

Flood risk assessment data



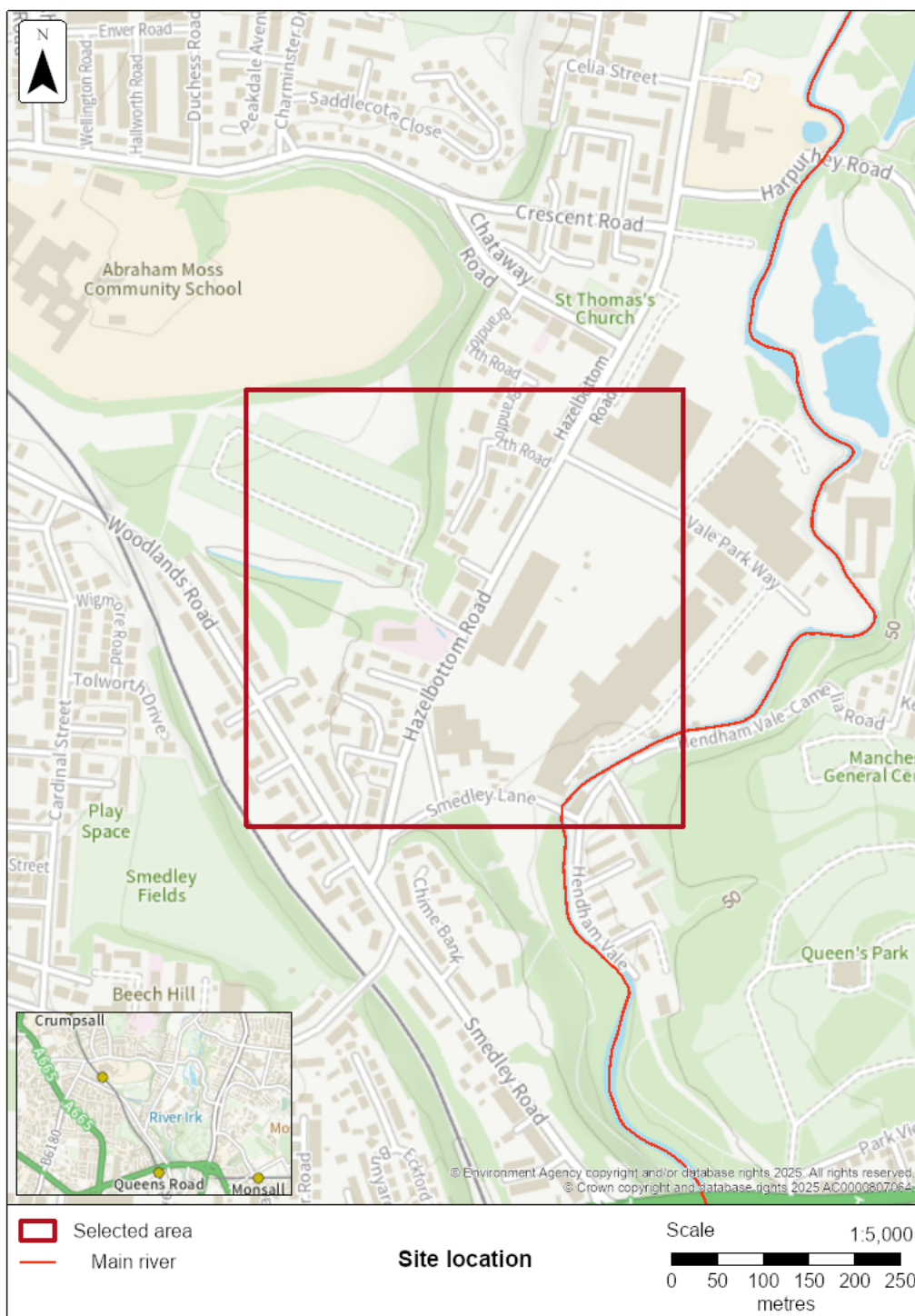
Location of site: 385014 / 401295 (shown as easting and northing coordinates)

Document created on: 28 May 2025

This information was previously known as a product 4.

