

Flood risk assessment data



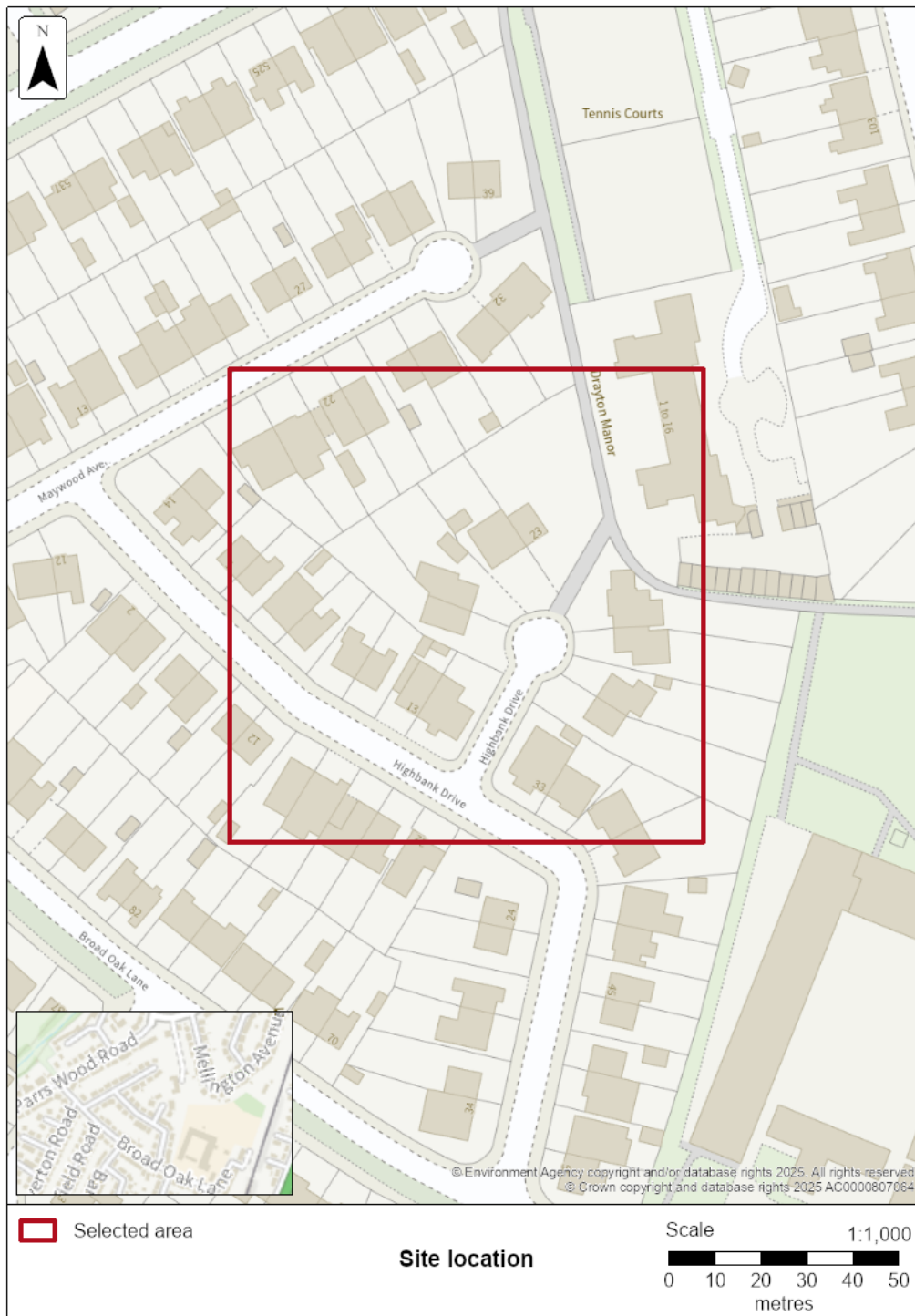
Location of site: 384893 / 389728 (shown as easting and northing coordinates)

Document created on: 13 May 2025

This information was previously known as a product 4.

Customer reference number: 13T17688ETG4

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: Upper Mersey 2017

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

Date: 14 April 2022

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:

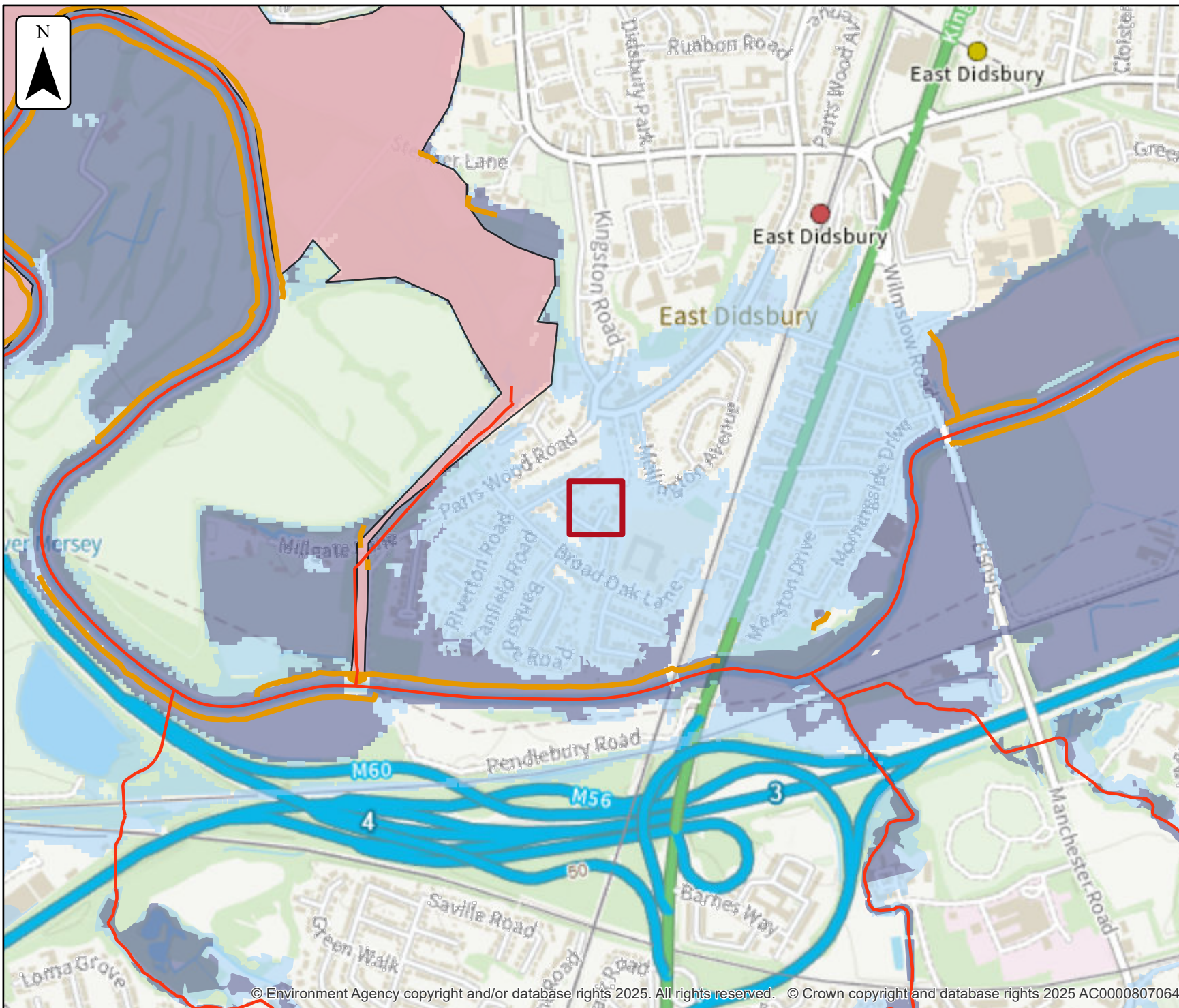
- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

