



Westchurch Homes

Kennedy House

31 Stamford Street

Altrincham

Cheshire

WA14 1ES

FAO: Paul Sinclair – Technical Director

<mailto:paul.sinclair@westchurchhomes.co.uk>

Dear Paul,

RE: Land off Dumers Lane, Radcliffe, M26 2BD
EA Response to Planning Application No. 71426 [Bury MBC]

We are in receipt of the Environment Agency's (EA) comments provided in response to the submission of Planning Application reference no. 71426 to Bury Council, for the proposed redevelopment of part of the Bealey Industrial Estate off Dumers Lane in Radcliffe, for 87 new residential dwellings to be constructed by Westchurch Homes.

A copy of the EA's consultation response letter is attached for ease of reference (EA ref. SO/2025/124668/01-L01).

We have issued a copy of this response to the EA via email, but have since received a reply indicating that the Agency are very busy and their response times to such queries are likely to be prolonged. We are therefore writing to you with our response which can then be formally submitted to Bury MBC in support of the Planning Application.

The Site is located in an area that benefits from the Radcliffe and Redvales Flood Alleviation Scheme ([Radcliffe and Redvales flood defence scheme - Bury Council](#)), which provides defence against flooding during the 1:1000 year (0.1% annual probability) event. However, the Flood Maps for Planning (available on the www.gov.uk website) unfortunately do not yet reflect the fact that this flood alleviation scheme has been constructed and we understand through consultation with the EA, that the Flood Maps for Planning are unlikely to be updated until sometime later this year. The Flood Maps for Planning are therefore not representative of the current situation and portray a worst case scenario than currently exists.



The presence of the Flood Alleviation Scheme and the significant investment made and extensive press coverage associated with it, cannot be ignored, and it would be remiss of any FRA to ignore these formal Flood Defences. It is natural therefore to consider the Radcliffe and Redvales Flood Alleviation Scheme as part of the Flood Risk Assessment process.

As part of the FRA research, we reviewed the EA's Product 4 data (attached), which does include some limited information on the Flood Alleviation Scheme and some modelled flood levels – but not all levels. The EA's consultation response attached makes mention of the 1:100 year +35% Climate Change event – this scenario is not included within the EA's Product 4 data. Furthermore, the Product 4 data did not include any climate change allowances for the Radcliffe and Redvales 2016 model, and upon request of the provision of climate change scenarios, the EA confirmed they do not possess them for this model. Hence, we are unable to extrapolate/interpolate data to determine the estimated flood level in the 1:100 year +35% CC scenario.

On this basis, we conservatively used the 1:200 year undefended scenario as the estimated flood levels to inform the Risk Assessment process, as confirmed in paragraph 6.10 of the FRA. We believe this to be a robust and conservative approach.

In light of the Radcliffe and Redvales Flood Alleviation Scheme – it is evident that the flood zone boundaries are incorrect.

When one compares the Product 4 modelled flood levels against the topographical survey, it is evident the Site is not at risk of flooding in the 1:100 year or 1:200 year scenarios, i.e. the modelling suggests an estimated flood level of 66.47m AOD in the 1:200 year event (undefended), and the lowest point within the Site is 66.69m AOD.

However, there is the remote possibility that if the flood defences were to fail (highly unlikely given they are an EA asset) a small area of the Site might be affected in the 1:1000 year event and those parts of the Site that lie below the 1:1000 year modelled flood level (67.45m AOD) should then be classified as Flood Zone 2.

Therefore, these properties should have an FFL set 600mm above the design flood event, which as discussed above, is 66.47m AOD in the 1:200 year undefended event. Therefore, the minimum FFL for properties in Flood Zone 2 should be $66.47\text{m AOD} + 600\text{mm} = 67.07\text{m AOD}$. However, this has been increased slightly to allow additional protection, and we have stated a minimum FFL of 67.15m AOD to provide an additional small level of mitigation. The attached sketch shows the indicative FFL's and demonstrates that all are well above this level.



