

Flood risk assessment data

Location of site: 385728 / 393125 (shown as easting and northing coordinates)

Document created on: 15 November 2024

This information was previously known as a product 4.

Customer reference number: Y3321MFV9CMX

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
- climate change 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

Use the [long term flood risk service](#) to find out about the risk of flooding from:

- surface water
- ordinary watercourses
- reservoirs

Or you can contact your Lead Local Flood Authority for further information.

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

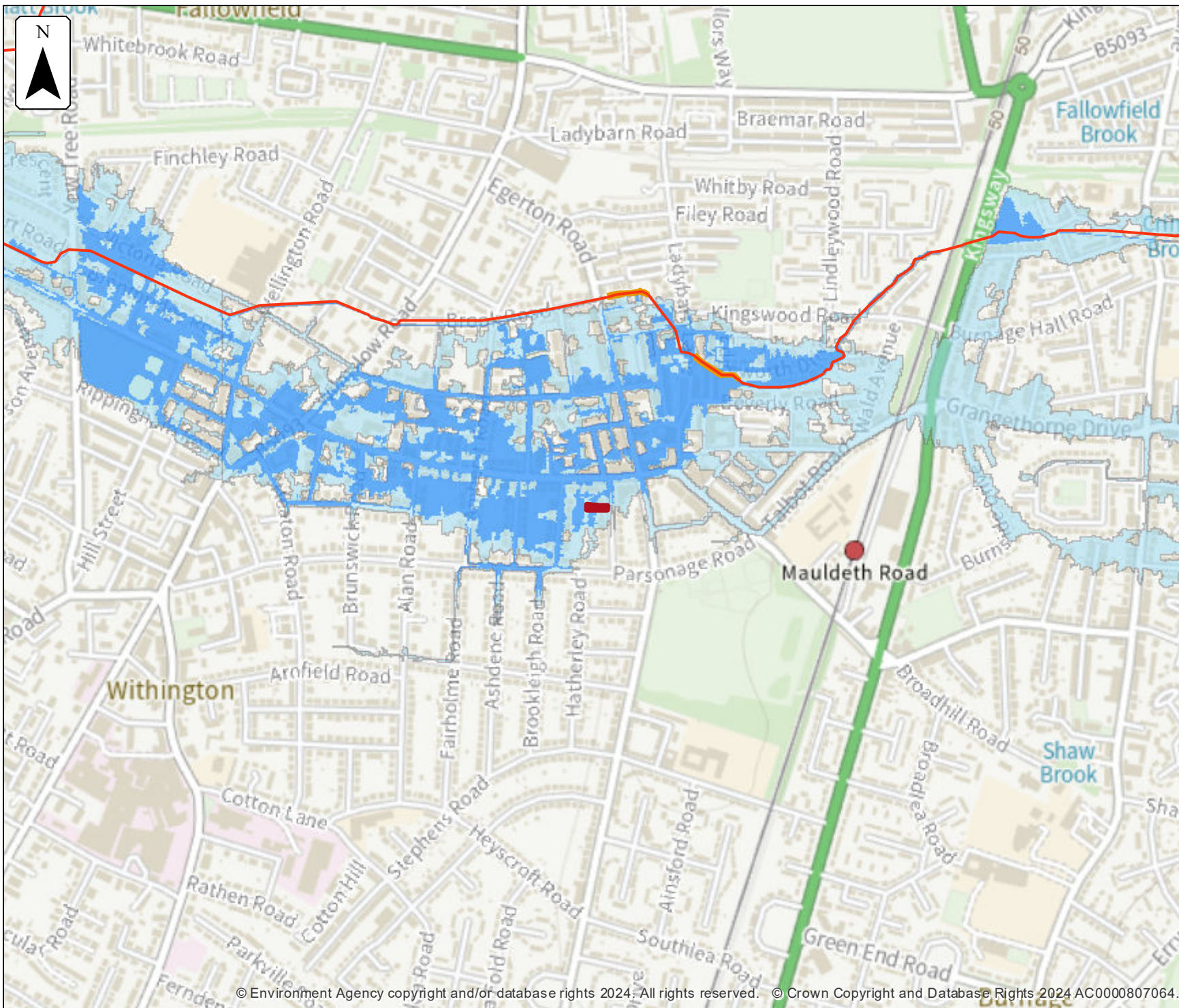
Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

- 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

The flood zones are not currently being updated. The last update was in November 2023. Some of the flood zones may have changed, however all source data is included in the models below.



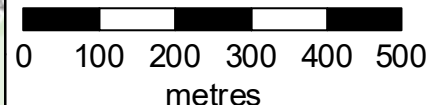
Flood map for planning

Location (easting/northing)
385728/393125

Scale
1:10,000

Created
15 Nov 2024

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



Past floods

Past flood events included in this document

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

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

Data limitations

The outlines do not include flooding from:

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

Changes to flood defences

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

What the recorded flood outlines dataset is

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

- rivers
- the sea
- groundwater
- surface water

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

Get flood information from other organisations

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

Data on past flood events

Start date	End date	Source of flood	Cause of flood	Affects location
10 August 2004	11 August 2004	main river	local drainage/surface water	No
26 October 2001	27 October 2001	main river	obstruction/blockage - channel	No