Customer reference number: TADYB5R19UGE

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: 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 3.

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

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

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

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

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

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

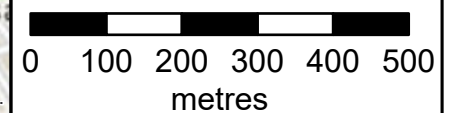
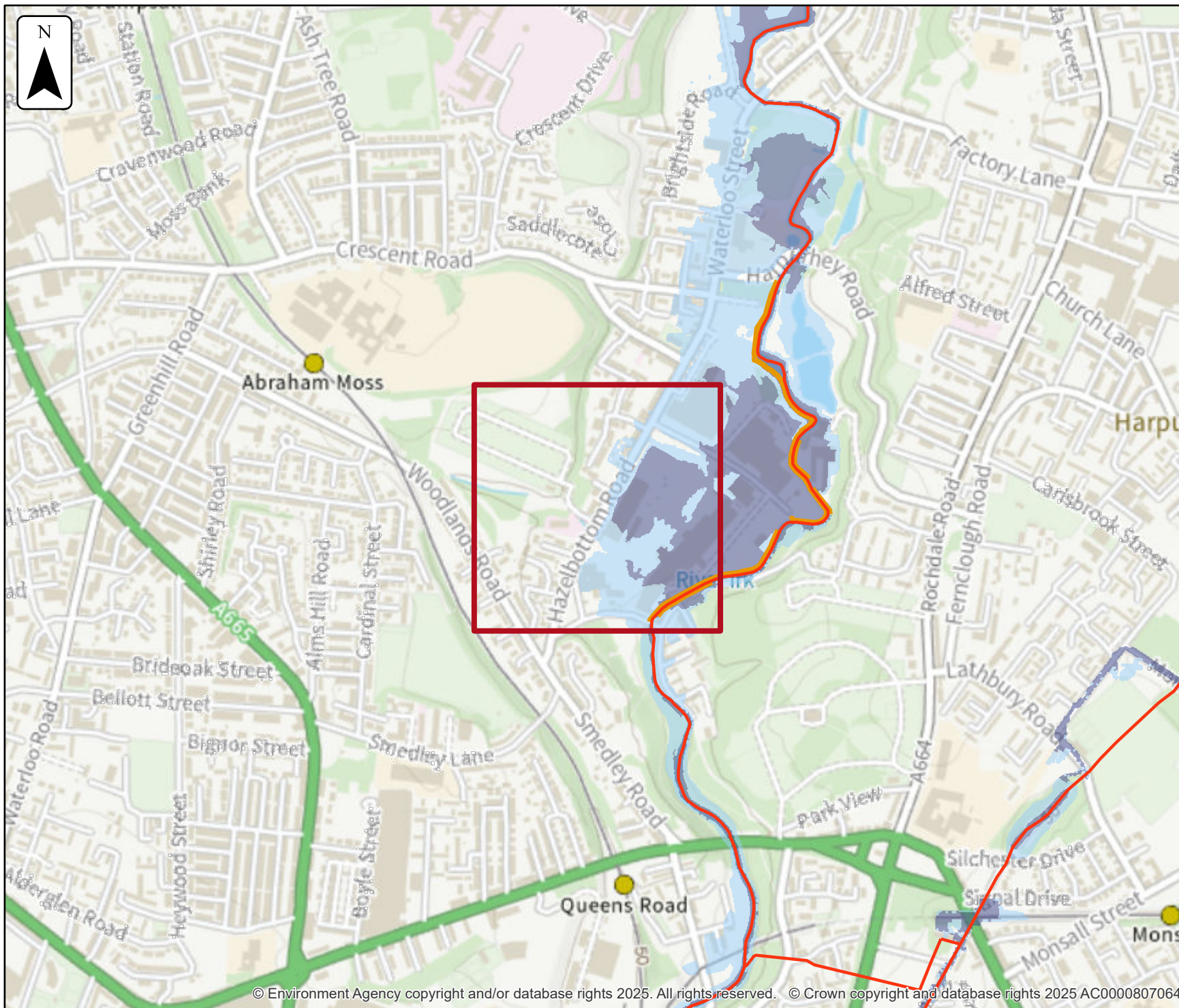


Flood map for planning

Location (easting/northing)
385014/401295

Scale
1:10,000
Created
28 May 2025

-  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
- 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.



