Minor Extension Flood Risk Assessment Proforma

This form is for Minor Extensions in Flood Zone 2 or Flood Zone 3.

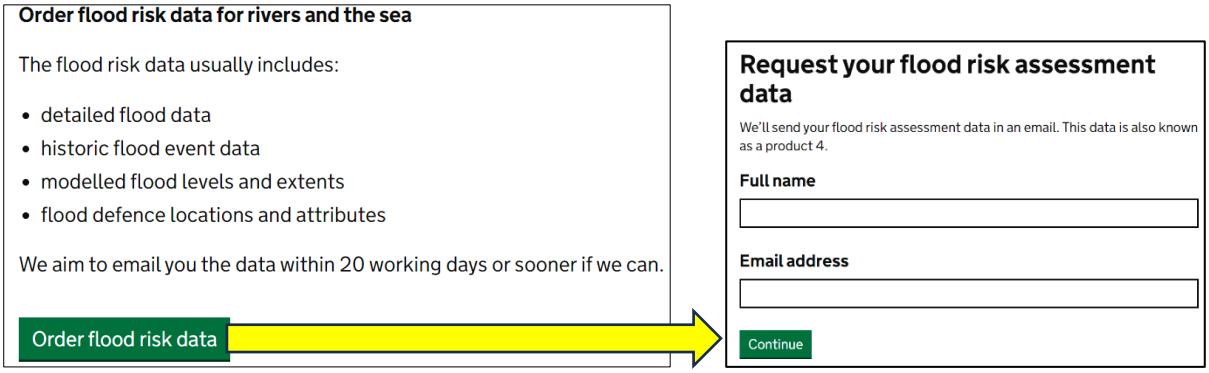
A Minor Extension is a household extension or non-domestic extension less than 250 square metres.

Government Guidance requires Manchester City Council to assess Minor Extensions in line with the Standing Advice for Minor Extensions.

Flood risk consultants or other appropriate professionals can complete this form.

1: ORDER THE ESTIMATED FLOOD LEVEL FOR THE SITE

Go to flood map for planning service[1] and follow the instructions to draw your site boundary and request Product 4 data for your site:



2: USE PRODUCT 4 TO IDENTIFY THE ESTIMATED FLOOD LEVEL FOR THE SITE

Use the Climate Change Allowances service[2] to identify the correct Climate Change allowance for your site. This is the **2080s Central Allowance** – the value will be either **35%** or **41%** depending on the site location.

☑ The Climate Change allowance is __41__%

Use your Product 4 data to determine if your site is affected by the 1% AEP + Climate Change allowance.

Guidance on using your Product 4 data is appended to this form.

☑ The site **is** affected by the 1% AEP + Climate Change allowance and the estimated flood level is 44.17 m aodN: **Proceed to Section 3.**

OR

☐ The site **is not** affected by the 1% AEP + Climate Change allowance. **Proceed to Section 5 (Skip Sections 3 & 4).**

MANCHESTER CITY COUNCIL

3: PROPOSED FINISHED FLOOR LEVELS FOR THE EXTENSION

The finished floor levels will be:

☑ No lower than existing floor levels: **Proceed to Section 4.**

OR

☐ 300 millimetres (mm) above the estimated flood level: **Proceed to Section 5 (skip Section 4).**

4: ASSESSMENT OF RESISTANCE AND RESILIENCE MEASURES

If you cannot raise the floor levels 300 mm above the estimated flood level, you will need to include extra flood resistance and resilience measures.

These measures should protect the property to at least 300mm above the estimated flood level.

You will also need to use flood resistant materials up to at least 300mm above the estimated flood level.

Flood water can put pressure on buildings, causing structural issues. If your design aims to keep out a depth of more than 600mm of water, you should get advice from a civil/structural engineer.

☑ Provide details of the **flood resistance and resilience measures** to be included. These must be compliant with the Standing Advice for Minor Extensions[3]. Government-recognised resistance and resilience measures are detailed in the section: Extra Resistance and Resilience measures[4].

The ground level at the front of the property has been determined, according to the Environment Agency data to be approximately
44.17 metres above Ordnance Datum (mAOD).

Given the presence of a threshold step at the front entrance, the existing Finished Floor Level (FFL) has been assessed at 44.70mAOD, which is 50mm above the estimated undefended 1% Annual Exceedance Probability (AEP) + climate change allowance (41CC) flood level (44.17mAOD).

As the proposed development cannot achieve the recommended 600mm freeboard above the design flood level, a series of Flood resistance and resilience measures are proposed, in accordance with gov.uk guidance for minor extensions.

The following measures should be implemented to a minimum of 300mm (preferably 600mm) above the existing FFL:

The new extension's FFL must be set no lower than the existing FFL.
Electrical and gas services within the new extension should be elevated above the flood level.

Flood-resistant doors and sealed windows should be installed.

A damp-proof membrane should be incorporated into the ground floor construction

All construction materials used for floors and walls should be water-resistant.
Non-return valves should be fitted to prevent sewage backflow through drains.

Where feasible, incorporate drainage features to facilitate post-flood water removal, an automatic pump.
Additionally, Product 4 data has been requested from the Environment Agency and is included in the attached PDF document for reference

5: CONFIRM YOU HAVE ENCLOSED THE REQUIRED INFORMATION AND SUBMIT

☑ Completed Minor Extension Flood Risk Assessment Proforma

☑ Product 4 data attached. Please note that if the Product 4 data is not attached, the application will be returned. The Environment Agency require time to process orders; we recommend you order the data as soon as possible to avoid delays to your application.

Footnotes:

[1] https://flood-map-for-planning.service.gov.uk/

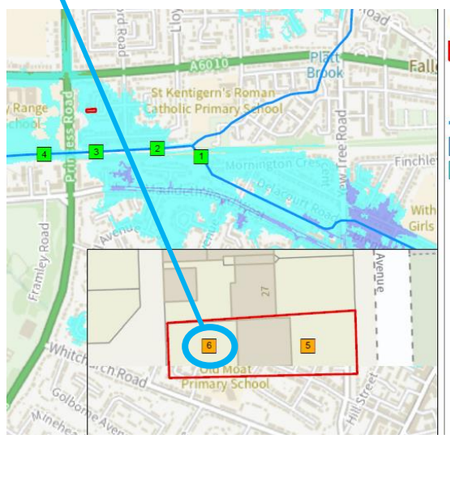
[2] https://environment.data.gov.uk/hydrology/climate-change-allowances/river-flow

[3] https://www.gov.uk/guidance/flood-risk-assessment-standing-advice#advice-for-minor-extensions

[4] https://www.gov.uk/guidance/flood-risk-assessment-standing-advice#standing-advice-for-vulnerable-developments

					Undefended											
Map Reference	Model Node Reference	Easting	Northing	Data	50 % AEP (1 in 2 year)	20 % AEP (1 in 5 year)	10 % AEP (1 in 10 year)	5 % AEP (1 in 20 year)	4 % AEP (1 in 25 year)	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)
1	ea013_0238_CRIN01_4813	388294	392985	Modelled Water Level (m aodN)	60.72	60.81	60.87	60.94	60.97	61.06	61.10	61.15	61.30	61.33	61.48	61.24
				Modelled Flow (cumecs)	1.64	2.02	2.29	2.65	2.81	3.37	3.61	3.94	5.10	5.30	6.68	4.59
2	ea013_0238_CRIN01_4375	387986	393151	Modelled Water Level (m aodN)	57.45	57.64	57.70	57.74	57.76	57.80	57.83	57.85	57.93	57.94	58.02	57.90
				Modelled Flow (cumecs)	1.67	2.05	2.41	2.77	2.91	3.51	3.77	4.11	5.36	5.57	7.03	4.82
3	ea013_0238_CRIN01_3804d	387573	393331	Modelled Water Level (m aodN)	52.03	52.14	52.23	52.30	52.32	52.42	52.45	52.48	52.60	52.62	52.72	52.56
				Modelled Flow (cumecs)	1.67	2.17	2.64	3.02	3.15	3.69	3.90	4.08	4.90	5.02	5.74	4.58
4	ea013_0238_CRIN01_3176i	387120	393607	Modelled Water Level (m aodN)	47.85	47.96	48.07	48.16	48.18	48.27	48.34	48.38	48.57	48.59	48.65	48.52
				Modelled Flow (cumecs)	1.77	2.29	2.82	3.19	3.30	3.74	3.89	3.95	3.93	3.93	4.03	3.91

					Undefended											
Map Reference	Model Node Reference	Easting	Northing	Data	50 % AEP (1 in 2 year)	20 % AEP (1 in 5 year)	10 % AEP (1 in 10 year)	5 % AEP (1 in 20 year)	4 % AEP (1 in 25 year)	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)
5	2D Levels	387413	393554	Modelled Water Level (m aodN)						51.49	51.52	51.53	51.68	51.69	51.72	51.64
6		387448	393488	Modelled Water Level (m aodN)	50.82	50.83	51.05	51.26	51.34	51.53	51.55	51.56	51.70	51.71	51.76	51.67



Legend

- Site Location
- Model Measurements
- 2D Levels
- Main River
- Flood Zone 3
- Flood Zone 2

1 % AEP (1 in 100 year) + 35% increase in flow
51.68
51.71

Example Product 4 data – finding the estimated flood level:

Above is an example Product 4 data table.

We will now identify the cell which contains our estimated flood level, needed for our flood risk assessment:

Use the closest **2D Level Map Reference** for your proposed development (as determined from the accompanying map). In this example, our closest Map Reference is **6.**

Our Climate Change Allowance, determined from Step 2 of the form, is **35%.**

We go to the row for **Map Reference 6**, to obtain the data for **"Modelled Water Level (m aodN)".**

We use the 'Undefended' section of the table if we get a choice between 'Defended' and 'Undefended'.

We go across this row to the column for **1% AEP + 35%.**

We have found our estimated flood level**: 51.71**

What if the Product 4 does not include data for the exact Climate Change allowance determined from Step 2?

If the Product 4 data does not include the exact Climate Change allowance, use the closest % available.

For example, if your Climate Change allowance is + 41% but the Product 4 options are + 35% or + 70%, you should use + 35% as the closest value.

Back to select an address

Flood risk summary

Your selected location: 13, Lynton Drive, Manchester, M19 2LQ

This information tells you the flood risk of the land around a building, not the building itself.

- How we assess an area's flood risk
- Flood risk and climate change

Surface water

More about your surface water flood risk (/surface-water)

Yearly chance of flooding

Very low	Low	Medium	High

Yearly chance of flooding between 2040 and 2060

Very low	Low	Medium	High

What surface water is

Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.

- Why surface water flooding is a problem

Rivers and the sea

More about your rivers and sea flood risk (/rivers-and-sea)

Yearly chance of flooding

Very low | Low | Medium | High

Yearly chance of flooding between 2036 and 2069

Very low | Low | Medium | High

What makes rivers and sea flooding more likely

Low-lying areas that are close to rivers or the sea are more likely to flood when water levels rise.

This information takes into account any flood defences.

▶ Why flood defences cannot completely prevent flooding

Other flood risks

More about groundwater and reservoirs (/ground-water)

Groundwater

Flooding from groundwater is unlikely in this area.

