

# Flood risk assessment data



**Location of site:** 610844 / 265649 (shown as easting and northing coordinates)

**Document created on:** 1 November 2023

**This information was previously known as a product 4.**

**Customer reference number:** 7FEHHR4ETH1R

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)
- 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 East Anglia Environment Agency team at [enquiries\\_eastanglia@environment-agency.gov.uk](mailto:enquiries_eastanglia@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.

## Information that's unavailable

This document **does not** contain:

- historic flooding
- flood defences and attributes

We do not have historic flooding data for this location.

Please note that:

- 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 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.

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

## 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: Waveney 2021 by Mott MacDonald

Scenario(s): No defences exist fluvial, no defences exist climate change fluvial

Date: 28 February 2022

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

## Terminology used

### Annual exceedance probability (AEP)

This refers to the probability of a flood event occurring in any year. The probability is expressed as a percentage. For example, a large flood which is calculated to have a 1% chance of 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)  
**610844/265649**

Scale  
**1:10,000**

Created  
**1 Nov 2023**

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



## 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:

- 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



### No defences exist modelled fluvial extent

Location (easting/northing)  
**610844/265649**


Scale Created  
**1:10,000 1 Nov 2023**


Model name  
**Waveney 2021 by Mott MacDonald**


 Selected area


 Main river


Modelled flood extent


 5% AEP

 2% AEP

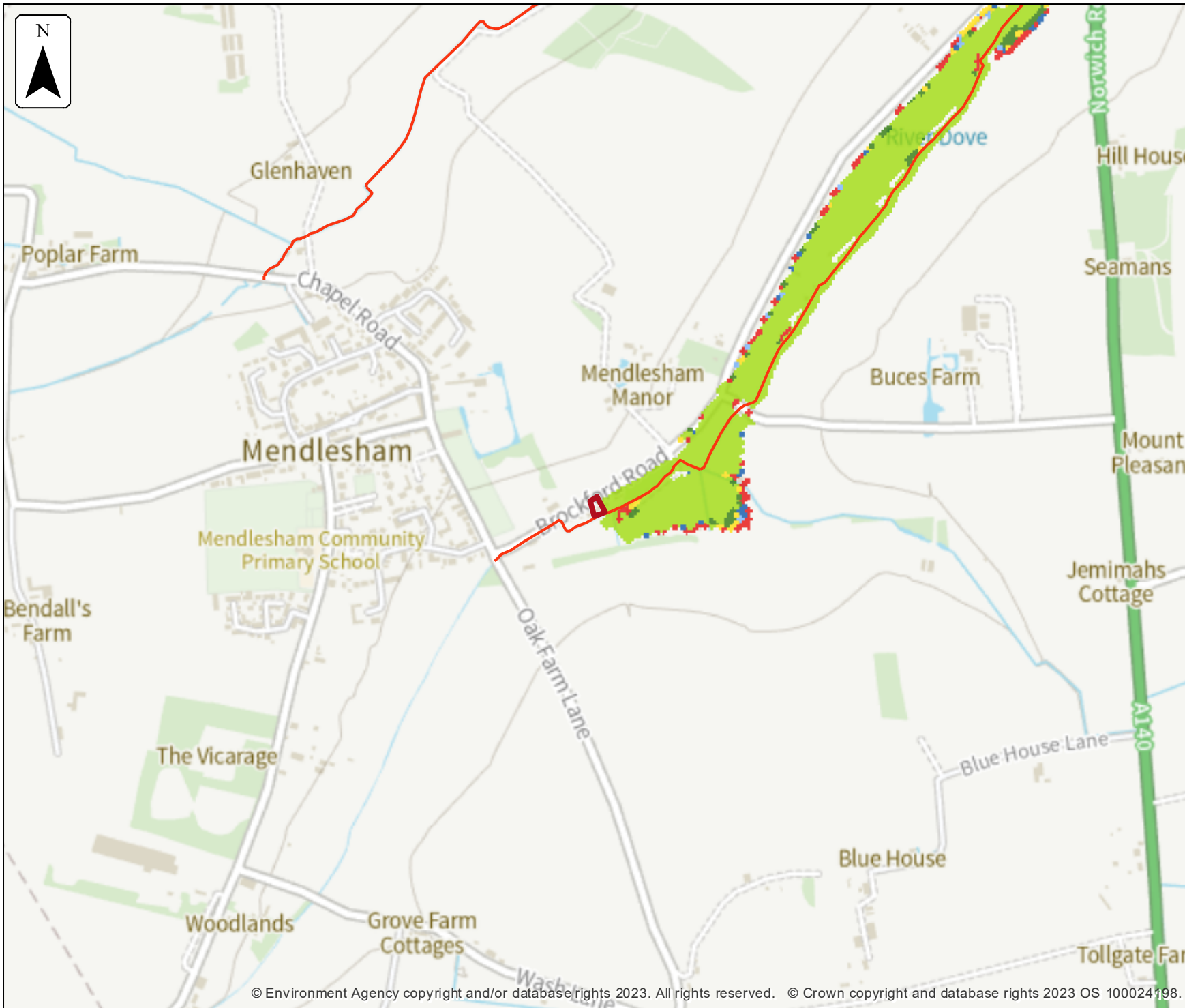
 1.33% AEP

 1% AEP

 0.5% AEP

 0.1% AEP

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













### No defences exist climate change modelled fluvial extent

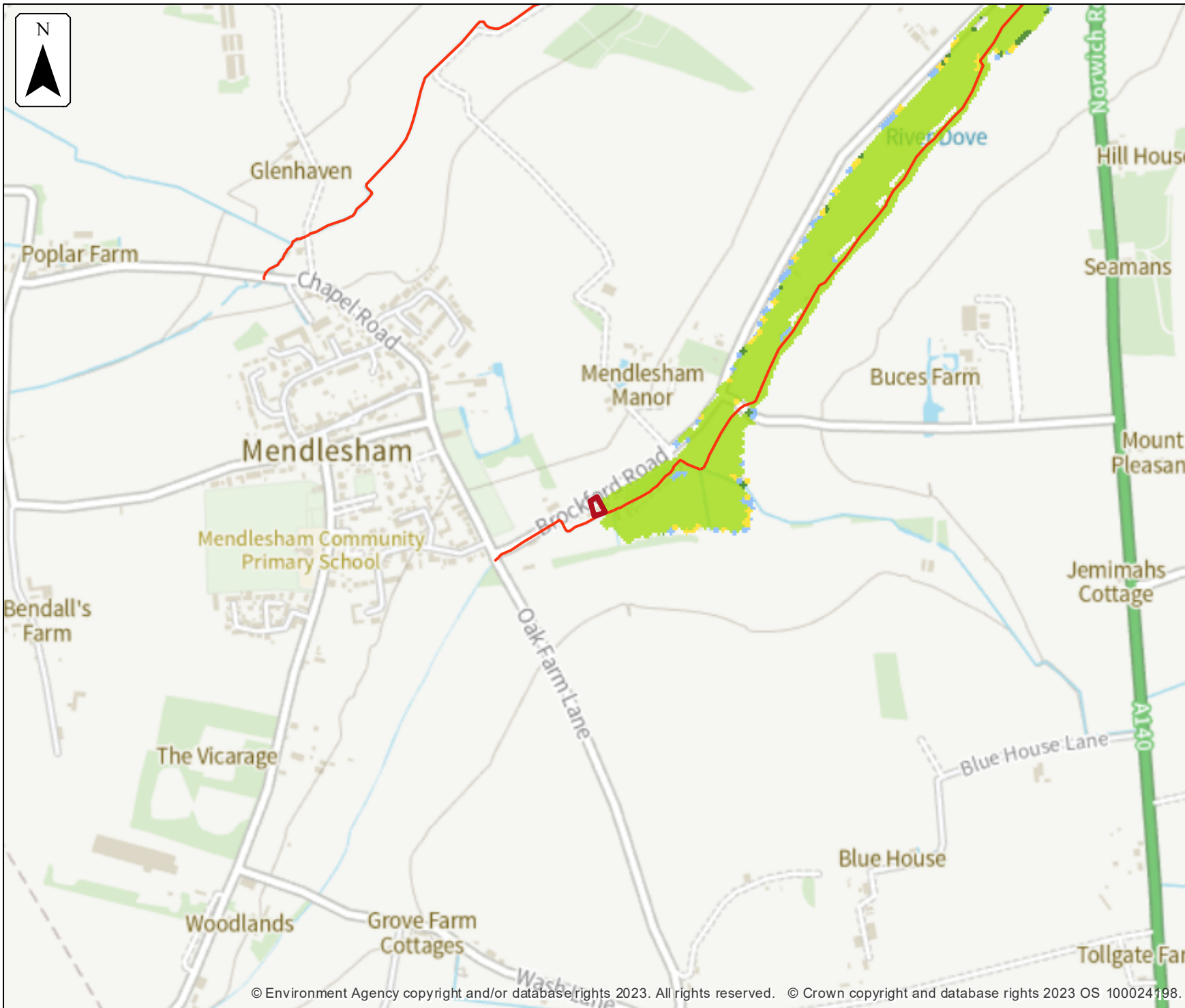
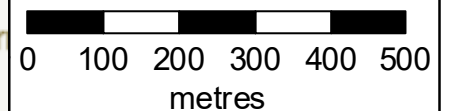
Location (easting/northing)  
**610844/265649**