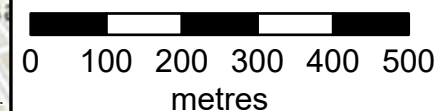
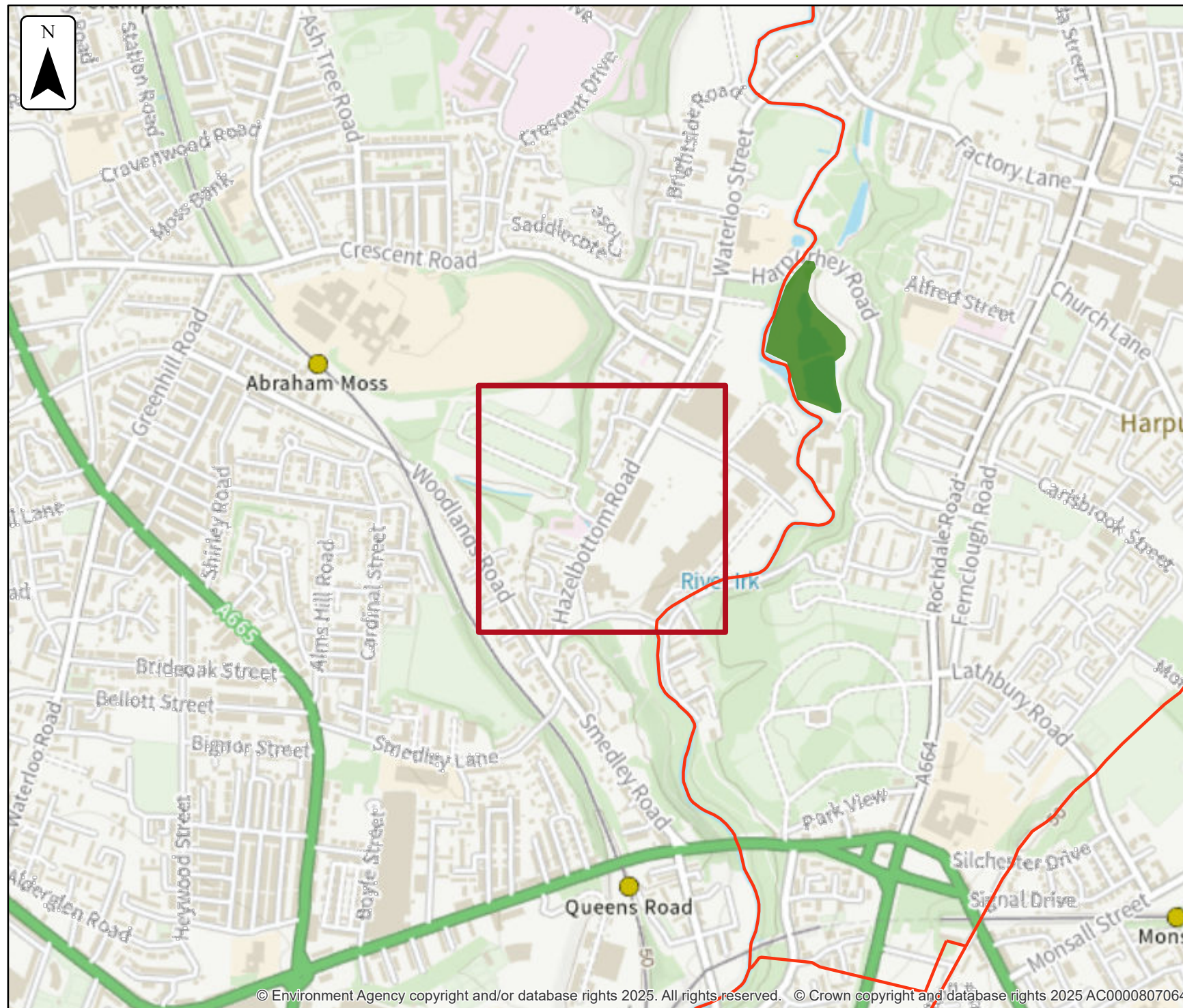
Past floods