Based on the 1:200 year undefended scenario, the Site is not affected by flooding and there is therefore no requirement to provide flood compensation storage.

The Radcliffe and Redvales Flood Alleviation Scheme provides protection to the Site and surround area up to and including the 1:1000 year (0.1% annual probability) event, and hence it is extremely unlikely that the Site will ever flood, although we recognise the importance of providing resilient infrastructure in case of the failure of flood defences. On this basis it would seem evident that the Flood Maps for Planning are not yet reflective of the current defended situation, and we believe the Site should be re-classified as Flood Zone 2 not Flood Zone 3.

We believe that using the 1:200 year undefended modelled level as the design flood level, in the absence of climate change modelling, provides a robust and conservative baseline and we also believe the FRA as submitted adequately addresses the concerns raised whilst also acknowledging the current defended scenario and the presence of the Radcliffe and Redvales Flood Alleviation Scheme.

Yours sincerely

Chris Brady
For Dudleys Consulting Engineers Ltd

Enc EA Response letter ref. SO/2025/124668/01-L01
 Dudleys Dwg. no. 24344-DCE-XX-XX-D-C-100 rev P01 Drainage Strategy (with indicative FFL's marked)
 Westchurch Homes dwg. no. 10252/XS01 Site Cross Sections
 EA Product 4 data (with 1:200 yr & 1:1000 yr flood levels highlighted p19)

Bury Metropolitan Borough Council
Town Hall
Knowsley Street
Bury
Lancashire
BL9 0SW

Our ref: SO/2025/124668/01-L01
Your ref: 71426
Date: 20 January 2025

Dear Sir/Madam

**DEMOLITION OF BUILDINGS AND ERECTION OF 87 NO. AFFORDABLE
DWELLINGS AND ASSOCIATED ACCESS OFF DUMERS' LANE,
LANDSCAPING AND PARKING.**

**LAND ADJACENT TO BEALEY INDUSTRIAL ESTATE, DUMERS LANE,
RADCLIFFE, MANCHESTER, M26 2BD**

Thank you for referring the above application to the Environment Agency. We object to the proposed development and would like to make the following comments.

Environment Agency position

In the absence of an acceptable Flood Risk Assessment (FRA) we object to this application and recommend that planning permission is refused.

Reasons

The submitted FRA does not comply with the requirements for site-specific flood risk assessments, as set out in paragraphs 20 to 21 of the Flood Risk and Coastal Change planning practice guidance and its site-specific flood risk assessment checklist. The FRA does not therefore adequately assess the flood risks posed by the development. In particular, the FRA fails to:

- Consider how people will be kept safe from the identified flood hazards
- take the impacts of climate change into account
- Flood risk mitigation measures to address flood risk for the lifetime of the development included in the design are inadequate because they will not make the development resilient to the flood levels for the 1 in 100-year flood event + 35% climate change. Consequently, the development proposes inadequate:
- Flood storage compensation. There is a small section of flood zone 3 in the proposed red line boundary. Any development here will require like-for-like compensatory flood storage including the appropriate allowance for climate change.

Environment Agency
Richard Fairclough House Knutsford Road, Warrington, WA4 1HT.
Customer services line: 03708 506 506
www.gov.uk/environment-agency

Cont/d..

- Raised finished floor levels. FFLs should be at a minimum of 600mm above the 1% flood level + 35% climate change. According to the submitted FRA, the FFLs of the dwellings located in flood zone 2 are proposed to be 600mm above the 0.5% flood event. It is for the applicant to demonstrate that the proposed finished floor level is equal to the 1% event + 35% climate change + 600mm level.

Overcoming our objection

To overcome our objection, the applicant should submit a revised FRA which addresses the points highlighted above.