Scale Created  
**1:10,000 1 Nov 2023**

Model name  
**Waveney 2021 by Mott MacDonald**

-  Selected area
-  Main river
- Modelled flood extent
  -  1.0% AEP (+25%)
  -  1.0% AEP (+35%)
  -  1.0% AEP (+65%)
  -  0.1% AEP (+25%)

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








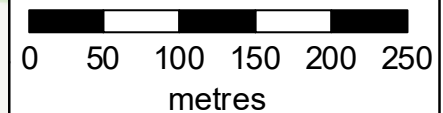
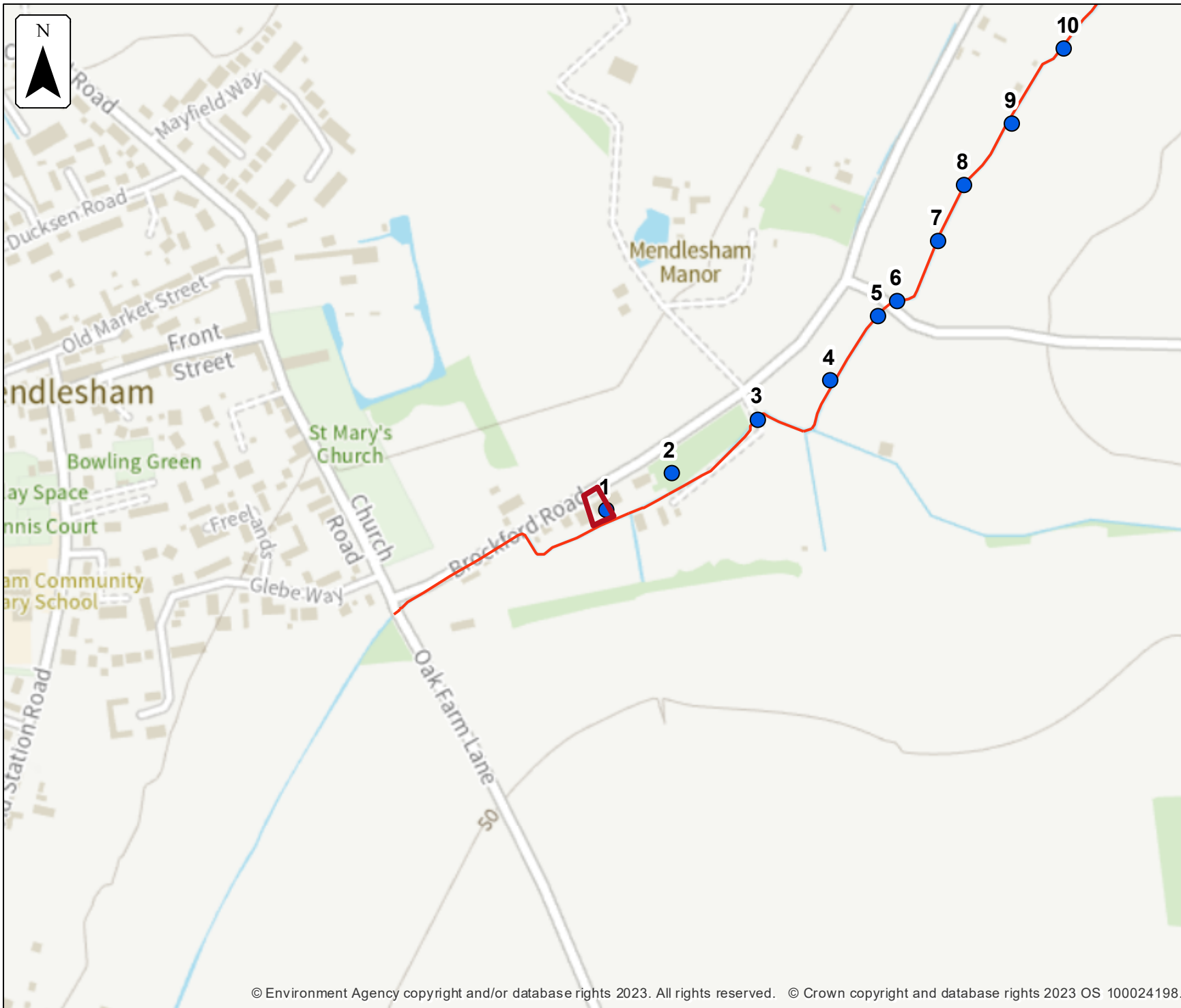
### No defences exist modelled fluvial node locations

Location (easting/northing)  
**610844/265649**

Scale Created  
**1:5,000 1 Nov 2023**

Model name  
**Waveney 2021 by Mott MacDonald**

-  Selected area
-  Modelled location
-  Main river



## 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	1325628	610853	265645	45.68	6.36	45.73	7.81	45.76	8.53	45.76	8.55	45.78	9.18	45.90	15.36
2	1325613	610916	265681	45.41	5.82	45.46	6.67	45.48	7.05	45.48	7.06	45.50	7.38	45.57	10.86
3	1325629	611000	265733	45.05	5.81	45.10	6.44	45.12	6.67	45.12	6.68	45.13	6.86	45.26	8.38
4	1325780	611069	265771	45.0	2.86	45.05	2.87	45.07	2.88	45.07	2.88	45.09	2.88	45.22	2.97
5	1324690	611116	265833	44.91	5.41	44.95	5.95	44.97	6.19	44.97	6.19	44.99	6.40	45.14	7.96
6	1324691	611135	265848	44.76	5.41	44.80	5.95	44.82	6.19	44.82	6.19	44.83	6.40	44.99	7.96
7	1324851	611175	265905	44.66	4.86	44.70	5.26	44.72	5.43	44.72	5.43	44.74	5.59	44.90	7.36
8	1324868	611200	265960	44.55	4.75	44.58	5.09	44.61	5.25	44.61	5.25	44.63	5.41	44.77	7.15
9	1325149	611246	266020	44.35	4.76	44.38	5.09	44.41	5.24	44.41	5.24	44.42	5.40	44.53	6.81
10	1325307	611296	266093	44.15	4.15	44.15	4.43	44.16	4.71	44.16	4.72	44.17	4.84	44.25	5.92

Data in this table comes from the Waveney 2021 by Mott MacDonald 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.