Flood defences and attributes

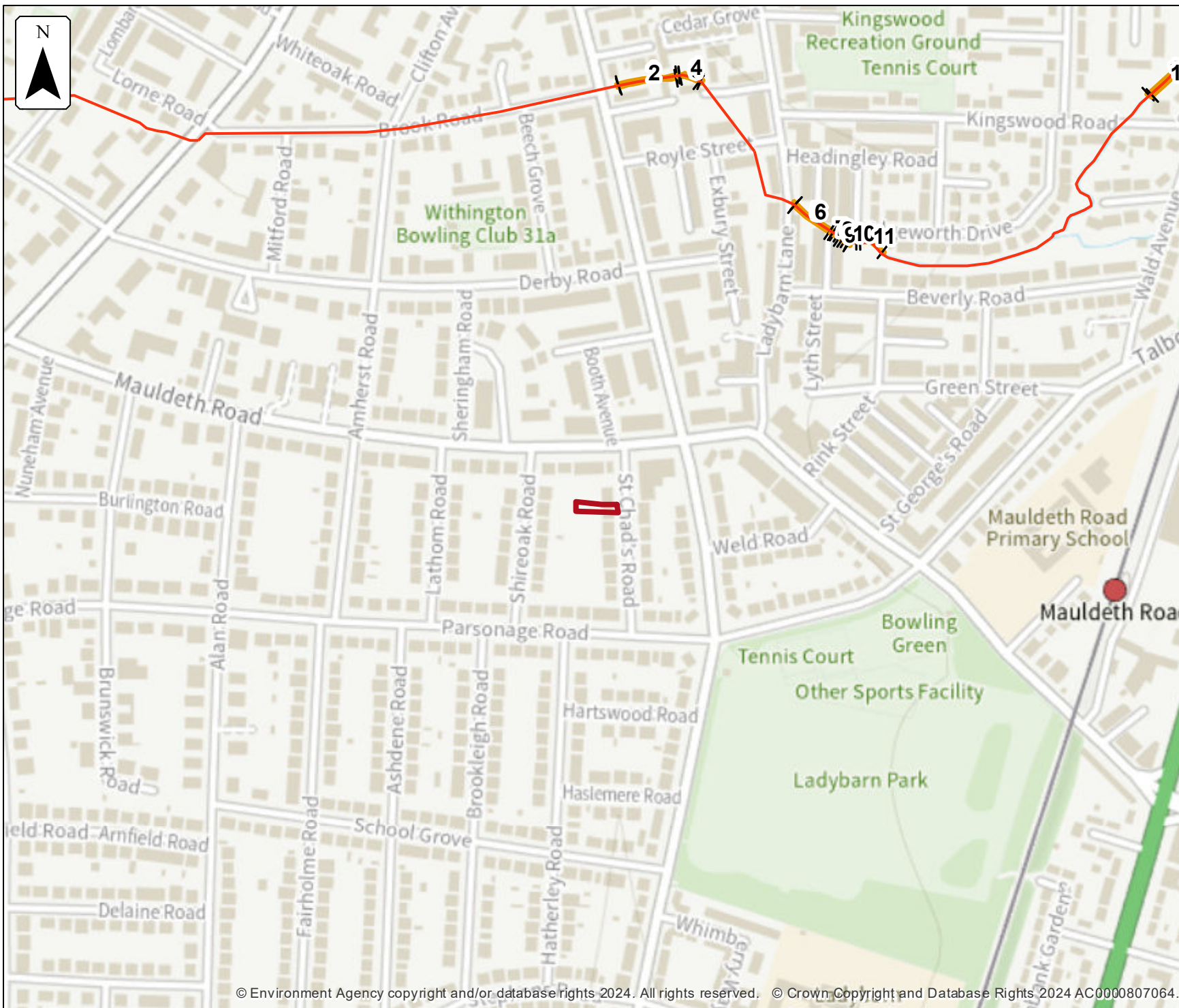
The flood defences map shows the location of the flood defences present.

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



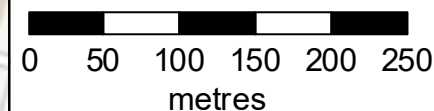
Flood defences

Location (easting/northing)
385728/393125

Scale
1:5,000

Created
15 Nov 2024

- 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		39.28	39.24	
2	32270	Wall	100		39.21	39.28	
3	32271	Wall	100		39.40	39.73	
4	32836	Wall	100		39.40	39.36	
5	32357	Wall	100		40.67	40.97	
6	121698	Wall	100		40.70	40.96	
7	32358	Wall	100		40.72	40.71	
8	59161	Wall	100		40.13	40.13	
9	8870	Wall	100		39.84	39.83	
10	8872	Embankment	100		39.78	39.77	
11	9557	Engineered High Ground	100		39.86	39.89	
12	7427	Engineered High Ground	100		40.24	44.26	
13	9636	Engineered High Ground	100		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

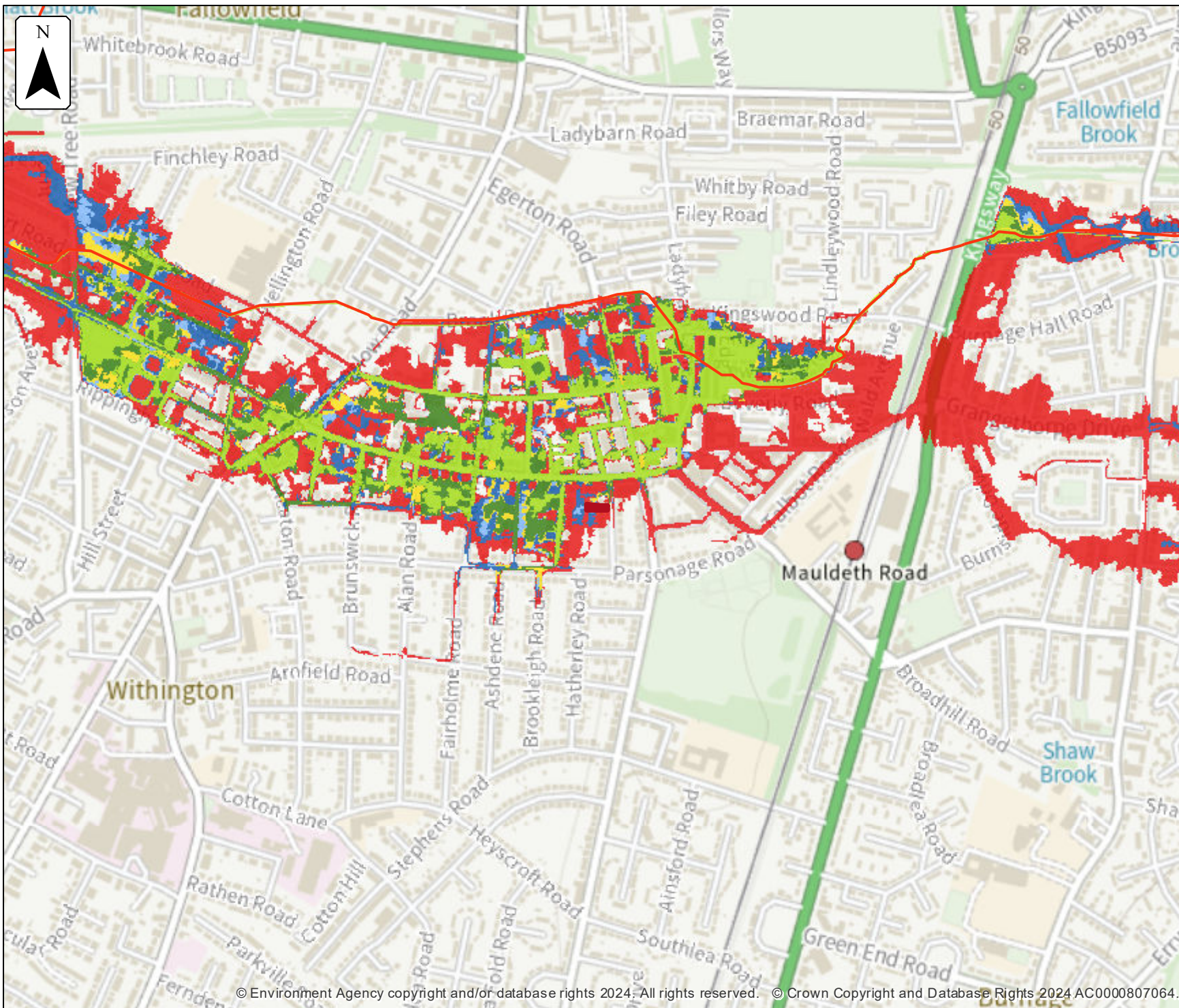
The climate change data included in the models may not include the latest [flood risk assessment climate change allowances](#). Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

