

Flood risk assessment data

Location of site: 388948 / 413095 (shown as easting and northing coordinates)

Document created on: 4 October 2023

This information was previously known as a product 4.

Customer reference number: 9RUK6J9DK827

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
- flood defences and attributes
- information to help you assess if there is a reduced flood risk from rivers and the sea because of defences
- modelled data
- climate change modelled data
- information about strategic flood risk assessments
- information about this data
- information about flood risk activity permits
- help and advice

Not included in this document

This document does not include a Flood Defence Breach Hazard Map.

If your location has a reduced flood risk from rivers and sea because of defences, you need to request a Flood Defence Breach Hazard Map and information about the level of flood protection offered at your location from the Greater Manchester Merseyside and Cheshire Environment Agency team at inforequests.gmmc@environment-agency.gov.uk. This information will only be available if modelling has been carried out for breach scenarios.

Include a site location map in your request.

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

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

About the models used

Model name: Rochdale and Littleborough 2013

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

Date: 1 June 2013

Model name: Spodden_2010_U

Scenario(s): No defences exist fluvial

Date: 23 December 2009

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

This data is updated on a quarterly basis as better data becomes available.



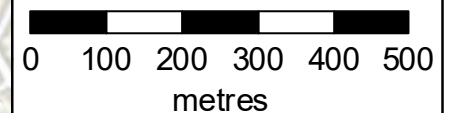
Flood map for planning

Location (easting/northing)
388948/413095

Scale
1:10,000

Created
4 Oct 2023

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



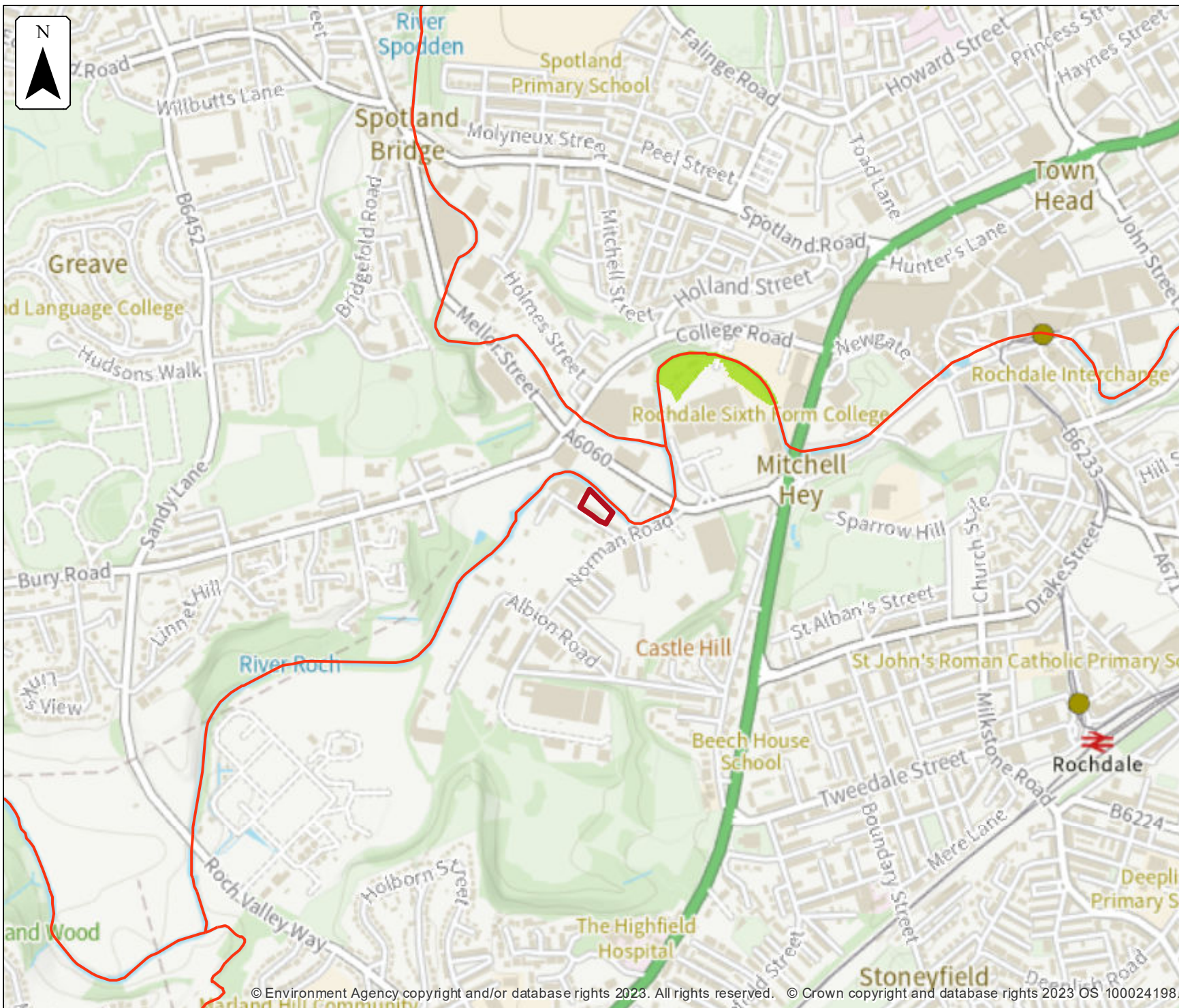
Historic flooding

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.

