86   | 3.93      | 4.11   | 4.29      | 4.37   | 4.57     | 5.54     |

Data in this table comes from the Cringle Black Brook 2017 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second.

Any blank cells show where a particular scenario has not been modelled for this location.



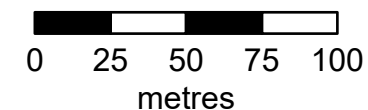
## Defended climate change modelled fluvial node locations

Location (easting/northing)  
**386073/393400**

Scale Created  
**1:2,500 7 Jul 2025**

Model name  
**Cringle Black Brook  
2017**

- Selected area
- Modelled location
- Main river



## Modelled node locations data

### Defended climate change

| Label | Modelled location ID | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|----------------------|---------|----------|---------------|---------------|---------------|-----------------|
|       |                      |         |          | Level         | Level         | Level         | Level           |
| 1     | 1440079              | 385920  | 393420   | 39.37         | 39.38         | 39.39         | 39.46           |
| 2     | 1440131              | 385999  | 393377   | 39.84         | 39.84         | 39.85         | 39.91           |
| 3     | 1440066              | 386022  | 393364   | 39.78         | 39.78         | 39.80         | 39.91           |
| 4     | 1440092              | 386046  | 393360   | 39.91         | 39.91         | 39.95         | 40.16           |
| 5     | 1440070              | 386099  | 393360   | 40.17         | 40.18         | 40.23         | 40.31           |
| 6     | 1440144              | 386152  | 393376   | 40.42         | 40.43         | 40.50         | 40.71           |
| 7     | 1440143              | 386194  | 393411   | 40.69         | 40.70         | 40.72         | 40.81           |
| 8     | 1440040              | 386197  | 393446   | 40.67         | 40.68         | 40.70         | 40.79           |
| 9     | 1440069              | 386229  | 393488   | 40.75         | 40.76         | 40.79         | 40.88           |
| 10    | 1440032              | 386249  | 393508   | 41.04         | 41.05         | 41.13         | 41.32           |

Data in this table comes from the Cringle Black Brook 2017 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second.

Any blank cells show where a particular scenario has not been modelled for this location.

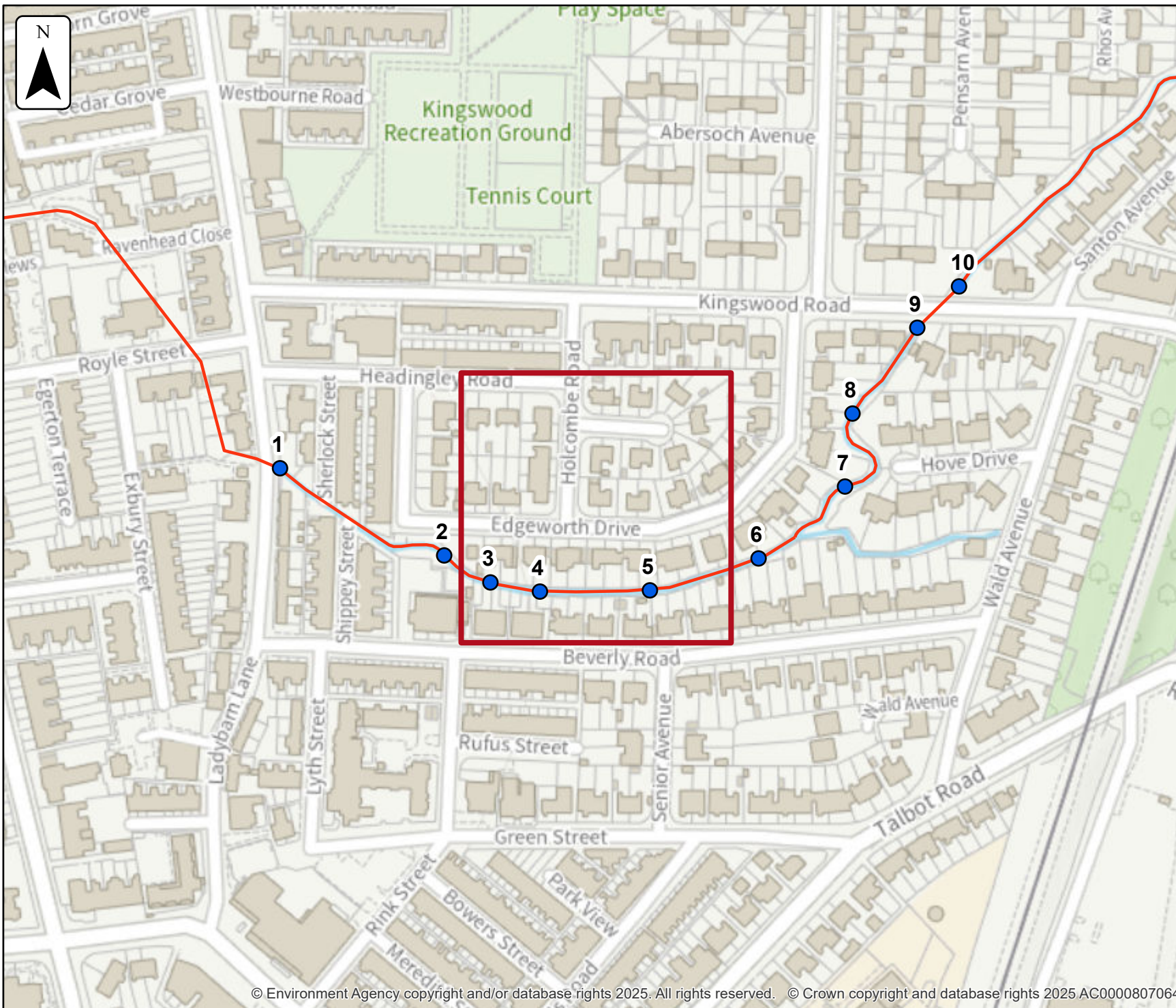
## Defended climate change

| Label | Modelled location ID | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|----------------------|---------|----------|---------------|---------------|---------------|-----------------|
|       |                      |         |          | Flow          | Flow          | Flow          | Flow            |
| 1     | 1440079              | 385920  | 393420   | 4.44          | 4.44          | 4.49          | 4.50            |
| 2     | 1440131              | 385999  | 393377   | 6.70          | 6.80          | 7.65          | 10.93           |
| 3     | 1440066              | 386022  | 393364   | 6.78          | 6.88          | 7.74          | 10.79           |
| 4     | 1440092              | 386046  | 393360   | 6.42          | 6.52          | 7.26          | 9.24            |
| 5     | 1440070              | 386099  | 393360   | 6.37          | 6.46          | 7.27          | 10.57           |
| 6     | 1440144              | 386152  | 393376   | 6.38          | 6.46          | 7.27          | 10.45           |
| 7     | 1440143              | 386194  | 393411   | 6.33          | 6.49          | 7.76          | 13.25           |
| 8     | 1440040              | 386197  | 393446   | 4.73          | 4.79          | 5.06          | 5.79            |
| 9     | 1440069              | 386229  | 393488   | 4.73          | 4.79          | 5.06          | 5.78            |
| 10    | 1440032              | 386249  | 393508   | 4.73          | 4.79          | 5.06          | 5.78            |

Data in this table comes from the Cringle Black Brook 2017 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second.