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



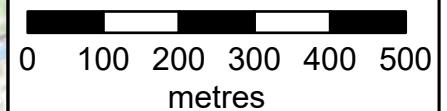
Flood map for planning

Location (easting/northing)
384893/389728

Scale
1:10,000

Created
13 May 2025

-  Selected area
-  Main river
-  Flood defence
-  Water storage area
- Flood Zones 2 and 3
Rivers and Sea
-  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

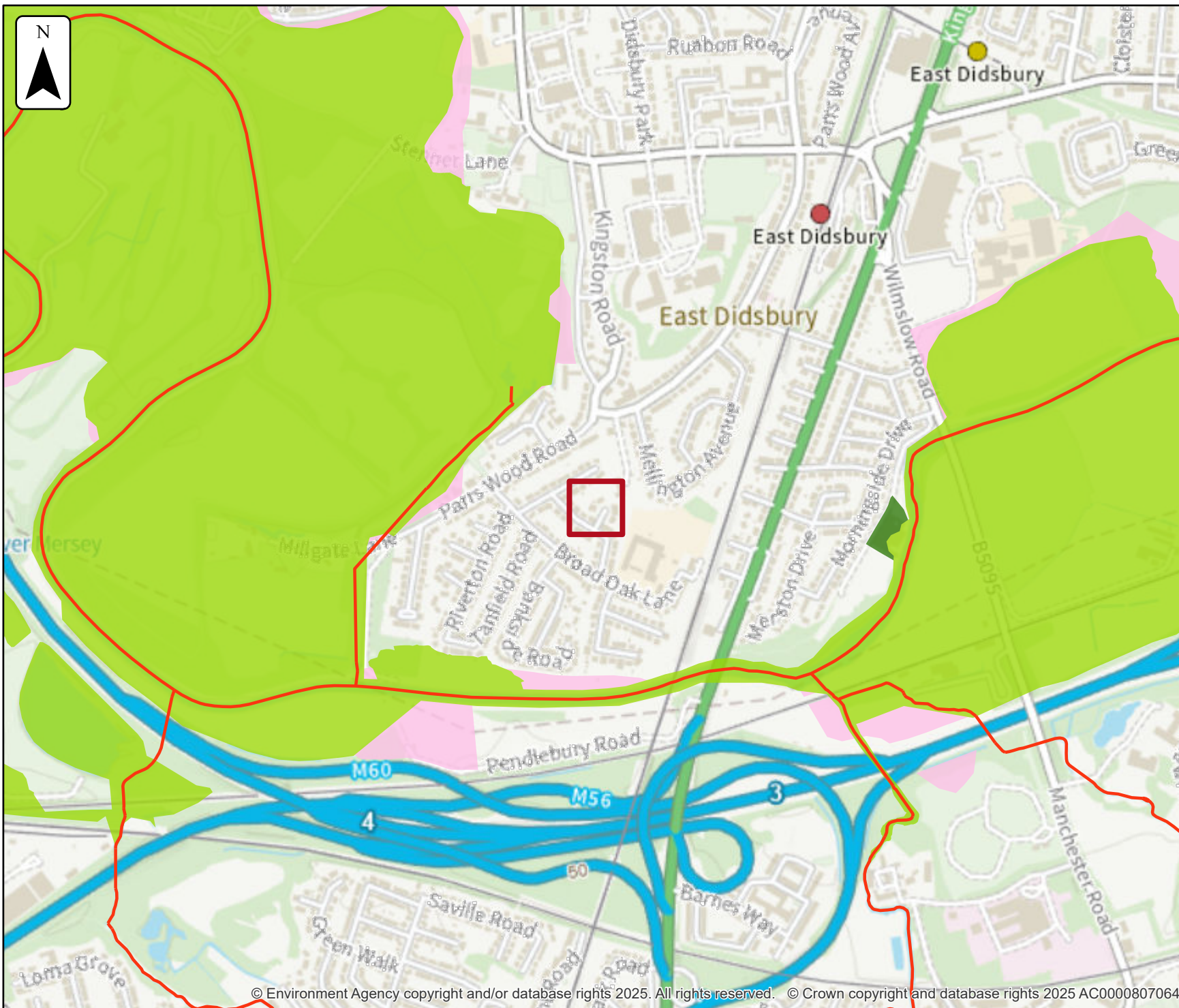
The recorded flood outlines are a geographical information system (GIS) data layer that show our verified records of areas that have flooded in the past from:

- 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.