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



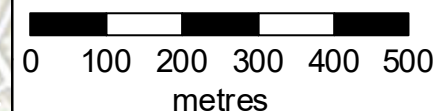
Historic flood map

Location (easting/northing)
388948/413095

Scale
1:10,000

Created
4 Oct 2023

-  Selected area
-  Main river
-  Date of flood event
July, 2019



Historic flood event data

Start date	End date	Source of flood	Cause of flood	Affects location
28 July 2019	31 July 2019	main river	channel capacity exceeded (no raised defences)	No

Flood defences and attributes

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

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

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

Use this information:

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



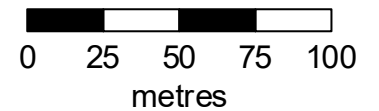
Flood defences

Location (easting/northing)
388948/413095

Scale
1:2,500

Created
4 Oct 2023

-  Selected area
-  Main river
-  Flood defence



Flood defences data

Label	Asset ID	Asset Type	Standard of protection (years)	Current condition	Downstream actual crest level (mAOD)	Upstream actual crest level (mAOD)	Effective crest level (mAOD)
1	761970	Wall			120.46	117.06	
2	62721	Wall	100	Good	120.46	117.06	
3	63750	Engineered High Ground	100	Fair	116.62	116.23	
4	104221	Wall	100	Good	117.10	117.40	
5	69326	Engineered High Ground	100	Fair	117.07	119.17	

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

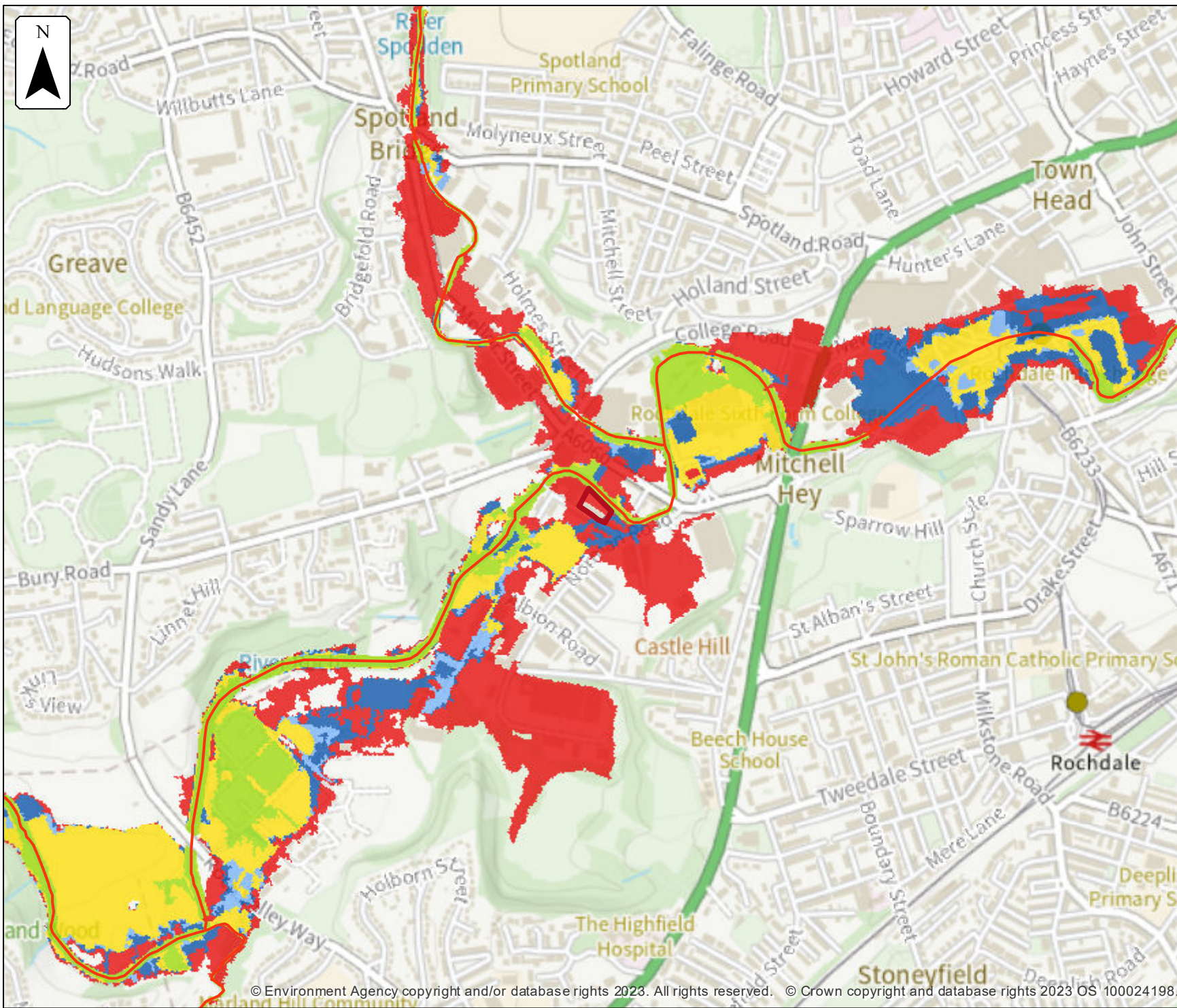
The climate change data included in the models may not include the latest [flood risk assessment climate change allowances](#). Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