Any blank cells show where a particular scenario has not been modelled for this location.



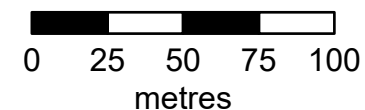
## Defended modelled fluvial node locations

Location (easting/northing)  
**386073/393400**

Scale      Created  
**1:2,500      7 Jul 2025**

Model name  
**Cringle Black Brook 2017**

-  Selected area
-  Modelled location
-  Main river



## Modelled node locations data

### Defended

| Label | Modelled location ID | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|----------------------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |                      |         |          | Level   | Level   | Level   | Level  | Level  | Level     | Level  | Level     | Level  | Level    | Level    |
| 1     | 1440079              | 385920  | 393420   | 38.45   | 38.77   | 39.31   | 39.33  | 39.34  | 39.34     | 39.35  | 39.35     | 39.36  | 39.37    | 39.43    |
| 2     | 1440131              | 385999  | 393377   | 39.27   | 39.41   | 39.73   | 39.76  | 39.77  | 39.78     | 39.80  | 39.81     | 39.81  | 39.83    | 39.89    |
| 3     | 1440066              | 386022  | 393364   | 39.31   | 39.43   | 39.70   | 39.73  | 39.74  | 39.75     | 39.76  | 39.77     | 39.77  | 39.78    | 39.87    |
| 4     | 1440092              | 386046  | 393360   | 39.47   | 39.57   | 39.73   | 39.78  | 39.79  | 39.80     | 39.83  | 39.85     | 39.86  | 39.89    | 40.08    |
| 5     | 1440070              | 386099  | 393360   | 39.77   | 39.87   | 39.98   | 40.04  | 40.05  | 40.06     | 40.09  | 40.11     | 40.12  | 40.16    | 40.29    |
| 6     | 1440144              | 386152  | 393376   | 39.95   | 40.06   | 40.19   | 40.26  | 40.27  | 40.28     | 40.32  | 40.34     | 40.35  | 40.40    | 40.62    |
| 7     | 1440143              | 386194  | 393411   | 40.13   | 40.26   | 40.41   | 40.51  | 40.53  | 40.55     | 40.60  | 40.62     | 40.63  | 40.67    | 40.78    |
| 8     | 1440040              | 386197  | 393446   | 40.21   | 40.34   | 40.49   | 40.55  | 40.56  | 40.58     | 40.60  | 40.62     | 40.63  | 40.66    | 40.75    |
| 9     | 1440069              | 386229  | 393488   | 40.27   | 40.40   | 40.56   | 40.63  | 40.64  | 40.65     | 40.68  | 40.70     | 40.71  | 40.73    | 40.84    |
| 10    | 1440032              | 386249  | 393508   | 40.34   | 40.48   | 40.71   | 40.81  | 40.83  | 40.85     | 40.89  | 40.93     | 40.95  | 41.01    | 41.25    |

Data in this table comes from the Cringle Black Brook 2017 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second.

Any blank cells show where a particular scenario has not been modelled for this location.