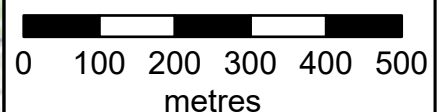
Past floods

Location (easting/northing)
384893/389728

Scale
1:10,000

Created
13 May 2025

-  Selected area
-  Main river
- Date of flood event
 -  January, 2021
 -  March, 2019
 -  January, 1964



Data on past flood events

Start date	End date	Source of flood	Cause of flood	Affects location
20 January 2021	20 January 2021	main river	other	No
16 March 2019	16 March 2019	main river	channel capacity exceeded (no raised defences)	No
1 January 1964	2 January 1964	unknown	unknown	No

Flood defences and attributes

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

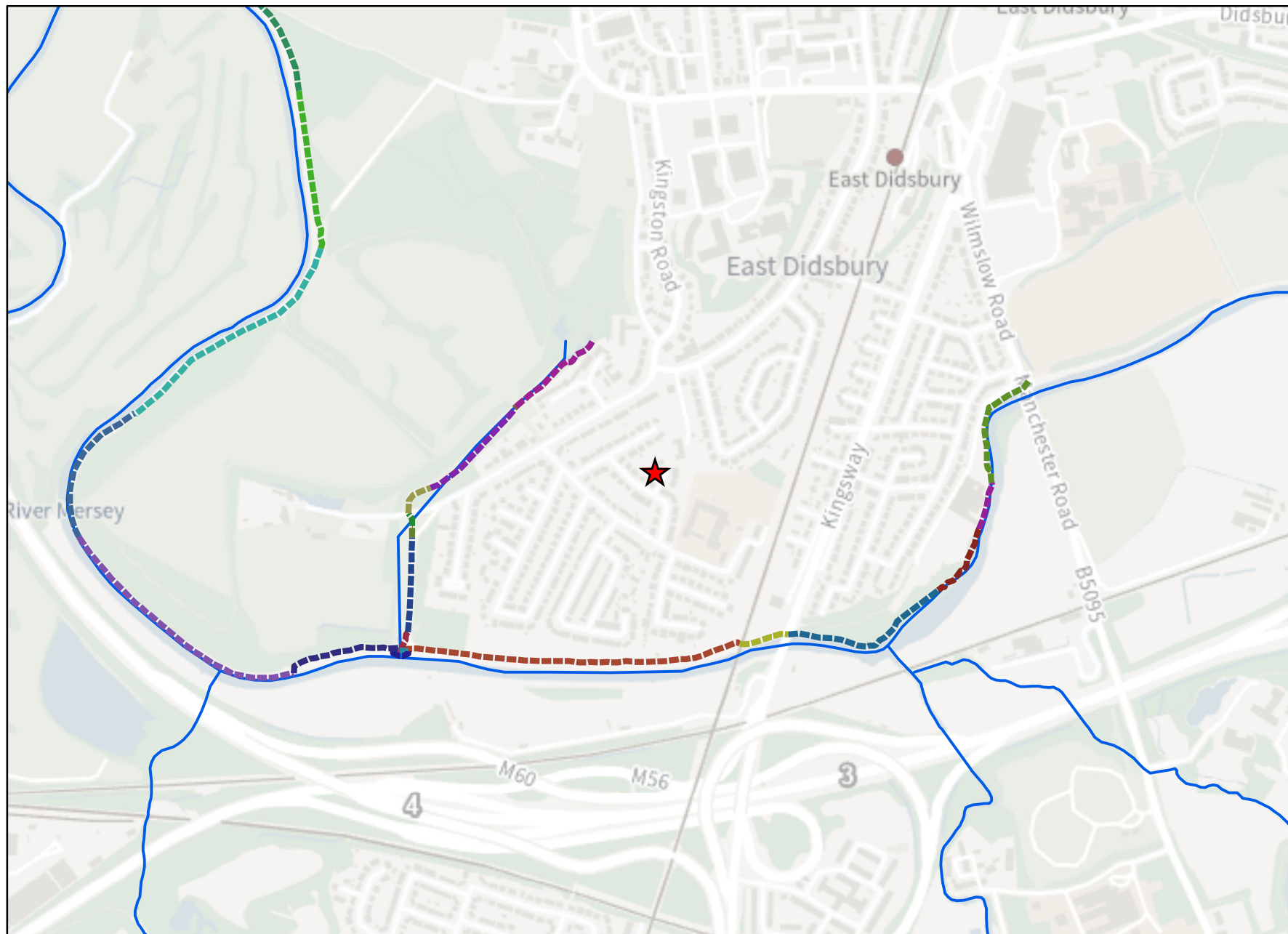
The flood defences data table shows the type of defences, their condition and the standard of protection. It shows the height above sea level of the top of the flood defence (crest level). The height is in mAOD which is the metres above the mean sea level at Newlyn, Cornwall.

It's important to remember that flood defence data may not be updated on a regular basis. The information here is based on the best available data.

Use this information:

- to help you assess if there is a reduced flood risk for this location because of defences
- with any information in the modelled data section to find out the impact of defences on flood risk

Flood Defence Map



1:10,001

N

Legend



Site Location



Main River

Defence Assets

- 15387
- 16711
- 16712
- 36542
- 36548
- 37995
- 37996
- 37997
- 37998
- 37999
- 38000
- 60621
- 60622
- 67447
- 112297
- 112392
- 121844
- 125632
- 126682
- 126683

Flood Defences

Start Date	Asset Type	Asset ID	Standard of Protection	Upstream Actual Crest Level (m aod)	Downstream Actual Crest Level (m aod)
38677	Embankment	122331	50	34.03	32.93
26299	Embankment	144885	75	33.17	33.17
26299	Engineered High Ground	144890	75	30.33	30.49
26299	Embankment	146503	75	33.17	33.17
26299	Engineered High Ground	146504	75	31.25	33.17
26299	Engineered High Ground	146505	75	29.63	29.22
26299	Engineered High Ground	146506	75	29.22	30.4
26299	Engineered High Ground	146507	75	30.4	29.59
26299	Embankment	173224	75	30.73	30.92
26299	Engineered High Ground	173225	75	30.34	30.52
26299	Engineered High Ground	183314	75	31.25	30.63
26299	Engineered High Ground	71380	75	30.52	29.63
26299	Engineered High Ground	120734	100	28.46	32.74
38364	Embankment	122332	100	34.27	33.59
26299	Spillway	146508	100	32.81	32.81
26299	Embankment	58974	100	32.85	32.82
26299	Embankment	59070	100	30.8	30.87
26299	Embankment	763793	100	30.8	30.87
26299	Engineered High Ground	773774	100	28.46	32.74
26299	Engineered High Ground	773775	100	28.46	32.74

