

Flood risk assessment data

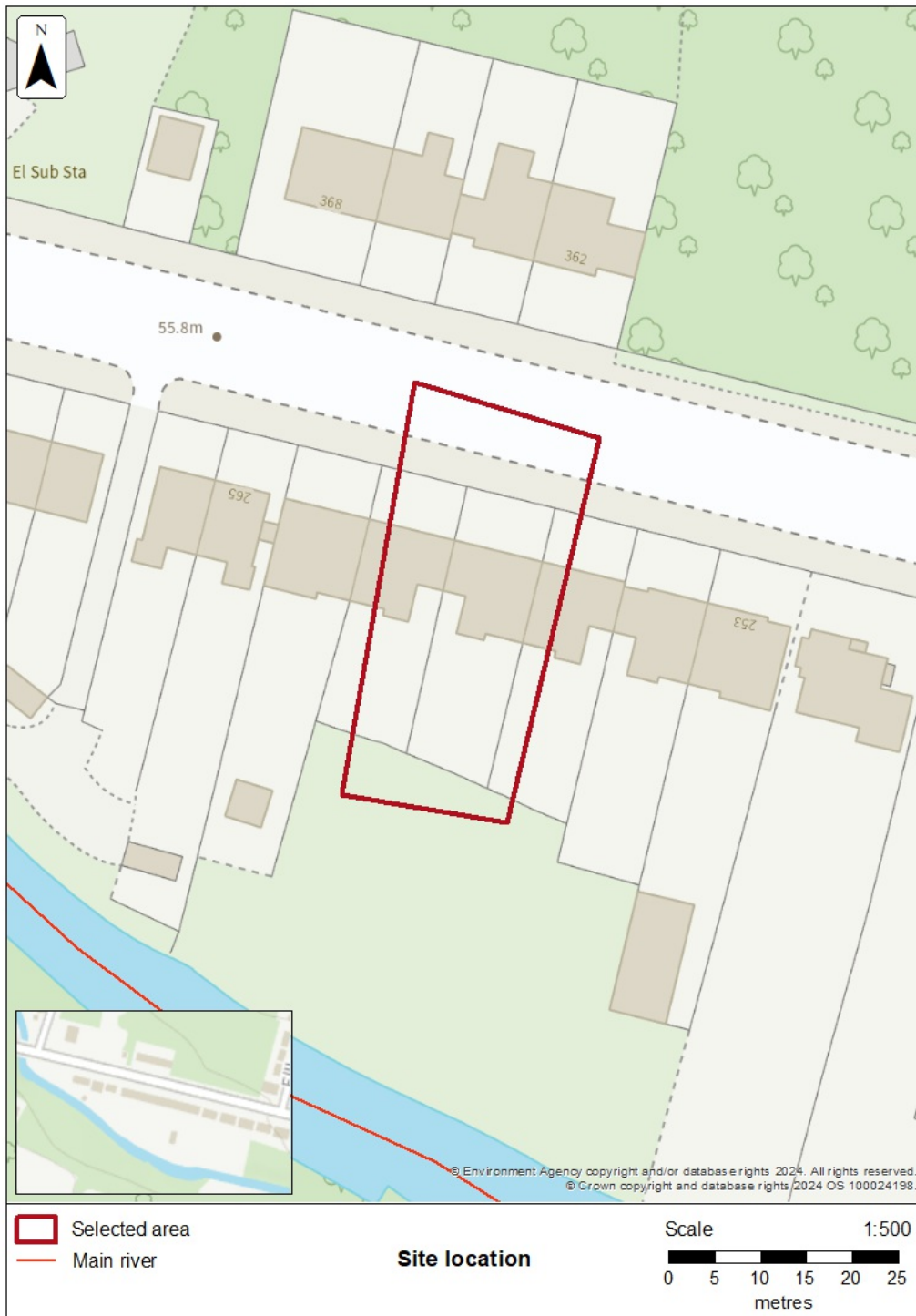
Location of site: 383952 / 403171 (shown as easting and northing coordinates)

Document created on: 9 August 2024

This information was previously known as a product 4.

Customer reference number: 87C9AE7WNNND

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)
- historic flooding
- modelled data
- information about strategic flood risk assessments
- information about this data
- information about flood risk activity permits
- help and advice

Information that's unavailable

This document **does not** contain:

- flood defences and attributes
- climate change modelled data

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

There is not any modelled climate change data for this location. This is because detailed modelling hasn't been carried out in this area. You will need to consider the [latest flood risk assessment climate change allowances](#) and factor in the new allowances to demonstrate the development will be safe from flooding.

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.