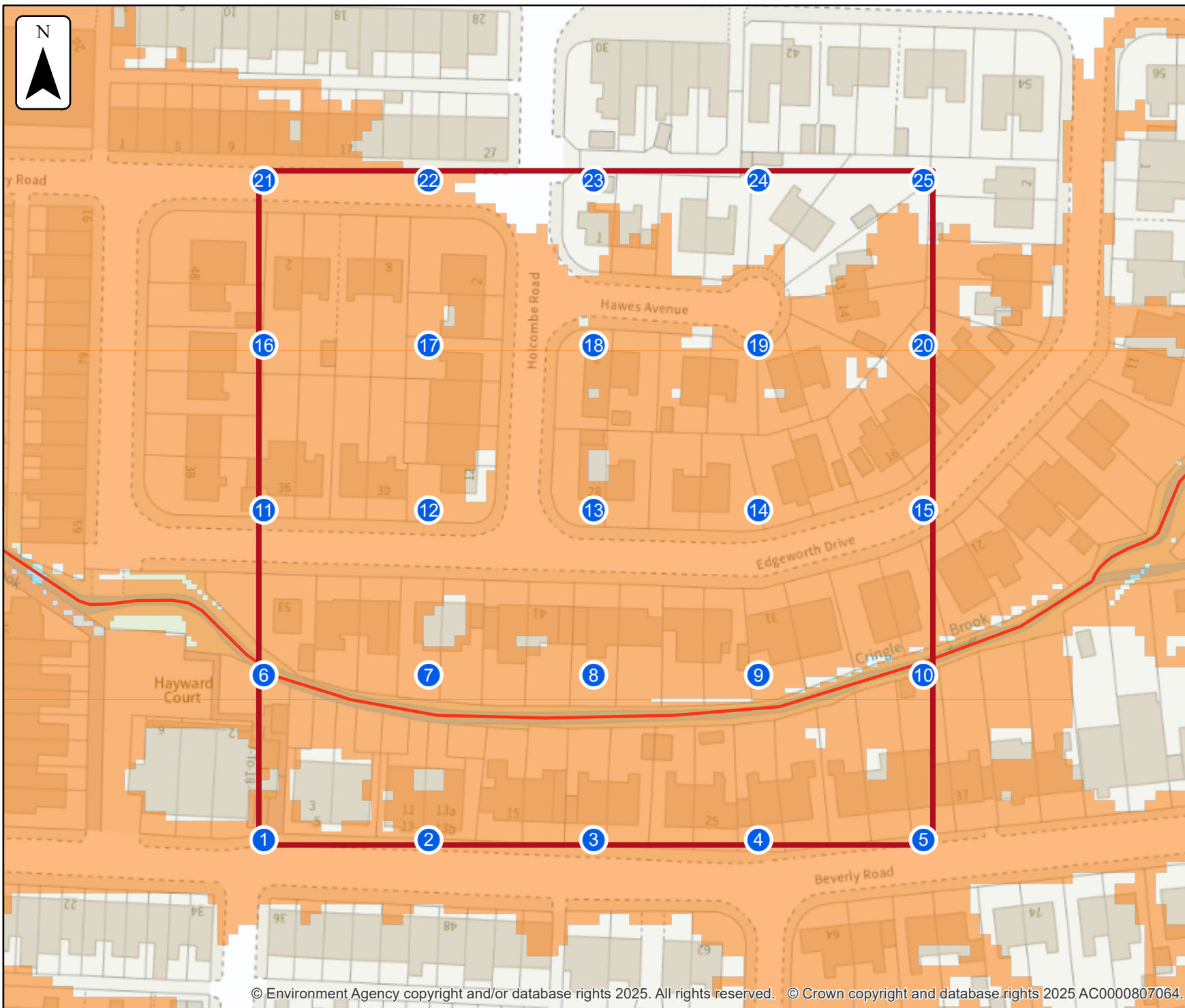
## Defended

| Label | Modelled location ID | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|----------------------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |                      |         |          | Flow    | Flow    | Flow    | Flow   | Flow   | Flow      | Flow   | Flow      | Flow   | Flow     | Flow     |
| 1     | 1440079              | 385920  | 393420   | 3.03    | 3.69    | 4.28    | 4.39   | 4.38   | 4.39      | 4.40   | 4.41      | 4.42   | 4.44     | 4.48     |
| 2     | 1440131              | 385999  | 393377   | 3.03    | 3.69    | 4.57    | 5.04   | 5.13   | 5.25      | 5.61   | 5.84      | 5.97   | 6.43     | 9.67     |
| 3     | 1440066              | 386022  | 393364   | 3.03    | 3.69    | 4.57    | 5.07   | 5.17   | 5.29      | 5.66   | 5.90      | 6.04   | 6.51     | 9.72     |
| 4     | 1440092              | 386046  | 393360   | 3.03    | 3.70    | 4.57    | 5.07   | 5.17   | 5.27      | 5.53   | 5.72      | 5.82   | 6.19     | 8.56     |
| 5     | 1440070              | 386099  | 393360   | 3.03    | 3.70    | 4.57    | 5.07   | 5.17   | 5.27      | 5.54   | 5.71      | 5.81   | 6.16     | 9.19     |
| 6     | 1440144              | 386152  | 393376   | 3.03    | 3.70    | 4.58    | 5.07   | 5.17   | 5.27      | 5.54   | 5.71      | 5.81   | 6.16     | 9.18     |
| 7     | 1440143              | 386194  | 393411   | 3.03    | 3.70    | 4.57    | 4.83   | 4.87   | 4.92      | 5.10   | 5.29      | 5.42   | 5.97     | 10.89    |
| 8     | 1440040              | 386197  | 393446   | 2.15    | 2.72    | 3.47    | 3.80   | 3.86   | 3.94      | 4.12   | 4.29      | 4.37   | 4.57     | 5.54     |
| 9     | 1440069              | 386229  | 393488   | 2.15    | 2.72    | 3.47    | 3.80   | 3.86   | 3.93      | 4.11   | 4.29      | 4.37   | 4.57     | 5.54     |
| 10    | 1440032              | 386249  | 393508   | 2.15    | 2.72    | 3.47    | 3.80   | 3.86   | 3.93      | 4.11   | 4.29      | 4.37   | 4.57     | 5.54     |

Data in this table comes from the Cringle Black Brook 2017 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second.

Any blank cells show where a particular scenario has not been modelled for this location.



## Defended modelled fluvial extent and height

Location (easting/northing)  
**386073/393400**

Scale Created  
**1:1,000 7 Jul 2025**

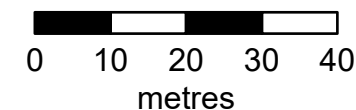
Model name  
**Cringle Black Brook  
2017**

- Selected area
- Main river

Modelled 2D grid  
Water level in mAOD

- 0 - 5.375
- 5.375 - 10.75
- 10.75 - 16.125
- 16.125 - 21.5
- 21.5 - 26.875
- 26.875 - 32.25
- 32.25 - 37.625
- 37.625 - 43.0
- 43.0 - 48.375

This map shows the  
0.1% AEP height data



## Sample point data

### Defended

| Label | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |         |          | Height  | Height  | Height  | Height | Height | Height    | Height | Height    | Height | Height   | Height   |
| 1     | 386008  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 39.85    |
| 2     | 386040  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.11    |
| 3     | 386072  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.37    |
| 4     | 386104  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.54    |
| 5     | 386136  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.74    |
| 6     | 386008  | 393368   | 39.29   | 39.42   | 39.91   | 39.94  | 39.94  | 39.95     | 39.96  | 39.96     | 39.96  | 39.97    | 40.01    |
| 7     | 386040  | 393368   | NoData  | NoData  | 39.90   | 39.92  | 39.92  | 39.92     | 39.93  | 39.94     | 39.94  | 39.95    | 40.06    |
| 8     | 386072  | 393368   | NoData  | NoData  | 39.87   | 39.95  | 39.97  | 39.98     | 40.01  | 40.04     | 40.05  | 40.08    | 40.19    |
| 9     | 386104  | 393368   | NoData  | NoData  | NoData  | 39.99  | 40.01  | 40.03     | 40.07  | 40.09     | 40.10  | 40.14    | 40.24    |
| 10    | 386136  | 393368   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | 40.27  | 40.31    | 40.52    |
| 11    | 386008  | 393400   | NoData  | NoData  | 39.78   | 39.81  | 39.82  | 39.83     | 39.85  | 39.87     | 39.88  | 39.91    | 40.05    |
| 12    | 386040  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | 39.86     | 39.87  | 39.90    | 40.04    |

| Label | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |         |          | Height  | Height  | Height  | Height | Height | Height    | Height | Height    | Height | Height   | Height   |
| 13    | 386072  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 39.99  | 40.01     | 40.01  | 40.04    | 40.12    |
| 14    | 386104  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | 39.99     | 40.06  | 40.07     | 40.08  | 40.11    | 40.21    |
| 15    | 386136  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 40.36  | 40.36     | 40.37  | 40.37    | 40.42    |
| 16    | 386008  | 393432   | NoData  | NoData  | 39.69   | 39.77  | 39.78  | 39.79     | 39.81  | 39.83     | 39.84  | 39.88    | 40.03    |
| 17    | 386040  | 393432   | NoData  | NoData  | 39.69   | 39.77  | 39.78  | 39.79     | 39.82  | 39.83     | 39.85  | 39.88    | 40.03    |
| 18    | 386072  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.11    |
| 19    | 386104  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.16    |
| 20    | 386136  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | 40.27    | 40.35    |
| 21    | 386008  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | 39.78     | 39.79  | 39.82    | 40.00    |
| 22    | 386040  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.03    |
| 23    | 386072  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| 24    | 386104  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |

| Label                       | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-----------------------------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|                             |         |          | Height  | Height  | Height  | Height | Height | Height    | Height | Height    | Height | Height   | Height   |
| 25                          | 386136  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| Max value in selected area: |         |          | 39.91   | 40.01   | 40.16   | 40.36  | 40.36  | 40.37     | 40.37  | 40.38     | 40.38  | 40.39    | 40.80    |

Data in this table comes from the Cringle Black Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.