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

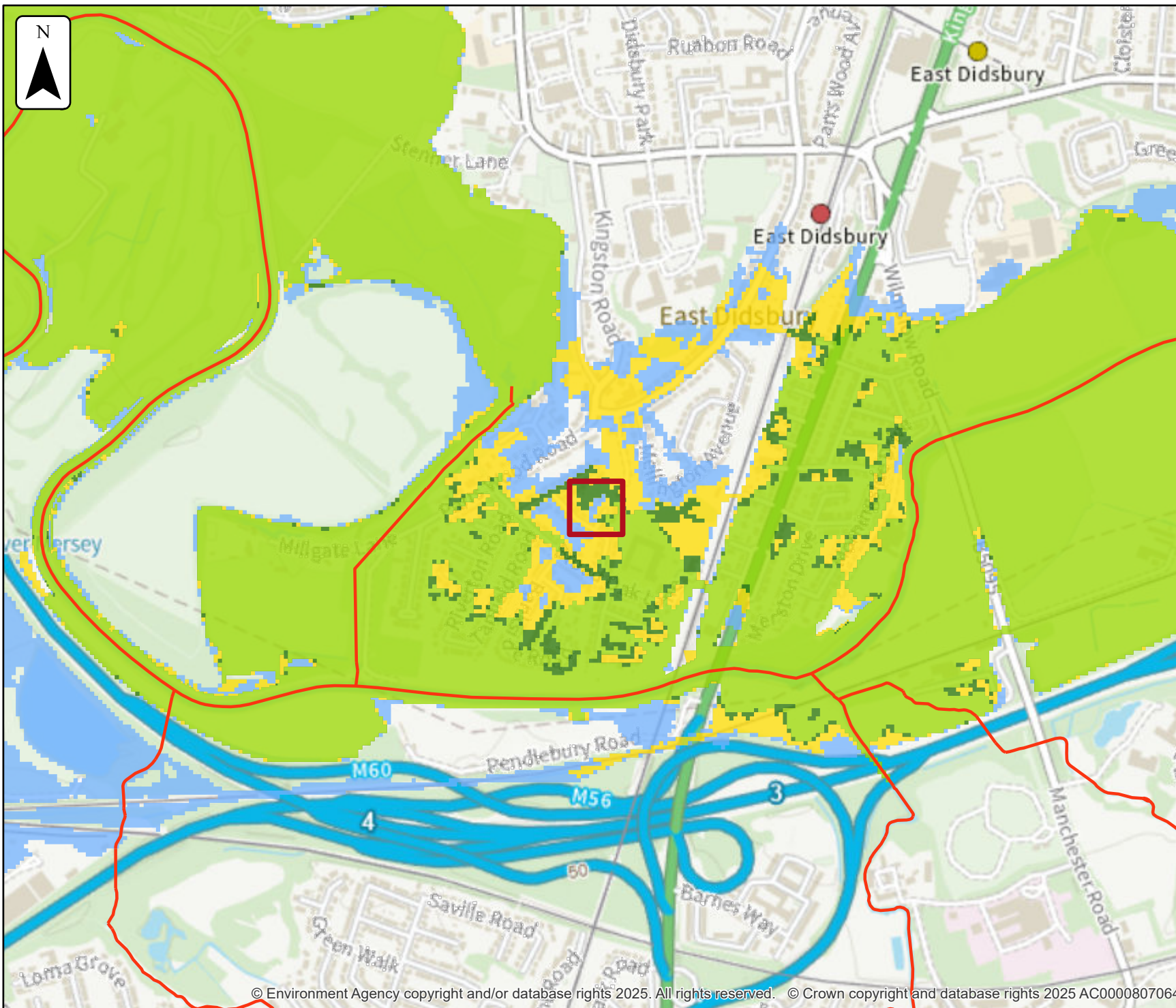
The climate change data included in the models may not include the latest [flood risk assessment climate change allowances](#). Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

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
- 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
- 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 climate change modelled fluvial extent

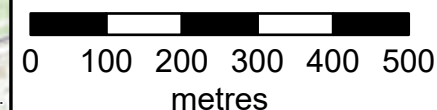
Location (easting/northing)
384893/389728