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

About the models used

Model name: River Irwell, Irk, Moston and Whit Brook 2007

Scenario(s): Defended fluvial, defences removed fluvial

Date: 30 May 2007

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 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

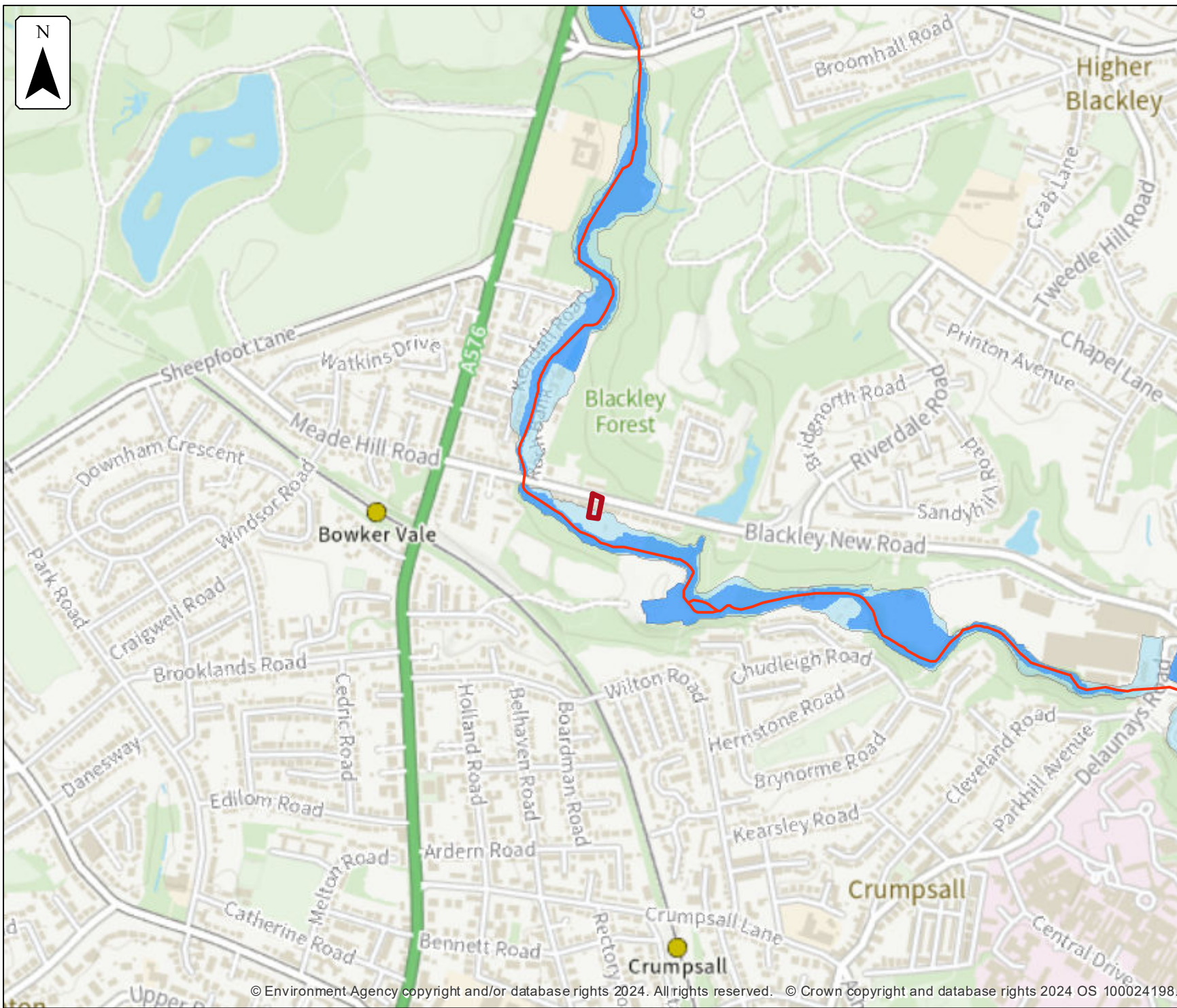
Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