'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

## Defended

| Label | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |         |          | Depth   | Depth   | Depth   | Depth  | Depth  | Depth     | Depth  | Depth     | Depth  | Depth    | Depth    |
| 1     | 386008  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.15     |
| 2     | 386040  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.05     |
| 3     | 386072  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.15     |
| 4     | 386104  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.18     |
| 5     | 386136  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.14     |
| 6     | 386008  | 393368   | 0.32    | 0.39    | 0.79    | 0.81   | 0.82   | 0.82      | 0.83   | 0.84      | 0.84   | 0.85     | 0.89     |
| 7     | 386040  | 393368   | NoData  | NoData  | 0.21    | 0.23   | 0.24   | 0.24      | 0.25   | 0.26      | 0.26   | 0.27     | 0.38     |
| 8     | 386072  | 393368   | NoData  | NoData  | 0.00    | 0.08   | 0.10   | 0.12      | 0.15   | 0.17      | 0.18   | 0.22     | 0.33     |
| 9     | 386104  | 393368   | NoData  | NoData  | NoData  | 0.06   | 0.08   | 0.10      | 0.13   | 0.16      | 0.17   | 0.21     | 0.30     |
| 10    | 386136  | 393368   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | 0.00   | 0.01     | 0.16     |
| 11    | 386008  | 393400   | NoData  | NoData  | 0.02    | 0.06   | 0.07   | 0.08      | 0.10   | 0.12      | 0.12   | 0.16     | 0.29     |
| 12    | 386040  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | 0.02      | 0.03   | 0.05     | 0.20     |

| Label | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |         |          | Depth   | Depth   | Depth   | Depth  | Depth  | Depth     | Depth  | Depth     | Depth  | Depth    | Depth    |
| 13    | 386072  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 0.02   | 0.03      | 0.04   | 0.06     | 0.14     |
| 14    | 386104  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | 0.04      | 0.10   | 0.12      | 0.12   | 0.15     | 0.25     |
| 15    | 386136  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 0.00   | 0.00      | 0.00   | 0.01     | 0.06     |
| 16    | 386008  | 393432   | NoData  | NoData  | 0.16    | 0.24   | 0.25   | 0.26      | 0.28   | 0.30      | 0.31   | 0.35     | 0.50     |
| 17    | 386040  | 393432   | NoData  | NoData  | 0.12    | 0.19   | 0.20   | 0.22      | 0.24   | 0.26      | 0.27   | 0.30     | 0.46     |
| 18    | 386072  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.06     |
| 19    | 386104  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.06     |
| 20    | 386136  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | 0.02     | 0.10     |
| 21    | 386008  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | 0.01      | 0.03   | 0.06     | 0.24     |
| 22    | 386040  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.06     |
| 23    | 386072  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| 24    | 386104  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |

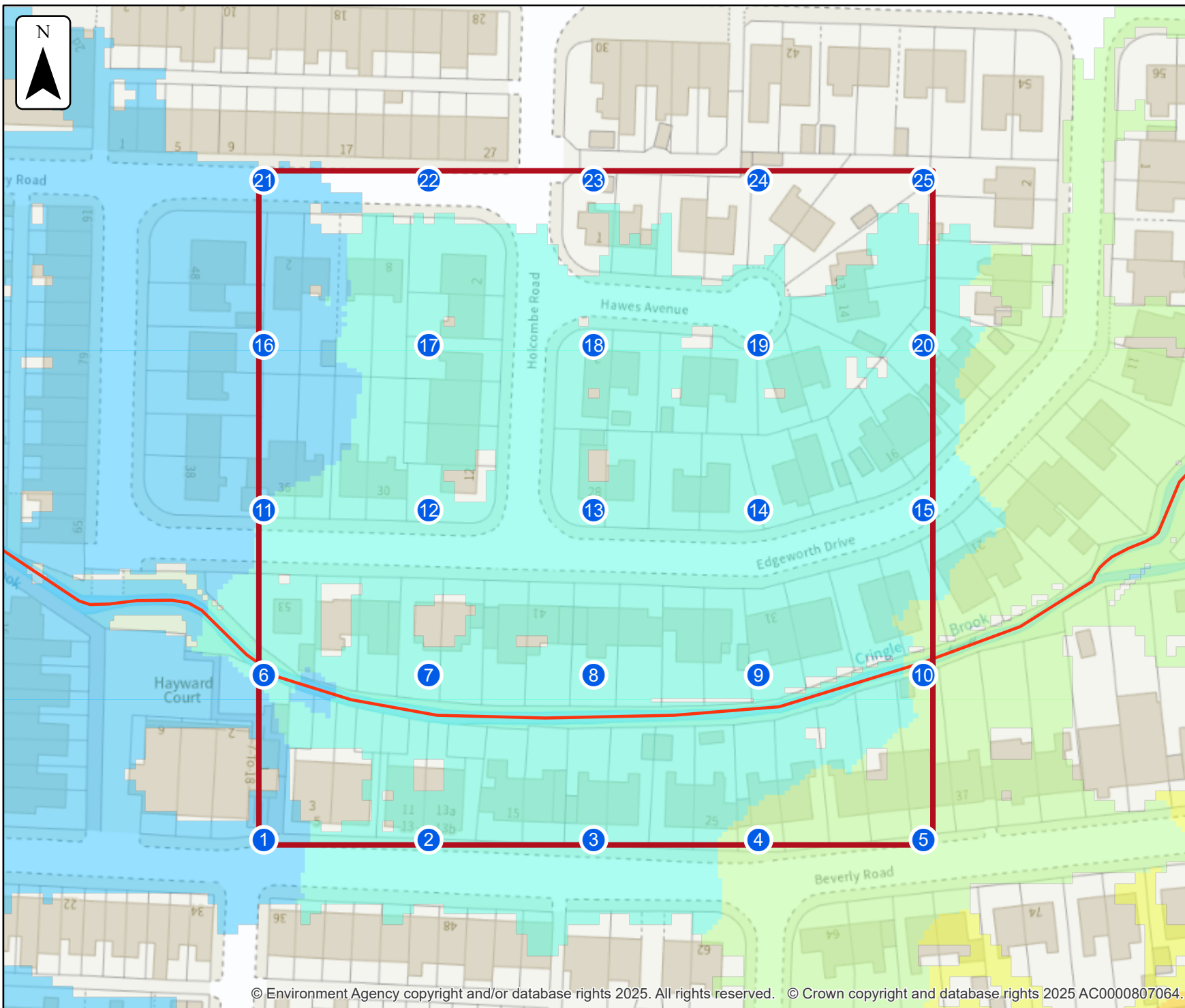
| Label                       | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-----------------------------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|                             |         |          | Depth   | Depth   | Depth   | Depth  | Depth  | Depth     | Depth  | Depth     | Depth  | Depth    | Depth    |
| 25                          | 386136  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| Max value in selected area: |         |          | 1.97    | 2.07    | 2.48    | 2.51   | 2.51   | 2.51      | 2.52   | 2.53      | 2.53   | 2.53     | 2.58     |

Data in this table comes from the Cringle Black Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.

'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.