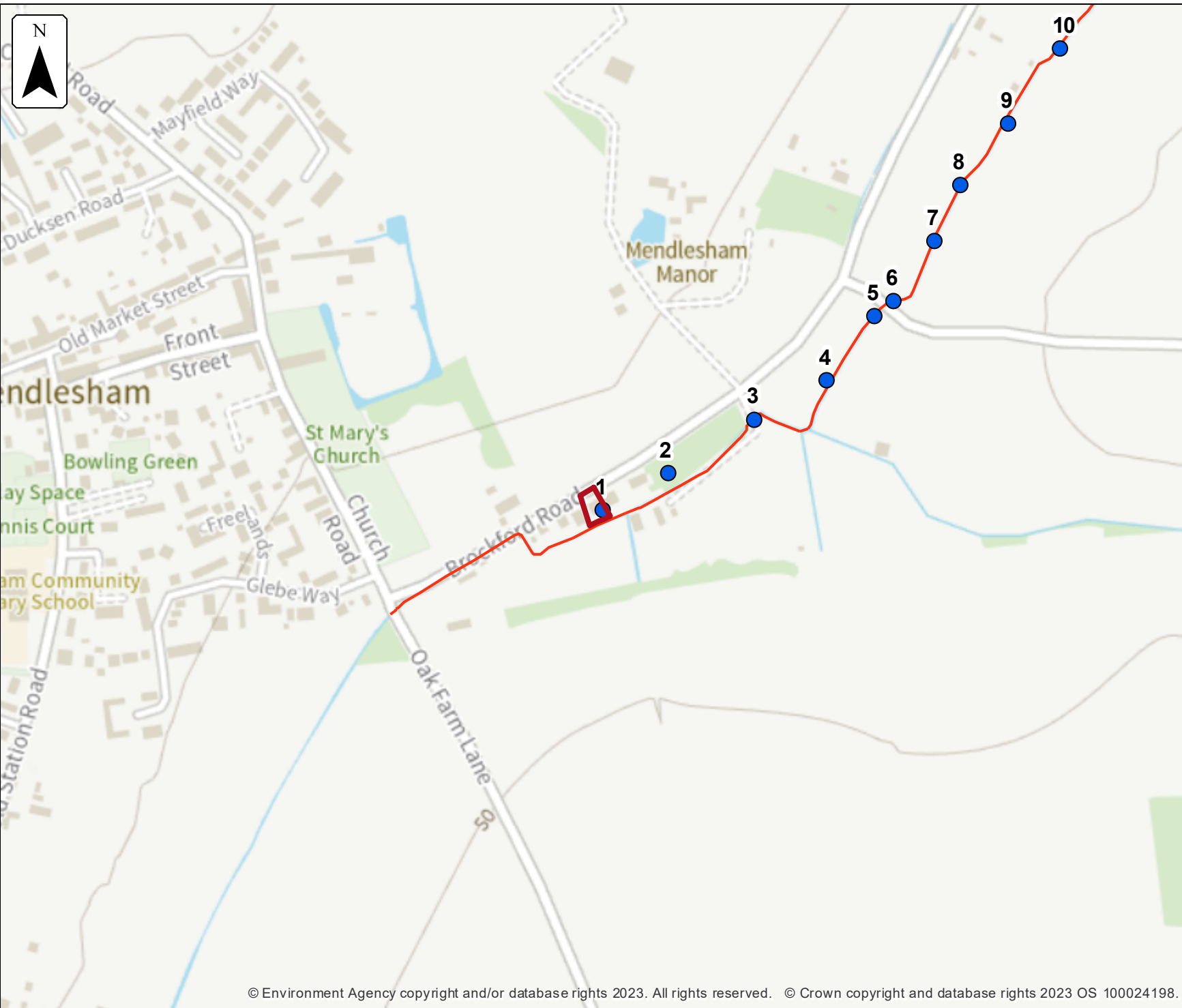
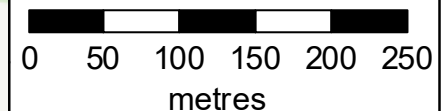
**No defences exist  
climate change  
modelled fluvial  
node locations**