- 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

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)
383952/403171

Scale
1:10,000

Created
9 Aug 2024

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

0 100 200 300 400 500
metres

Historic flooding

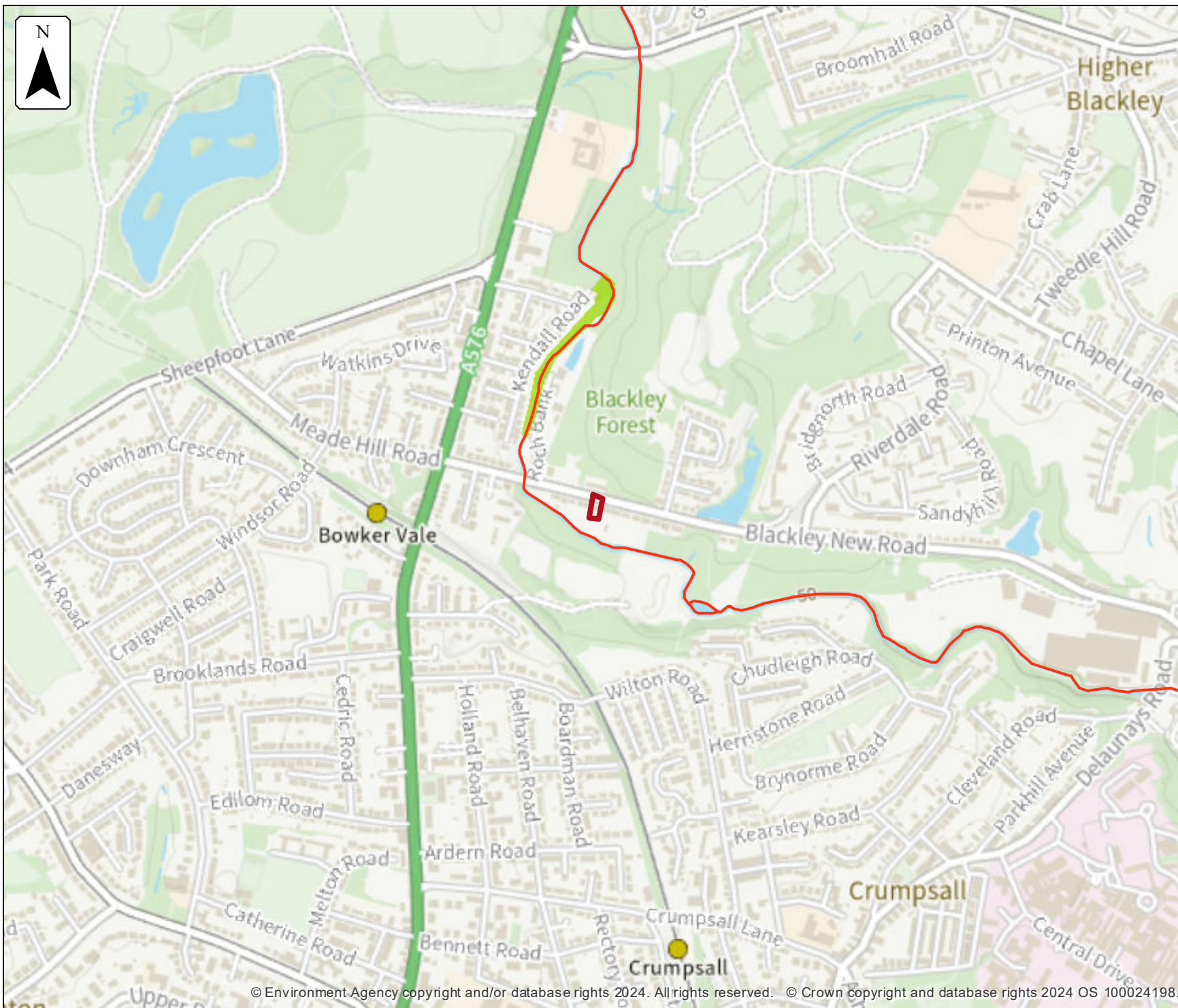
This map is an indicative outline of areas that have previously flooded. Remember that:

- our records are incomplete, so the information here is based on the best available data
- it is possible not all properties within this area will have flooded
- other flooding may have occurred that we do not have records for
- flooding can come from a range of different sources - we can only supply flood risk data relating to flooding from rivers or the sea