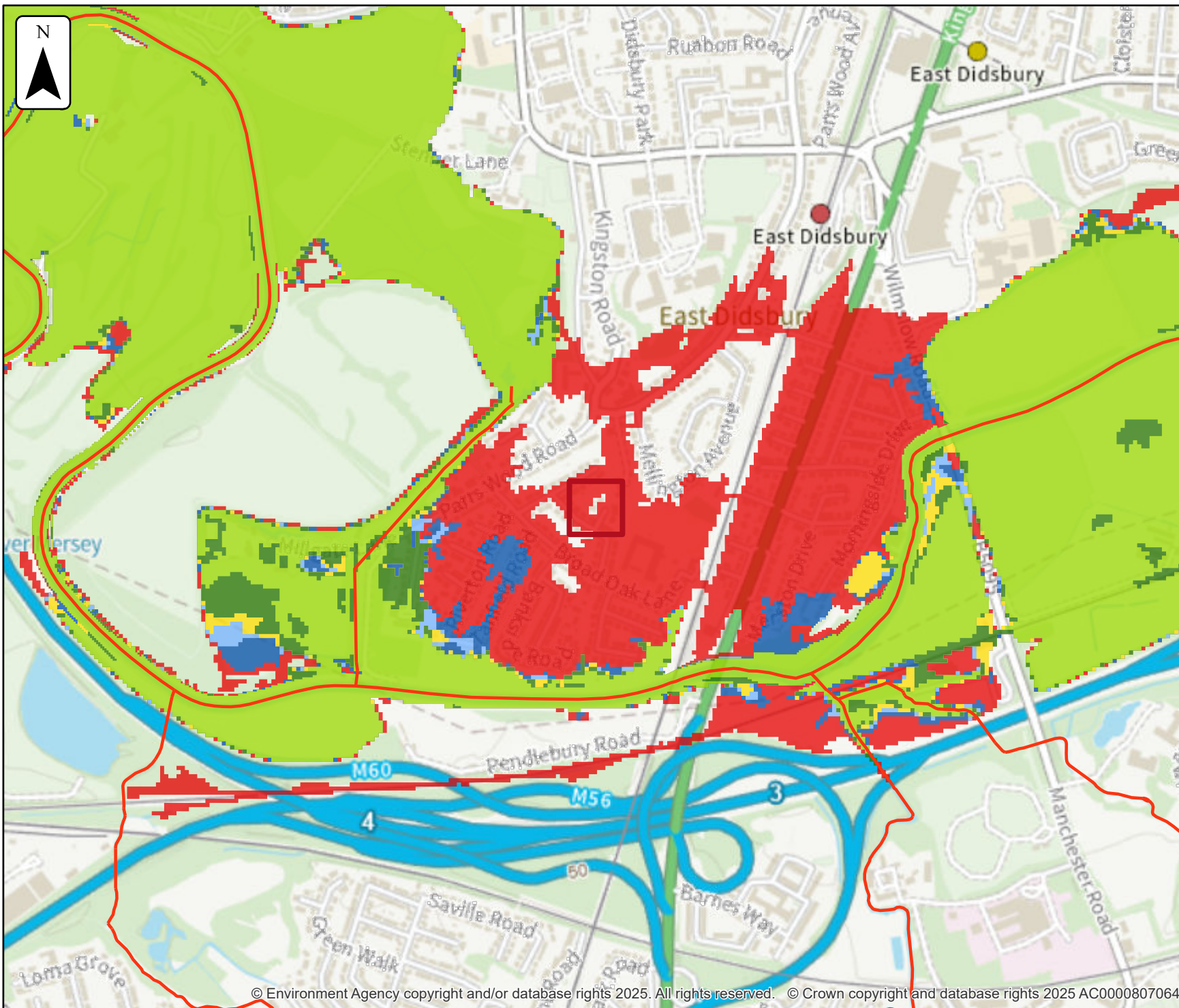
Scale Created
1:10,000 13 May 2025

Model name
Upper Mersey 2017

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

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





Defences removed modelled fluvial extent

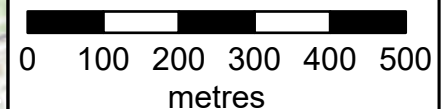
Location (easting/northing)
384893/389728

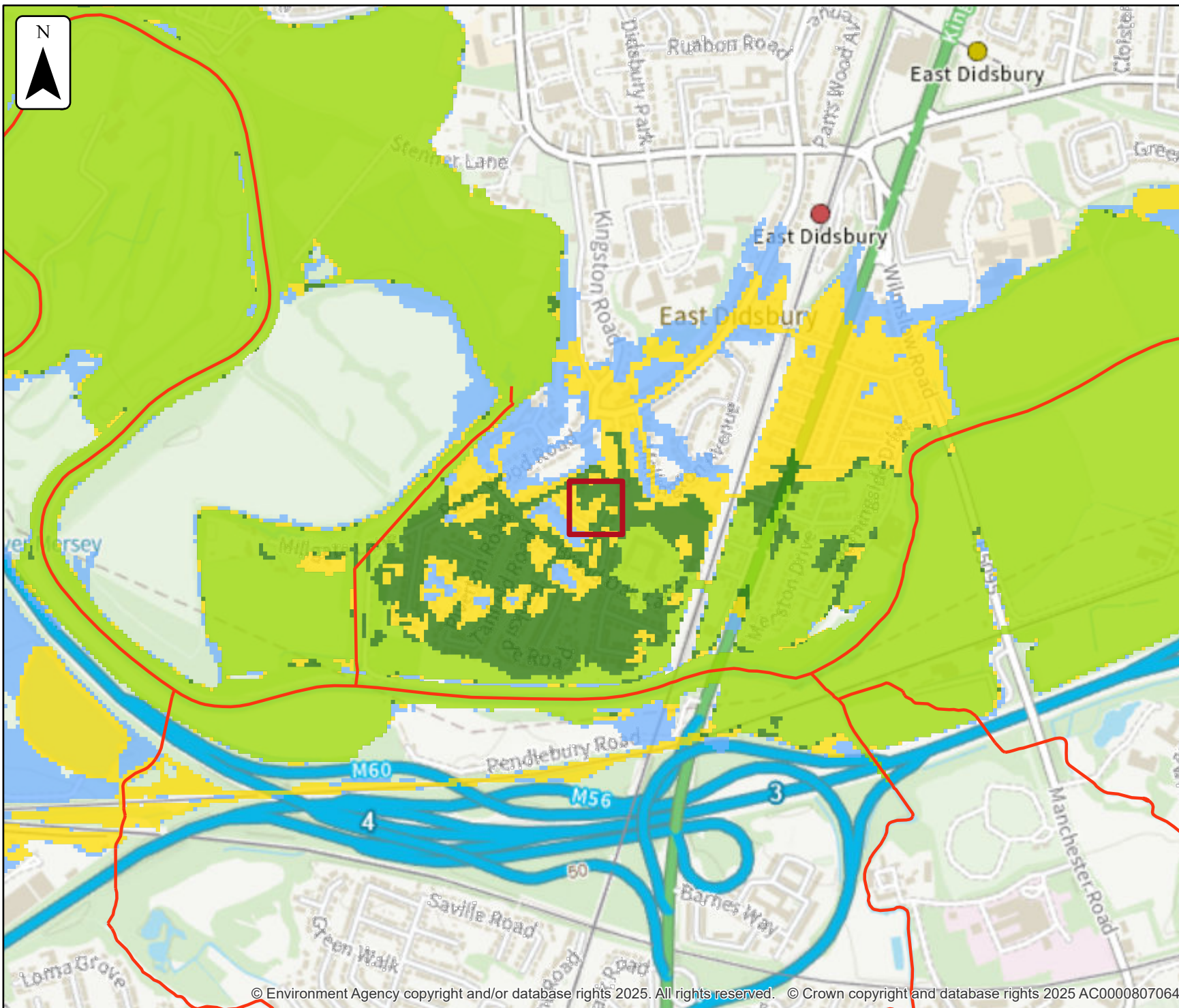
Scale Created
1:10,000 13 May 2025

Model name
Upper Mersey 2017

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

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





Defended climate change modelled fluvial extent

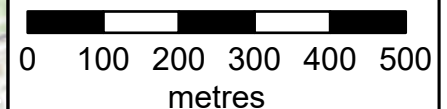
Location (easting/northing)
384893/389728