Location (easting/northing)  
**610844/265649**

Scale Created  
**1:5,000 1 Nov 2023**

Model name  
**Waveney 2021 by Mott  
MacDonald**

-  Selected area
-  Modelled location
-  Main river



## Modelled node locations data

### No defences exist climate change

Label	Modelled location ID	Easting	Northing	1.0% AEP (+25%)		1.0% AEP (+35%)		1.0% AEP (+65%)		0.1% AEP (+25%)	
				Level	Flow	Level	Flow	Level	Flow	Level	Flow
1	1325628	610853	265645	45.82	11.01	45.84	11.98	45.90	14.88	45.94	18.53
2	1325613	610916	265681	45.53	8.34	45.54	8.87	45.56	10.60	45.57	12.55
3	1325629	611000	265733	45.17	7.43	45.19	7.72	45.25	8.30	45.33	8.60
4	1325780	611069	265771	45.13	2.88	45.16	2.88	45.22	2.87	45.30	3.97
5	1324690	611116	265833	45.04	6.92	45.06	7.17	45.13	7.87	45.21	8.96
6	1324691	611135	265848	44.88	6.92	44.91	7.17	44.98	7.87	45.07	8.96
7	1324851	611175	265905	44.79	6.07	44.81	6.38	44.89	7.22	44.97	8.45
8	1324868	611200	265960	44.68	5.85	44.70	6.12	44.76	7.04	44.84	8.19
9	1325149	611246	266020	44.47	5.81	44.49	6.04	44.52	6.70	44.58	7.53
10	1325307	611296	266093	44.19	5.28	44.20	5.48	44.24	5.83	44.29	6.41

Data in this table comes from the Waveney 2021 by Mott MacDonald 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.




### No defences exist modelled fluvial extent and height

Location (easting/northing)  
**610844/265649**


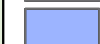


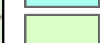




Scale Created  
**1:500 1 Nov 2023**

Model name  
**Waveney 2021 by Mott MacDonald**

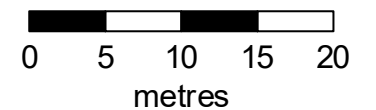
 Selected area

 Main river

Modelled 2D grid  
*Water level in mAOD*

-  0 - 45.0
-  45.0 - 45.125
-  45.125 - 45.25
-  45.25 - 45.375
-  45.375 - 45.5
-  45.5 - 45.625
-  45.625 - 45.75
-  45.75 - 45.875
-  45.875 - 46.0