## Defences removed modelled fluvial extent and height

Location (easting/northing)  
**386073/393400**

Scale Created  
**1:1,000 7 Jul 2025**

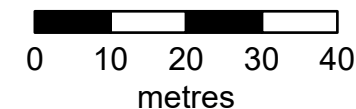
Model name  
**Cringle Black Brook  
2017**

- Selected area
- Main river

Modelled 2D grid  
Water level in mAOD

- 38 - 38.625
- 38.625 - 39.25
- 39.25 - 39.875
- 39.875 - 40.5
- 40.5 - 41.125
- 41.125 - 41.75
- 41.75 - 42.375
- 42.375 - 43.0
- 43.0 - 43.625

This map shows the  
0.1% AEP height data



## Sample point data

### Defences removed

| Label | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |         |          | Height  | Height  | Height  | Height | Height | Height    | Height | Height    | Height | Height   | Height   |
| 1     | 386008  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 39.85    |
| 2     | 386040  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.11    |
| 3     | 386072  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.37    |
| 4     | 386104  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.54    |
| 5     | 386136  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.74    |
| 6     | 386008  | 393368   | 39.29   | 39.42   | 39.71   | 39.75  | 39.76  | 39.76     | 39.78  | 39.79     | 39.79  | 39.81    | 39.88    |
| 7     | 386040  | 393368   | NoData  | NoData  | NoData  | 39.83  | 39.84  | 39.85     | 39.86  | 39.87     | 39.87  | 39.88    | 40.01    |
| 8     | 386072  | 393368   | NoData  | NoData  | NoData  | 39.95  | 39.96  | 39.98     | 40.01  | 40.04     | 40.05  | 40.08    | 40.19    |
| 9     | 386104  | 393368   | NoData  | NoData  | NoData  | 39.99  | 40.01  | 40.03     | 40.06  | 40.09     | 40.10  | 40.14    | 40.23    |
| 10    | 386136  | 393368   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | 40.27     | 40.28  | 40.32    | 40.52    |
| 11    | 386008  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | 39.76  | 39.77    | 39.87    |
| 12    | 386040  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | 39.86    | 39.93    |

| Label | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |         |          | Height  | Height  | Height  | Height | Height | Height    | Height | Height    | Height | Height   | Height   |
| 13    | 386072  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 39.99  | 40.01     | 40.01  | 40.04    | 40.11    |
| 14    | 386104  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 40.06  | 40.07     | 40.08  | 40.11    | 40.21    |
| 15    | 386136  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 40.36  | 40.36     | 40.37  | 40.37    | 40.42    |
| 16    | 386008  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 39.60  | 39.65     | 39.67  | 39.73    | 39.87    |
| 17    | 386040  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 39.62  | 39.65     | 39.68  | 39.73    | 39.88    |
| 18    | 386072  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.10    |
| 19    | 386104  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 40.16    |
| 20    | 386136  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | 40.27    | 40.35    |
| 21    | 386008  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 39.80    |
| 22    | 386040  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| 23    | 386072  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| 24    | 386104  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |

| Label                       | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-----------------------------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|                             |         |          | Height  | Height  | Height  | Height | Height | Height    | Height | Height    | Height | Height   | Height   |
| 25                          | 386136  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| Max value in selected area: |         |          | 39.91   | 40.01   | 40.14   | 40.35  | 40.36  | 40.37     | 40.37  | 40.38     | 40.38  | 40.39    | 40.80    |

Data in this table comes from the Cringle Black Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.

'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

## Defences removed

| Label | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |         |          | Depth   | Depth   | Depth   | Depth  | Depth  | Depth     | Depth  | Depth     | Depth  | Depth    | Depth    |
| 1     | 386008  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.15     |
| 2     | 386040  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.05     |
| 3     | 386072  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.15     |
| 4     | 386104  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.18     |
| 5     | 386136  | 393336   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.14     |
| 6     | 386008  | 393368   | 0.32    | 0.39    | 0.59    | 0.63   | 0.63   | 0.64      | 0.66   | 0.67      | 0.67   | 0.68     | 0.76     |
| 7     | 386040  | 393368   | NoData  | NoData  | NoData  | 0.15   | 0.16   | 0.17      | 0.18   | 0.18      | 0.19   | 0.19     | 0.33     |
| 8     | 386072  | 393368   | NoData  | NoData  | NoData  | 0.08   | 0.10   | 0.11      | 0.15   | 0.17      | 0.18   | 0.22     | 0.32     |
| 9     | 386104  | 393368   | NoData  | NoData  | NoData  | 0.06   | 0.08   | 0.10      | 0.13   | 0.16      | 0.17   | 0.21     | 0.30     |
| 10    | 386136  | 393368   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | 0.00      | 0.01   | 0.02     | 0.16     |
| 11    | 386008  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | 0.01   | 0.02     | 0.12     |
| 12    | 386040  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | 0.02     | 0.08     |

| Label | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|       |         |          | Depth   | Depth   | Depth   | Depth  | Depth  | Depth     | Depth  | Depth     | Depth  | Depth    | Depth    |
| 13    | 386072  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 0.02   | 0.03      | 0.04   | 0.06     | 0.13     |
| 14    | 386104  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 0.10   | 0.12      | 0.12   | 0.15     | 0.25     |
| 15    | 386136  | 393400   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 0.00   | 0.00      | 0.00   | 0.01     | 0.06     |
| 16    | 386008  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 0.07   | 0.12      | 0.14   | 0.20     | 0.34     |
| 17    | 386040  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | 0.05   | 0.07      | 0.10   | 0.16     | 0.31     |
| 18    | 386072  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.05     |
| 19    | 386104  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.06     |
| 20    | 386136  | 393432   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | 0.02     | 0.10     |
| 21    | 386008  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | 0.04     |
| 22    | 386040  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| 23    | 386072  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| 24    | 386104  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |

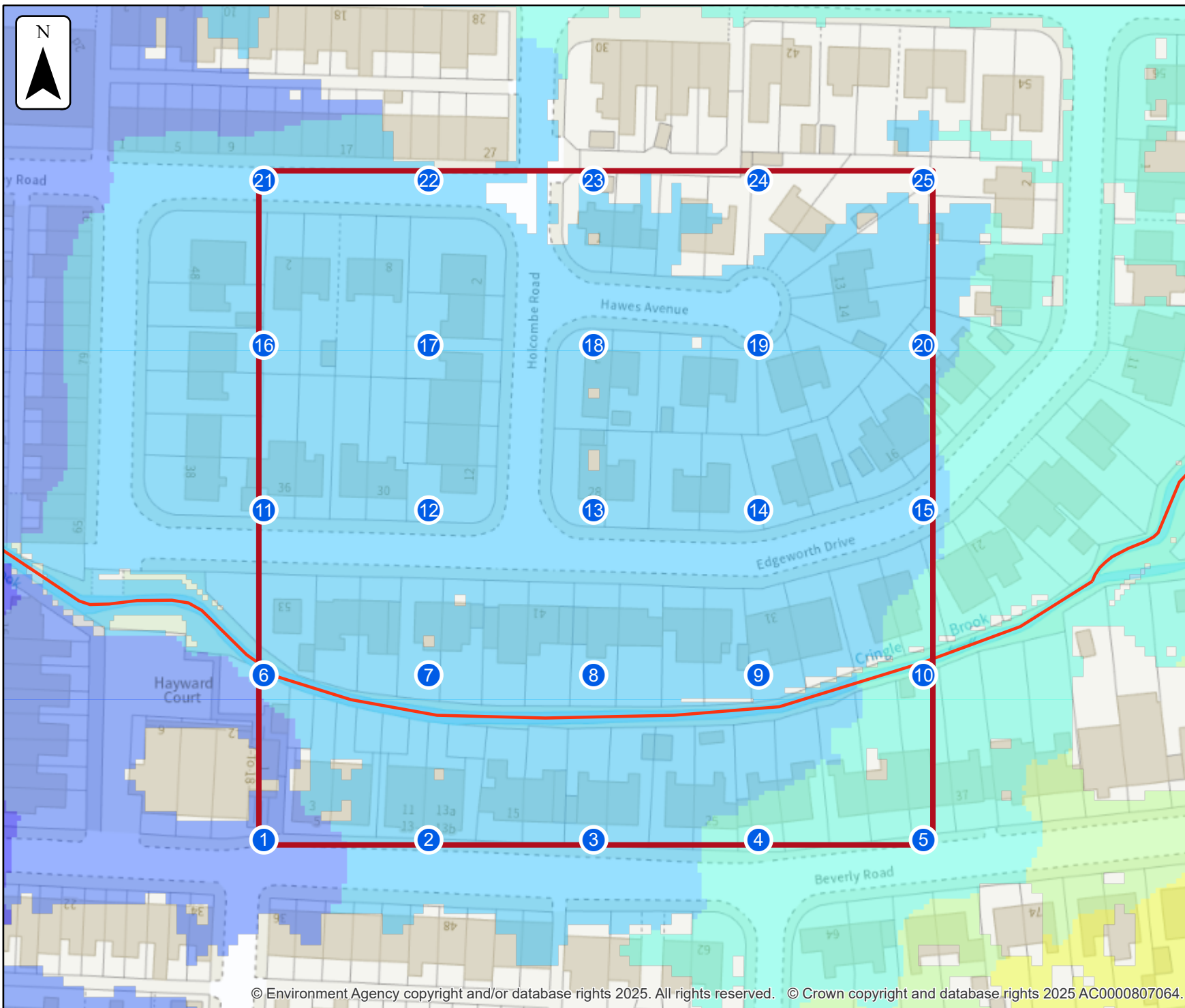
| Label                       | Easting | Northing | 50% AEP | 20% AEP | 10% AEP | 5% AEP | 4% AEP | 3.33% AEP | 2% AEP | 1.33% AEP | 1% AEP | 0.5% AEP | 0.1% AEP |
|-----------------------------|---------|----------|---------|---------|---------|--------|--------|-----------|--------|-----------|--------|----------|----------|
|                             |         |          | Depth   | Depth   | Depth   | Depth  | Depth  | Depth     | Depth  | Depth     | Depth  | Depth    | Depth    |
| 25                          | 386136  | 393464   | NoData  | NoData  | NoData  | NoData | NoData | NoData    | NoData | NoData    | NoData | NoData   | NoData   |
| Max value in selected area: |         |          | 1.97    | 2.07    | 2.28    | 2.32   | 2.32   | 2.33      | 2.35   | 2.35      | 2.36   | 2.39     | 2.58     |

Data in this table comes from the Cringle Black Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.

'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.



# Defended climate change modelled fluvial extent and height

Location (easting/northing)  
**386073/393400**

Scale Created  
**1:1,000 7 Jul 2025**

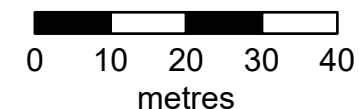
Model name  
**Cringle Black Brook 2017**

- Selected area
- Main river

Modelled 2D grid  
Water level in mAOD

- 39.0 - 39.5
- 39.5 - 40.0
- 40.0 - 40.5
- 40.5 - 41.0
- 41.0 - 41.5
- 41.5 - 42.0
- 42.0 - 42.5
- 42.5 - 43.0
- 43.0 - 43.5

This map shows the  
0.1% AEP +30% height data



## Sample point data

### Defended climate change

| Label | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|---------|----------|---------------|---------------|---------------|-----------------|
|       |         |          | Height        | Height        | Height        | Height          |
| 1     | 386008  | 393336   | NoData        | NoData        | 39.77         | 39.90           |
| 2     | 386040  | 393336   | NoData        | NoData        | 40.06         | 40.14           |
| 3     | 386072  | 393336   | NoData        | NoData        | 40.28         | 40.40           |
| 4     | 386104  | 393336   | NoData        | NoData        | 40.45         | 40.59           |
| 5     | 386136  | 393336   | NoData        | NoData        | 40.67         | 40.78           |
| 6     | 386008  | 393368   | 39.97         | 39.97         | 39.98         | 40.03           |
| 7     | 386040  | 393368   | 39.96         | 39.96         | 39.98         | 40.11           |
| 8     | 386072  | 393368   | 40.10         | 40.11         | 40.13         | 40.24           |
| 9     | 386104  | 393368   | 40.15         | 40.16         | 40.19         | 40.28           |
| 10    | 386136  | 393368   | 40.33         | 40.34         | 40.40         | 40.58           |
| 11    | 386008  | 393400   | 39.93         | 39.94         | 39.98         | 40.09           |
| 12    | 386040  | 393400   | 39.92         | 39.93         | 39.97         | 40.09           |

| Label | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|---------|----------|---------------|---------------|---------------|-----------------|
|       |         |          | Height        | Height        | Height        | Height          |
| 13    | 386072  | 393400   | 40.05         | 40.06         | 40.08         | 40.16           |
| 14    | 386104  | 393400   | 40.13         | 40.13         | 40.16         | 40.26           |
| 15    | 386136  | 393400   | 40.38         | 40.38         | 40.39         | 40.47           |
| 16    | 386008  | 393432   | 39.90         | 39.91         | 39.96         | 40.08           |
| 17    | 386040  | 393432   | 39.90         | 39.91         | 39.96         | 40.09           |
| 18    | 386072  | 393432   | 40.07         | 40.07         | 40.07         | 40.16           |
| 19    | 386104  | 393432   | 40.10         | 40.10         | 40.12         | 40.22           |
| 20    | 386136  | 393432   | 40.28         | 40.28         | 40.30         | 40.39           |
| 21    | 386008  | 393464   | 39.85         | 39.86         | 39.91         | 40.06           |
| 22    | 386040  | 393464   | NoData        | NoData        | NoData        | 40.08           |
| 23    | 386072  | 393464   | NoData        | NoData        | NoData        | NoData          |
| 24    | 386104  | 393464   | NoData        | NoData        | NoData        | NoData          |

| Label                       | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-----------------------------|---------|----------|---------------|---------------|---------------|-----------------|
|                             |         |          | Height        | Height        | Height        | Height          |
| 25                          | 386136  | 393464   | NoData        | NoData        | NoData        | NoData          |
| Max value in selected area: |         |          | 40.40         | 40.41         | 40.75         | 40.84           |

Data in this table comes from the Cringle Black Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.