You can also contact your Lead Local Flood Authority or Internal Drainage Board to see if they have other relevant local flood information. Please note that some areas do not have an Internal Drainage Board.

Your Lead Local Flood Authority is Manchester.

[Download recorded flood outlines in GIS format](#)



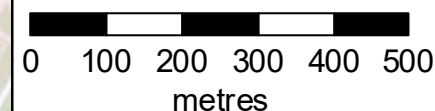
Historic flood map

Location (easting/northing)
383952/403171

Scale
1:10,000

Created
9 Aug 2024

-  Selected area
-  Main river
- Date of flood event
-  December, 2015



Historic flood event data

Start date	End date	Source of flood	Cause of flood	Affects location
26 December 2015	26 December 2015	main river	channel capacity exceeded (no raised defences)	No

Modelled data

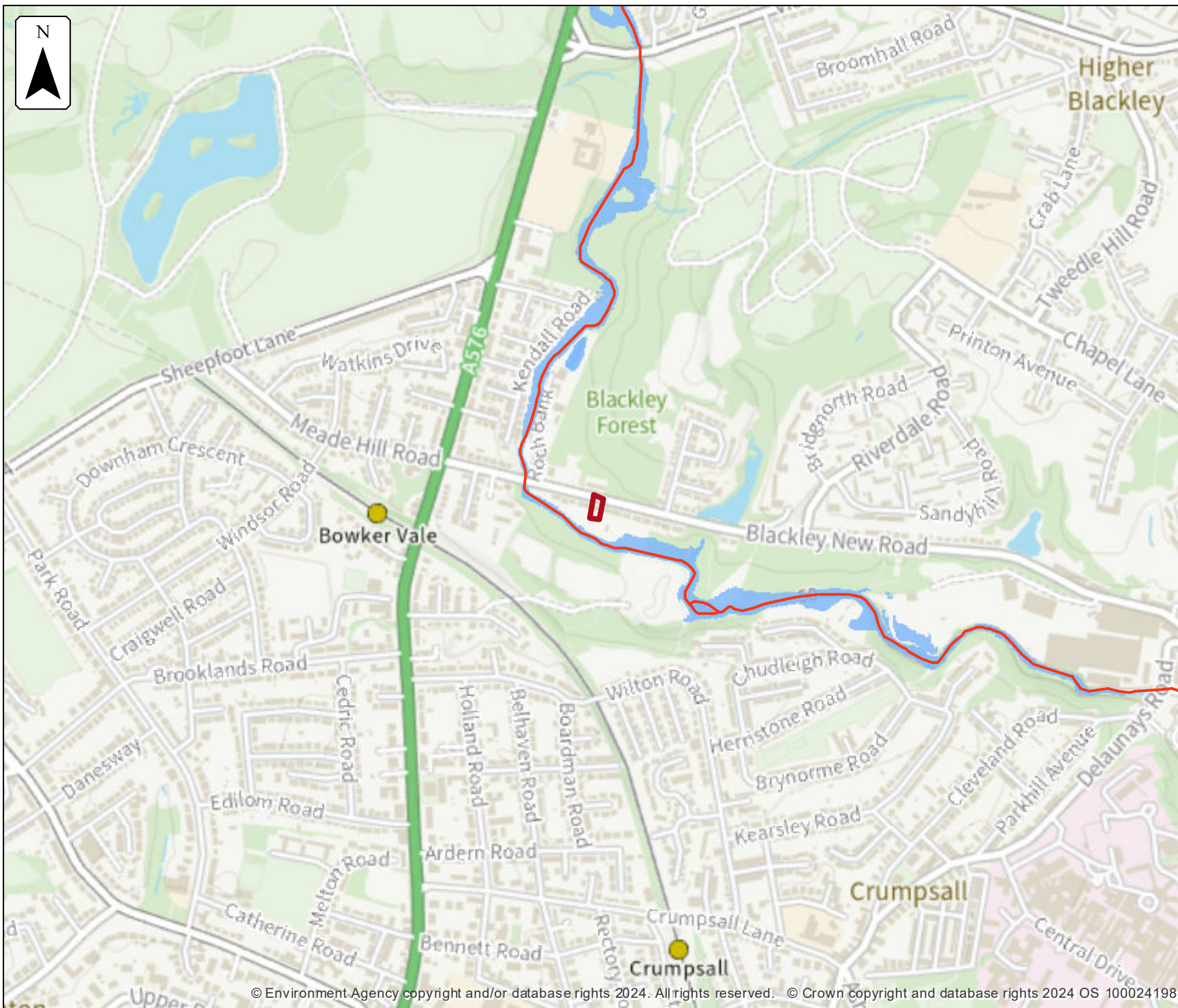
This section provides details of different scenarios we have modelled and includes the following (where available):