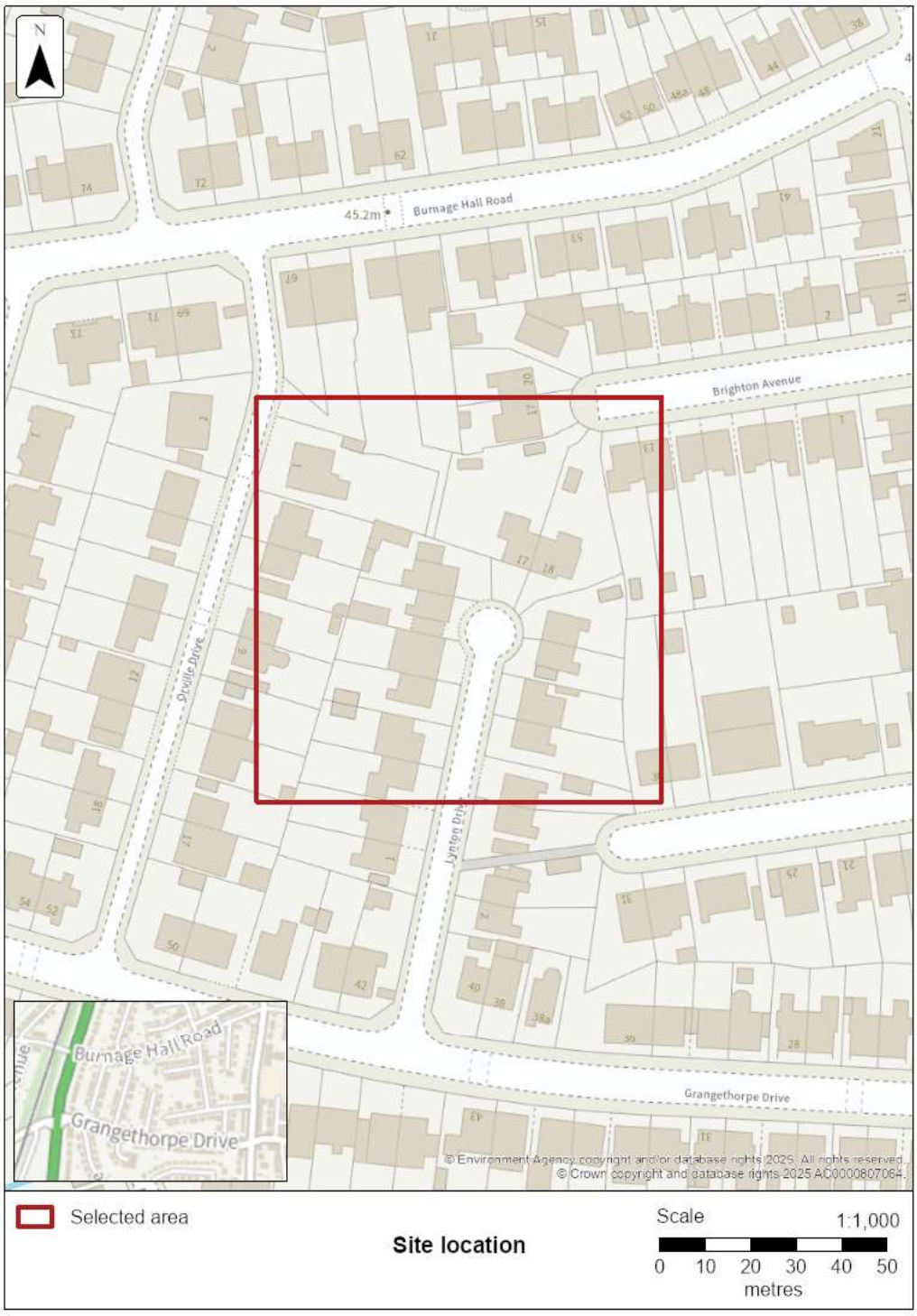
Reservoirs

Flooding from reservoirs is unlikely in this area.

Flood risk assessment data

Location of site: 386578 / 393386 (shown as easting and northing coordinates)
Document created on: 24 July 2025
This information was previously known as a product 4.
Customer reference number: AE8VEAFJXAKC

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

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

Terminology used

Annual exceedance probability (AEP)

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

Metres above ordnance datum (mAOD)

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

Flood map for planning (rivers and the sea)

Your selected location is in flood zone 2.

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

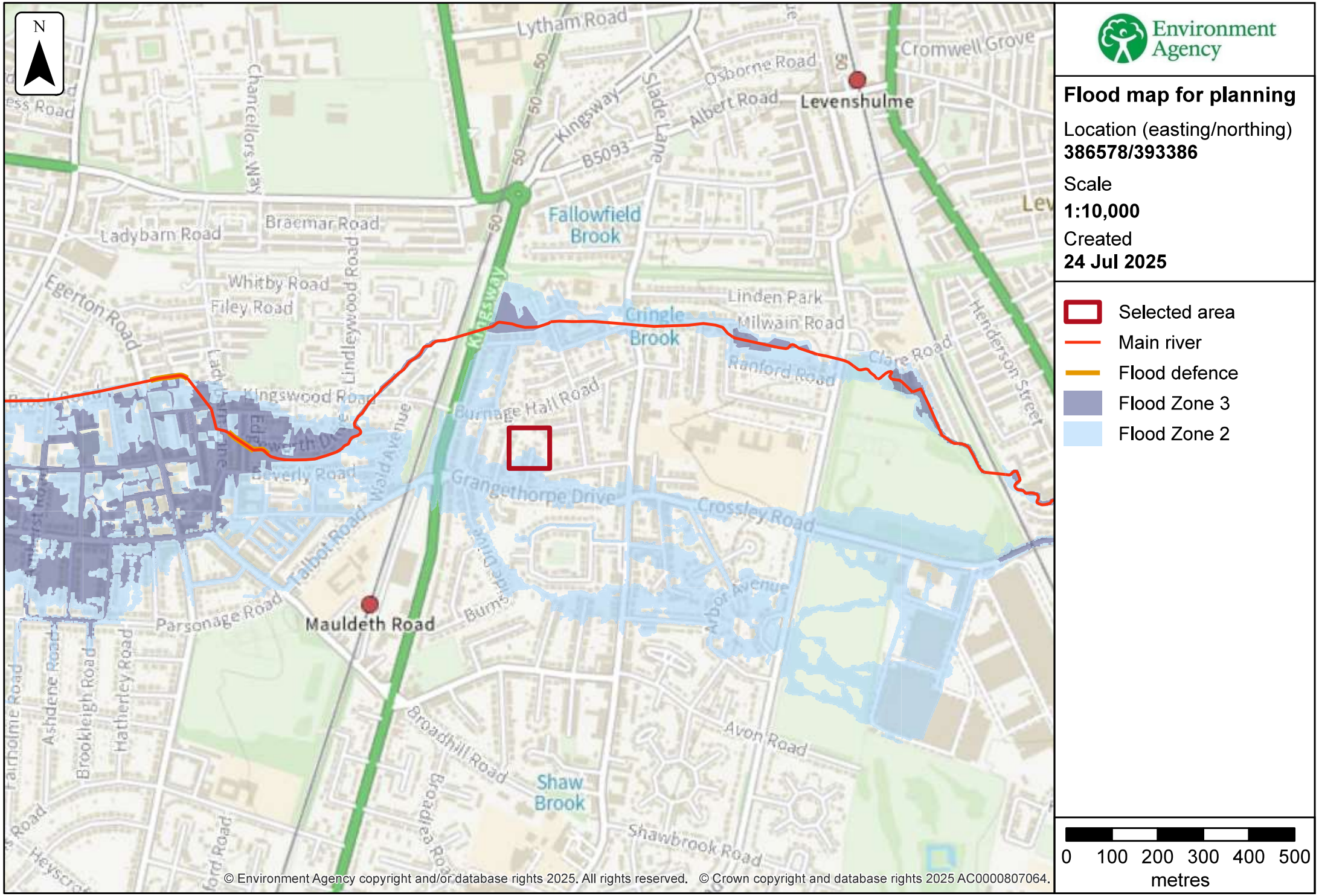
- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

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

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

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

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


N
Lytham Road
Cromwell Grove
Osborne Road
Levenshulme
Albert Road
Kingsway
Slade Lane
B5093
Chancellors Way
Braemar Road
Ladybarn Road
Fallowfield Brook
Whitby Road
Filey Road
Egerton Road
Lindleywood Road
Linden Park
Milwain Road
Cringle Brook
Ranford Road
Clare Road
Henderson Street
Kingswood Road
Burnage Hall Road
Beverley Road
Wold Avenue
Grangethorpe Drive
Crossley Road
Talbot Road
Parsonage Road
Mauldeth Road
Arbor Avenue
Broadhill Road
Broadlea Road
Avon Road
Shaw Brook
Shawbrook Road
Ashdene Road
Brookleigh Road
Hatherley Road
Fairholme Road
Heyscroft
Environment Agency
Flood map for planning
Location (easting/northing)
386578/393386
Scale
1:10,000
Created
24 Jul 2025
Selected area
Main river
Flood defence
Flood Zone 3
Flood Zone 2
0 100 200 300 400 500
metres
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Past floods

Past flood events included in this document

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

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

Data limitations

The outlines do not include flooding from:

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

Changes to flood defences

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

What the recorded flood outlines dataset is

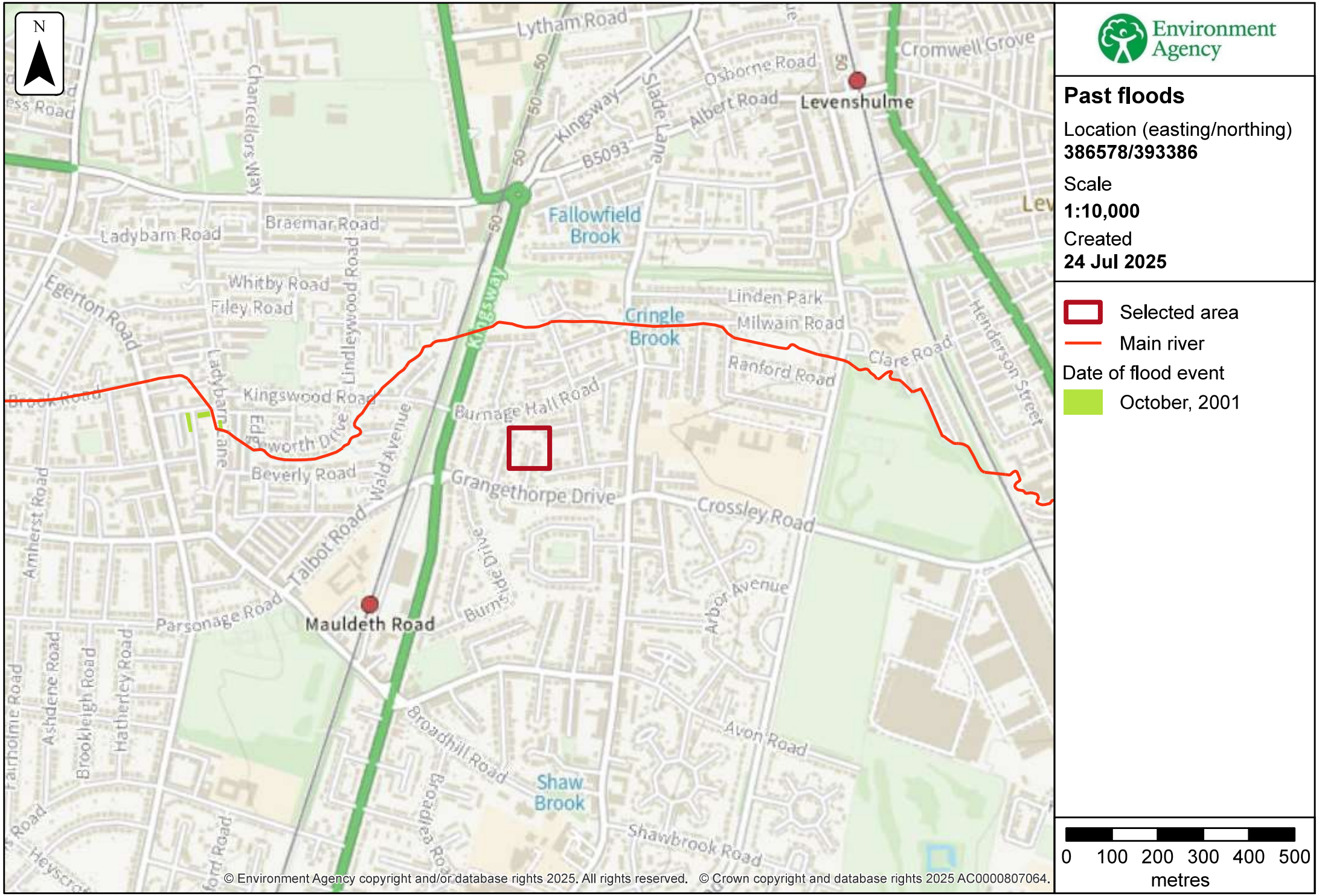
The recorded flood outlines are a geographical information system (GIS) data layer that show our verified records of areas that have flooded in the past from:

- rivers
- the sea
- groundwater
- surface water

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

Get flood information from other organisations

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



Environment Agency

Past floods

Location (easting/northing)
386578/393386

Scale
1:10,000

Created
24 Jul 2025

Selected area

Main river

Date of flood event

October, 2001

0 100 200 300 400 500
metres

Data on past flood events

Start date	End date	Source of flood	Cause of flood	Affects location
26 October 2001	27 October 2001	main river	obstruction/blockage - channel	No

Flood defences and attributes

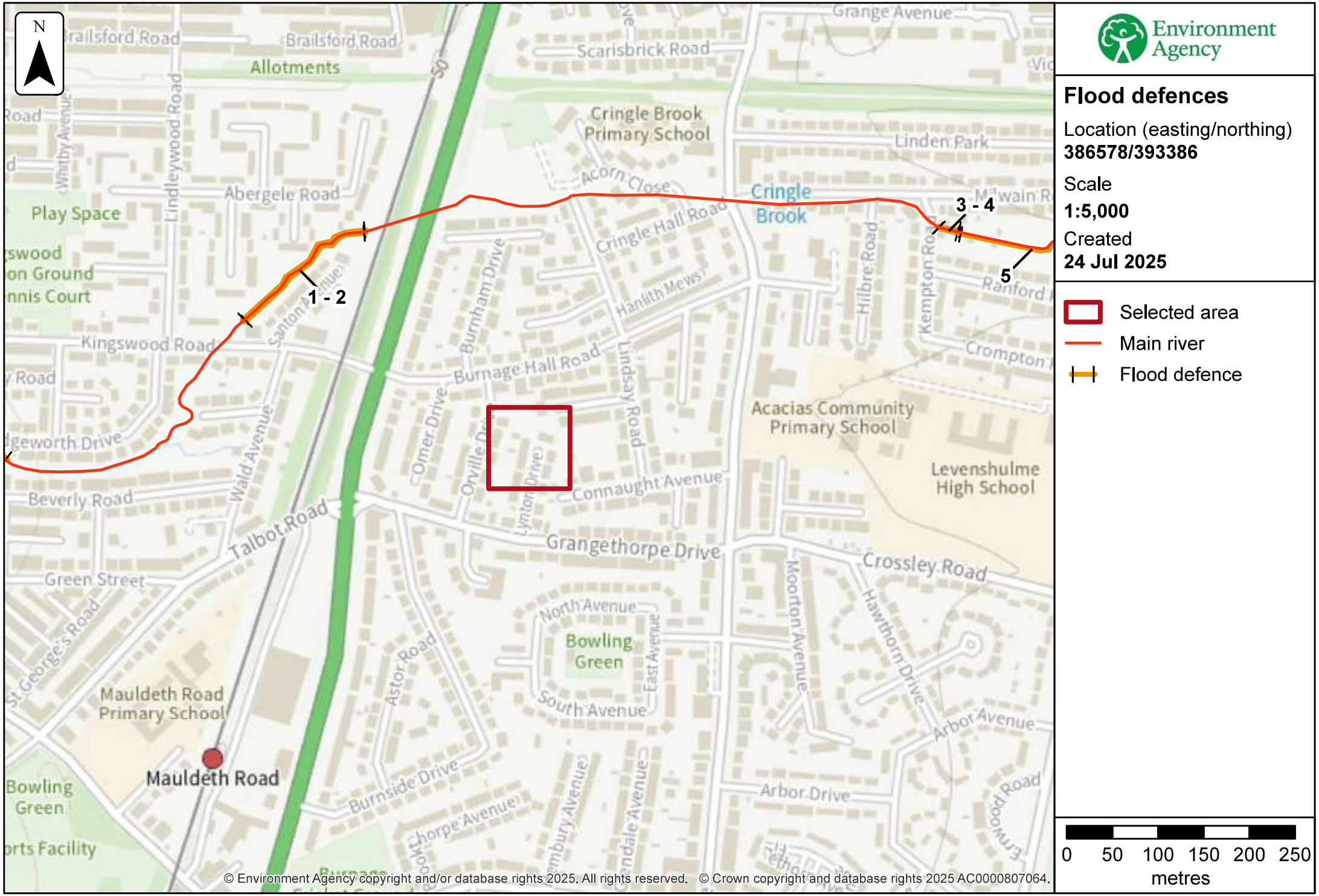
The flood defences map shows the location of the flood defences present.

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



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Environment Agency

Flood defences

Location (easting/northing)
386578/393386

Scale
1:5,000

Created
24 Jul 2025

- Selected area
- Main river
- Flood defence

0 50 100 150 200 250
metres

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	7427	Engineered High Ground	100	Poor	40.24	44.26	
2	9636	Engineered High Ground	100	Poor	43.83	41.26	
3	71686	Engineered High Ground	100	Fair	47.89	48.71	
4	58923	Engineered High Ground	100	Fair	47.70	48.55	
5	7430	Engineered High Ground	100		50.40	47.83	

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

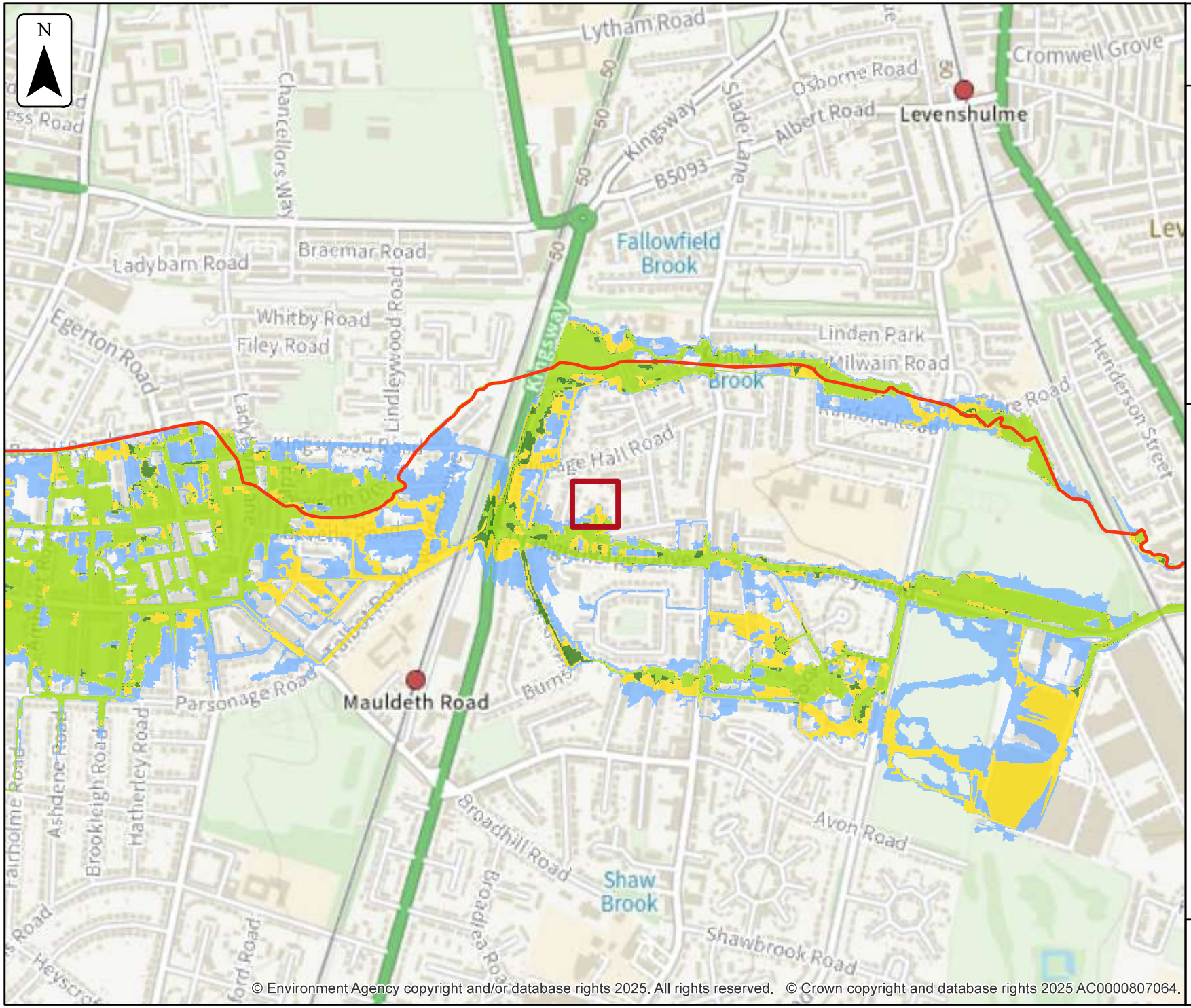
The climate change data included in the models may not include the latest flood risk assessment climate change allowances. Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