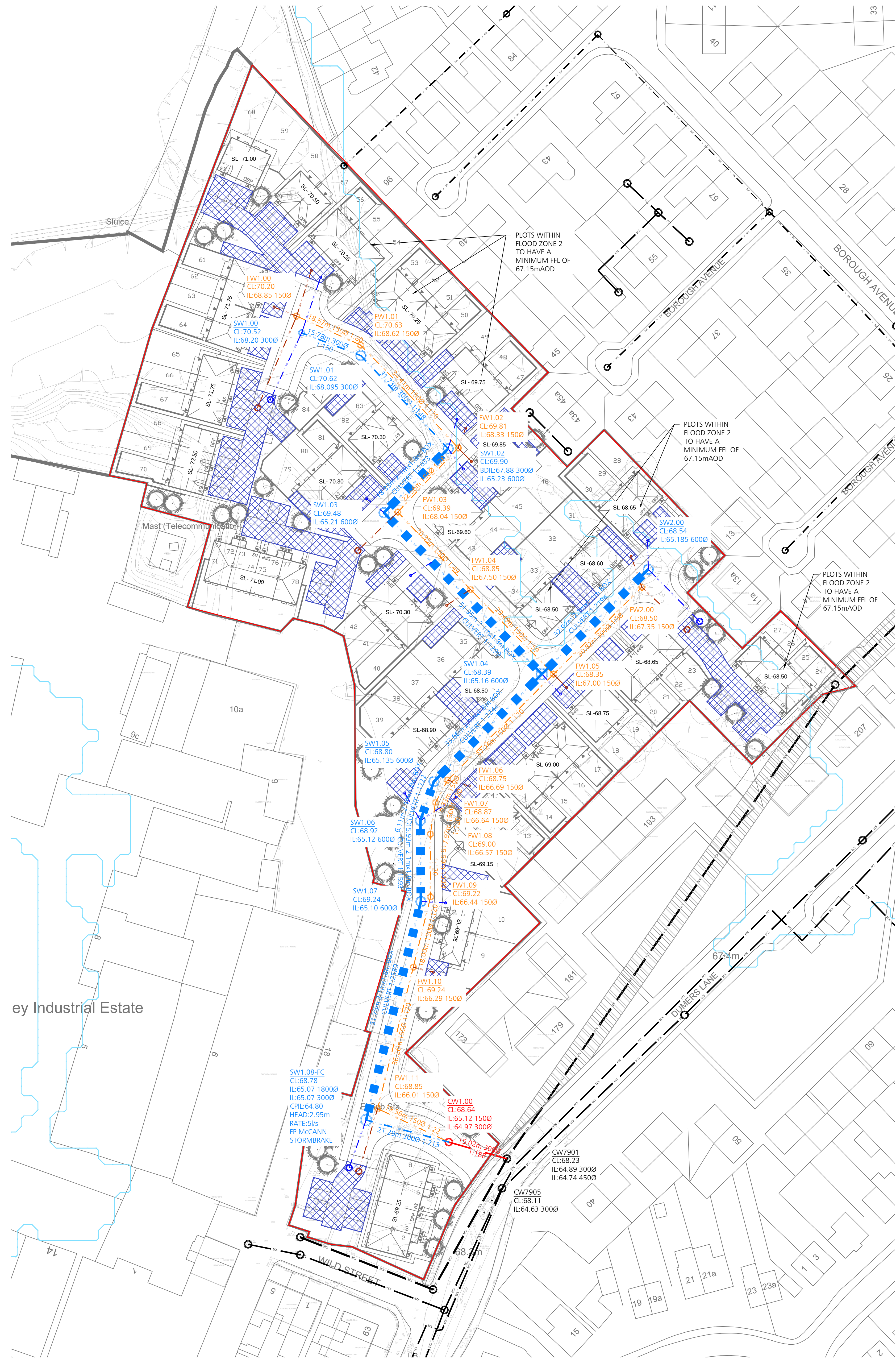
If this cannot be achieved, we are likely to maintain our objection. Please consult us on any revised FRA submitted and we will respond within 21 days of receiving it.