- 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

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
- No defences exist modelled fluvial: risk of flooding from rivers where there are no flood defences



Defended modelled fluvial extent

Location (easting/northing)
383952/403171

Scale Created
1:10,000 9 Aug 2024

Model name
**River Irwell, Irk,
Moston and Whit 2007**

 Selected area

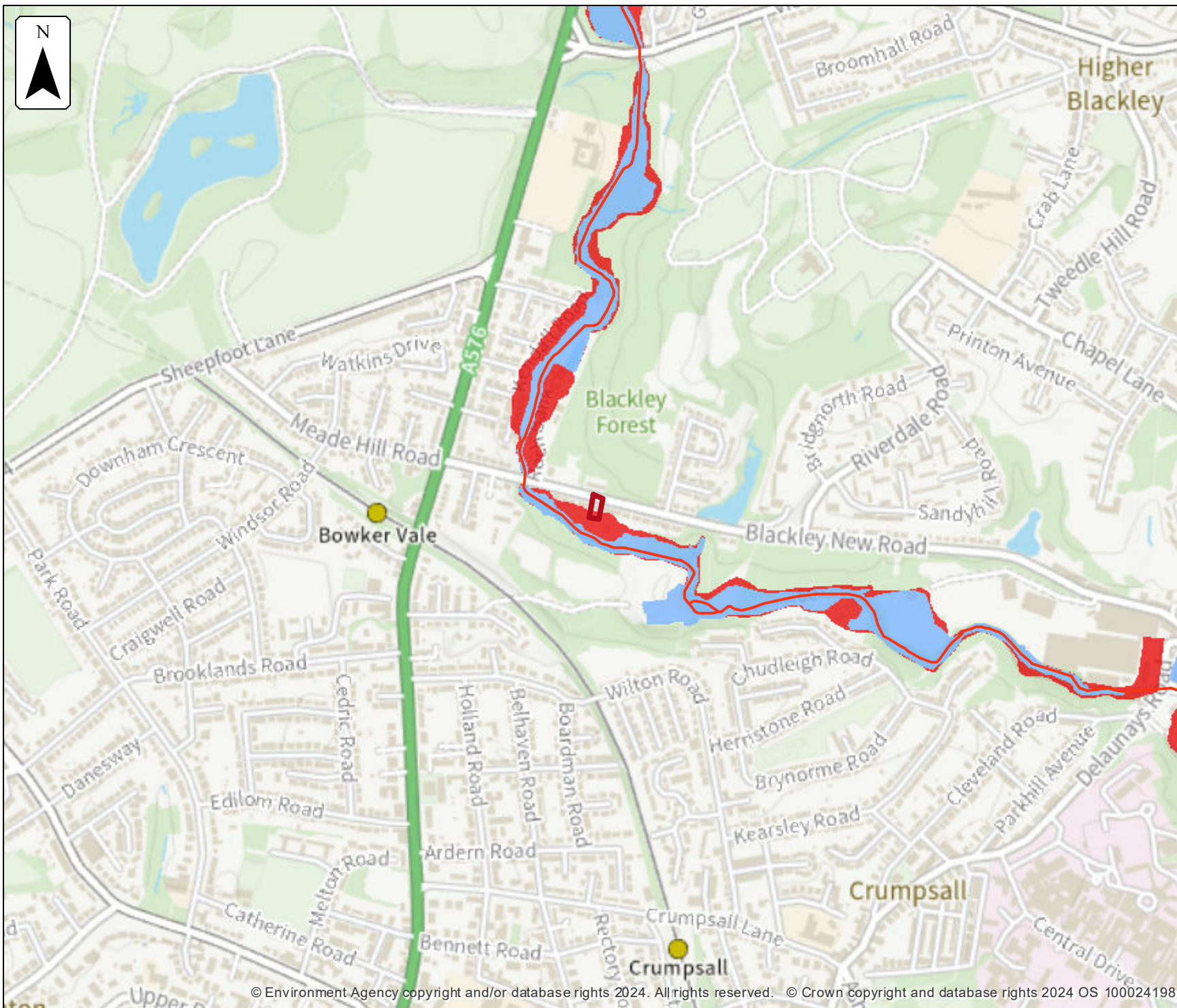
 Main river

Modelled flood extent

 1% AEP

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


0 100 200 300 400 500
metres



Defences removed modelled fluvial extent

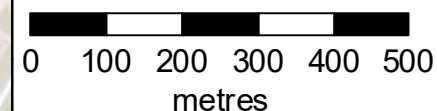
Location (easting/northing)
383952/403171

Scale Created
1:10,000 9 Aug 2024

Model name
**River Irwell, Irk,
Moston and Whit 2007**

-  Selected area
-  Main river
- Modelled flood extent
 -  1% AEP
 -  0.1% AEP

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





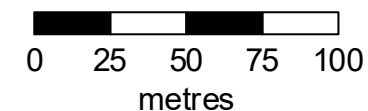
**Defended modelled
fluvial
node locations**

Location (easting/northing)
383952/403171

Scale Created
1:2,500 9 Aug 2024

Model name
**River Irwell, Irk,
Moston and Whit 2007**

- Selected area
- Modelled location
- Main river



Modelled node locations data

Defended

Label	Modelled location ID	Easting	Northing	1% AEP	1% AEP
				Level	Flow
1	1544687	383812	403217	54.49	60.62
2	1544270	383814	403237	54.72	60.62
3	1544317	383817	403319	55.29	60.60
4	1544699	383838	403387	55.50	60.57
5	1544470	383870	403168	54.05	60.62
6	1544228	383989	403094	53.75	60.62
7	1544309	384030	403089	53.70	60.62
8	1544432	384128	403062	53.47	60.59
9	1544544	384156	402967	53.34	60.56

Data in this table comes from the River Irwell, Irk, Moston and Whit Brook 2007 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.



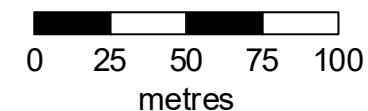
**Defences removed
modelled fluvial
node locations**