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



Environment Agency

Defences removed climate change modelled fluvial extent

Location (easting/northing)
386578/393386

Scale
1:10,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

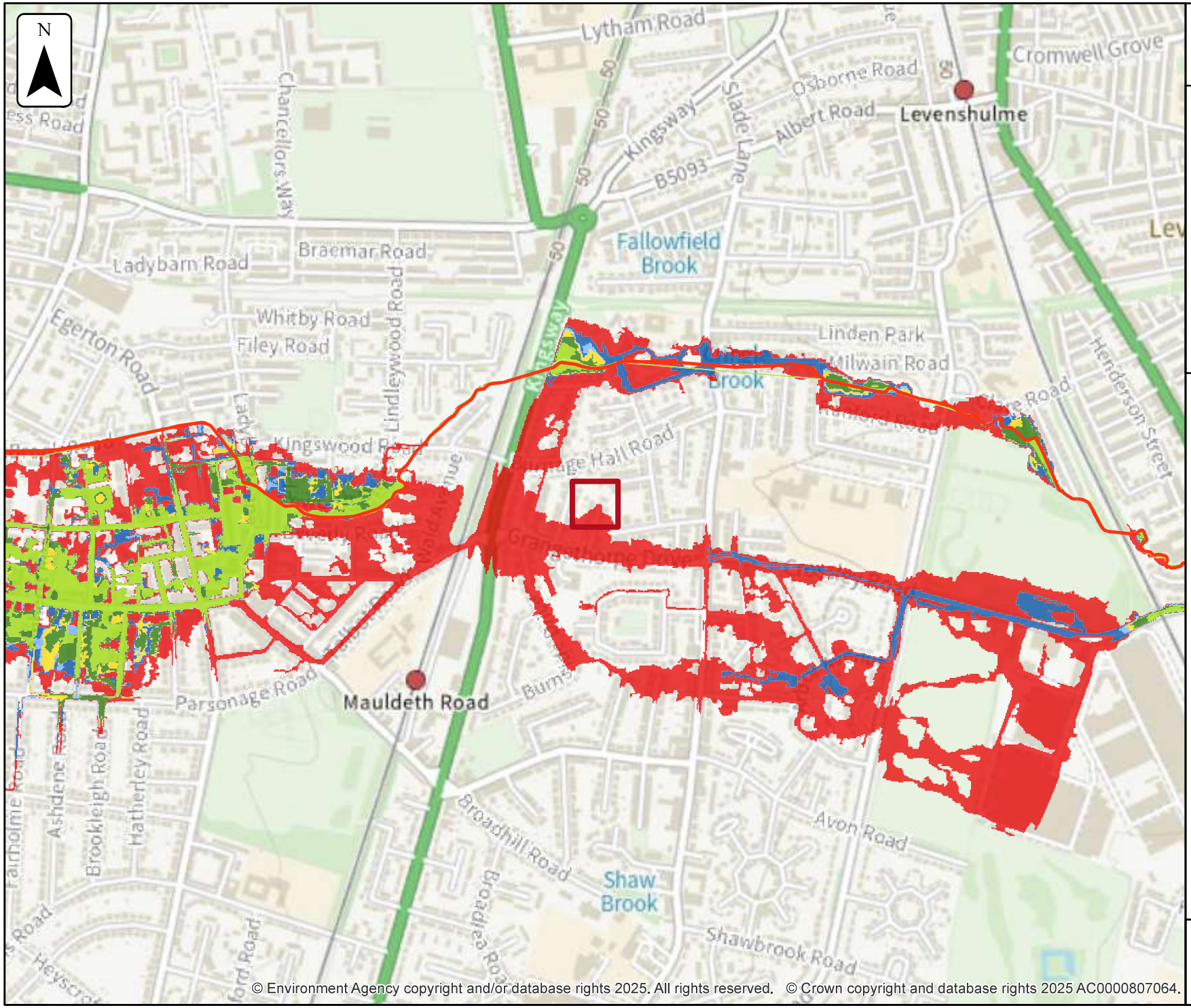
- Selected area
- Main river

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

0 100 200 300 400 500
metres



Environment Agency

Defences removed modelled fluvial extent

Location (easting/northing)
386578/393386

Scale
1:10,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

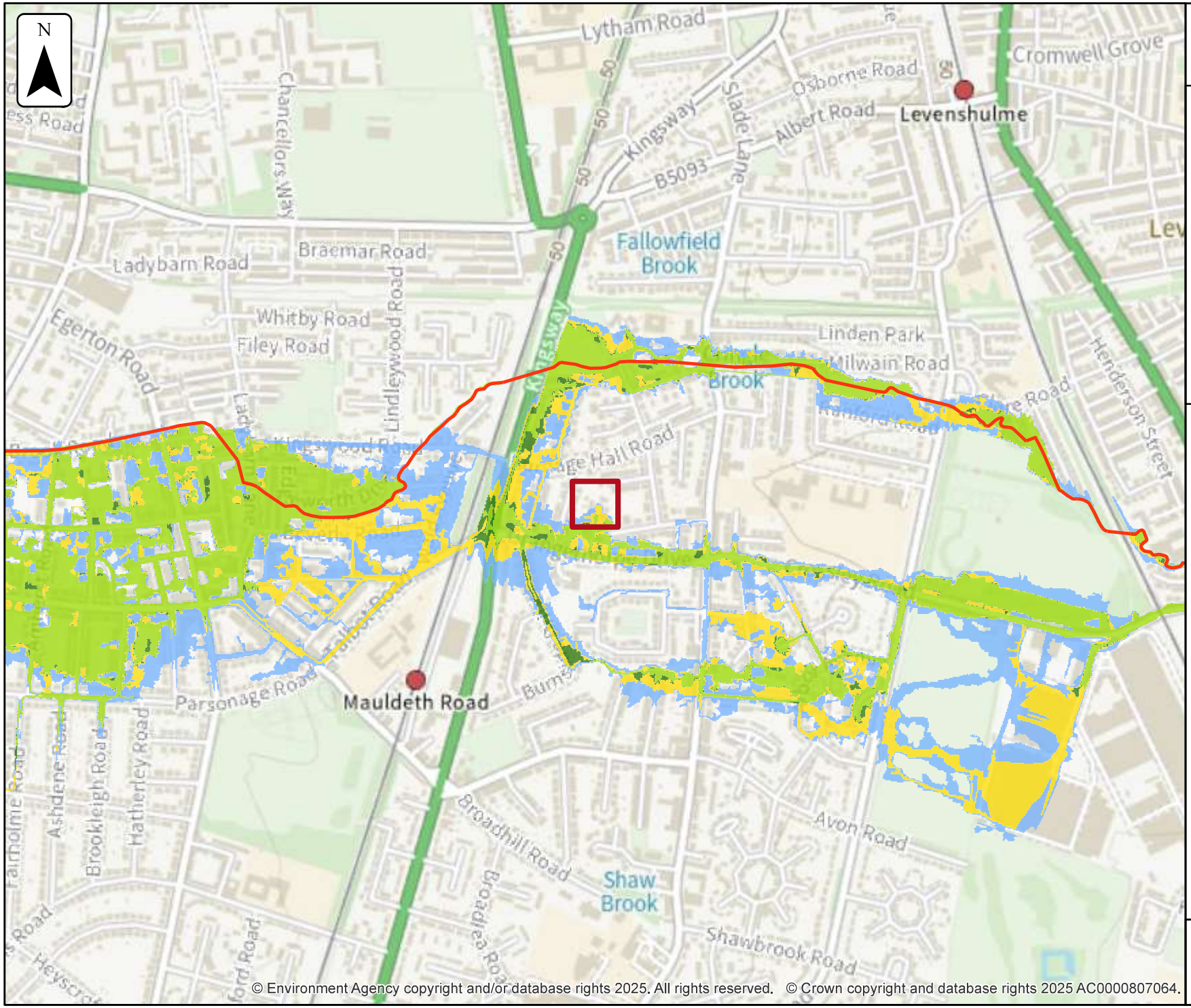
- Selected area
- Main river

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

0 100 200 300 400 500
metres



Environment Agency

Defended climate change modelled fluvial extent

Location (easting/northing)
386578/393386

Scale
1:10,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

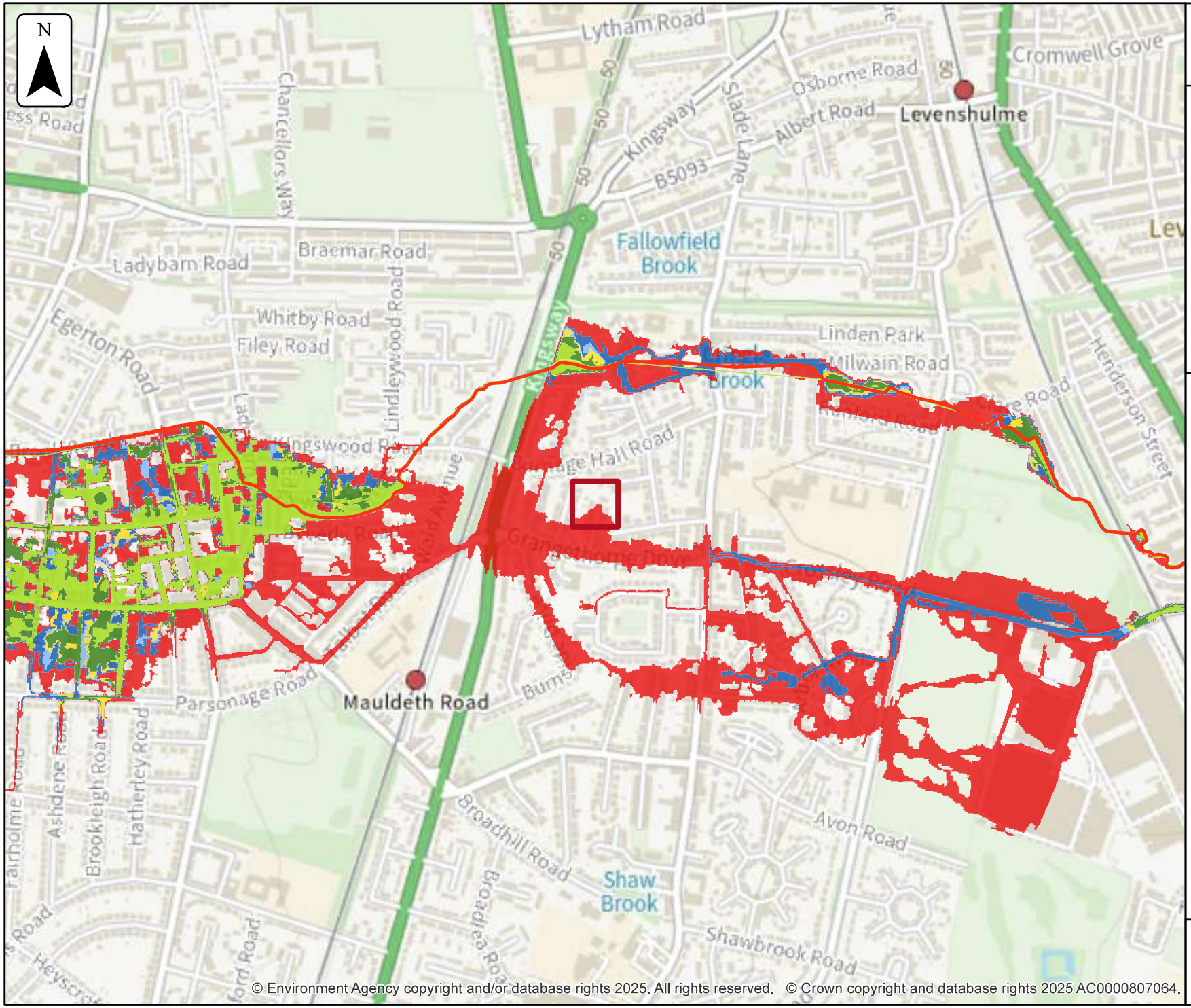
- Selected area
- Main river

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

0 100 200 300 400 500
metres



Environment Agency

Defended modelled fluvial extent

Location (easting/northing)
386578/393386

Scale
1:10,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

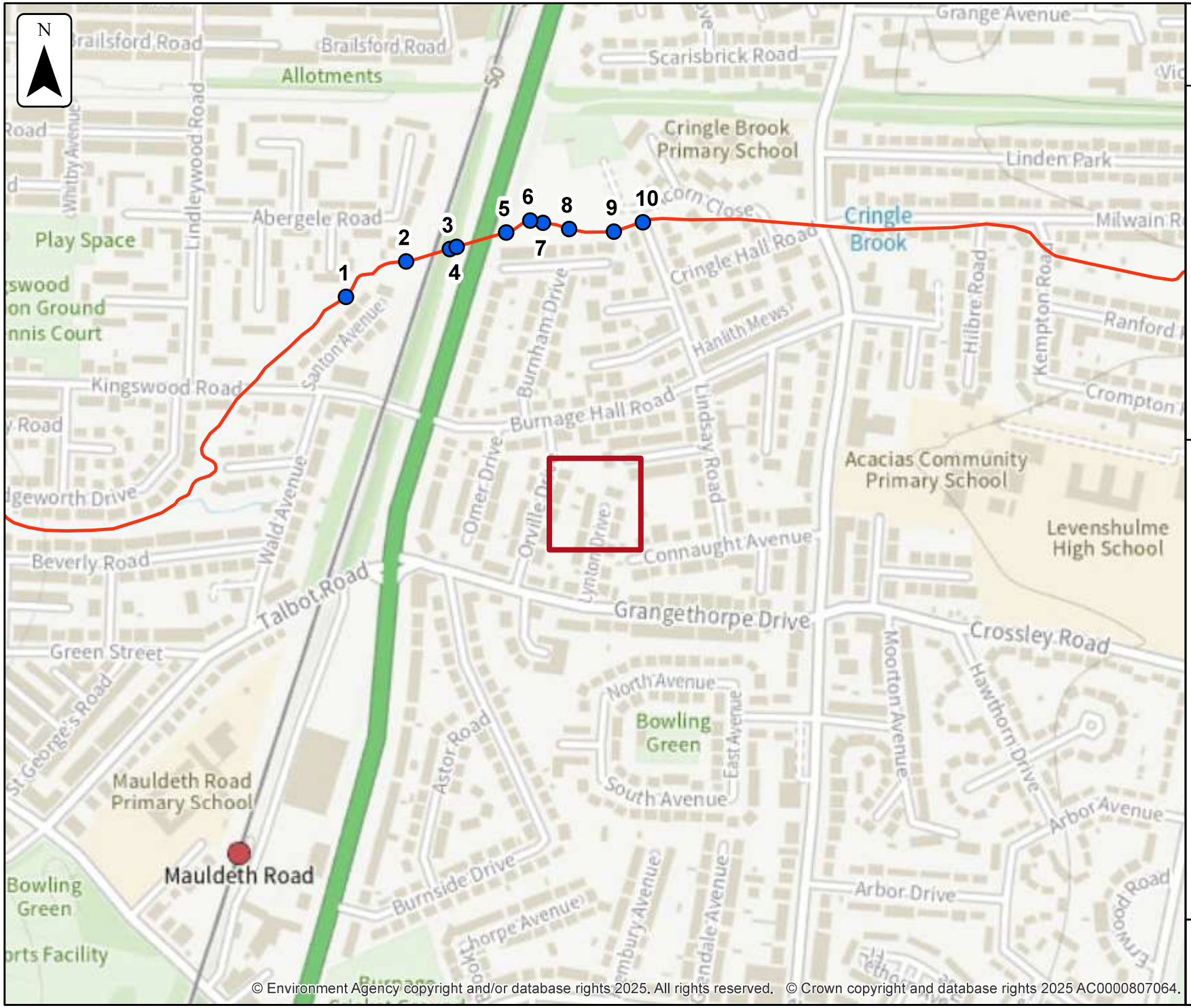
- Selected area
- Main river

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

0 100 200 300 400 500
metres



Environment Agency

Defences removed climate change modelled fluvial node locations

Location (easting/northing)
386578/393386

Scale
1:5,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

- Selected area
- Modelled location
- Main river

0 50 100 150 200 250
metres

Modelled node locations data

Defences removed climate change

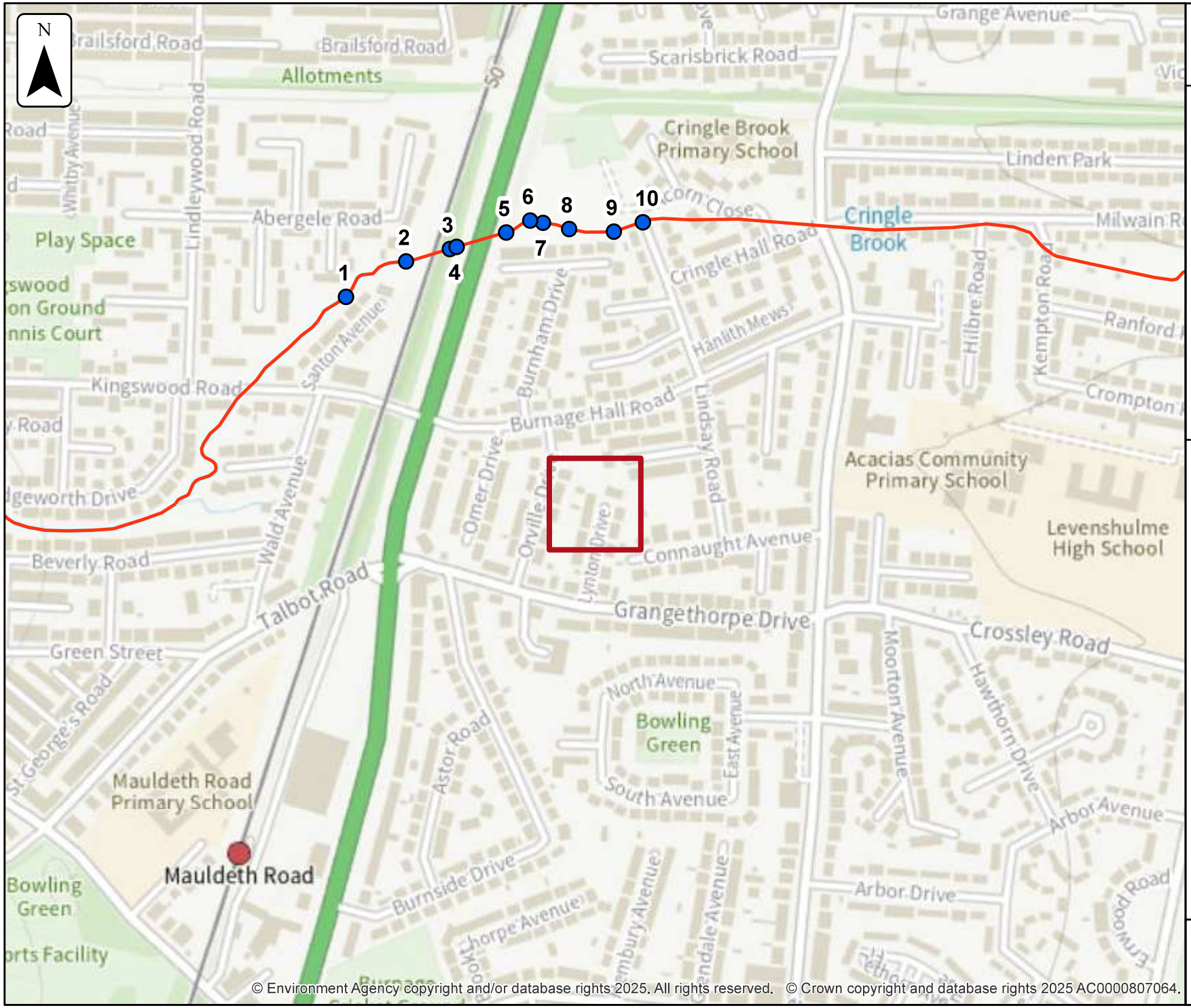
Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level
1	1440146	386335	393587	41.72	41.73	41.76	41.79
2	1440111	386394	393622	42.25	42.25	42.27	42.29
3	1440031	386436	393634	43.08	43.10	43.19	43.29
4	1440048	386443	393636	43.09	43.11	43.20	43.30
5	1440039	386491	393650	44.58	44.64	44.86	45.10
6	1440129	386514	393662	44.59	44.65	44.87	45.10
7	1440102	386527	393659	44.59	44.65	44.87	45.10