Scale Created
1:10,000 13 May 2025

Model name
Upper Mersey 2017

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

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





Defended modelled fluvial extent

Location (easting/northing)
384893/389728

Scale Created
1:10,000 13 May 2025

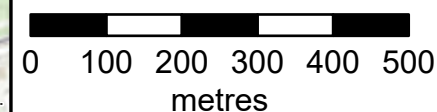
Model name
Upper Mersey 2017

-  Selected area
-  Main river

Modelled flood extent

-  5% AEP
-  2% AEP
-  1.33% AEP
-  1% AEP
-  0.5% AEP
-  0.1% AEP

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





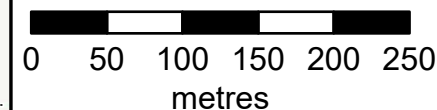
Defences removed climate change modelled fluvial node locations

Location (easting/northing)
384893/389728

Scale Created
1:5,000 13 May 2025

Model name
Upper Mersey 2017

-  Selected area
-  Modelled location
-  Main river



Modelled node locations data

Defences removed climate change

Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level
1	1290767	384402	389383	32.33	32.39	32.70	33.28
2	1290645	384425	389610	28.72	28.82	29.32	29.89
3	1290586	384427	389424	28.72	28.82	29.32	29.90
4	1290662	384454	389381	32.33	32.39	32.70	33.28
5	1290572	384624	389363	32.33	32.39	32.71	33.30
6	1290830	384929	389361	32.67	32.73	33.02	33.52
7	1290644	385035	389387	32.93	32.98	33.28	33.75
8	1290733	385057	389394	33.38	33.46	33.85	34.50
9	1290672	385227	389409	33.73	33.86	34.50	35.42
10	1290659	385392	389486	34.16	34.27	34.76	35.52

Data in this table comes from the Upper Mersey 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	1290767	384402	389383	387.75	400.88	469.65	586.05
2	1290645	384425	389610	9.38	9.54	10.39	12.41
3	1290586	384427	389424	0.50	0.50	0.50	0.50
4	1290662	384454	389381	387.75	400.88	469.65	586.05
5	1290572	384624	389363	443.71	456.89	525.88	644.09
6	1290830	384929	389361	494.96	510.96	589.49	729.39
7	1290644	385035	389387	504.58	521.49	602.82	753.99
8	1290733	385057	389394	504.58	521.49	602.82	753.99
9	1290672	385227	389409	489.22	495.14	515.88	530.67
10	1290659	385392	389486	382.06	382.41	394.85	434.16

Data in this table comes from the Upper Mersey 2017 model.

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

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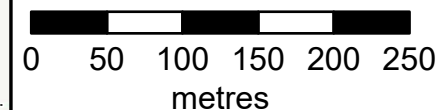
Defences removed modelled fluvial node locations

Location (easting/northing)
384893/389728

Scale Created
1:5,000 13 May 2025

Model name
Upper Mersey 2017

-  Selected area
-  Modelled location
-  Main river



Modelled node locations data

Defences removed

Label	Modelled location ID	Easting	Northing	1% AEP	0.5% AEP	0.1% AEP
				Level	Level	Level
1	1290767	384402	389383	32.05	32.16	32.76
2	1290645	384425	389610	27.92	28.23	29.40
3	1290586	384427	389424	27.93	28.23	29.40
4	1290662	384454	389381	32.05	32.16	32.76
5	1290572	384624	389363	32.06	32.16	32.78
6	1290830	384929	389361	32.37	32.50	33.08
7	1290644	385035	389387	32.60	32.74	33.35
8	1290733	385057	389394	32.85	33.06	33.93
9	1290672	385227	389409	33.09	33.32	34.63
10	1290659	385392	389486	33.46	33.75	34.86

Data in this table comes from the Upper Mersey 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	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow
1	1290767	384402	389383	305.86	338.62	483.94
2	1290645	384425	389610	7.84	8.56	10.76
3	1290586	384427	389424	0.50	0.50	0.50
4	1290662	384454	389381	305.86	338.62	483.94
5	1290572	384624	389363	349.86	389.98	540.08
6	1290830	384929	389361	385.86	431.33	605.67
7	1290644	385035	389387	389.64	436.68	618.73
8	1290733	385057	389394	389.64	436.68	618.73
9	1290672	385227	389409	389.69	436.48	516.12
10	1290659	385392	389486	348.68	366.10	400.64

Data in this table comes from the Upper Mersey 2017 model.

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

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



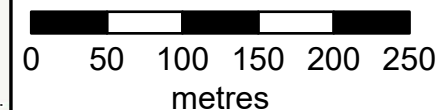
Defended climate change modelled fluvial node locations

Location (easting/northing)
384893/389728

Scale Created
1:5,000 13 May 2025

Model name
Upper Mersey 2017

-  Selected area
-  Modelled location
-  Main river



Modelled node locations data

Defended climate change

Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level
1	1290767	384402	389383	33.19	33.23	33.40	33.61
2	1290645	384425	389610	29.70	29.74	29.89	30.21
3	1290586	384427	389424	29.71	29.74	29.89	30.21
4	1290662	384454	389381	33.19	33.23	33.40	33.61
5	1290572	384624	389363	33.34	33.37	33.49	33.69
6	1290830	384929	389361	33.65	33.69	33.89	34.21
7	1290644	385035	389387	33.84	33.90	34.16	34.58
8	1290733	385057	389394	34.04	34.12	34.43	34.96
9	1290672	385227	389409	34.26	34.34	34.86	35.62
10	1290659	385392	389486	34.59	34.68	35.05	35.70

Data in this table comes from the Upper Mersey 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	1290767	384402	389383	477.18	493.36	557.24	689.95
2	1290645	384425	389610	12.30	12.32	12.62	13.40
3	1290586	384427	389424	0.50	0.50	0.50	0.50
4	1290662	384454	389381	477.18	493.36	557.24	689.95
5	1290572	384624	389363	488.72	508.09	589.21	738.06
6	1290830	384929	389361	488.38	508.38	589.73	744.02
7	1290644	385035	389387	478.45	495.11	566.0	708.62
8	1290733	385057	389394	478.45	495.11	566.0	708.62
9	1290672	385227	389409	467.41	484.91	520.73	543.09
10	1290659	385392	389486	366.56	368.35	378.89	441.90

Data in this table comes from the Upper Mersey 2017 model.