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
- 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



Defended modelled fluvial extent

Location (easting/northing)
388948/413095

Scale Created
1:10,000 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

Selected area

Main river

Modelled flood extent

5% AEP

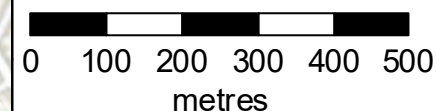
1.33% AEP

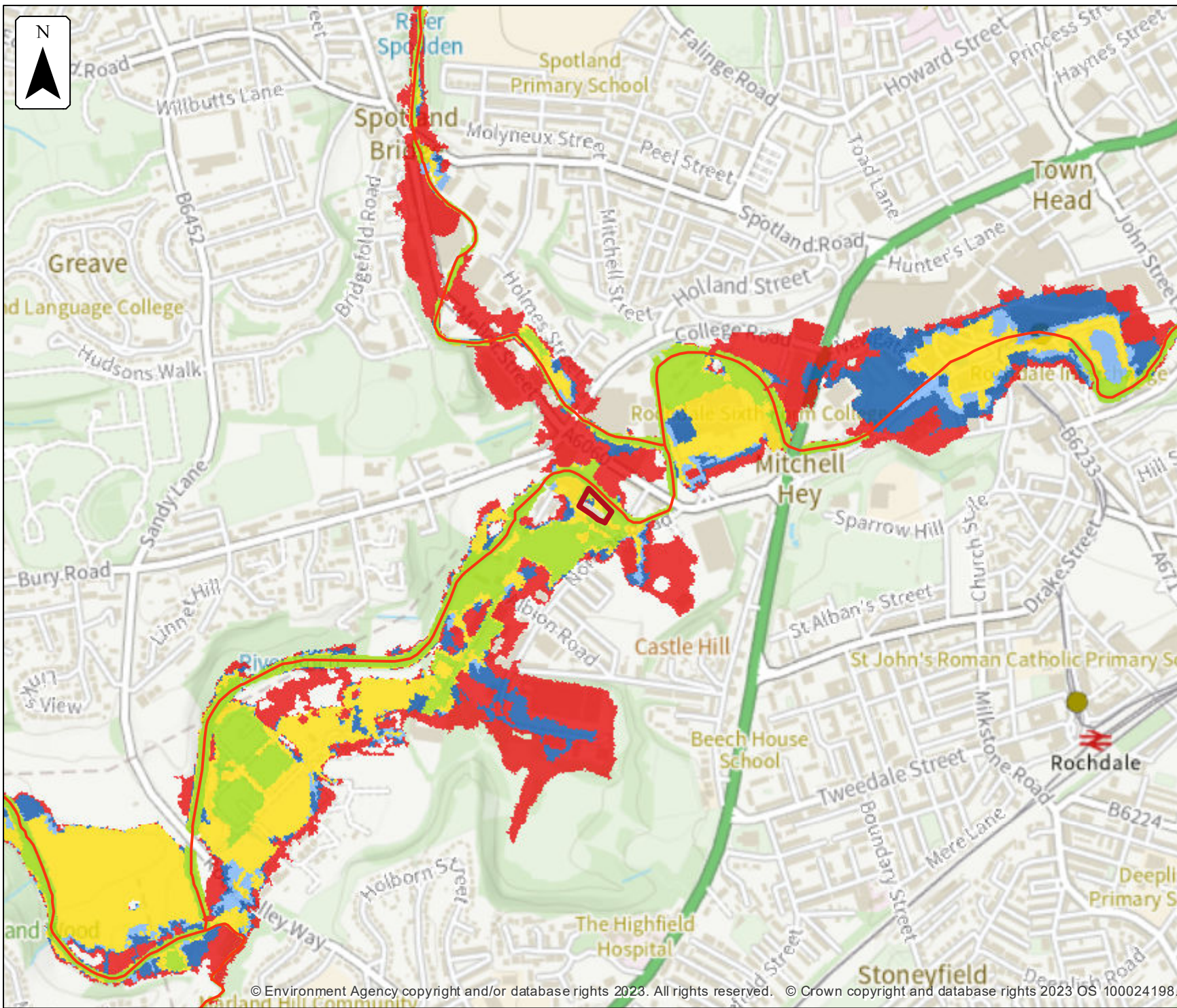
1% AEP

0.5% AEP

0.1% AEP

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





Defences removed modelled fluvial extent

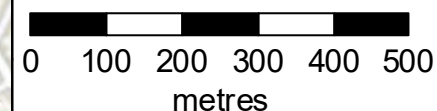
Location (easting/northing)
388948/413095