Location (easting/northing)
383952/403171

Scale Created
1:2,500 9 Aug 2024

Model name
**River Irwell, Irk,
Moston and Whit 2007**

-  Selected area
-  Modelled location
-  Main river

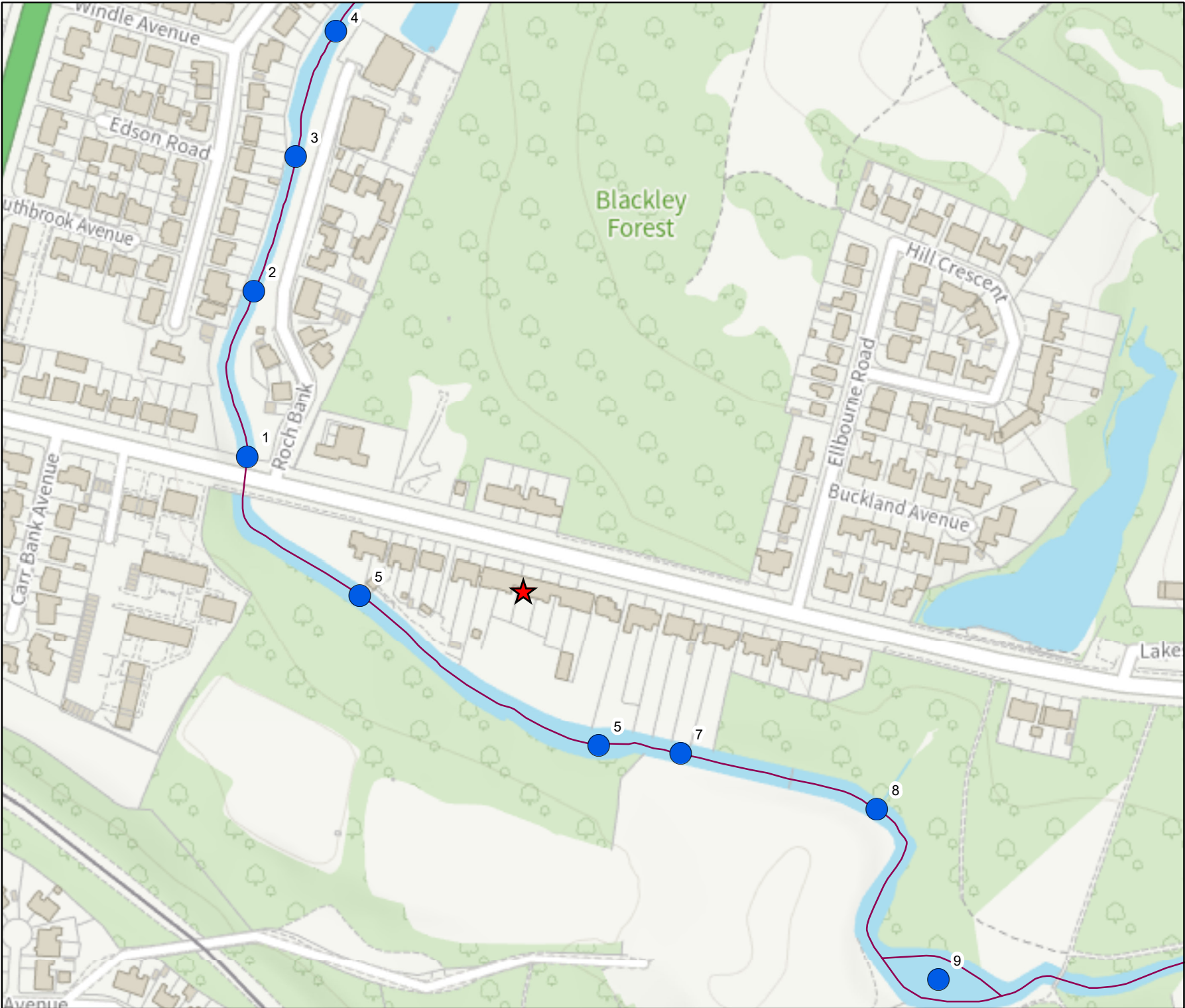


Modelled node locations data

Defences removed

Label	Modelled location ID	Easting	Northing	1% AEP	0.1% AEP	1% AEP	0.1% AEP
				Level	Level	Flow	Flow
1	1544687	383812	403217	54.44	55.26	58.43	108.28
2	1544270	383814	403237	54.66	56.07	58.43	108.28
3	1544317	383817	403319	55.23	56.55	58.45	108.14
4	1544699	383838	403387	55.44	56.69	58.47	108.04
5	1544470	383870	403168	54.01	54.74	58.42	108.32
6	1544228	383989	403094	53.71	54.42	58.37	108.36
7	1544309	384030	403089	53.66	54.37	58.34	108.36
8	1544432	384128	403062	53.43	54.10	58.33	108.36
9	1544544	384156	402967	53.30	53.97	58.36	108.35

Data in this table comes from the River Irwell, Irk, Moston and Whit Brook 2007 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.



1:2,500



Defences removed
climate change
modelled fluvial
node locations

Model data taken from
the 2004 River Irk study

Legend

-  Site Location
-  Model Measurements
-  Main River

					Undefended
Map Reference	Model Node Reference	Easting	Northing	Data	1 % AEP (1 in 100 year) + Climate Change*
1	ea013_0311_IRKR02_3249D	383812	403217	Modelled Water Level (m aodN)	54.71
				Modelled Flow (cumecs)	61.40
2	ea013_0311_IRKR02_3336	383814	403237	Modelled Water Level (m aodN)	55.31
				Modelled Flow (cumecs)	61.40
3	ea013_0311_IRKR02_3406	383817	403319	Modelled Water Level (m aodN)	55.52
				Modelled Flow (cumecs)	61.40
4	ea013_0311_IRKR02_3473A	383838	403387	Modelled Water Level (m aodN)	55.67
				Modelled Flow (cumecs)	60.90
5	ea013_0311_IRKR02_3149	383870	403168	Modelled Water Level (m aodN)	54.06
				Modelled Flow (cumecs)	61.40
6	ea013_0311_IRKR02_3007	383989	403094	Modelled Water Level (m aodN)	53.76
				Modelled Flow (cumecs)	61.40
7	ea013_0311_IRKR02_2966	384030	403089	Modelled Water Level (m aodN)	53.72
				Modelled Flow (cumecs)	61.40
8	ea013_0311_IRKR02_2863	384128	403062	Modelled Water Level (m aodN)	53.49
				Modelled Flow (cumecs)	61.30
9	ea013_0311_IRKR02_2746	384156	402967	Modelled Water Level (m aodN)	53.36
				Modelled Flow (cumecs)	61.30