Please forward a copy of this letter to the applicant.

Yours faithfully

Mrs. SYLVIA WHITTINGHAM
Planning Advisor

SPPlanning.RFH@environment-agency.gov.uk



ley Industrial Estate

DO NOT SCALE

DESIGNERS HAZARD IDENTIFICATION

IT IS ASSUMED THAT ALL WORKS WILL BE UNDERTAKEN BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT. IN ADDITION TO THE HAZARDS TYPICALLY ASSOCIATED WITH THE TYPES OF CONSTRUCTION DETAILED ON THIS DRAWING, ANY KNOWN ABNORMAL HAZARDS SPECIFIC TO THIS SCHEME HAVE BEEN IDENTIFIED.



NOTES

- DO NOT SCALE FROM THIS DRAWING.
- THIS DRAWING IS TO BE REPRODUCED IN COLOUR.
- IF ANY DISCREPANCIES ARE FOUND IN THIS DRAWING, PLEASE REPORT TO DUDLEYS CONSULTING ENGINEERS.
- THIS DRAWING HAS BEEN ORIENTATED TO OS BRITISH NATIONAL GRID (EPSG:27700 OSGB36). EXISTING SURVEY STATIONS ARE SHOWN ON THE TOPOGRAPHICAL SURVEY.
- THIS DRAWING IS BASED ON THE FOLLOWING INFORMATION:
5.1. WH062/T00 - TOPOGRAPHICAL SURVEY BY RIP DATED JANUARY 2024
5.2. BEALEY IND. EST. - SITE LAYOUT PLAN BY WESTCHURCH HOMES DATED AUGUST 2024
- ALL WORK TO BE UNDERTAKEN IN ACCORDANCE WITH THE CURRENT EDITION OF THE BUILDING REGULATIONS, SEWERAGE SECTOR CODES OF PRACTICE, AND THE RELEVANT LOCAL HIGHWAY AUTHORITY STANDARDS.
- TO BE READ IN CONJUNCTION WITH THE FLOOD RISK ASSESSMENT AND DRAINAGE STRATEGY REPORT, 24344-DCE-XX-XX-T-C-001-P01 BY DUDLEYS CONSULTING ENGINEERS DATED OCTOBER 2024.
- THE POSITION OF EXISTING SEWERS IS BASED ON RECORDS OBTAINED FROM UNITED UTILITIES, AND ARE SHOWN INDICATIVELY.
- COVER LEVELS SUBJECT TO DETAILED LEVELS DESIGN.
- LOCATION OF DEMARICATION CHAMBERS AND LATERAL CONNECTIONS SUBJECT TO DETAILED DRAINAGE DESIGN.

KEY

- SITE BOUNDARY
- PROPOSED ADOPTED S104 SURFACE WATER SEWER
- PROPOSED ADOPTED S104 FOUL WATER SEWER
- PROPOSED ADOPTED S104 SURFACE WATER MANHOLE
- PROPOSED ADOPTED S104 FOUL WATER MANHOLE
- PROPOSED ADOPTED S104 SURFACE WATER LATERAL
- PROPOSED ADOPTED S104 FOUL WATER LATERAL
- PROPOSED ADOPTED S104 SURFACE WATER DEMARICATION MANHOLE
- PROPOSED ADOPTED S104 SURFACE WATER DEMARICATION PPIC
- PROPOSED ADOPTED S104 FOUL WATER DEMARICATION MANHOLE
- PROPOSED ADOPTED S104 FOUL WATER DEMARICATION PPIC
- PROPOSED ADOPTED S104 COMBINED WATER SEWER
- PROPOSED ADOPTED S104 COMBINED WATER MANHOLE
- EXISTING ADOPTED COMBINED WATER SEWER
- EXISTING ADOPTED SURFACE WATER SEWER
- EXISTING ADOPTED COMBINED WATER PPIC
- EXISTING SEWER EASEMENT
- PROPOSED PRIVATE PERMEABLE PAVING
- EXTENTS OF FLOOD ZONE 2