Location (easting/northing)
385014/401295

Scale
1:10,000

Created
28 May 2025

-  Selected area
-  Main river
- Date of flood event
-  January, 2008
-  September, 2000



Data on past flood events

Start date	End date	Source of flood	Cause of flood	Affects location
21 January 2008	22 January 2008	main river	unknown	No
25 September 2000	26 September 2000	unknown	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

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
- No defences exist modelled fluvial: risk of flooding from rivers where there are no flood defences
- No defences exist climate change modelled fluvial: risk of flooding from rivers where there are no flood defences, including estimated impact of climate change



Defences removed modelled fluvial extent

Location (easting/northing)
385014/401295

Scale Created
1:10,000 28 May 2025

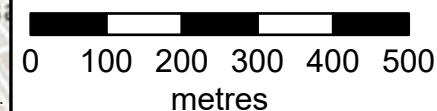
Model name
**Irk, Moston and Whit
Brook 2007**

-  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 extent

Location (easting/northing)
385014/401295

Scale Created
1:10,000 28 May 2025

Model name
**Irk, Moston and Whit
Brook 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



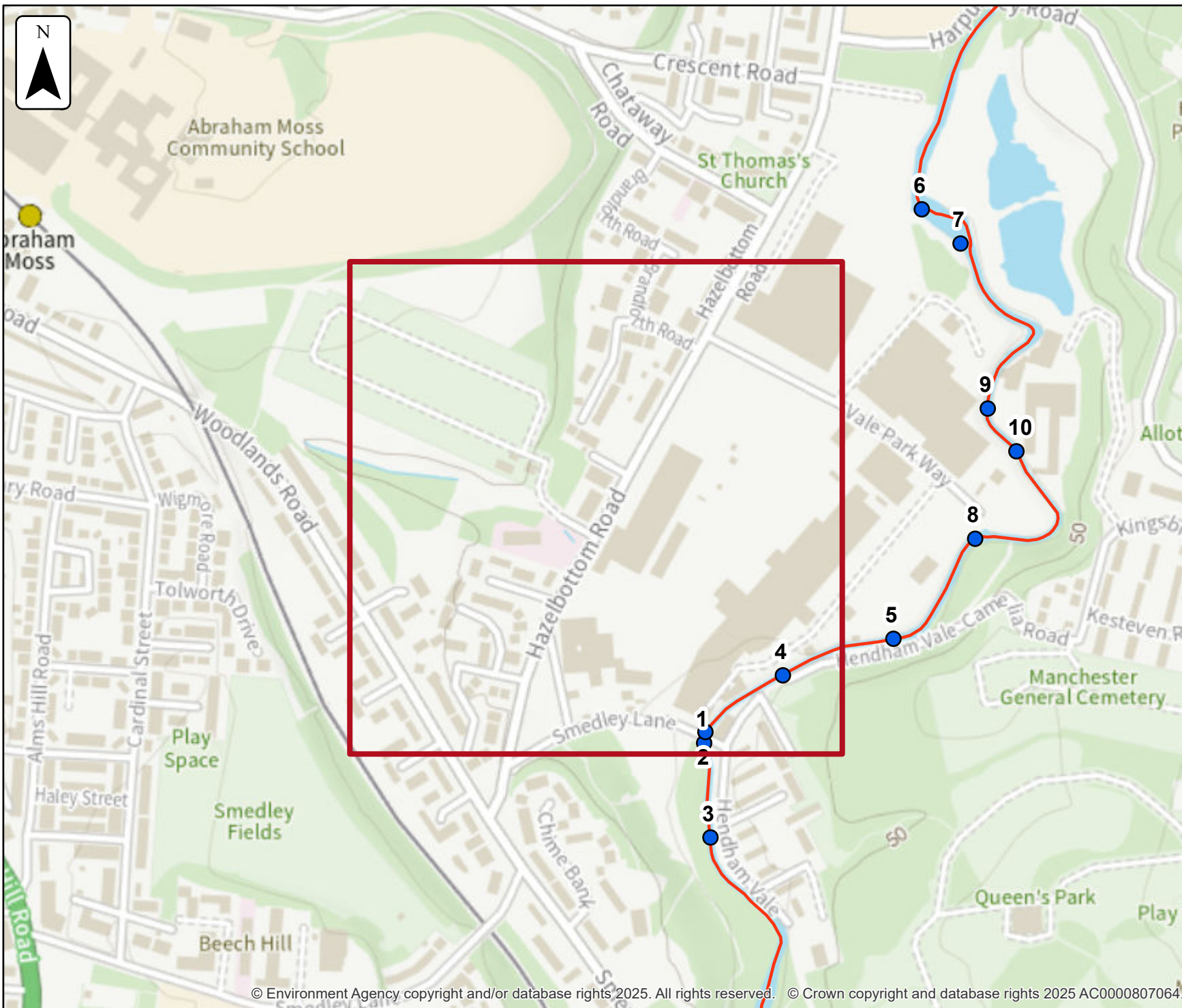
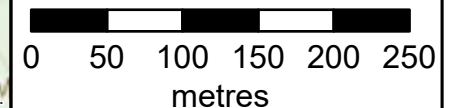
Defences removed modelled fluvial node locations