8	1440078	386552	393653	44.59	44.65	44.87	45.10
9	1440159	386596	393651	44.59	44.64	44.86	45.10
10	1440117	386624	393660	44.59	44.65	44.87	45.13

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	1440146	386335	393587	4.53	4.58	4.77	4.96
2	1440111	386394	393622	4.53	4.58	4.77	4.96
3	1440031	386436	393634	4.53	4.58	4.77	4.96
4	1440048	386443	393636	4.53	4.58	4.77	4.96
5	1440039	386491	393650	4.53	4.58	4.77	4.96
6	1440129	386514	393662	3.96	4.07	4.68	6.07
7	1440102	386527	393659	4.34	4.42	5.06	6.54
8	1440078	386552	393653	4.74	4.88	5.58	7.12
9	1440159	386596	393651	4.96	5.13	5.85	7.16
10	1440117	386624	393660	4.81	4.85	5.03	5.16

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.



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Environment Agency

Defences removed modelled fluvial node locations

Location (easting/northing)
386578/393386

Scale
1:5,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

- Selected area
- Modelled location
- Main river

0 50 100 150 200 250
metres

Modelled node locations data

Defences removed

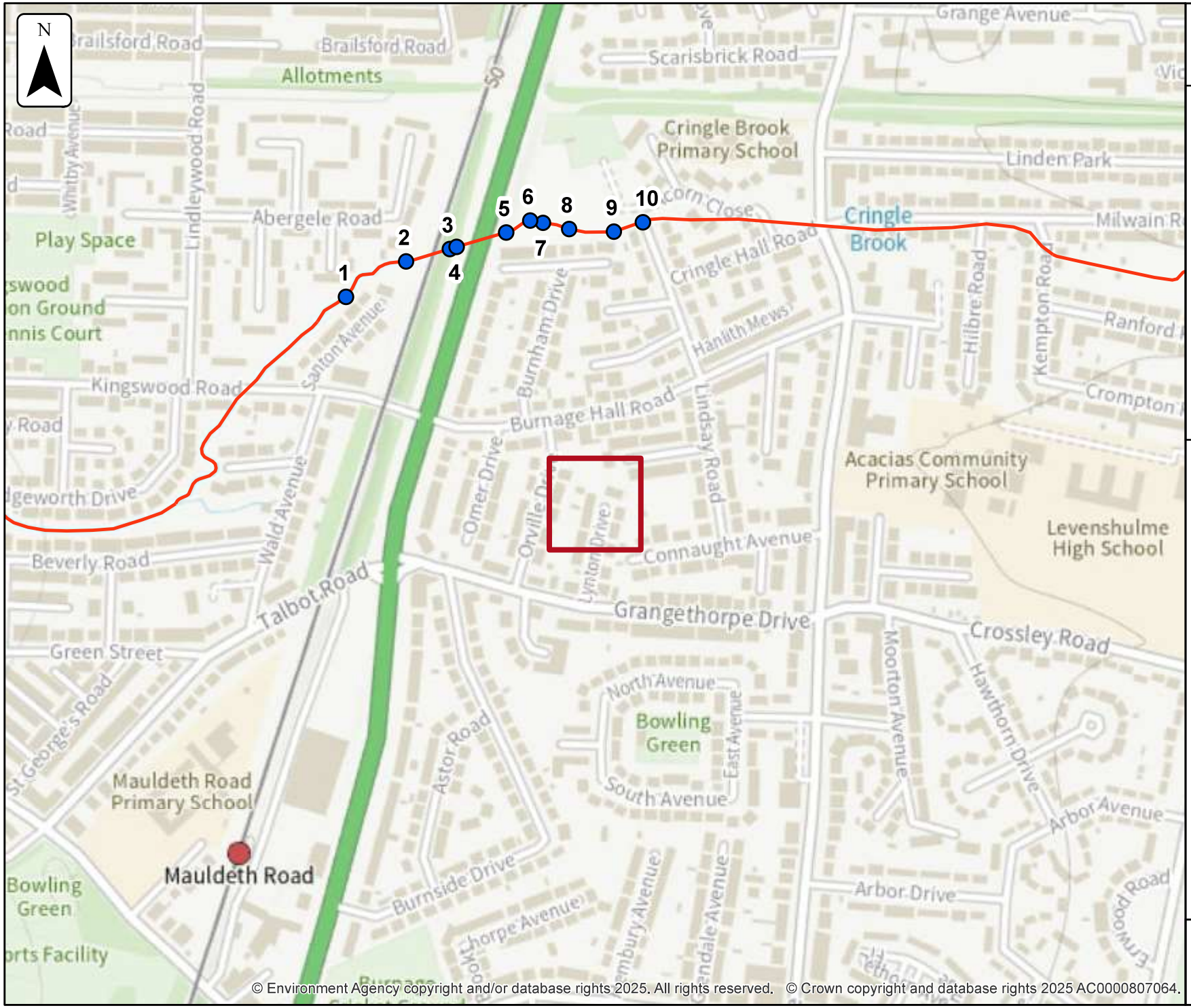
Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	4% AEP	3.33% AEP	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
1	1440146	386335	393587	41.28	41.40	41.52	41.57	41.59	41.60	41.63	41.66	41.67	41.70	41.77
2	1440111	386394	393622	41.88	41.98	42.09	42.13	42.14	42.15	42.17	42.20	42.21	42.23	42.28
3	1440031	386436	393634	42.19	42.32	42.53	42.64	42.66	42.69	42.79	42.86	42.90	43.01	43.24
4	1440048	386443	393636	42.20	42.33	42.54	42.65	42.67	42.70	42.80	42.87	42.91	43.02	43.25
5	1440039	386491	393650	42.48	42.75	43.27	43.53	43.60	43.67	43.89	44.06	44.16	44.40	44.99
6	1440129	386514	393662	42.57	42.82	43.30	43.57	43.64	43.71	43.91	44.08	44.17	44.41	44.99
7	1440102	386527	393659	42.62	42.85	43.32	43.56	43.63	43.70	43.91	44.08	44.18	44.41	44.99
8	1440078	386552	393653	42.72	42.92	43.35	43.59	43.64	43.72	43.92	44.08	44.18	44.41	44.99
9	1440159	386596	393651	42.87	43.04	43.40	43.62	43.67	43.74	43.93	44.09	44.18	44.41	44.99
10	1440117	386624	393660	43.05	43.17	43.44	43.64	43.69	43.75	43.94	44.09	44.18	44.41	45.0