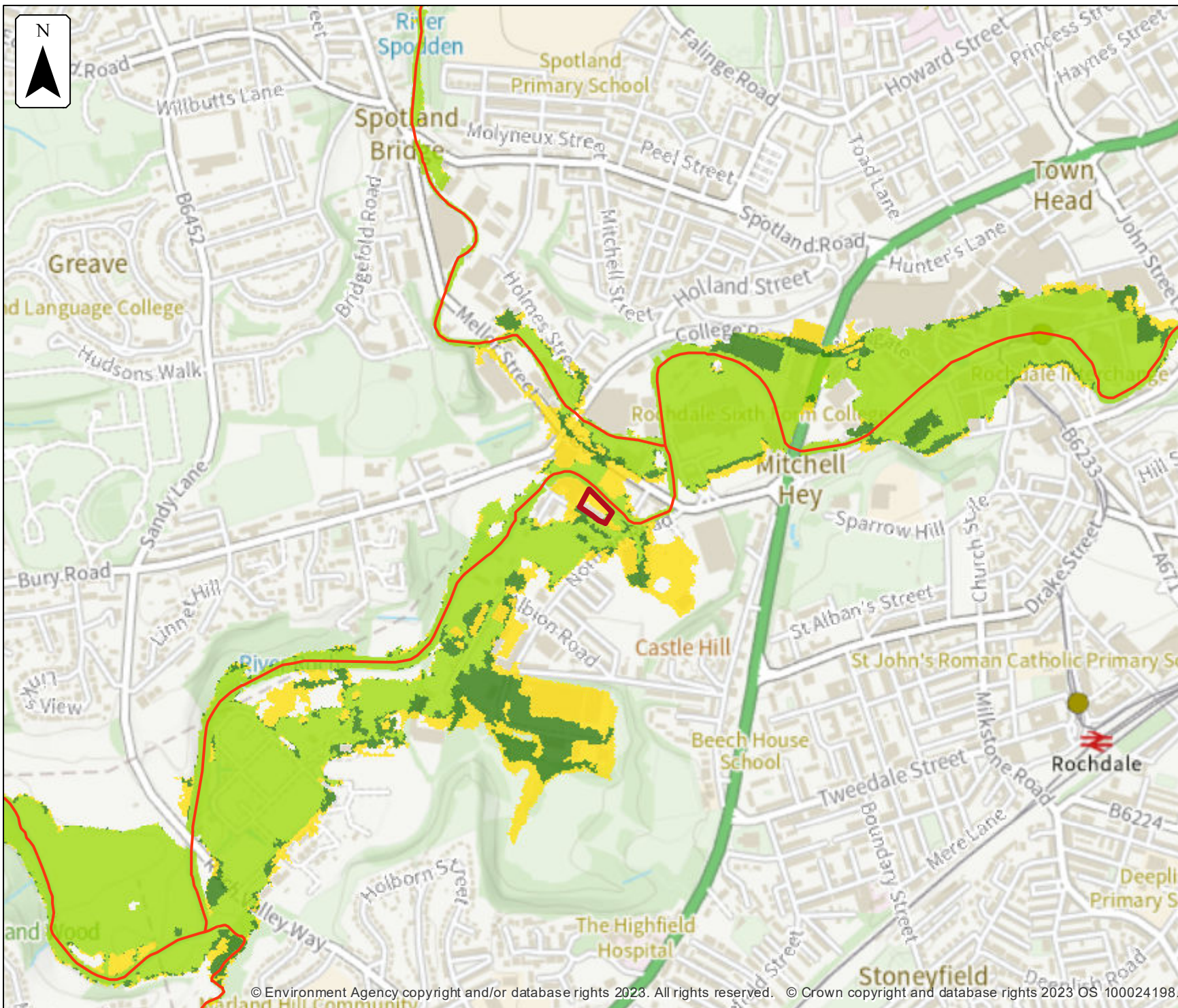
Scale Created
1:10,000 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

-  Selected area
-  Main river
- Modelled flood extent
 -  5% 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

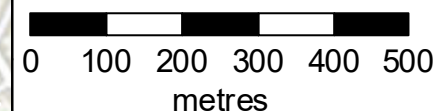
Location (easting/northing)
388948/413095