'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

## Defended climate change

| Label | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|---------|----------|---------------|---------------|---------------|-----------------|
|       |         |          | Depth         | Depth         | Depth         | Depth           |
| 1     | 386008  | 393336   | NoData        | NoData        | 0.06          | 0.19            |
| 2     | 386040  | 393336   | NoData        | NoData        | 0.01          | 0.09            |
| 3     | 386072  | 393336   | NoData        | NoData        | 0.06          | 0.18            |
| 4     | 386104  | 393336   | NoData        | NoData        | 0.09          | 0.23            |
| 5     | 386136  | 393336   | NoData        | NoData        | 0.07          | 0.19            |
| 6     | 386008  | 393368   | 0.85          | 0.85          | 0.86          | 0.90            |
| 7     | 386040  | 393368   | 0.28          | 0.28          | 0.30          | 0.43            |
| 8     | 386072  | 393368   | 0.23          | 0.24          | 0.27          | 0.37            |
| 9     | 386104  | 393368   | 0.22          | 0.23          | 0.25          | 0.34            |
| 10    | 386136  | 393368   | 0.02          | 0.03          | 0.05          | 0.23            |
| 11    | 386008  | 393400   | 0.18          | 0.19          | 0.23          | 0.33            |
| 12    | 386040  | 393400   | 0.08          | 0.09          | 0.13          | 0.24            |

| Label | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|---------|----------|---------------|---------------|---------------|-----------------|
|       |         |          | Depth         | Depth         | Depth         | Depth           |
| 13    | 386072  | 393400   | 0.08          | 0.08          | 0.10          | 0.18            |
| 14    | 386104  | 393400   | 0.17          | 0.18          | 0.20          | 0.30            |
| 15    | 386136  | 393400   | 0.01          | 0.02          | 0.03          | 0.11            |
| 16    | 386008  | 393432   | 0.37          | 0.38          | 0.43          | 0.56            |
| 17    | 386040  | 393432   | 0.33          | 0.34          | 0.38          | 0.51            |
| 18    | 386072  | 393432   | 0.01          | 0.01          | 0.02          | 0.10            |
| 19    | 386104  | 393432   | 0.00          | 0.01          | 0.02          | 0.11            |
| 20    | 386136  | 393432   | 0.03          | 0.04          | 0.05          | 0.15            |
| 21    | 386008  | 393464   | 0.09          | 0.10          | 0.15          | 0.30            |
| 22    | 386040  | 393464   | NoData        | NoData        | NoData        | 0.12            |
| 23    | 386072  | 393464   | NoData        | NoData        | NoData        | NoData          |
| 24    | 386104  | 393464   | NoData        | NoData        | NoData        | NoData          |

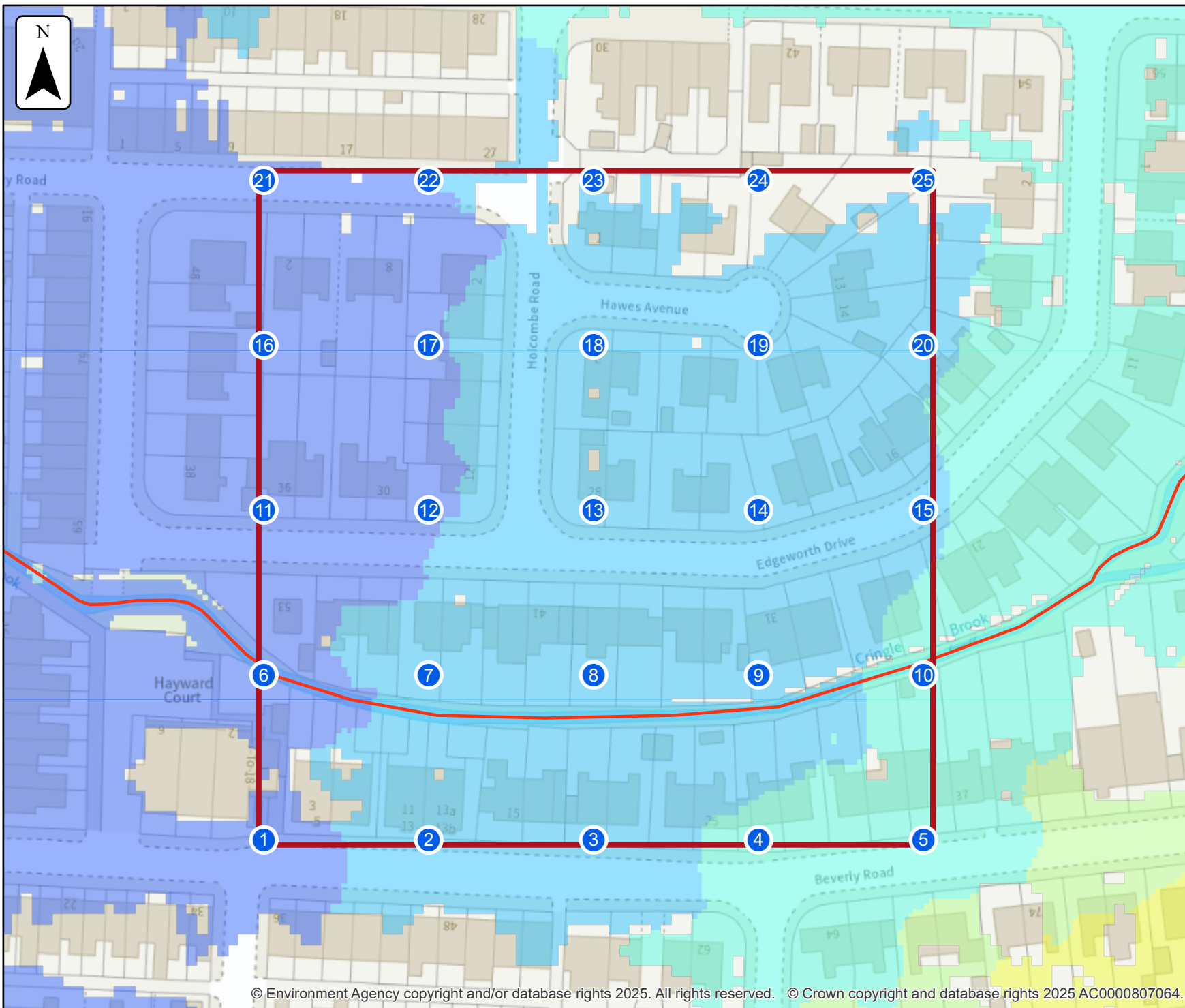
| Label                       | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-----------------------------|---------|----------|---------------|---------------|---------------|-----------------|
|                             |         |          | Depth         | Depth         | Depth         | Depth           |
| 25                          | 386136  | 393464   | NoData        | NoData        | NoData        | NoData          |
| Max value in selected area: |         |          | 2.54          | 2.54          | 2.55          | 2.64            |

Data in this table comes from the Cringle Black Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.

'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.