Location (easting/northing)
385014/401295

Scale Created
1:5,000 28 May 2025

Model name
**Irk, Moston and Whit
Brook 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	1544421	385119	401067	39.63	40.27	58.67	100.23
2	1544721	385120	401078	40.41	42.90	58.68	100.23
3	1544539	385125	400975	39.06	39.73	58.64	100.23
4	1544226	385195	401133	41.14	43.04	34.17	30.29
5	1544484	385303	401168	41.15	43.04	25.0	26.03
6	1544348	385330	401585	41.87	43.04	56.54	87.34
7	1544424	385368	401552	41.85	43.05	55.30	89.47
8	1544629	385382	401265	41.14	43.04	27.84	29.19
9	1544579	385394	401392	41.36	43.04	28.84	36.35
10	1544359	385422	401350	41.23	43.05	28.67	30.97

Data in this table comes from the 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.



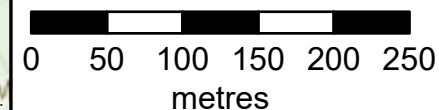
Defended modelled fluvial node locations

Location (easting/northing)
385014/401295

Scale Created
1:5,000 28 May 2025

Model name
**Irk, Moston and Whit
Brook 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	1544421	385119	401067	39.64	59.20
2	1544721	385120	401078	40.45	59.20
3	1544539	385125	400975	39.08	59.19
4	1544226	385195	401133	40.87	53.68
5	1544484	385303	401168	41.51	53.18
6	1544348	385330	401585	43.25	66.90
7	1544424	385368	401552	43.26	66.93
8	1544629	385382	401265	41.64	54.32
9	1544579	385394	401392	42.14	56.83
10	1544359	385422	401350	41.94	55.77

Data in this table comes from the 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.



Defended modelled fluvial extent and depth

Location (easting/northing)
385014/401295

Scale Created
1:5,000 28 May 2025

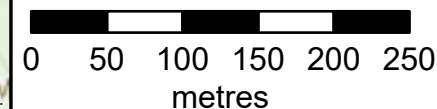
Model name
**Irk, Moston and Whit
Brook 2007**

-  Selected area
-  Main river

Modelled 2D grid
Water level in mAOD

-  -5 - -3.875
-  -3.875 - -2.75
-  -2.75 - -1.625
-  -1.625 - -0.5
-  -0.5 - 0.625
-  0.625 - 1.75
-  1.75 - 2.875
-  2.875 - 4.0
-  4.0 - 5.125