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

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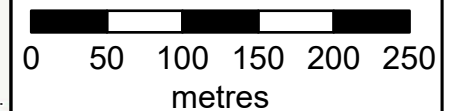
Defended modelled fluvial node locations

Location (easting/northing)
384893/389728

Scale Created
1:5,000 13 May 2025

Model name
Upper Mersey 2017

-  Selected area
-  Modelled location
-  Main river



Modelled node locations data

Defended

Label	Modelled location ID	Easting	Northing	1% AEP	0.5% AEP	0.1% AEP
				Level	Level	Level
1	1290767	384402	389383	32.79	32.98	33.43
2	1290645	384425	389610	29.42	29.49	29.92
3	1290586	384427	389424	29.43	29.50	29.92
4	1290662	384454	389381	32.79	32.98	33.43
5	1290572	384624	389363	32.96	33.13	33.53
6	1290830	384929	389361	33.24	33.38	33.94
7	1290644	385035	389387	33.37	33.52	34.23
8	1290733	385057	389394	33.54	33.69	34.51
9	1290672	385227	389409	33.69	33.88	35.0
10	1290659	385392	389486	33.97	34.14	35.17

Data in this table comes from the Upper Mersey 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	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow
1	1290767	384402	389383	367.25	408.39	576.64
2	1290645	384425	389610	12.12	12.20	12.90
3	1290586	384427	389424	0.50	0.50	0.50
4	1290662	384454	389381	397.44	423.22	576.64
5	1290572	384624	389363	397.46	422.90	611.61
6	1290830	384929	389361	397.52	423.07	611.88
7	1290644	385035	389387	397.20	421.92	586.99
8	1290733	385057	389394	397.20	421.92	586.99
9	1290672	385227	389409	395.39	416.47	521.75
10	1290659	385392	389486	339.85	353.45	383.74

Data in this table comes from the Upper Mersey 2017 model.

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

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



Defended modelled fluvial extent and height

Location (easting/northing)
384893/389728

Scale Created
1:1,000 13 May 2025

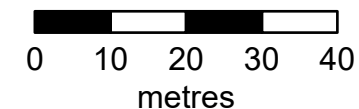
Model name
Upper Mersey 2017

-  Selected area
-  Main river

Modelled 2D grid
Water level in mAOD

-  31 - 31.625
-  31.625 - 32.25
-  32.25 - 32.875
-  32.875 - 33.5
-  33.5 - 34.125
-  34.125 - 34.75
-  34.75 - 35.375
-  35.375 - 36.0
-  36.0 - 36.625

This map shows the
0.1% AEP height data



Defended

[illegible]

[illegible]

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	384944	389779	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	33.58
Max value in selected area:			NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	33.66

Data in this table comes from the Upper Mersey 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

[illegible]

[illegible]

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	384944	389779	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.23
Max value in selected area:			NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.86

Data in this table comes from the Upper Mersey 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

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

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



Defences removed modelled fluvial extent and height

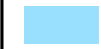
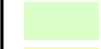
Location (easting/northing)
384893/389728

Scale Created
1:1,000 13 May 2025

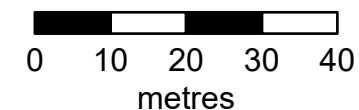
Model name
Upper Mersey 2017

-  Selected area
-  Main river

Modelled 2D grid
Water level in mAOD

-  31 - 31.5
-  31.5 - 32.0
-  32.0 - 32.5
-  32.5 - 33.0
-  33.0 - 33.5
-  33.5 - 34.0
-  34.0 - 34.5
-  34.5 - 35.0
-  35.0 - 35.5

This map shows the
0.1% AEP height data



Sample point data

Defences removed

[illegible]

[illegible]

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	384944	389779	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	33.50
Max value in selected area:			NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	33.55

Data in this table comes from the Upper Mersey 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

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

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

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

Defences removed

[illegible]

[illegible]

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	384944	389779	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.15
Max value in selected area:			NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.74

Data in this table comes from the Upper Mersey 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

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

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

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



Defended climate change modelled fluvial extent and height

Location (easting/northing)
384893/389728

Scale Created
1:1,000 13 May 2025

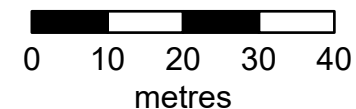
Model name
Upper Mersey 2017

-  Selected area
-  Main river

Modelled 2D grid
Water level in mAOD

-  32 - 32.5
-  32.5 - 33.0
-  33.0 - 33.5
-  33.5 - 34.0
-  34.0 - 34.5
-  34.5 - 35.0
-  35.0 - 35.5
-  35.5 - 36.0
-  36.0 - 36.5

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



Sample point data

Defended climate change

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
1	384840	389675	NoData	NoData	NoData	33.20
2	384866	389675	NoData	NoData	NoData	33.48
3	384892	389675	NoData	33.29	33.49	33.66
4	384918	389675	NoData	33.32	33.50	33.67
5	384944	389675	NoData	33.42	33.62	33.83
6	384840	389701	NoData	NoData	NoData	33.45
7	384866	389701	NoData	NoData	33.48	33.60
8	384892	389701	NoData	NoData	33.56	33.72
9	384918	389701	NoData	33.42	33.59	33.78
10	384944	389701	NoData	33.42	33.62	33.83
11	384840	389727	NoData	NoData	33.26	33.38
12	384866	389727	NoData	33.37	33.48	33.62