# Defences removed climate change modelled fluvial extent and height

Location (easting/northing)  
**386073/393400**

Scale Created  
**1:1,000 7 Jul 2025**

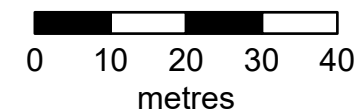
Model name  
**Cringle Black Brook  
2017**

- Selected area
- Main river

Modelled 2D grid  
Water level in mAOD

- 39 - 39.5
- 39.5 - 40.0
- 40.0 - 40.5
- 40.5 - 41.0
- 41.0 - 41.5
- 41.5 - 42.0
- 42.0 - 42.5
- 42.5 - 43.0
- 43.0 - 43.5

This map shows the  
0.1% AEP +30% height data



## Sample point data

### Defences removed climate change

| Label | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|---------|----------|---------------|---------------|---------------|-----------------|
|       |         |          | Height        | Height        | Height        | Height          |
| 1     | 386008  | 393336   | NoData        | NoData        | 39.77         | 39.89           |
| 2     | 386040  | 393336   | NoData        | NoData        | 40.06         | 40.14           |
| 3     | 386072  | 393336   | NoData        | NoData        | 40.28         | 40.40           |
| 4     | 386104  | 393336   | NoData        | NoData        | 40.45         | 40.59           |
| 5     | 386136  | 393336   | NoData        | NoData        | 40.67         | 40.78           |
| 6     | 386008  | 393368   | 39.81         | 39.81         | 39.83         | 39.91           |
| 7     | 386040  | 393368   | 39.88         | 39.88         | 39.91         | 40.09           |
| 8     | 386072  | 393368   | 40.10         | 40.10         | 40.13         | 40.24           |
| 9     | 386104  | 393368   | 40.15         | 40.16         | 40.18         | 40.27           |
| 10    | 386136  | 393368   | 40.34         | 40.35         | 40.42         | 40.58           |
| 11    | 386008  | 393400   | 39.78         | 39.79         | 39.82         | 39.92           |
| 12    | 386040  | 393400   | 39.87         | 39.88         | 39.89         | 39.97           |

| Label | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|---------|----------|---------------|---------------|---------------|-----------------|
|       |         |          | Height        | Height        | Height        | Height          |
| 13    | 386072  | 393400   | 40.05         | 40.06         | 40.07         | 40.15           |
| 14    | 386104  | 393400   | 40.13         | 40.13         | 40.16         | 40.26           |
| 15    | 386136  | 393400   | 40.38         | 40.38         | 40.39         | 40.47           |
| 16    | 386008  | 393432   | 39.76         | 39.77         | 39.81         | 39.92           |
| 17    | 386040  | 393432   | 39.77         | 39.78         | 39.82         | 39.94           |
| 18    | 386072  | 393432   | 40.07         | 40.07         | 40.07         | 40.16           |
| 19    | 386104  | 393432   | 40.10         | 40.10         | 40.12         | 40.21           |
| 20    | 386136  | 393432   | 40.28         | 40.28         | 40.30         | 40.39           |
| 21    | 386008  | 393464   | NoData        | NoData        | NoData        | 39.85           |
| 22    | 386040  | 393464   | NoData        | NoData        | NoData        | 39.99           |
| 23    | 386072  | 393464   | NoData        | NoData        | NoData        | NoData          |
| 24    | 386104  | 393464   | NoData        | NoData        | NoData        | NoData          |

| Label                       | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-----------------------------|---------|----------|---------------|---------------|---------------|-----------------|
|                             |         |          | Height        | Height        | Height        | Height          |
| 25                          | 386136  | 393464   | NoData        | NoData        | NoData        | NoData          |
| Max value in selected area: |         |          | 40.40         | 40.41         | 40.75         | 40.84           |

Data in this table comes from the Cringle Black Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.

'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

## Defences removed climate change

| Label | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|---------|----------|---------------|---------------|---------------|-----------------|
|       |         |          | Depth         | Depth         | Depth         | Depth           |
| 1     | 386008  | 393336   | NoData        | NoData        | 0.06          | 0.19            |
| 2     | 386040  | 393336   | NoData        | NoData        | 0.01          | 0.09            |
| 3     | 386072  | 393336   | NoData        | NoData        | 0.06          | 0.18            |
| 4     | 386104  | 393336   | NoData        | NoData        | 0.09          | 0.23            |
| 5     | 386136  | 393336   | NoData        | NoData        | 0.07          | 0.19            |
| 6     | 386008  | 393368   | 0.69          | 0.69          | 0.70          | 0.79            |
| 7     | 386040  | 393368   | 0.20          | 0.20          | 0.23          | 0.41            |
| 8     | 386072  | 393368   | 0.23          | 0.24          | 0.26          | 0.37            |
| 9     | 386104  | 393368   | 0.22          | 0.23          | 0.25          | 0.34            |
| 10    | 386136  | 393368   | 0.03          | 0.04          | 0.07          | 0.23            |
| 11    | 386008  | 393400   | 0.03          | 0.04          | 0.06          | 0.17            |
| 12    | 386040  | 393400   | 0.03          | 0.03          | 0.05          | 0.12            |

| Label | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-------|---------|----------|---------------|---------------|---------------|-----------------|
|       |         |          | Depth         | Depth         | Depth         | Depth           |
| 13    | 386072  | 393400   | 0.08          | 0.08          | 0.10          | 0.18            |
| 14    | 386104  | 393400   | 0.17          | 0.18          | 0.20          | 0.30            |
| 15    | 386136  | 393400   | 0.02          | 0.02          | 0.03          | 0.11            |
| 16    | 386008  | 393432   | 0.23          | 0.24          | 0.28          | 0.39            |
| 17    | 386040  | 393432   | 0.19          | 0.20          | 0.24          | 0.36            |
| 18    | 386072  | 393432   | 0.01          | 0.01          | 0.02          | 0.10            |
| 19    | 386104  | 393432   | 0.00          | 0.01          | 0.02          | 0.11            |
| 20    | 386136  | 393432   | 0.03          | 0.04          | 0.05          | 0.15            |
| 21    | 386008  | 393464   | NoData        | NoData        | NoData        | 0.09            |
| 22    | 386040  | 393464   | NoData        | NoData        | NoData        | 0.02            |
| 23    | 386072  | 393464   | NoData        | NoData        | NoData        | NoData          |
| 24    | 386104  | 393464   | NoData        | NoData        | NoData        | NoData          |

| Label                       | Easting | Northing | 1% AEP (+30%) | 1% AEP (+35%) | 1% AEP (+70%) | 0.1% AEP (+30%) |
|-----------------------------|---------|----------|---------------|---------------|---------------|-----------------|
|                             |         |          | Depth         | Depth         | Depth         | Depth           |
| 25                          | 386136  | 393464   | NoData        | NoData        | NoData        | NoData          |
| Max value in selected area: |         |          | 2.41          | 2.42          | 2.48          | 2.64            |

Data in this table comes from the Cringle Black Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.

'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

## 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 Manchester District.

## 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 Greater Manchester Merseyside and Cheshire Environment Agency team at [inforequests.gmmc@environment-agency.gov.uk](mailto:inforequests.gmmc@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