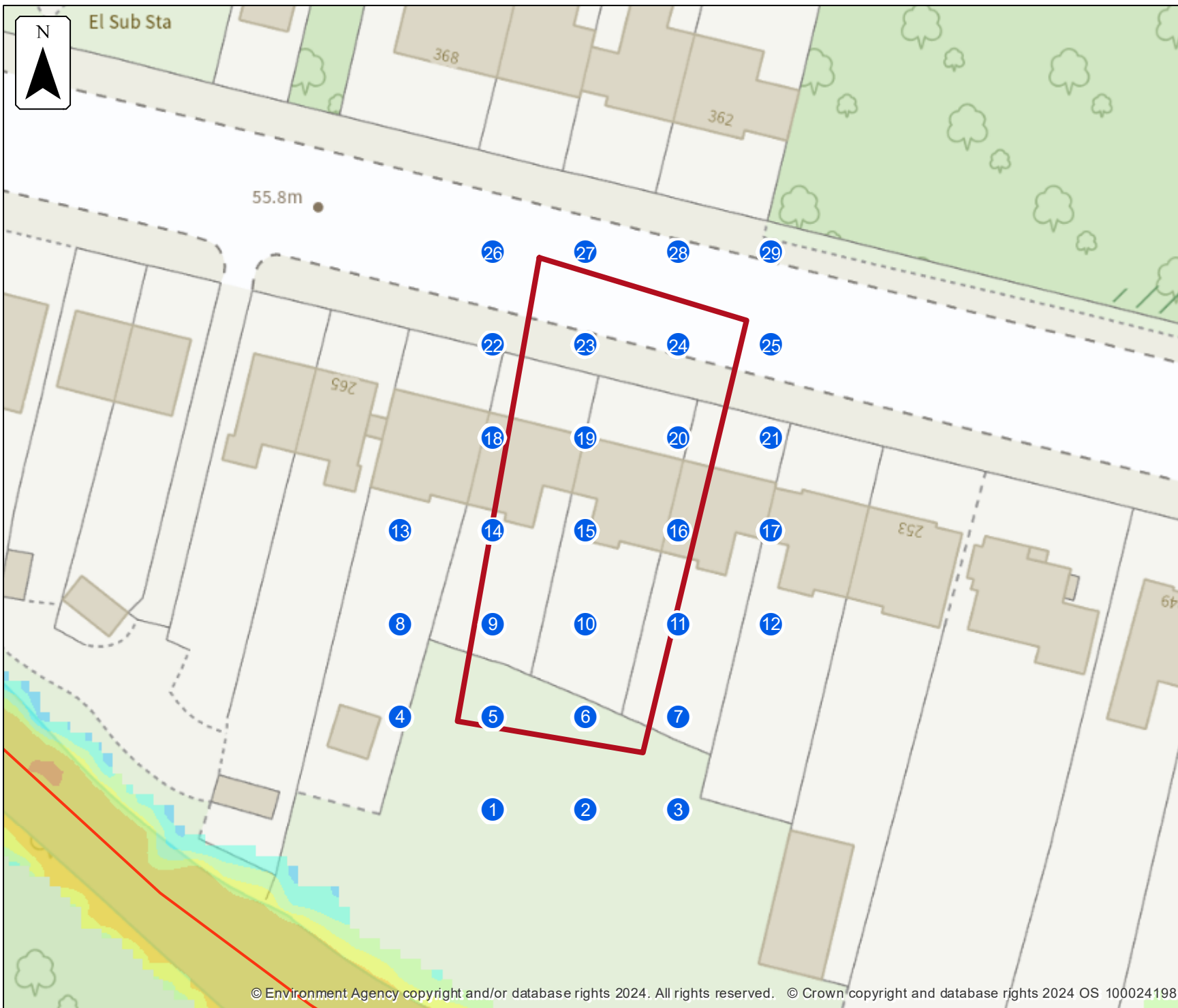
Model data taken from the 2004 River Irk study

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes: *Climate Change Scenario - We only hold climate change measurements based on the previous climate change guidance (20% increase in flow). The new climate change guidance is available at <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.



Defended modelled fluvial extent and depth

Location (easting/northing)
383952/403171

Scale Created
1:500 9 Aug 2024

Model name
**River Irwell, Irk,
Moston and Whit 2007**

Selected area

Main river

Modelled 2D grid

Water level in mAOD

0 - -1.0
 -1.0 - -0.5
 -0.5 - 0.0
 0.0 - 0.5
 0.5 - 1.0
 1.0 - 1.5
 1.5 - 2.0
 2.0 - 2.5
 2.5 - 3.0

This map shows the
1.0% AEP depth data

0 5 10 15 20
metres

Sample point data

Defended

Label	Easting	Northing	1% AEP
			Depth
1	383942	403142	NoData
2	383951	403142	NoData
3	383960	403142	NoData
4	383933	403151	NoData
5	383942	403151	NoData
6	383951	403151	NoData
7	383960	403151	NoData
8	383933	403160	NoData
9	383942	403160	NoData
10	383951	403160	NoData
11	383960	403160	NoData
12	383969	403160	NoData
13	383933	403169	NoData
14	383942	403169	NoData
15	383951	403169	NoData
16	383960	403169	NoData

Label	Easting	Northing	1% AEP
			Depth
17	383969	403169	NoData
18	383942	403178	NoData
19	383951	403178	NoData
20	383960	403178	NoData
21	383969	403178	NoData
22	383942	403187	NoData
23	383951	403187	NoData
24	383960	403187	NoData
25	383969	403187	NoData
26	383942	403196	NoData
27	383951	403196	NoData
28	383960	403196	NoData
29	383969	403196	NoData
Max value in selected area:			NoData

Data in this table comes from the River Irwell, Irk, Moston and Whit Brook 2007 model.