This map shows the  
0.1% AEP height data



## Sample point data

No defences exist

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	610833	265625	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
2	610841	265625	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
3	610849	265625	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
4	610833	265633	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
5	610841	265633	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
6	610849	265633	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
7	610857	265633	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
8	610865	265633	0.09	45.63	0.15	45.68	0.17	45.70	0.19	45.72	0.22	45.75	0.31	45.84
9	610833	265641	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
10	610841	265641	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
11	610849	265641	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
12	610857	265641	1.22	45.67	1.26	45.73	1.28	45.75	1.29	45.77	1.32	45.80	1.39	45.90
13	610865	265641	0.63	45.64	0.65	45.69	0.66	45.72	0.67	45.74	0.69	45.77	0.72	45.85
14	610825	265649	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
15	610833	265649	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
16	610841	265649	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	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	610849	265649	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
18	610857	265649	1.55	45.66	1.60	45.72	1.62	45.74	1.64	45.76	1.67	45.79	1.76	45.88
19	610865	265649	0.99	45.63	1.03	45.69	1.04	45.71	1.06	45.73	1.08	45.76	1.14	45.84
20	610825	265657	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
21	610833	265657	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
22	610841	265657	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
23	610849	265657	0.47	45.68	0.49	45.73	0.49	45.76	0.50	45.78	0.51	45.81	0.53	45.90
24	610857	265657	0.80	45.64	0.83	45.70	0.84	45.72	0.85	45.74	0.87	45.77	0.92	45.86
25	610825	265665	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
26	610833	265665	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
27	610841	265665	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
28	610849	265665	0.06	45.67	0.07	45.72	0.07	45.75	0.07	45.76	0.07	45.80	0.07	45.89
29	610857	265665	0.46	45.63	0.47	45.69	0.48	45.71	0.49	45.73	0.50	45.76	0.52	45.85
30	610833	265673	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
31	610841	265673	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
32	610849	265673	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData

Data in this table comes from the Waveney 2021 by Mott MacDonald 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.





**No defences exist  
climate change  
modelled fluvial  
extent and height**

Location (easting/northing)  
**610844/265649**

Scale Created  
**1:500 1 Nov 2023**










Model name  
**Waveney 2021 by Mott  
MacDonald**

 Selected area

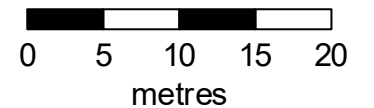
 Main river

Modelled 2D grid

*Water level in mAOD*

-  0 - 45.0
-  45.0 - 45.125
-  45.125 - 45.25
-  45.25 - 45.375
-  45.375 - 45.5
-  45.5 - 45.625
-  45.625 - 45.75
-  45.75 - 45.875
-  45.875 - 46.0

This map shows the  
0.1% AEP +25% height data



## Sample point data

### No defences exist climate change

Label	Easting	Northing	1% AEP (+25%)		1% AEP (+35%)		1% AEP (+65%)		0.1% AEP (+25%)	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	610833	265625	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
2	610841	265625	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
3	610849	265625	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
4	610833	265633	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
5	610841	265633	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
6	610849	265633	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
7	610857	265633	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
8	610865	265633	0.23	45.76	0.25	45.78	0.30	45.83	0.34	45.88
9	610833	265641	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
10	610841	265641	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
11	610849	265641	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
12	610857	265641	1.33	45.81	1.34	45.83	1.38	45.89	1.41	45.93
13	610865	265641	0.69	45.78	0.70	45.80	0.72	45.85	0.74	45.89
14	610825	265649	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
15	610833	265649	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
16	610841	265649	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData

Label	Easting	Northing	1% AEP (+25%)		1% AEP (+35%)		1% AEP (+65%)		0.1% AEP (+25%)	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	610849	265649	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
18	610857	265649	1.68	45.80	1.70	45.82	1.75	45.88	1.80	45.92
19	610865	265649	1.09	45.77	1.10	45.79	1.13	45.84	1.16	45.88
20	610825	265657	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
21	610833	265657	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
22	610841	265657	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
23	610849	265657	0.51	45.82	0.51	45.84	0.53	45.89	0.54	45.94
24	610857	265657	0.88	45.78	0.89	45.80	0.92	45.85	0.94	45.90
25	610825	265665	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
26	610833	265665	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
27	610841	265665	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
28	610849	265665	0.07	45.81	0.07	45.83	0.07	45.88	0.07	45.93
29	610857	265665	0.50	45.77	0.51	45.79	0.52	45.84	0.53	45.88
30	610833	265673	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
31	610841	265673	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData
32	610849	265673	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData

Data in this table comes from the Waveney 2021 by Mott MacDonald 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 East Anglia Environment Agency team at [enquiries\\_eastanglia@environment-agency.gov.uk](mailto:enquiries_eastanglia@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