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	1440146	386335	393587	2.01	2.56	3.23	3.54	3.62	3.69	3.91	4.07	4.16	4.37	4.87
2	1440111	386394	393622	2.01	2.56	3.23	3.54	3.62	3.69	3.91	4.08	4.16	4.37	4.87
3	1440031	386436	393634	2.01	2.56	3.23	3.54	3.62	3.70	3.91	4.08	4.16	4.37	4.87
4	1440048	386443	393636	2.01	2.56	3.23	3.54	3.62	3.70	3.91	4.08	4.16	4.37	4.87
5	1440039	386491	393650	2.01	2.56	3.23	3.54	3.62	3.70	3.91	4.08	4.16	4.37	4.87
6	1440129	386514	393662	2.01	2.56	3.14	3.23	3.30	3.30	3.30	3.34	4.0	3.89	5.33
7	1440102	386527	393659	2.01	2.56	3.25	3.62	3.69	3.72	3.81	3.80	3.98	4.27	5.73
8	1440078	386552	393653	2.01	2.57	3.25	3.68	3.74	3.87	4.05	4.15	4.17	4.66	6.27
9	1440159	386596	393651	1.87	2.41	3.0	3.40	3.49	3.60	3.91	4.18	4.33	4.67	6.39
10	1440117	386624	393660	1.87	2.41	3.01	3.40	3.49	3.60	3.91	4.18	4.34	4.68	5.12

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.



Environment Agency

Defended climate change modelled fluvial node locations

Location (easting/northing)
386578/393386

Scale
1:5,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

Selected area
Modelled location
Main river

0 50 100 150 200 250
metres

Modelled node locations data

Defended climate change

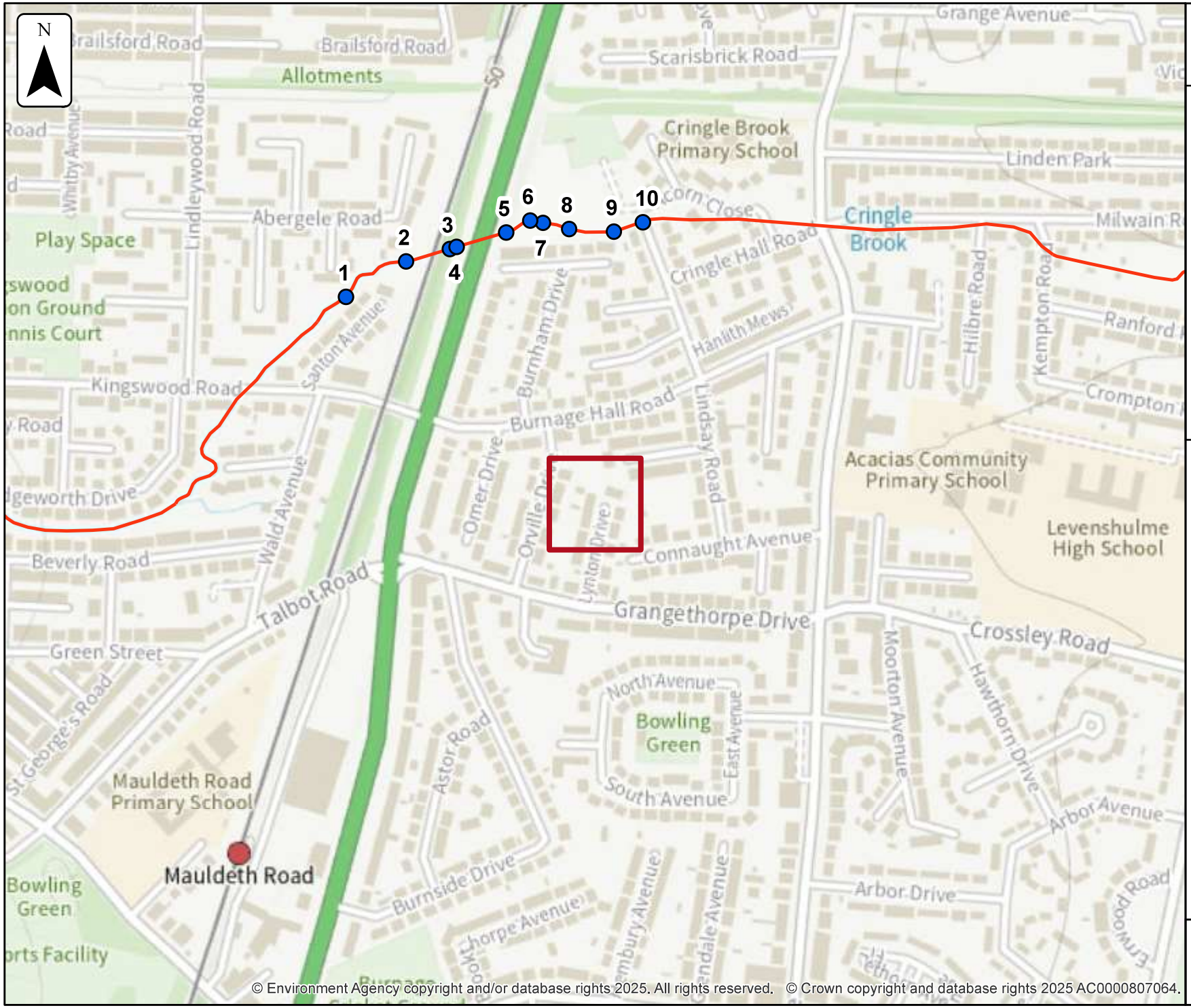
Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level
1	1440146	386335	393587	41.72	41.73	41.76	41.79
2	1440111	386394	393622	42.25	42.25	42.27	42.29
3	1440031	386436	393634	43.08	43.10	43.19	43.29
4	1440048	386443	393636	43.09	43.11	43.20	43.30
5	1440039	386491	393650	44.58	44.64	44.86	45.10
6	1440129	386514	393662	44.59	44.65	44.87	45.10
7	1440102	386527	393659	44.59	44.65	44.87	45.10
8	1440078	386552	393653	44.59	44.65	44.87	45.10
9	1440159	386596	393651	44.59	44.64	44.86	45.10
10	1440117	386624	393660	44.59	44.65	44.87	45.13

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	1440146	386335	393587	4.53	4.58	4.77	4.96
2	1440111	386394	393622	4.53	4.58	4.77	4.96
3	1440031	386436	393634	4.53	4.58	4.77	4.96
4	1440048	386443	393636	4.53	4.58	4.77	4.96
5	1440039	386491	393650	4.53	4.58	4.77	4.96
6	1440129	386514	393662	3.96	4.07	4.68	6.07
7	1440102	386527	393659	4.34	4.42	5.06	6.54
8	1440078	386552	393653	4.74	4.88	5.58	7.12
9	1440159	386596	393651	4.96	5.13	5.85	7.16
10	1440117	386624	393660	4.81	4.85	5.03	5.16

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.



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Environment Agency

Defended modelled fluvial node locations

Location (easting/northing)
386578/393386

Scale
1:5,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

- Selected area
- Modelled location
- Main river

0 50 100 150 200 250
metres

Modelled node locations data

Defended

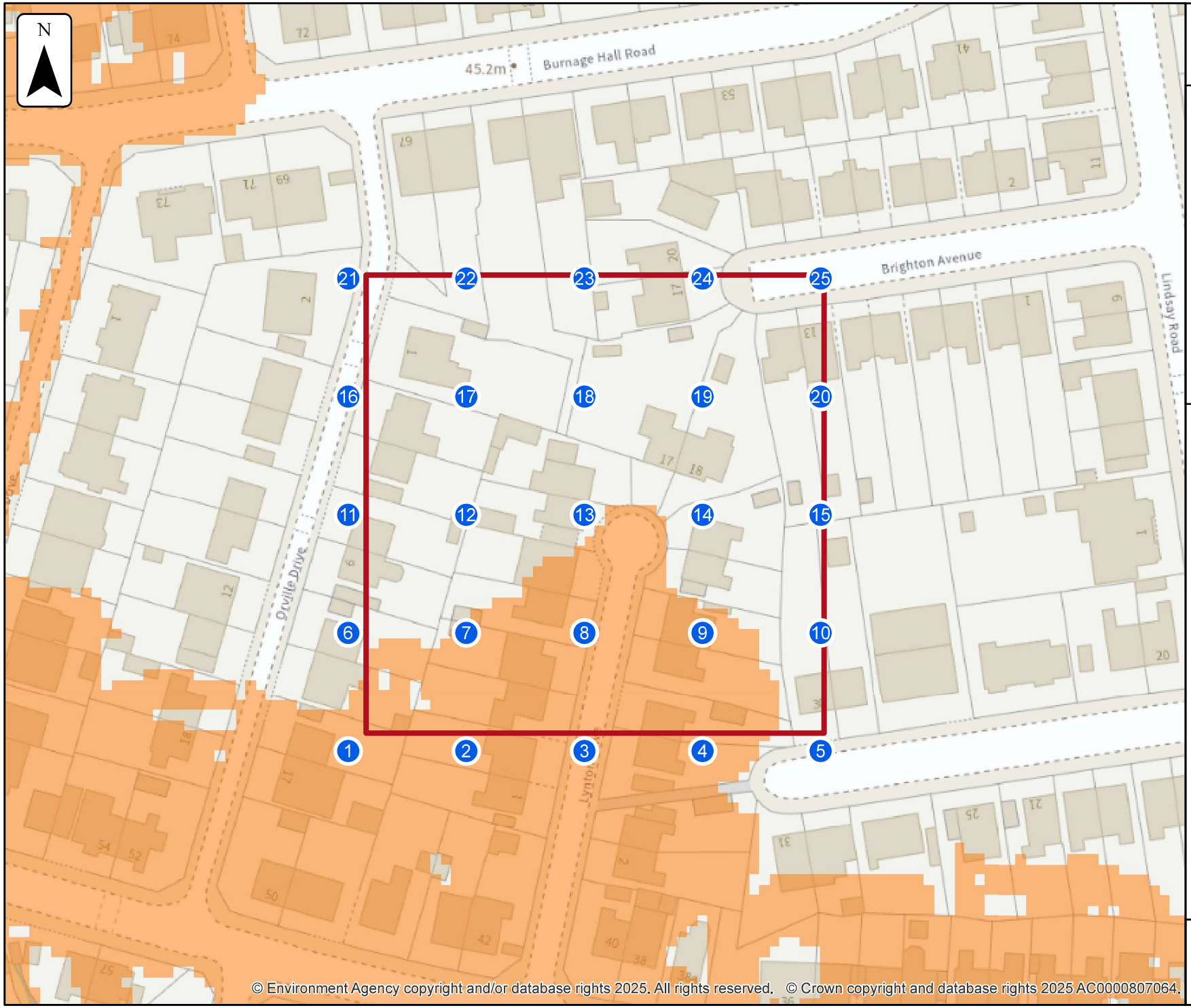
Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	4% AEP	3.33% AEP	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
1	1440146	386335	393587	41.28	41.40	41.52	41.57	41.59	41.60	41.63	41.66	41.67	41.70	41.77
2	1440111	386394	393622	41.88	41.98	42.09	42.13	42.14	42.15	42.17	42.20	42.21	42.23	42.28
3	1440031	386436	393634	42.19	42.32	42.53	42.64	42.66	42.69	42.79	42.86	42.90	43.01	43.24
4	1440048	386443	393636	42.20	42.33	42.54	42.65	42.67	42.70	42.80	42.87	42.91	43.02	43.25
5	1440039	386491	393650	42.48	42.75	43.27	43.53	43.60	43.67	43.89	44.06	44.16	44.40	44.99
6	1440129	386514	393662	42.57	42.82	43.30	43.57	43.64	43.71	43.91	44.08	44.17	44.41	44.99
7	1440102	386527	393659	42.62	42.85	43.32	43.56	43.63	43.70	43.91	44.08	44.18	44.41	44.99
8	1440078	386552	393653	42.72	42.92	43.35	43.59	43.64	43.72	43.92	44.08	44.18	44.41	44.99
9	1440159	386596	393651	42.87	43.04	43.40	43.62	43.67	43.74	43.93	44.09	44.18	44.41	44.99
10	1440117	386624	393660	43.05	43.17	43.44	43.64	43.69	43.75	43.94	44.09	44.18	44.41	45.0