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



Defended modelled fluvial extent

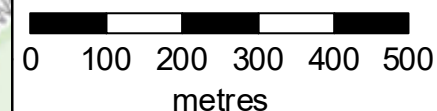
Location (easting/northing)
385728/393125

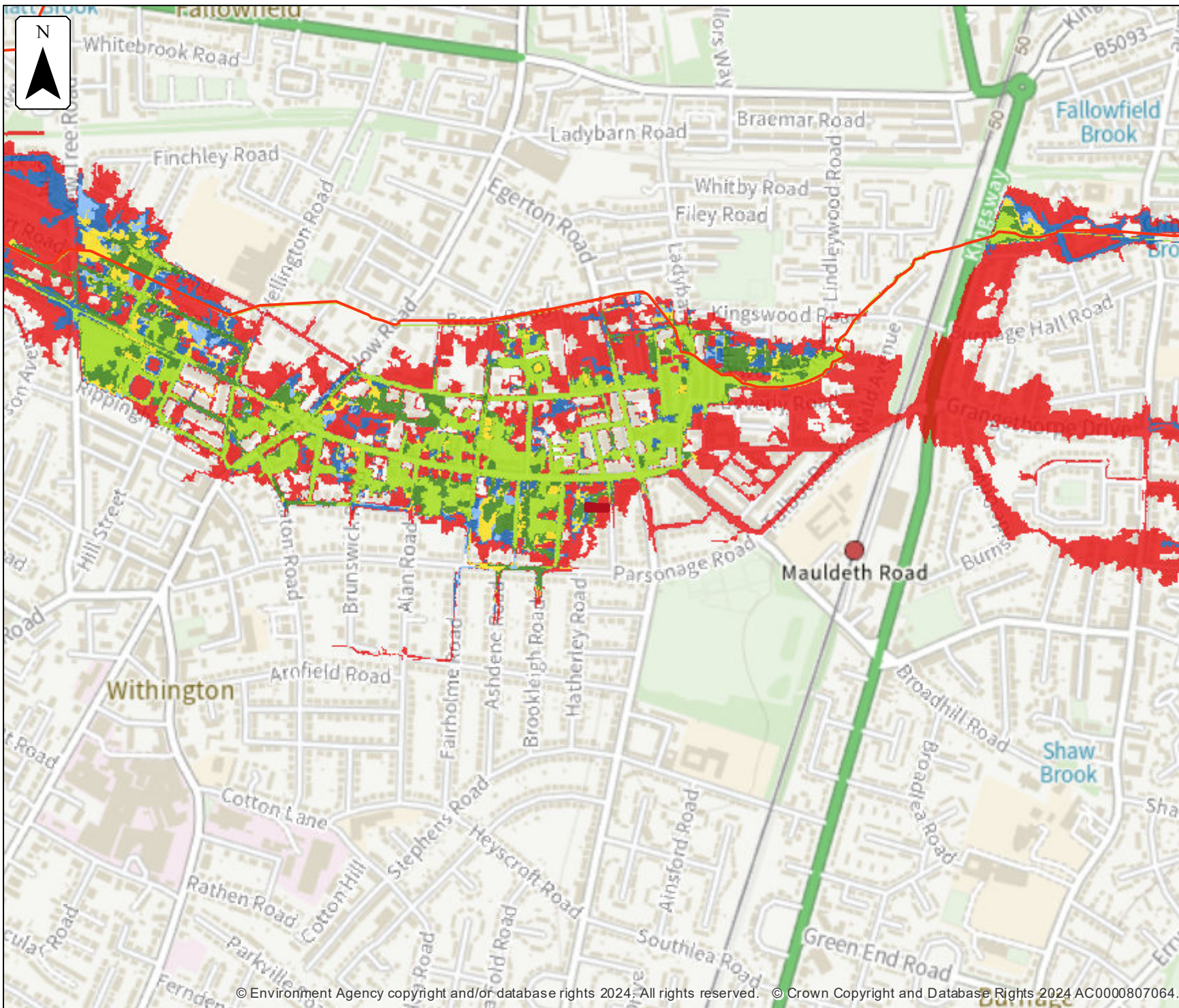
Scale Created
1:10,000 15 Nov 2024

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 modelled fluvial extent

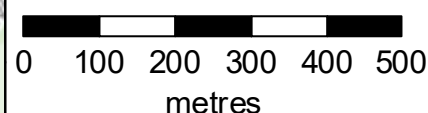
Location (easting/northing)
385728/393125