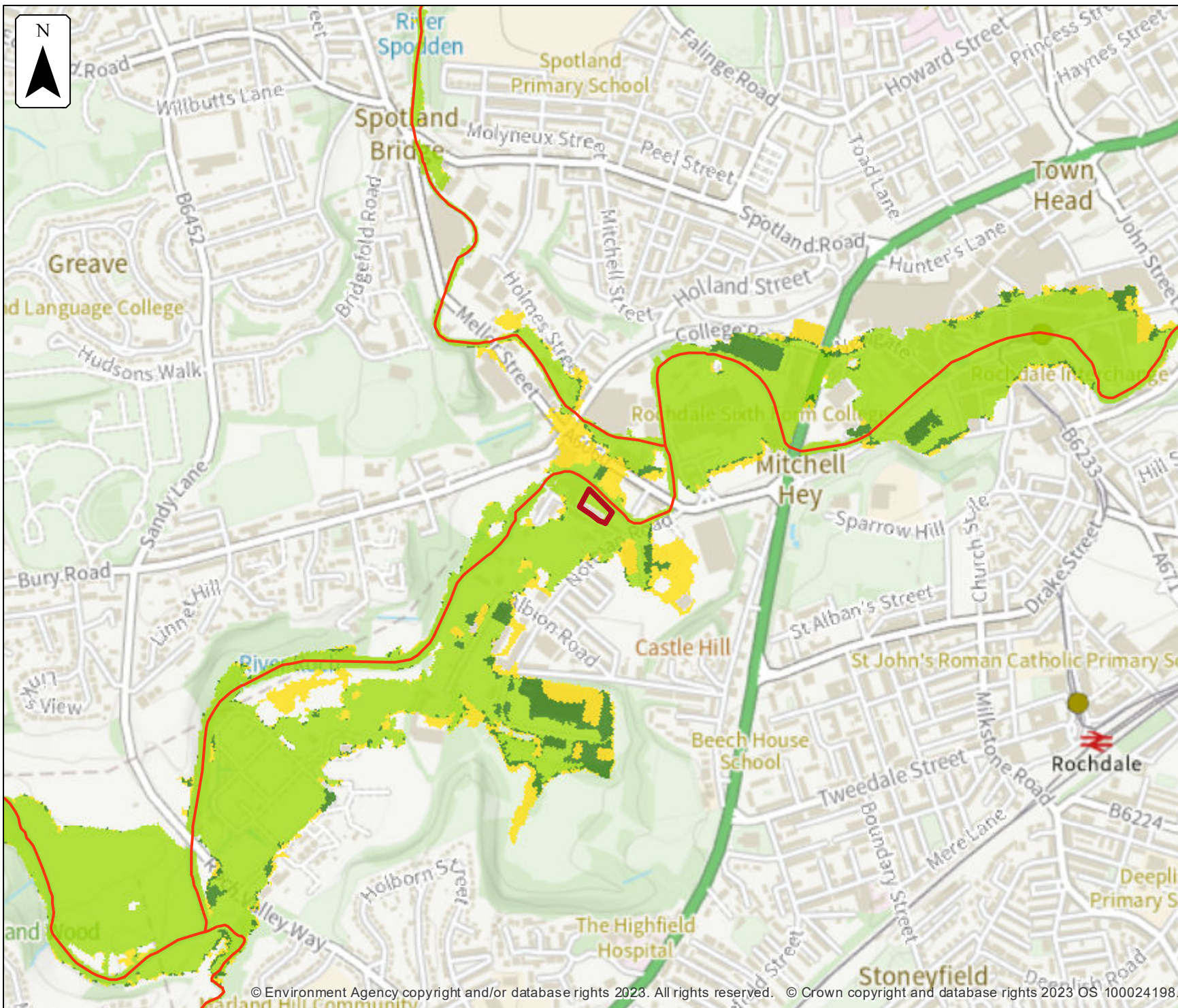
Scale Created
1:10,000 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

- Selected area
- Main river
- Modelled flood extent
 - 1.0% AEP (+20%)
 - 1.0% AEP (+35%)
 - 1.0% AEP (+70%)

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





Defences removed climate change modelled fluvial extent

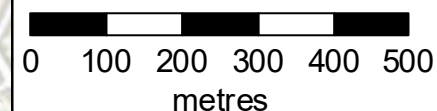
Location (easting/northing)
388948/413095

Scale Created
1:10,000 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

- Selected area
- Main river
- Modelled flood extent
 - 1.0% AEP (+20%)
 - 1.0% AEP (+35%)
 - 1.0% AEP (+70%)

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





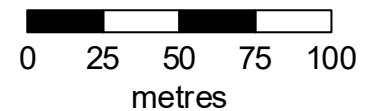
Defended modelled fluvial node locations

Location (easting/northing)
388948/413095

Scale Created
1:2,500 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

-  Selected area
-  Modelled location
-  Main river



Modelled node locations data

Defended

Label	Modelled location ID	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
				Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow
1	125399	388834	413128	116.07	80.44			116.26	103.12	116.31	110.20	116.37	123.27	116.44	169.76
2	102297	388846	413143	116.24	80.44			116.53	103.05	116.62	110.04	116.76	123.01	117.24	168.99
3	194897	388893	413165	116.31	80.44			116.62	103.05	116.71	110.04	116.85	123.01	117.38	166.06
4	253784	388956	413125	116.52	80.44			116.85	103.05	116.95	110.04	117.11	123.0	117.83	150.21
5	308641	388962	413242	117.33	23.53			117.78	33.26	117.96	35.55	118.20	39.40	118.94	44.64
6	121357	389010	413071	116.69	80.44			117.04	103.06	117.14	110.05	117.32	123.0	118.02	150.39
7	145181	389037	413225	117.24	26.48			117.66	39.49	117.74	45.84	117.96	56.20	118.85	62.74
8	13995	389078	413082	116.92	80.44			117.29	103.05	117.39	110.04	117.56	124.11	117.87	173.51
9	152029	389094	413098	117.07	80.45			117.46	103.06	117.58	110.05	117.77	124.13	118.22	173.39
10	164699	389100	413115	117.11	80.45			117.55	103.06	117.67	110.05	117.89	124.13	118.51	173.39

Data in this table comes from the Rochdale and Littleborough 2013 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.