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	1440146	386335	393587	2.01	2.56	3.23	3.54	3.62	3.69	3.91	4.07	4.16	4.37	4.87
2	1440111	386394	393622	2.01	2.56	3.23	3.54	3.62	3.69	3.91	4.08	4.16	4.37	4.87
3	1440031	386436	393634	2.01	2.56	3.23	3.54	3.62	3.70	3.91	4.08	4.16	4.37	4.87
4	1440048	386443	393636	2.01	2.56	3.23	3.54	3.62	3.70	3.91	4.08	4.16	4.37	4.87
5	1440039	386491	393650	2.01	2.56	3.23	3.54	3.62	3.70	3.91	4.08	4.16	4.37	4.87
6	1440129	386514	393662	2.01	2.56	3.14	3.23	3.30	3.30	3.30	3.34	4.0	3.89	5.33
7	1440102	386527	393659	2.01	2.56	3.25	3.62	3.69	3.72	3.81	3.80	3.98	4.27	5.73
8	1440078	386552	393653	2.01	2.57	3.25	3.68	3.74	3.87	4.05	4.15	4.17	4.66	6.27
9	1440159	386596	393651	1.87	2.41	3.0	3.40	3.49	3.60	3.91	4.18	4.33	4.67	6.39
10	1440117	386624	393660	1.87	2.41	3.01	3.40	3.49	3.60	3.91	4.18	4.34	4.68	5.12

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.



Environment Agency

Defended modelled fluvial extent and height

Location (easting/northing)
386578/393386

Scale
1:1,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 5.75
- 5.75 - 11.5
- 11.5 - 17.25
- 17.25 - 23.0
- 23.0 - 28.75
- 28.75 - 34.5
- 34.5 - 40.25
- 40.25 - 46.0
- 46.0 - 51.75

This map shows the 0.1% AEP height data

0 10 20 30 40
metres

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	386530	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	43.60
2	386553	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	43.61
3	386576	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.05
4	386599	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.07
5	386622	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
6	386530	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
7	386553	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	43.92
8	386576	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.05
9	386599	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.06
10	386622	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
11	386530	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
12	386553	393384	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
13	386576	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
14	386599	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
15	386622	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
16	386530	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
17	386553	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
18	386576	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
19	386599	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
20	386622	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
21	386530	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
22	386553	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
23	386576	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
24	386599	393430	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	386622	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
Max value in selected area:			NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.07

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.

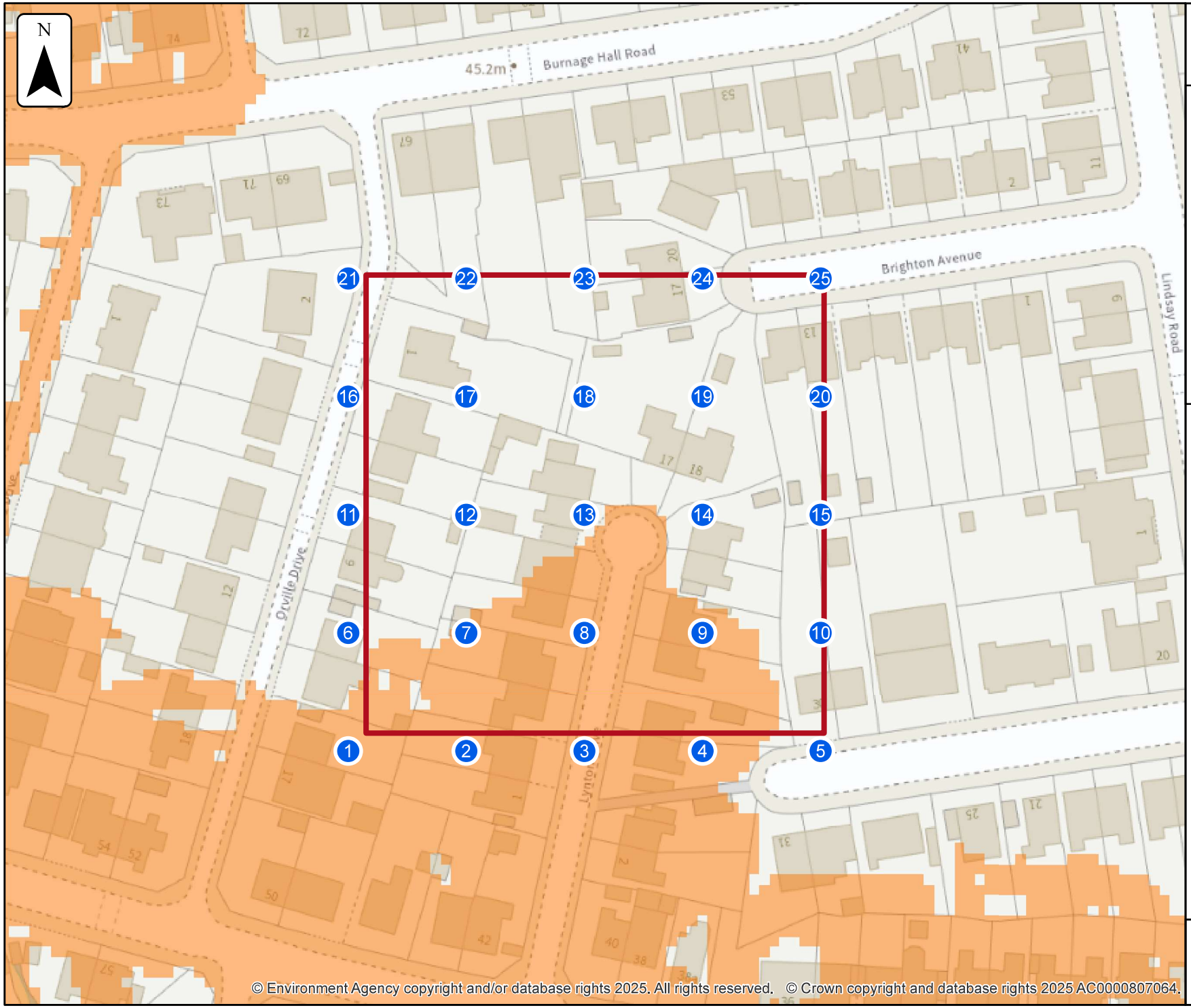
Defended

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	386530	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.33
2	386553	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.32
3	386576	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.23
4	386599	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.45
5	386622	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
6	386530	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
7	386553	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.05
8	386576	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.24
9	386599	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.28
10	386622	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
11	386530	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
12	386553	393384	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
13	386576	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
14	386599	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
15	386622	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
16	386530	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
17	386553	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
18	386576	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
19	386599	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
20	386622	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
21	386530	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
22	386553	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
23	386576	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
24	386599	393430	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	386622	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
Max value in selected area:			NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.53

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



Environment Agency

Defences removed modelled fluvial extent and height

Location (easting/northing)
386578/393386

Scale
1:1,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 5.75
- 5.75 - 11.5
- 11.5 - 17.25
- 17.25 - 23.0
- 23.0 - 28.75
- 28.75 - 34.5
- 34.5 - 40.25
- 40.25 - 46.0
- 46.0 - 51.75

This map shows the 0.1% AEP height data

0 10 20 30 40
metres

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	386530	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	43.60
2	386553	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	43.61
3	386576	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.05
4	386599	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.07
5	386622	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
6	386530	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
7	386553	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	43.92
8	386576	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.05
9	386599	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.06
10	386622	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
11	386530	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
12	386553	393384	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
13	386576	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
14	386599	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
15	386622	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
16	386530	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
17	386553	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
18	386576	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
19	386599	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
20	386622	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
21	386530	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
22	386553	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
23	386576	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
24	386599	393430	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	386622	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
Max value in selected area:			NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	44.07

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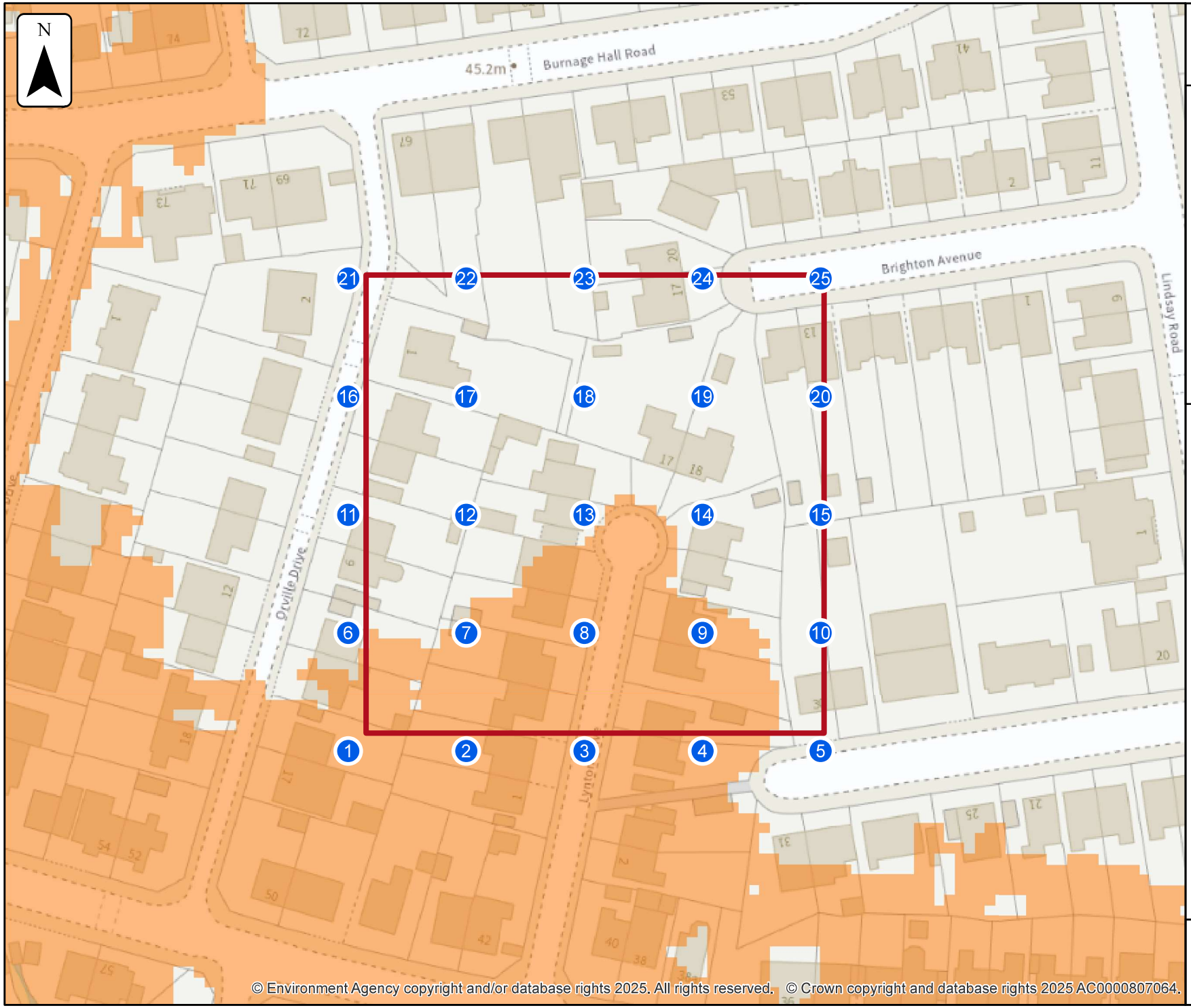
Defences removed