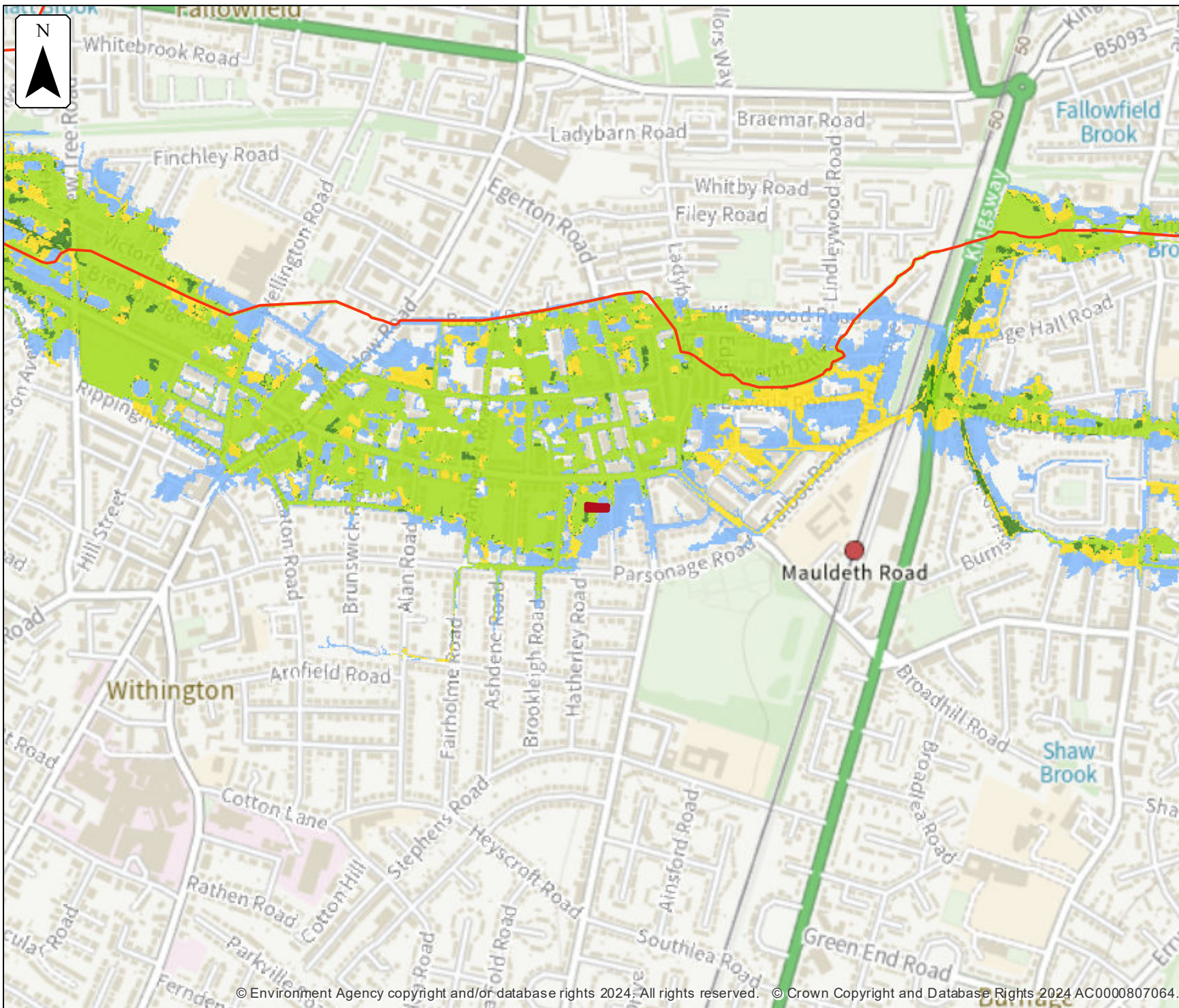
Scale Created
1:10,000 15 Nov 2024

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

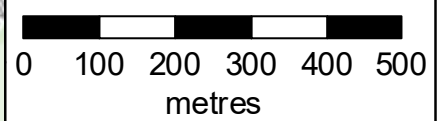
Location (easting/northing)
385728/393125

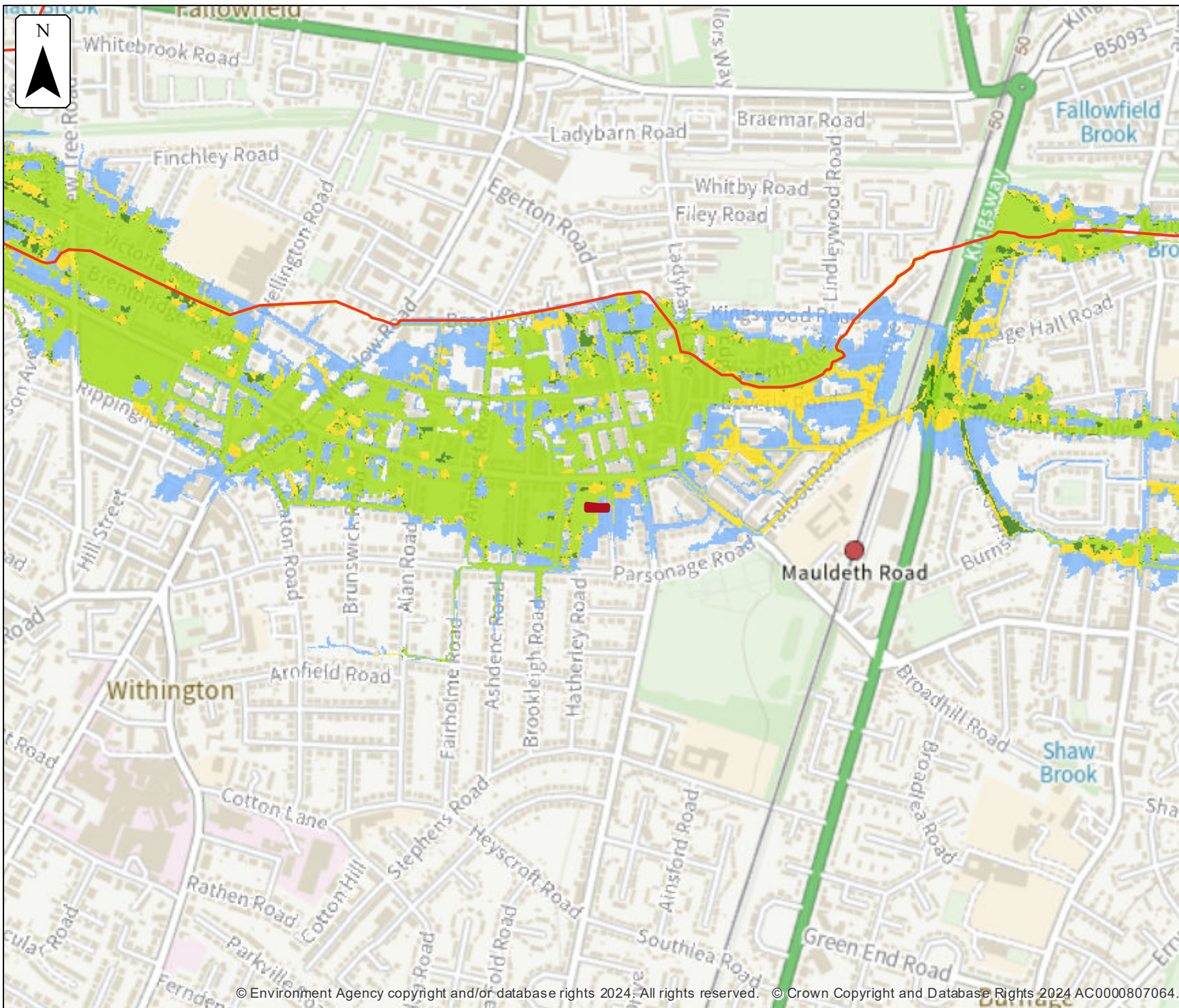
Scale Created
1:10,000 15 Nov 2024

Model name
Cringle Black Brook 2017

- Selected area
- Main river
- Modelled flood extent
 - 1.0% AEP (+30%)
 - 1.0% AEP (+35%)
 - 1.0% AEP (+70%)
 - 0.1% AEP (+30%)

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





Defences removed climate change modelled fluvial extent

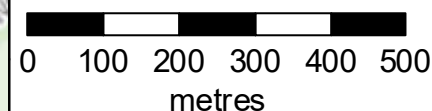
Location (easting/northing)
385728/393125