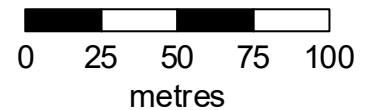
Defences removed modelled fluvial node locations

Location (easting/northing)
388948/413095

Scale Created
1:2,500 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

-  Selected area
-  Modelled location
-  Main river



Modelled node locations data

Defences removed

Label	Modelled location ID	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
				Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow
1	125399	388834	413128	116.02	76.75			116.18	92.35	116.21	95.98	116.28	106.81	116.43	145.24
2	102297	388846	413143	116.18	76.75			116.40	92.32	116.44	95.94	116.58	106.69	116.98	144.85
3	194897	388893	413165	116.25	76.75			116.48	92.32	116.53	95.94	116.67	106.69	117.12	142.37
4	253784	388956	413125	116.45	76.75			116.69	92.83	116.74	96.81	116.88	108.78	117.44	137.83
5	308641	388962	413242	117.27	23.65			117.64	33.74	117.74	36.32	118.09	39.57	118.90	45.11
6	121357	389010	413071	116.62	77.13			116.84	96.36	116.88	101.23	117.01	115.95	117.27	165.08
7	145181	389037	413225	117.18	26.31			117.51	39.23	117.59	42.74	117.78	53.36	118.75	64.38
8	13995	389078	413082	116.83	79.19			117.05	102.66	117.09	109.09	117.19	128.83	117.59	177.84
9	152029	389094	413098	116.99	79.19			117.28	102.66	117.34	109.09	117.52	128.82	118.07	177.75
10	164699	389100	413115	117.04	79.19			117.36	102.66	117.44	109.09	117.68	128.82	118.41	177.75

Data in this table comes from the Rochdale and Littleborough 2013 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.

Modelled node locations data

No defences exist

Label	Modelled location ID	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
				Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow
1	129261	388188	412129							111.34	13.15			111.67	19.96

Data in this table comes from the SuddenBrook 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.



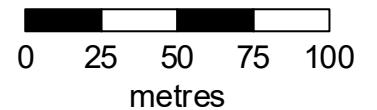
Defended climate change modelled fluvial node locations

Location (easting/northing)
388948/413095

Scale Created
1:2,500 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

-  Selected area
-  Modelled location
-  Main river



Modelled node locations data

Defended climate change

Label	Modelled location ID	Easting	Northing	1.0% AEP (+20%)		1.0% AEP (+35%)		1.0% AEP (+70%)	
				Level	Flow	Level	Flow	Level	Flow
1	125399	388834	413128	116.40	132.02	116.42	147.04	116.44	168.35
2	102297	388846	413143	116.85	131.59	117.0	146.51	117.22	167.68
3	194897	388893	413165	116.95	131.60	117.11	146.51	117.35	166.20
4	253784	388956	413125	117.21	131.59	117.39	146.51	117.81	150.79
5	308641	388962	413242	118.37	39.75	118.62	40.13	118.99	41.20
6	121357	389010	413071	117.44	131.60	117.64	146.51	118.0	151.07
7	145181	389037	413225	118.10	56.63	118.52	53.11	118.94	56.11
8	13995	389078	413082	117.65	134.39	117.78	154.87	117.85	171.99
9	152029	389094	413098	117.89	134.42	118.07	154.86	118.20	171.97
10	164699	389100	413115	118.04	134.42	118.30	154.86	118.51	171.97

Data in this table comes from the Rochdale and Littleborough 2013 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.



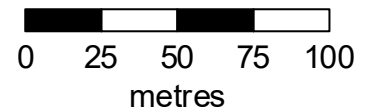
Defences removed climate change modelled fluvial node locations

Location (easting/northing)
388948/413095

Scale Created
1:2,500 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

-  Selected area
-  Modelled location
-  Main river



Modelled node locations data

Defences removed climate change

Label	Modelled location ID	Easting	Northing	1.0% AEP (+20%)		1.0% AEP (+35%)		1.0% AEP (+70%)	
				Level	Flow	Level	Flow	Level	Flow
1	125399	388834	413128	116.32	113.58	116.36	120.55	116.40	135.71
2	102297	388846	413143	116.66	113.38	116.73	120.31	116.88	135.30
3	194897	388893	413165	116.75	113.38	116.83	120.31	116.99	135.07
4	253784	388956	413125	116.97	116.45	117.05	124.01	117.24	137.79
5	308641	388962	413242	118.22	39.96	118.38	40.26	118.77	41.54
6	121357	389010	413071	117.07	125.53	117.15	134.09	117.28	153.06
7	145181	389037	413225	117.96	56.43	118.15	52.37	118.67	54.58
8	13995	389078	413082	117.24	141.07	117.29	152.25	117.39	174.90
9	152029	389094	413098	117.63	141.08	117.73	152.24	117.95	174.89
10	164699	389100	413115	117.83	141.08	117.97	152.24	118.29	174.89

Data in this table comes from the Rochdale and Littleborough 2013 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)
388948/413095