This map shows the
1% AEP depth data



Sample point data

Defended

Label	Easting	Northing	1% AEP
			Depth
1	384783	401064	NoData
2	384898	401064	NoData
3	385013	401064	NoData
4	385128	401064	NoData
5	385243	401064	NoData
6	384783	401179	NoData
7	384898	401179	NoData
8	385013	401179	NoData
9	385128	401179	0.50
10	385243	401179	0.74
11	384783	401294	NoData
12	384898	401294	NoData

Label	Easting	Northing	1% AEP
			Depth
13	385013	401294	NoData
14	385128	401294	NoData
15	385243	401294	0.69
16	384783	401409	NoData
17	384898	401409	NoData
18	385013	401409	NoData
19	385128	401409	0.74
20	385243	401409	0.48
21	384783	401524	NoData
22	384898	401524	NoData
23	385013	401524	NoData
24	385128	401524	NoData

Label	Easting	Northing	1% AEP
			Depth
25	385243	401524	0.45
Max value in selected area:			3.02

Data in this table comes from the 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.

'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)
385014/401295

Scale Created
1:5,000 28 May 2025

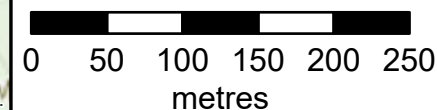
Model name
**Irk, Moston and Whit
Brook 2007**

-  Selected area
-  Main river

Modelled 2D grid
Water level in mAOD

-  -1 - -0.25
-  -0.25 - 0.5
-  0.5 - 1.25
-  1.25 - 2.0
-  2.0 - 2.75
-  2.75 - 3.5
-  3.5 - 4.25
-  4.25 - 5.0
-  5.0 - 5.75

This map shows the
0.1% AEP depth data



Sample point data

Defences removed

Label	Easting	Northing	1% AEP	0.1% AEP
			Depth	Depth
1	384783	401064	NoData	NoData
2	384898	401064	NoData	NoData
3	385013	401064	NoData	NoData
4	385128	401064	NoData	0.45
5	385243	401064	NoData	NoData
6	384783	401179	NoData	NoData
7	384898	401179	NoData	NoData
8	385013	401179	NoData	2.07
9	385128	401179	0.39	2.64
10	385243	401179	0.85	2.67
11	384783	401294	NoData	NoData
12	384898	401294	NoData	NoData

Label	Easting	Northing	1% AEP	0.1% AEP
			Depth	Depth
13	385013	401294	NoData	NoData
14	385128	401294	NoData	2.39
15	385243	401294	0.80	2.11
16	384783	401409	NoData	NoData
17	384898	401409	NoData	NoData
18	385013	401409	NoData	0.91
19	385128	401409	0.63	2.28
20	385243	401409	0.29	1.47
21	384783	401524	NoData	NoData
22	384898	401524	NoData	NoData
23	385013	401524	NoData	NoData
24	385128	401524	NoData	NoData

Label	Easting	Northing	1% AEP	0.1% AEP
			Depth	Depth
25	385243	401524	0.23	1.14
Max value in selected area:			2.90	4.98

Data in this table comes from the 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.

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

Strategic flood risk assessments

We recommend that you check the relevant local authority's strategic flood risk assessment (SFRA) as part of your work to prepare a site specific flood risk assessment.

This should give you information about:

- the potential impacts of climate change in this catchment
- areas defined as functional floodplain
- flooding from other sources, such as surface water, ground water and reservoirs

Your Lead Local Flood Authority is Manchester District.

About this data

This data has been generated by strategic scale flood models and is not intended for use at the individual property scale. If you're intending to use this data as part of a flood risk assessment, please include an appropriate modelling tolerance as part of your assessment. The Environment Agency regularly updates its modelling. We recommend that you check the data provided is the most recent, before submitting your flood risk assessment.

Flood risk activity permits

Under the Environmental Permitting (England and Wales) Regulations 2016 some developments may require an environmental permit for flood risk activities from the Environment Agency. This includes any permanent or temporary works that are in, over, under, or nearby a designated main river or flood defence structure.

[Find out more about flood risk activity permits](#)

Help and advice

Contact the Greater Manchester Merseyside and Cheshire Environment Agency team at inforequests.gmmc@environment-agency.gov.uk for:

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