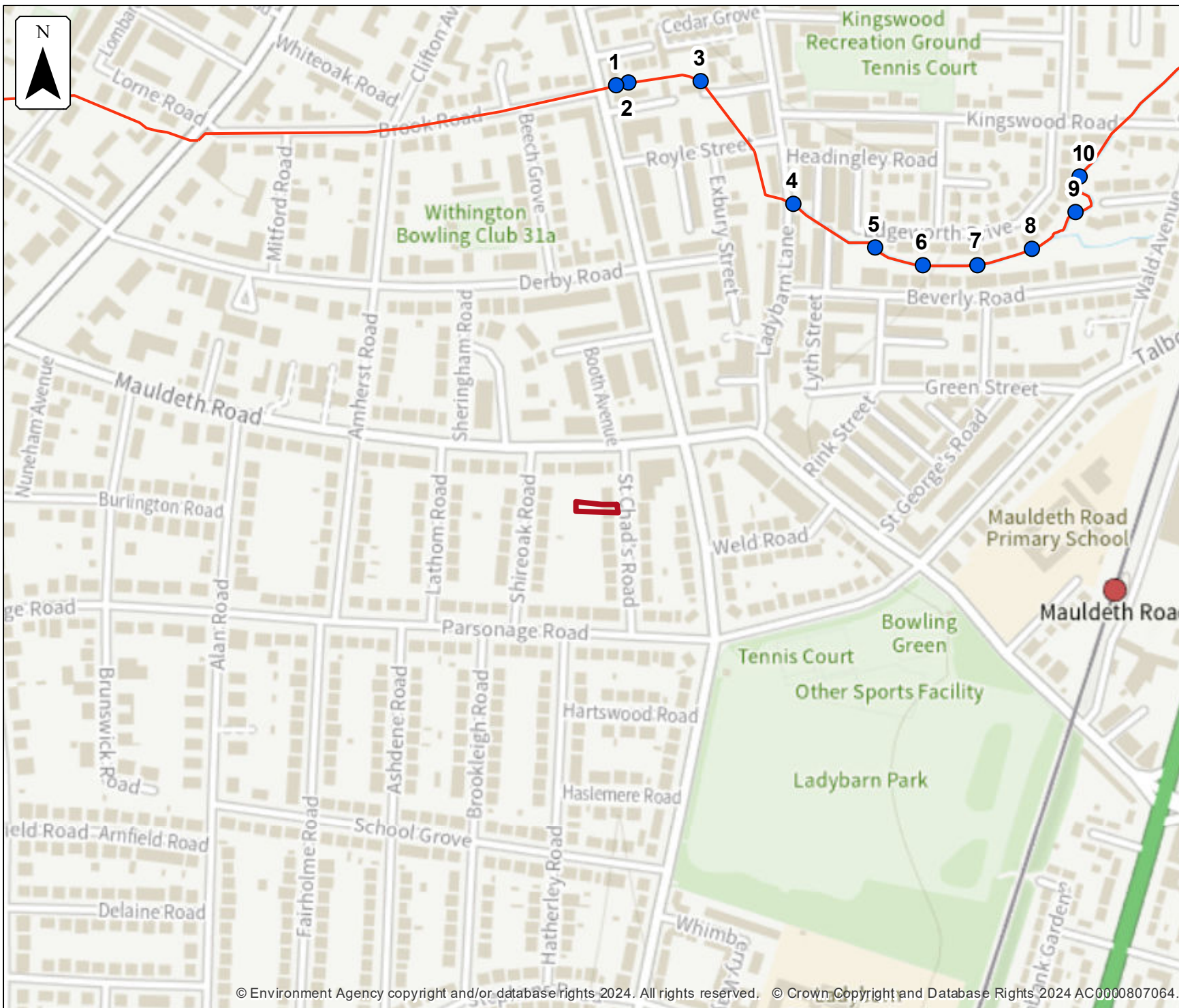
Scale Created
1:10,000 15 Nov 2024

Model name
**Cringle Black Brook
2017**

-  Selected area
-  Main river
- Modelled flood extent
 -  1.0% AEP (+30%)
 -  1.0% AEP (+35%)
 -  1.0% AEP (+70%)
 -  0.1% AEP (+30%)

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





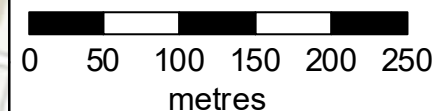
Defended modelled fluvial node locations

Location (easting/northing)
385728/393125

Scale Created
1:5,000 15 Nov 2024

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	1440137	385748	393534	37.83	38.02	38.43	38.45	38.45	38.46	38.47	38.47	38.47	38.48	38.56
2	1440074	385760	393537	37.84	38.03	38.44	38.45	38.46	38.46	38.47	38.47	38.47	38.48	38.56
3	1440084	385830	393538	37.88	38.09	38.52	38.53	38.54	38.54	38.55	38.55	38.56	38.56	38.64
4	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
5	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
6	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
7	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
8	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
9	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
10	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

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.

If no level or flow data is available for a scenario, no table will be shown.