Scale Created
1:500 4 Oct 2023

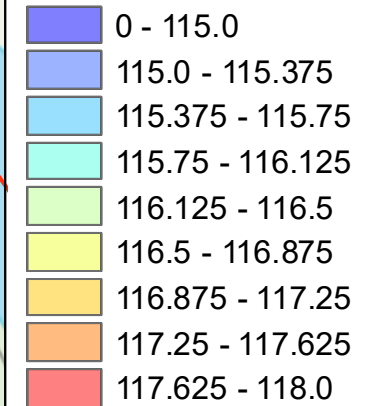
Model name
**Rochdale and
Littleborough 2013**

 Selected area

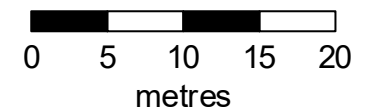
 Main river

Modelled 2D grid

Water level in mAOD



This map shows the
1.33% AEP height data



Sample point data

Defended

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	388952	413060	NoData	NoData			NoData	NoData						
2	388965	413060	NoData	NoData			NoData	NoData						
3	388939	413073	NoData	NoData			NoData	NoData						
4	388952	413073	NoData	NoData			NoData	NoData						
5	388965	413073	NoData	NoData			NoData	NoData						
6	388978	413073	NoData	NoData			NoData	NoData						
7	388913	413086	NoData	NoData			NoData	NoData						
8	388926	413086	NoData	NoData			NoData	NoData						
9	388939	413086	NoData	NoData			NoData	NoData						
10	388952	413086	NoData	NoData			NoData	NoData						
11	388965	413086	NoData	NoData			NoData	NoData						
12	388978	413086	NoData	NoData			NoData	NoData						
13	388913	413099	NoData	NoData			NoData	NoData						
14	388926	413099	NoData	NoData			NoData	NoData						
15	388939	413099	NoData	NoData			NoData	NoData						
16	388952	413099	NoData	NoData			NoData	NoData						

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	388965	413099	NoData	NoData			NoData	NoData						
18	388978	413099	2.87	116.59			3.21	116.93						
19	388926	413112	NoData	NoData			NoData	NoData						
20	388939	413112	NoData	NoData			NoData	NoData						
21	388952	413112	NoData	NoData			NoData	NoData						
22	388965	413112	2.62	116.55			2.96	116.89						
23	388926	413125	NoData	NoData			NoData	NoData						
24	388939	413125	NoData	NoData			NoData	NoData						
25	388952	413125	2.59	116.51			2.93	116.84						
26	388939	413138	2.82	116.46			3.14	116.79						

Data in this table comes from the Rochdale and Littleborough 2013 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.



Defences removed modelled fluvial extent and height

Location (easting/northing)
388948/413095

Scale Created
1:500 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

 Selected area

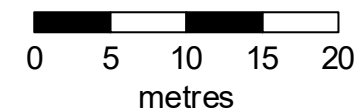
 Main river

Modelled 2D grid

Water level in mAOD

-  0 - 115.0
-  115.0 - 115.25
-  115.25 - 115.5
-  115.5 - 115.75
-  115.75 - 116.0
-  116.0 - 116.25
-  116.25 - 116.5
-  116.5 - 116.75
-  116.75 - 117.0

This map shows the
1.33% AEP height data



Sample point data

Defences removed

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	388952	413060	0.26	116.38			0.49	116.61						
2	388965	413060	0.15	116.37			0.37	116.59						
3	388939	413073	0.10	116.26			0.38	116.55						
4	388952	413073	NoData	NoData			NoData	NoData						
5	388965	413073	0.30	116.49			0.50	116.69						
6	388978	413073	0.41	116.56			0.62	116.77						
7	388913	413086	NoData	NoData			0.23	116.55						
8	388926	413086	NoData	NoData			0.17	116.55						
9	388939	413086	NoData	NoData			NoData	NoData						
10	388952	413086	NoData	NoData			NoData	NoData						
11	388965	413086	0.01	116.54			0.23	116.76						
12	388978	413086	0.41	116.55			0.63	116.77						
13	388913	413099	NoData	NoData			0.10	116.60						
14	388926	413099	NoData	NoData			NoData	NoData						
15	388939	413099	NoData	NoData			NoData	NoData						
16	388952	413099	NoData	NoData			0.19	116.73						

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	388965	413099	0.18	116.50			0.41	116.74						
18	388978	413099	2.80	116.53			3.03	116.76						
19	388926	413112	0.19	116.44			0.43	116.67						
20	388939	413112	NoData	NoData			0.10	116.67						
21	388952	413112	0.06	116.47			0.29	116.71						
22	388965	413112	2.56	116.49			2.79	116.72						
23	388926	413125	0.39	116.44			0.62	116.67						
24	388939	413125	0.46	116.42			0.70	116.66						
25	388952	413125	2.53	116.45			2.77	116.68						
26	388939	413138	2.76	116.40			2.99	116.63						

Data in this table comes from the Rochdale and Littleborough 2013 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.