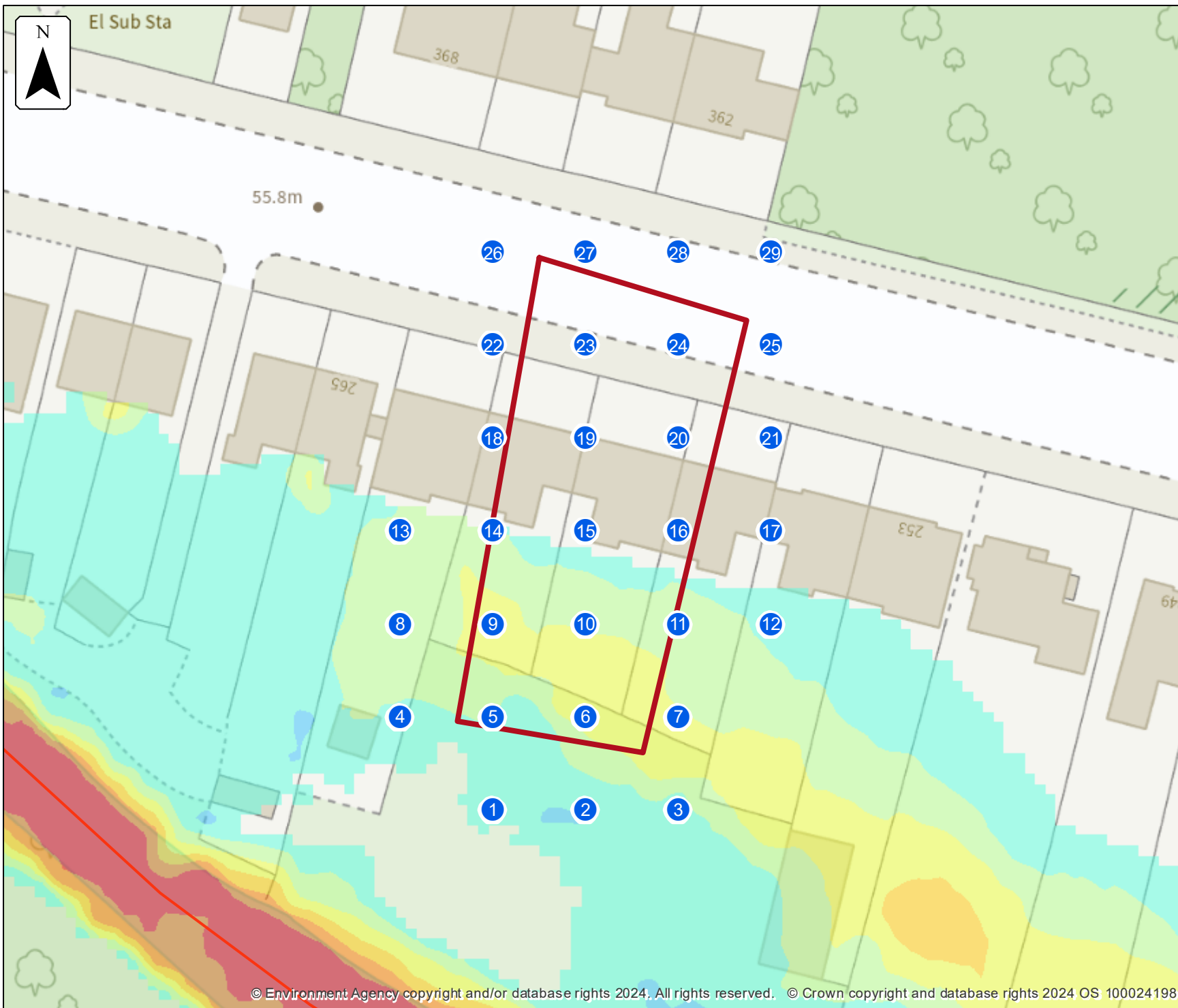
Height values are shown in mAOD, and depth values are shown in metres.

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.

If no height or depth data is available for a scenario, no table will be shown.

'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 depth

Location (easting/northing)
383952/403171

Scale Created
1:500 9 Aug 2024

Model name
**River Irwell, Irk,
Moston and Whit 2007**

 Selected area

 Main river

Modelled 2D grid

Water level in mAOD

 0 - -1.0
 -1.0 - -0.5
 -0.5 - 0.0
 0.0 - 0.5
 0.5 - 1.0
 1.0 - 1.5
 1.5 - 2.0
 2.0 - 2.5
 2.5 - 3.0

This map shows the
0.1% AEP depth data


0 5 10 15 20
metres

Sample point data

Defences removed

Label	Easting	Northing	1% AEP	0.1% AEP
			Depth	Depth
1	383942	403142	NoData	0.24
2	383951	403142	NoData	0.05
3	383960	403142	NoData	0.16
4	383933	403151	NoData	0.32
5	383942	403151	NoData	0.48
6	383951	403151	NoData	1.24
7	383960	403151	NoData	1.02
8	383933	403160	NoData	0.71
9	383942	403160	NoData	1.13
10	383951	403160	NoData	0.92
11	383960	403160	NoData	0.63
12	383969	403160	NoData	0.39
13	383933	403169	NoData	0.71
14	383942	403169	NoData	0.64
15	383951	403169	NoData	NoData
16	383960	403169	NoData	NoData

Label	Easting	Northing	1% AEP	0.1% AEP
			Depth	Depth
17	383969	403169	NoData	NoData
18	383942	403178	NoData	NoData
19	383951	403178	NoData	NoData
20	383960	403178	NoData	NoData
21	383969	403178	NoData	NoData
22	383942	403187	NoData	NoData
23	383951	403187	NoData	NoData
24	383960	403187	NoData	NoData
25	383969	403187	NoData	NoData
26	383942	403196	NoData	NoData
27	383951	403196	NoData	NoData
28	383960	403196	NoData	NoData
29	383969	403196	NoData	NoData
Max value in selected area:			NoData	1.32

Data in this table comes from the River Irwell, Irk, Moston and Whit Brook 2007 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.

If no height or depth data is available for a scenario, no table will be shown.

'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.

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