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	386530	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.33
2	386553	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.32
3	386576	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.23
4	386599	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.45
5	386622	393338	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
6	386530	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
7	386553	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.05
8	386576	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.24
9	386599	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.28
10	386622	393361	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
11	386530	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
12	386553	393384	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
13	386576	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
14	386599	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
15	386622	393384	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
16	386530	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
17	386553	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
18	386576	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
19	386599	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
20	386622	393407	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
21	386530	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
22	386553	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
23	386576	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
24	386599	393430	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	386622	393430	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
Max value in selected area:			NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.53

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Environment Agency

Defended climate change modelled fluvial extent and height

Location (easting/northing)
386578/393386

Scale
1:1,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 5.75
- 5.75 - 11.5
- 11.5 - 17.25
- 17.25 - 23.0
- 23.0 - 28.75
- 28.75 - 34.5
- 34.5 - 40.25
- 40.25 - 46.0
- 46.0 - 51.75

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

0 10 20 30 40
metres

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	386530	393338	43.36	43.37	43.43	43.65
2	386553	393338	43.37	43.38	43.44	43.67
3	386576	393338	43.83	43.83	43.88	44.10
4	386599	393338	43.71	43.72	43.88	44.12
5	386622	393338	NoData	NoData	NoData	NoData
6	386530	393361	NoData	NoData	NoData	NoData
7	386553	393361	NoData	NoData	NoData	43.94
8	386576	393361	43.81	43.82	43.88	44.10
9	386599	393361	NoData	NoData	43.88	44.12
10	386622	393361	NoData	NoData	NoData	NoData
11	386530	393384	NoData	NoData	NoData	NoData
12	386553	393384	NoData	NoData	NoData	NoData

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
13	386576	393384	NoData	NoData	NoData	NoData
14	386599	393384	NoData	NoData	NoData	NoData
15	386622	393384	NoData	NoData	NoData	NoData
16	386530	393407	NoData	NoData	NoData	NoData
17	386553	393407	NoData	NoData	NoData	NoData
18	386576	393407	NoData	NoData	NoData	NoData
19	386599	393407	NoData	NoData	NoData	NoData
20	386622	393407	NoData	NoData	NoData	NoData
21	386530	393430	NoData	NoData	NoData	NoData
22	386553	393430	NoData	NoData	NoData	NoData
23	386576	393430	NoData	NoData	NoData	NoData
24	386599	393430	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	386622	393430	NoData	NoData	NoData	NoData
Max value in selected area:			43.81	43.82	43.88	44.12

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.
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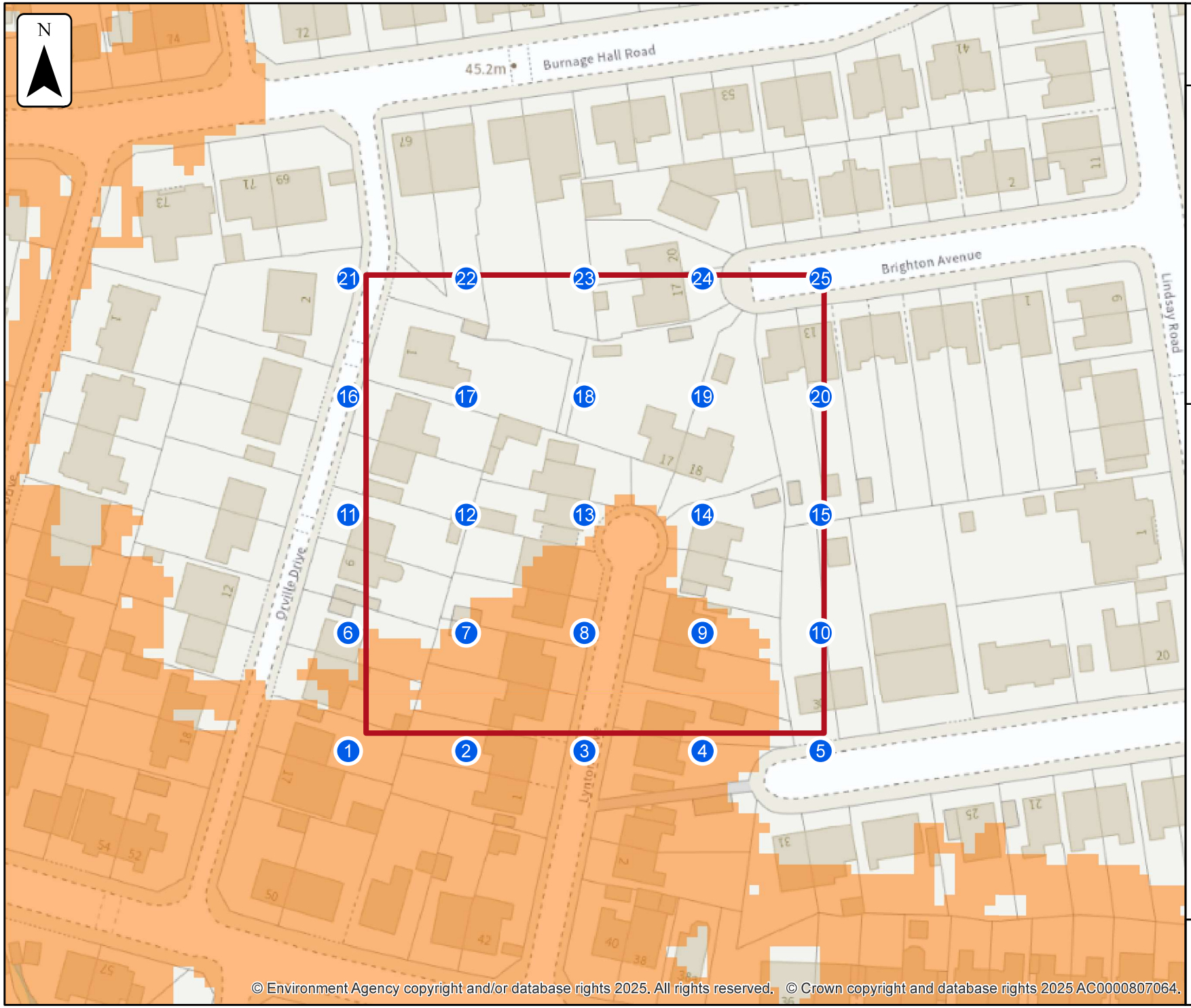
Defended climate change

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
1	386530	393338	0.09	0.10	0.16	0.38
2	386553	393338	0.08	0.09	0.14	0.37
3	386576	393338	0.00	0.01	0.06	0.28
4	386599	393338	0.09	0.11	0.27	0.51
5	386622	393338	NoData	NoData	NoData	NoData
6	386530	393361	NoData	NoData	NoData	NoData
7	386553	393361	NoData	NoData	NoData	0.07
8	386576	393361	0.01	0.01	0.08	0.29
9	386599	393361	NoData	NoData	0.10	0.33
10	386622	393361	NoData	NoData	NoData	NoData
11	386530	393384	NoData	NoData	NoData	NoData
12	386553	393384	NoData	NoData	NoData	NoData

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
13	386576	393384	NoData	NoData	NoData	NoData
14	386599	393384	NoData	NoData	NoData	NoData
15	386622	393384	NoData	NoData	NoData	NoData
16	386530	393407	NoData	NoData	NoData	NoData
17	386553	393407	NoData	NoData	NoData	NoData
18	386576	393407	NoData	NoData	NoData	NoData
19	386599	393407	NoData	NoData	NoData	NoData
20	386622	393407	NoData	NoData	NoData	NoData
21	386530	393430	NoData	NoData	NoData	NoData
22	386553	393430	NoData	NoData	NoData	NoData
23	386576	393430	NoData	NoData	NoData	NoData
24	386599	393430	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	386622	393430	NoData	NoData	NoData	NoData
Max value in selected area:			0.17	0.19	0.35	0.58

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Environment Agency

Defences removed climate change modelled fluvial extent and height

Location (easting/northing)
386578/393386

Scale
1:1,000

Created
24 Jul 2025

Model name
Cringle Black Brook 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 5.75
- 5.75 - 11.5
- 11.5 - 17.25
- 17.25 - 23.0
- 23.0 - 28.75
- 28.75 - 34.5
- 34.5 - 40.25
- 40.25 - 46.0
- 46.0 - 51.75

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

0 10 20 30 40
metres

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	386530	393338	43.36	43.37	43.43	43.65
2	386553	393338	43.37	43.38	43.44	43.67
3	386576	393338	43.83	43.83	43.88	44.10
4	386599	393338	43.71	43.72	43.88	44.12
5	386622	393338	NoData	NoData	NoData	NoData
6	386530	393361	NoData	NoData	NoData	NoData
7	386553	393361	NoData	NoData	NoData	43.94
8	386576	393361	43.81	43.82	43.88	44.10
9	386599	393361	NoData	NoData	43.88	44.12
10	386622	393361	NoData	NoData	NoData	NoData
11	386530	393384	NoData	NoData	NoData	NoData
12	386553	393384	NoData	NoData	NoData	NoData

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
13	386576	393384	NoData	NoData	NoData	NoData
14	386599	393384	NoData	NoData	NoData	NoData
15	386622	393384	NoData	NoData	NoData	NoData
16	386530	393407	NoData	NoData	NoData	NoData
17	386553	393407	NoData	NoData	NoData	NoData
18	386576	393407	NoData	NoData	NoData	NoData
19	386599	393407	NoData	NoData	NoData	NoData
20	386622	393407	NoData	NoData	NoData	NoData
21	386530	393430	NoData	NoData	NoData	NoData
22	386553	393430	NoData	NoData	NoData	NoData
23	386576	393430	NoData	NoData	NoData	NoData
24	386599	393430	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	386622	393430	NoData	NoData	NoData	NoData
Max value in selected area:			43.81	43.82	43.88	44.12

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'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	386530	393338	0.09	0.10	0.16	0.38
2	386553	393338	0.08	0.09	0.14	0.37
3	386576	393338	0.00	0.01	0.06	0.28
4	386599	393338	0.09	0.11	0.27	0.51
5	386622	393338	NoData	NoData	NoData	NoData
6	386530	393361	NoData	NoData	NoData	NoData
7	386553	393361	NoData	NoData	NoData	0.07
8	386576	393361	0.01	0.01	0.08	0.29
9	386599	393361	NoData	NoData	0.10	0.33
10	386622	393361	NoData	NoData	NoData	NoData
11	386530	393384	NoData	NoData	NoData	NoData
12	386553	393384	NoData	NoData	NoData	NoData

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
13	386576	393384	NoData	NoData	NoData	NoData
14	386599	393384	NoData	NoData	NoData	NoData
15	386622	393384	NoData	NoData	NoData	NoData
16	386530	393407	NoData	NoData	NoData	NoData
17	386553	393407	NoData	NoData	NoData	NoData
18	386576	393407	NoData	NoData	NoData	NoData
19	386599	393407	NoData	NoData	NoData	NoData
20	386622	393407	NoData	NoData	NoData	NoData
21	386530	393430	NoData	NoData	NoData	NoData
22	386553	393430	NoData	NoData	NoData	NoData
23	386576	393430	NoData	NoData	NoData	NoData
24	386599	393430	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	386622	393430	NoData	NoData	NoData	NoData
Max value in selected area:			0.17	0.19	0.35	0.58

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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