Defended

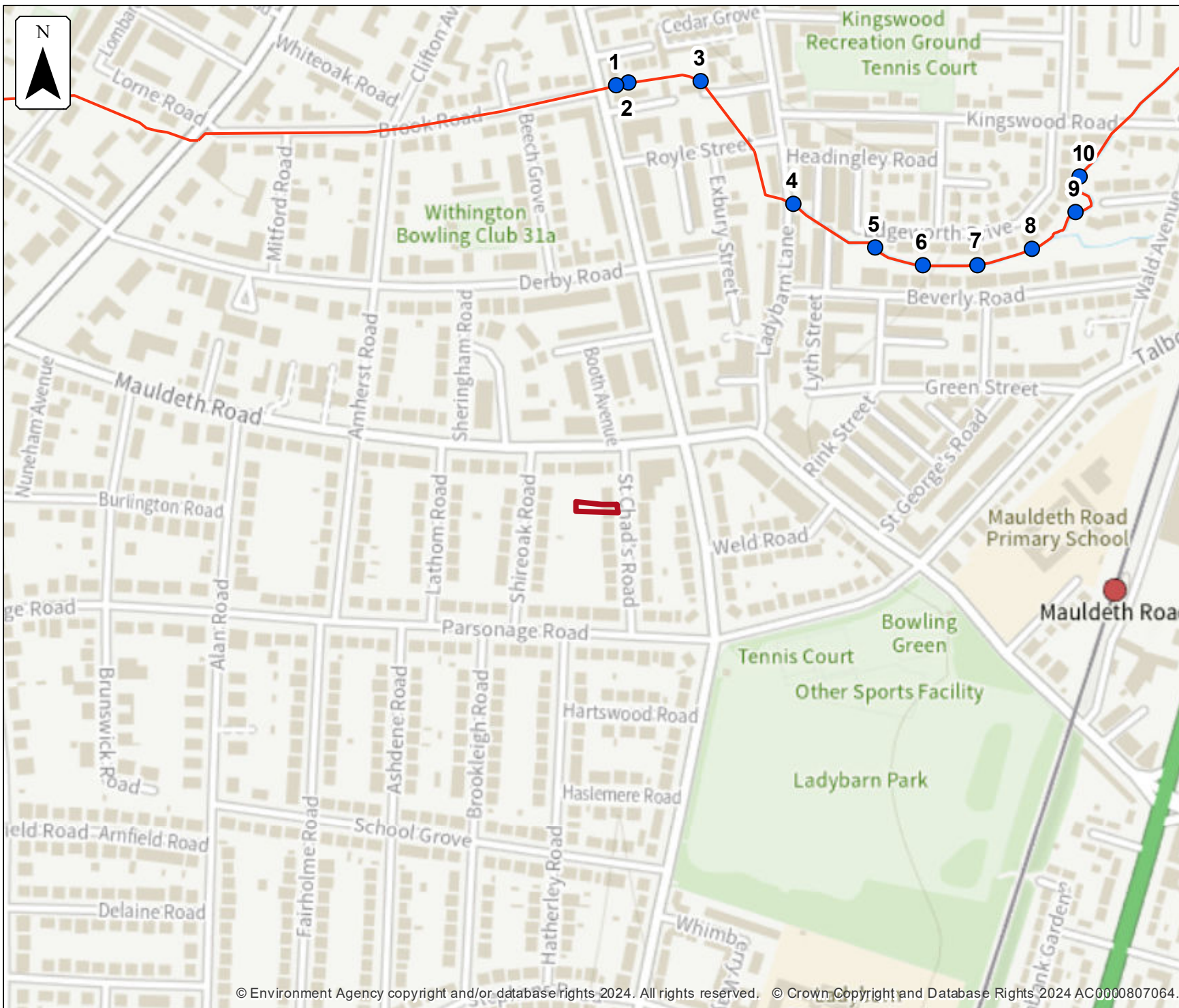
Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	4% AEP	3.33% AEP	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow
1	1440137	385748	393534	3.03	3.69	4.27	4.37	4.38	4.39	4.40	4.41	4.42	4.43	4.46
2	1440074	385760	393537	3.03	3.69	4.27	4.37	4.38	4.39	4.40	4.41	4.42	4.43	4.47
3	1440084	385830	393538	3.03	3.69	4.28	4.38	4.38	4.39	4.40	4.41	4.42	4.44	4.48
4	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
5	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
6	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
7	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
8	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
9	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
10	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

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.

If no level or flow data is available for a scenario, no table will be shown.



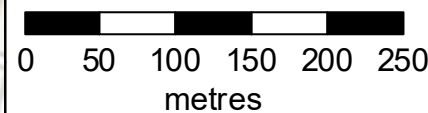
Defences removed modelled fluvial node locations

Location (easting/northing)
385728/393125

Scale Created
1:5,000 15 Nov 2024

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	1440137	385748	393534	37.83	38.02	38.43	38.45	38.45	38.46	38.47	38.47	38.47	38.48	38.56
2	1440074	385760	393537	37.84	38.03	38.44	38.45	38.46	38.46	38.47	38.47	38.47	38.48	38.56
3	1440084	385830	393538	37.88	38.09	38.52	38.53	38.54	38.54	38.55	38.55	38.56	38.56	38.64
4	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
5	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
6	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
7	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
8	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
9	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
10	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

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.

If no level or flow data is available for a scenario, no table will be shown.

Defences removed

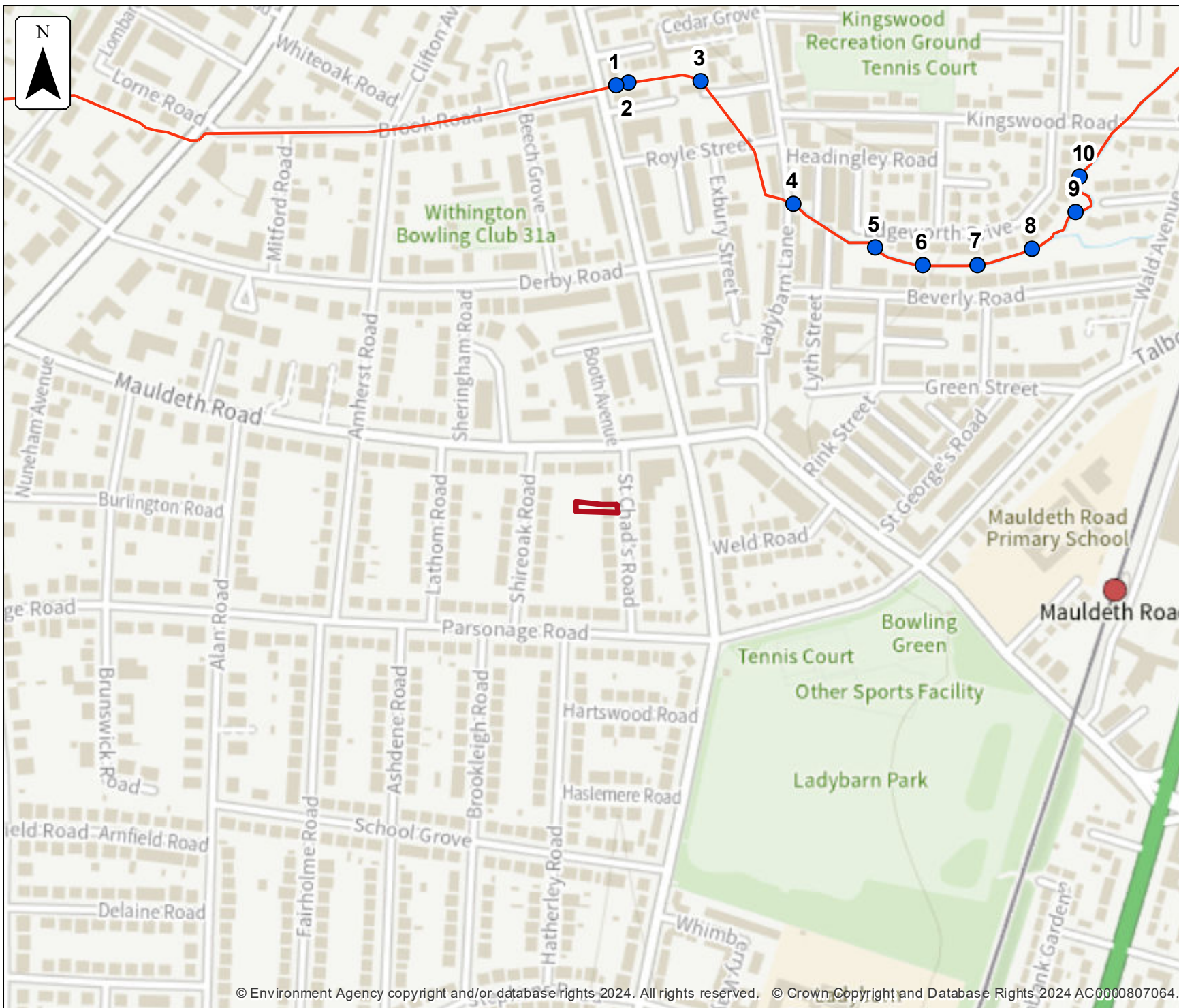
Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	4% AEP	3.33% AEP	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow
1	1440137	385748	393534	3.03	3.69	4.27	4.37	4.38	4.39	4.40	4.41	4.42	4.43	4.46
2	1440074	385760	393537	3.03	3.69	4.27	4.37	4.38	4.39	4.40	4.41	4.42	4.43	4.47
3	1440084	385830	393538	3.03	3.69	4.28	4.38	4.38	4.39	4.40	4.41	4.42	4.44	4.48
4	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
5	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
6	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
7	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
8	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
9	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
10	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

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.