Defended climate change modelled fluvial extent and height

Location (easting/northing)
388948/413095

Scale Created
1:500 4 Oct 2023

Model name
**Rochdale and
Littleborough 2013**

 Selected area

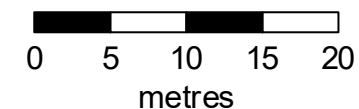
 Main river

Modelled 2D grid

Water level in mAOD

-  0 - 115.0
-  115.0 - 115.5
-  115.5 - 116.0
-  116.0 - 116.5
-  116.5 - 117.0
-  117.0 - 117.5
-  117.5 - 118.0
-  118.0 - 118.5
-  118.5 - 119.0

This map shows the
1.0% AEP +70% height data



Sample point data

Defended climate change

Label	Easting	Northing	1% AEP (+35%)		1% AEP (+70%)	
			Depth	Height	Depth	Height
1	388952	413060	0.38	116.50	0.71	116.83
2	388965	413060	0.29	116.51	0.64	116.86
3	388939	413073	0.29	116.46	0.63	116.79
4	388952	413073	NoData	NoData	NoData	NoData
5	388965	413073	0.32	116.52	0.68	116.88
6	388978	413073	0.37	116.52	0.74	116.89
7	388913	413086	0.16	116.47	0.44	116.77
8	388926	413086	0.09	116.47	0.38	116.79
9	388939	413086	NoData	NoData	NoData	NoData
10	388952	413086	NoData	NoData	NoData	NoData
11	388965	413086	NoData	NoData	0.37	116.89
12	388978	413086	NoData	NoData	NoData	NoData
13	388913	413099	NoData	NoData	0.27	116.80
14	388926	413099	NoData	NoData	NoData	NoData
15	388939	413099	NoData	NoData	0.05	116.86
16	388952	413099	NoData	NoData	0.36	116.89

Label	Easting	Northing	1% AEP (+35%)		1% AEP (+70%)	
			Depth	Height	Depth	Height
17	388965	413099	NoData	NoData	0.06	116.89
18	388978	413099	3.77	117.50	4.17	117.90
19	388926	413112	NoData	NoData	0.55	116.80
20	388939	413112	NoData	NoData	0.23	116.81
21	388952	413112	NoData	NoData	0.04	116.89
22	388965	413112	3.51	117.44	3.92	117.85
23	388926	413125	NoData	NoData	0.76	116.80
24	388939	413125	NoData	NoData	0.03	116.80
25	388952	413125	3.47	117.38	3.88	117.79
26	388939	413138	3.67	117.31	4.04	117.68

Data in this table comes from the Rochdale and Littleborough 2013 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.



Defences removed climate change modelled fluvial extent and height

Location (easting/northing)
388948/413095

Scale Created
1:500 4 Oct 2023

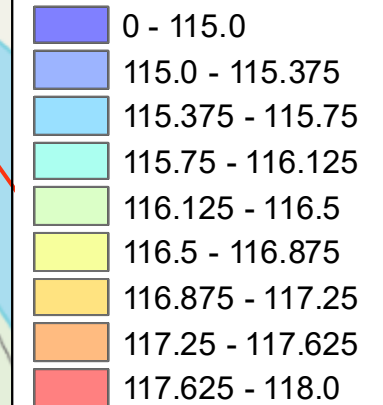
Model name
**Rochdale and
Littleborough 2013**

 Selected area

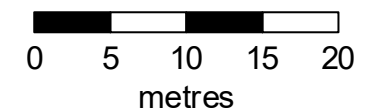
 Main river

Modelled 2D grid

Water level in mAOD



This map shows the
1.0% AEP +70% height data



Sample point data

Defences removed climate change

Label	Easting	Northing	1% AEP (+35%)		1% AEP (+70%)	
			Depth	Height	Depth	Height
1	388952	413060	0.79	116.91	0.91	117.03
2	388965	413060	0.69	116.91	0.81	117.03
3	388939	413073	0.70	116.87	0.81	116.98
4	388952	413073	NoData	NoData	NoData	NoData
5	388965	413073	0.81	117.01	0.95	117.14
6	388978	413073	0.94	117.10	1.09	117.25
7	388913	413086	0.53	116.85	0.64	116.96
8	388926	413086	0.46	116.87	0.56	116.99
9	388939	413086	NoData	NoData	NoData	NoData
10	388952	413086	NoData	NoData	NoData	NoData
11	388965	413086	0.57	117.10	0.73	117.25
12	388978	413086	0.97	117.11	1.12	117.26
13	388913	413099	0.40	116.93	0.52	117.07
14	388926	413099	NoData	NoData	NoData	NoData
15	388939	413099	0.15	117.05	0.24	117.23
16	388952	413099	0.54	117.07	0.71	117.24

Label	Easting	Northing	1% AEP (+35%)		1% AEP (+70%)	
			Depth	Height	Depth	Height
17	388965	413099	0.75	117.08	0.93	117.25
18	388978	413099	3.37	117.09	3.54	117.26
19	388926	413112	0.77	117.02	0.95	117.20
20	388939	413112	0.45	117.03	0.64	117.22
21	388952	413112	0.63	117.06	0.82	117.24
22	388965	413112	3.14	117.07	3.32	117.25
23	388926	413125	0.97	117.02	1.15	117.20
24	388939	413125	1.05	117.02	1.24	117.21
25	388952	413125	3.13	117.04	3.32	117.23
26	388939	413138	3.34	116.99	3.53	117.17

Data in this table comes from the Rochdale and Littleborough 2013 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.

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

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