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
13	384892	389727	NoData	NoData	33.58	33.75
14	384918	389727	NoData	NoData	33.57	33.75
15	384944	389727	NoData	33.41	33.60	33.81
16	384840	389753	NoData	NoData	33.24	33.38
17	384866	389753	NoData	33.35	33.47	33.61
18	384892	389753	NoData	33.37	33.50	33.64
19	384918	389753	NoData	33.37	33.54	33.71
20	384944	389753	NoData	33.38	33.56	33.76
21	384840	389779	NoData	32.94	33.11	33.36
22	384866	389779	NoData	33.19	33.29	33.50
23	384892	389779	NoData	33.36	33.50	33.65
24	384918	389779	NoData	33.37	33.53	33.69

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
25	384944	389779	NoData	33.37	33.55	33.74
Max value in selected area:			NoData	33.42	33.62	33.84

Data in this table comes from the Upper Mersey 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

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

Defended climate change

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
1	384840	389675	NoData	NoData	NoData	0.29
2	384866	389675	NoData	NoData	NoData	0.06
3	384892	389675	NoData	0.19	0.37	0.53
4	384918	389675	NoData	0.06	0.21	0.38
5	384944	389675	NoData	0.50	0.70	0.92
6	384840	389701	NoData	NoData	NoData	0.04
7	384866	389701	NoData	NoData	0.12	0.24
8	384892	389701	NoData	NoData	0.11	0.27
9	384918	389701	NoData	0.24	0.42	0.61
10	384944	389701	NoData	0.41	0.61	0.83
11	384840	389727	NoData	NoData	0.13	0.23
12	384866	389727	NoData	0.08	0.19	0.33

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
13	384892	389727	NoData	NoData	0.05	0.22
14	384918	389727	NoData	NoData	0.19	0.37
15	384944	389727	NoData	0.13	0.32	0.53
16	384840	389753	NoData	NoData	0.05	0.19
17	384866	389753	NoData	0.10	0.22	0.36
18	384892	389753	NoData	0.23	0.36	0.50
19	384918	389753	NoData	0.29	0.47	0.63
20	384944	389753	NoData	0.04	0.22	0.42
21	384840	389779	NoData	0.19	0.35	0.61
22	384866	389779	NoData	0.06	0.16	0.37
23	384892	389779	NoData	0.09	0.21	0.36
24	384918	389779	NoData	0.11	0.27	0.43

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
25	384944	389779	NoData	0.02	0.20	0.38
Max value in selected area:			NoData	0.61	0.81	1.03

Data in this table comes from the Upper Mersey 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

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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 modelled fluvial extent and height

Location (easting/northing)
384893/389728

Scale Created
1:1,000 13 May 2025

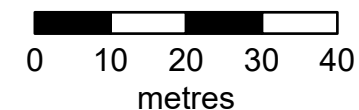
Model name
Upper Mersey 2017

-  Selected area
-  Main river

Modelled 2D grid
Water level in mAOD

-  32 - 32.5
-  32.5 - 33.0
-  33.0 - 33.5
-  33.5 - 34.0
-  34.0 - 34.5
-  34.5 - 35.0
-  35.0 - 35.5
-  35.5 - 36.0
-  36.0 - 36.5

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



Sample point data

Defences removed climate change

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
1	384840	389675	NoData	NoData	NoData	33.27
2	384866	389675	NoData	NoData	NoData	33.46
3	384892	389675	NoData	NoData	33.39	33.62
4	384918	389675	NoData	NoData	33.39	33.63
5	384944	389675	33.29	33.35	33.51	33.78
6	384840	389701	NoData	NoData	NoData	33.44
7	384866	389701	NoData	NoData	33.42	33.56
8	384892	389701	NoData	NoData	NoData	33.67
9	384918	389701	33.29	33.35	33.49	33.73
10	384944	389701	33.29	33.35	33.51	33.78
11	384840	389727	NoData	NoData	33.19	33.35
12	384866	389727	NoData	33.30	33.44	33.58

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
13	384892	389727	NoData	NoData	NoData	33.70
14	384918	389727	NoData	NoData	33.48	33.70
15	384944	389727	NoData	33.34	33.49	33.75
16	384840	389753	NoData	NoData	33.20	33.35
17	384866	389753	NoData	33.29	33.42	33.56
18	384892	389753	NoData	33.30	33.44	33.60
19	384918	389753	NoData	33.31	33.46	33.67
20	384944	389753	NoData	NoData	33.47	33.70
21	384840	389779	NoData	32.83	33.01	33.33
22	384866	389779	NoData	33.16	33.23	33.45
23	384892	389779	NoData	33.30	33.44	33.60
24	384918	389779	NoData	33.31	33.45	33.64

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
25	384944	389779	NoData	NoData	33.47	33.68
Max value in selected area:			33.29	33.35	33.51	33.78

Data in this table comes from the Upper Mersey 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

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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	384840	389675	NoData	NoData	NoData	0.36
2	384866	389675	NoData	NoData	NoData	0.06
3	384892	389675	NoData	NoData	0.27	0.49
4	384918	389675	NoData	NoData	0.11	0.34
5	384944	389675	0.37	0.43	0.59	0.86
6	384840	389701	NoData	NoData	NoData	0.02
7	384866	389701	NoData	NoData	0.06	0.21
8	384892	389701	NoData	NoData	NoData	0.23
9	384918	389701	0.12	0.17	0.32	0.56
10	384944	389701	0.29	0.34	0.50	0.77
11	384840	389727	NoData	NoData	0.07	0.21
12	384866	389727	NoData	0.04	0.15	0.29

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
13	384892	389727	NoData	NoData	NoData	0.18
14	384918	389727	NoData	NoData	0.10	0.32
15	384944	389727	NoData	0.06	0.22	0.48
16	384840	389753	NoData	NoData	0.01	0.15
17	384866	389753	NoData	0.05	0.17	0.32
18	384892	389753	NoData	0.17	0.30	0.46
19	384918	389753	NoData	0.23	0.38	0.59
20	384944	389753	NoData	NoData	0.13	0.36
21	384840	389779	NoData	0.07	0.25	0.58
22	384866	389779	NoData	0.03	0.10	0.32
23	384892	389779	NoData	0.05	0.15	0.31
24	384918	389779	NoData	0.06	0.20	0.38

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
25	384944	389779	NoData	NoData	0.12	0.33
Max value in selected area:			0.49	0.54	0.70	0.97

Data in this table comes from the Upper Mersey 2017 model. Height values are shown in mAOD, and depth values are shown in metres.

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'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