If no level or flow data is available for a scenario, no table will be shown.



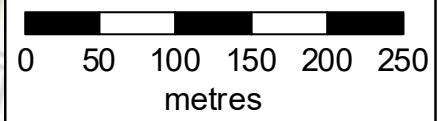
**Defended
climate change
modelled fluvial
node locations**

Location (easting/northing)
385728/393125

Scale Created
1:5,000 15 Nov 2024

Model name
**Cringle Black Brook
2017**

- Selected area
- Modelled location
- Main river



© Environment Agency copyright and/or database rights 2024. All rights reserved. © Crown Copyright and Database Rights 2024 AC0000807064.

Modelled node locations data

Defended climate change

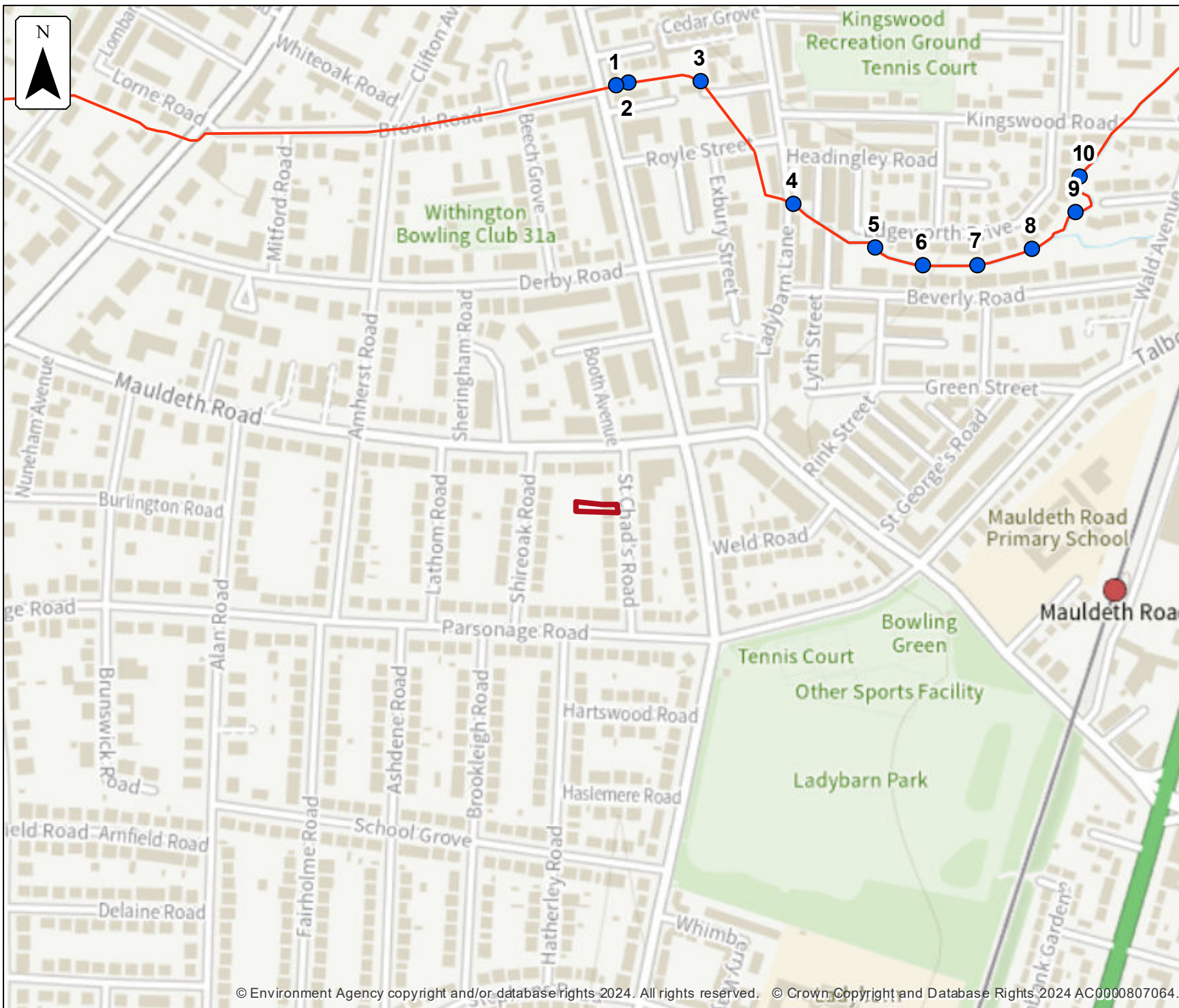
Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level	Flow	Flow	Flow	Flow
1	1440137	385748	393534	38.49	38.50	38.53	38.60	4.43	4.44	4.44	4.49
2	1440074	385760	393537	38.49	38.50	38.53	38.61	4.43	4.44	4.45	4.49
3	1440084	385830	393538	38.57	38.57	38.61	38.68	4.44	4.44	4.45	4.50
4	1440079	385920	393420	39.37	39.38	39.39	39.46	4.44	4.44	4.49	4.50
5	1440131	385999	393377	39.84	39.84	39.85	39.91	6.70	6.80	7.65	10.93
6	1440092	386046	393360	39.91	39.91	39.95	40.16	6.42	6.52	7.26	9.24
7	1440070	386099	393360	40.17	40.18	40.23	40.31	6.37	6.46	7.27	10.57
8	1440144	386152	393376	40.42	40.43	40.50	40.71	6.38	6.46	7.27	10.45
9	1440143	386194	393411	40.69	40.70	40.72	40.81	6.33	6.49	7.76	13.25
10	1440040	386197	393446	40.67	40.68	40.70	40.79	4.73	4.79	5.06	5.79

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.

If no level or flow data is available for a scenario, no table will be shown.



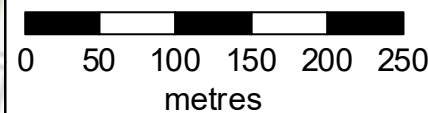
**Defences removed
climate change
modelled fluvial
node locations**

Location (easting/northing)
385728/393125

Scale Created
1:5,000 15 Nov 2024

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%)	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level	Flow	Flow	Flow	Flow
1	1440137	385748	393534	38.49	38.50	38.53	38.60	4.43	4.44	4.44	4.49
2	1440074	385760	393537	38.49	38.50	38.53	38.61	4.43	4.44	4.45	4.49
3	1440084	385830	393538	38.57	38.57	38.61	38.68	4.44	4.44	4.45	4.50
4	1440079	385920	393420	39.37	39.38	39.39	39.46	4.44	4.44	4.49	4.50
5	1440131	385999	393377	39.84	39.84	39.85	39.91	6.70	6.80	7.65	10.93
6	1440092	386046	393360	39.91	39.91	39.95	40.16	6.42	6.52	7.26	9.24
7	1440070	386099	393360	40.17	40.18	40.23	40.31	6.37	6.46	7.27	10.57
8	1440144	386152	393376	40.42	40.43	40.50	40.71	6.38	6.46	7.27	10.45
9	1440143	386194	393411	40.69	40.70	40.72	40.81	6.33	6.49	7.76	13.25
10	1440040	386197	393446	40.67	40.68	40.70	40.79	4.73	4.79	5.06	5.79

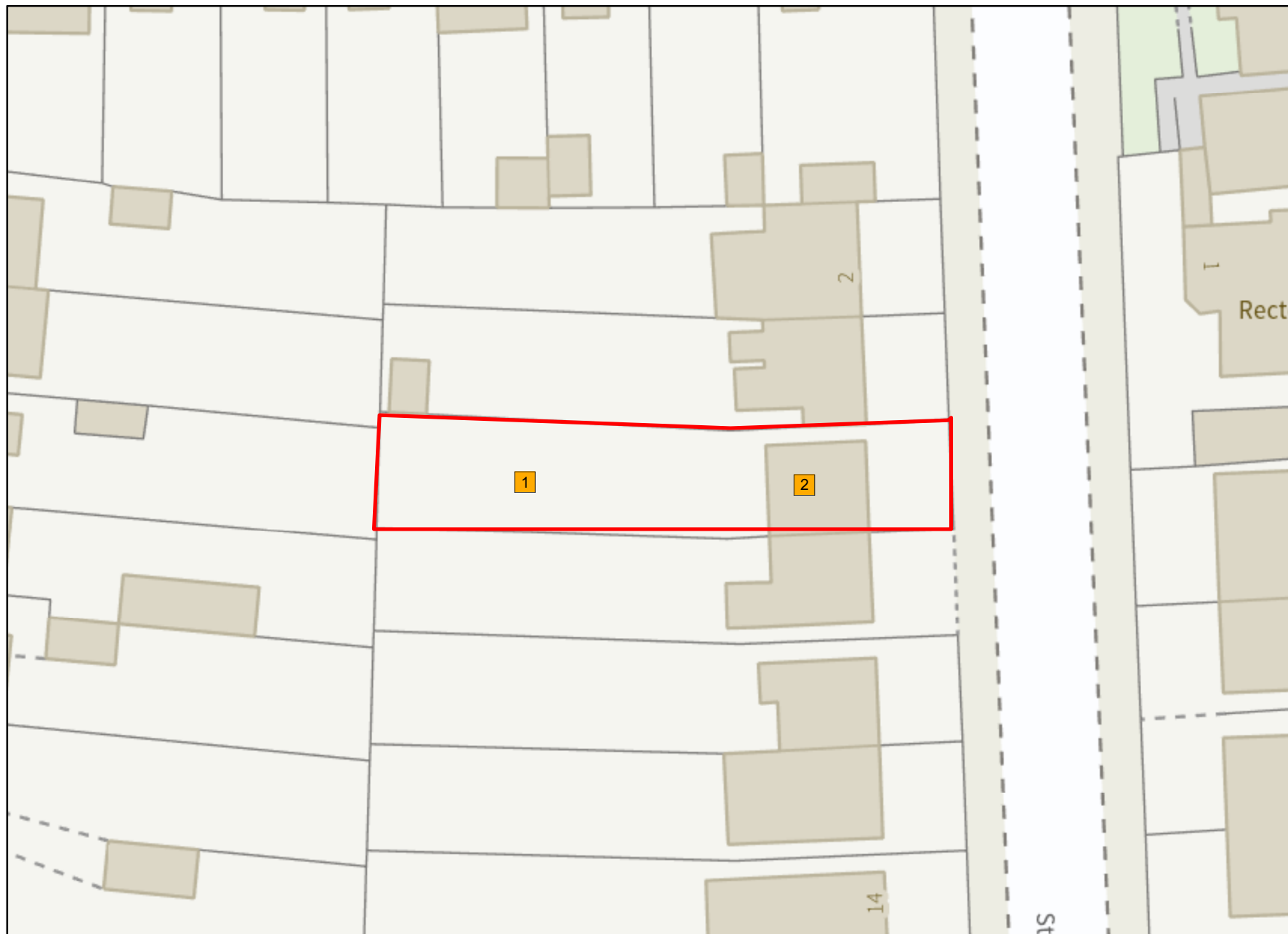
Data in this table comes from the Cringle Black Brook 2017 model.

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.

If no level or flow data is available for a scenario, no table will be shown.

**Detailed Flood Map Centred on St. Chads Road, Manchester, M20 4WH.
Created 15/11/2024 [GMMC385116LB]**



1:400



Legend

-  Site Location
-  2D Levels
-  Main River

					Undeveloped									Developed							
Map Reference	Model Node Reference	Existing	Northing	Data	2 % AEP (1 in 50 year)	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + 30% increase in flow	1 % AEP (1 in 100 year) + 35% increase in flow	1 % AEP (1 in 100 year) + 70% increase in flow	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)	0.1 % AEP (1 in 1000 year) + 30% increase in flow	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + 30% increase in flow	1 % AEP (1 in 100 year) + 35% increase in flow	1 % AEP (1 in 100 year) + 70% increase in flow	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)	0.1 % AEP (1 in 1000 year) + 30% increase in flow
1	2D Levels	385719	393125	Modelled Water Level (m aodN)	37.48	37.49	37.50	37.53	37.53	37.58	37.52	37.64	37.69	37.41	37.46	37.51	37.51	37.53	37.49	37.63	37.68
2		385740	393125	Modelled Water Level (m aodN)								37.84	37.86							37.83	37.86

Model data taken from Cringle Brook 2017
AEP - Annual Exceedence Probability
m aodN - metres above ordnance datum Newlyn
cumecs - cubic metres per second

Notes: *Climate Change Scenario - 30%, 35% and 70% increases in flow calculated for the 2080's (2070 - 2115). Please see <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances> for more information regarding the new climate change guidance. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.

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 for:

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