25.10.24	PRELIMINARY ISSUE	JA	CB	P01
DATE	REVISION DESCRIPTION	BY	CHK.	REV.



DUDLEYS
CONSULTING ENGINEERS

76 King Street
Manchester
M2 4NH
0161 938 1908
info@dudleys.co.uk

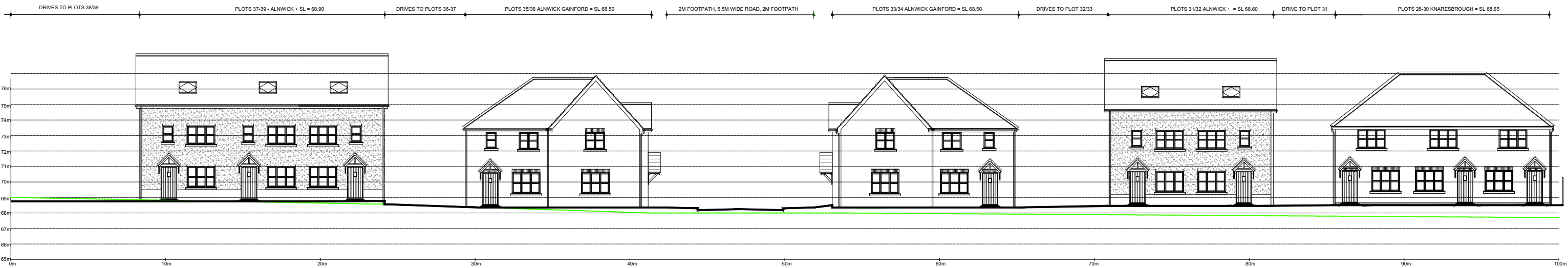
PROJECT
**LAND OFF DUMERS LANE
RADCLIFFE, BURY
M26 2BD**

TITLE
DRAINAGE STRATEGY

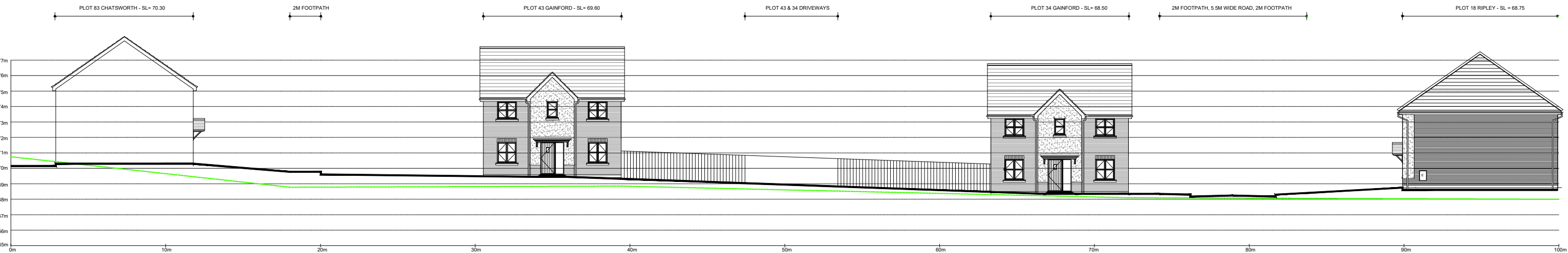
SCALE	PAPER	STAGE	STATUS
1:500	A1	PRELIMINARY	

DRAWING NO.	REV.
24344-DCE-XX-XX-D-C-100	P01

general notes:
do not scale the drawing.
all dimensions to be checked on site prior to commencement of work and any discrepancy shall be immediately reported and resolved prior to work commencing. this drawing is to be read in conjunction with all relevant drawings and specifications relating to the job whether or not indicated on the drawing.
copyright reserved to westchurch homes ltd. and this drawing may not be used or reproduced without prior written consent.

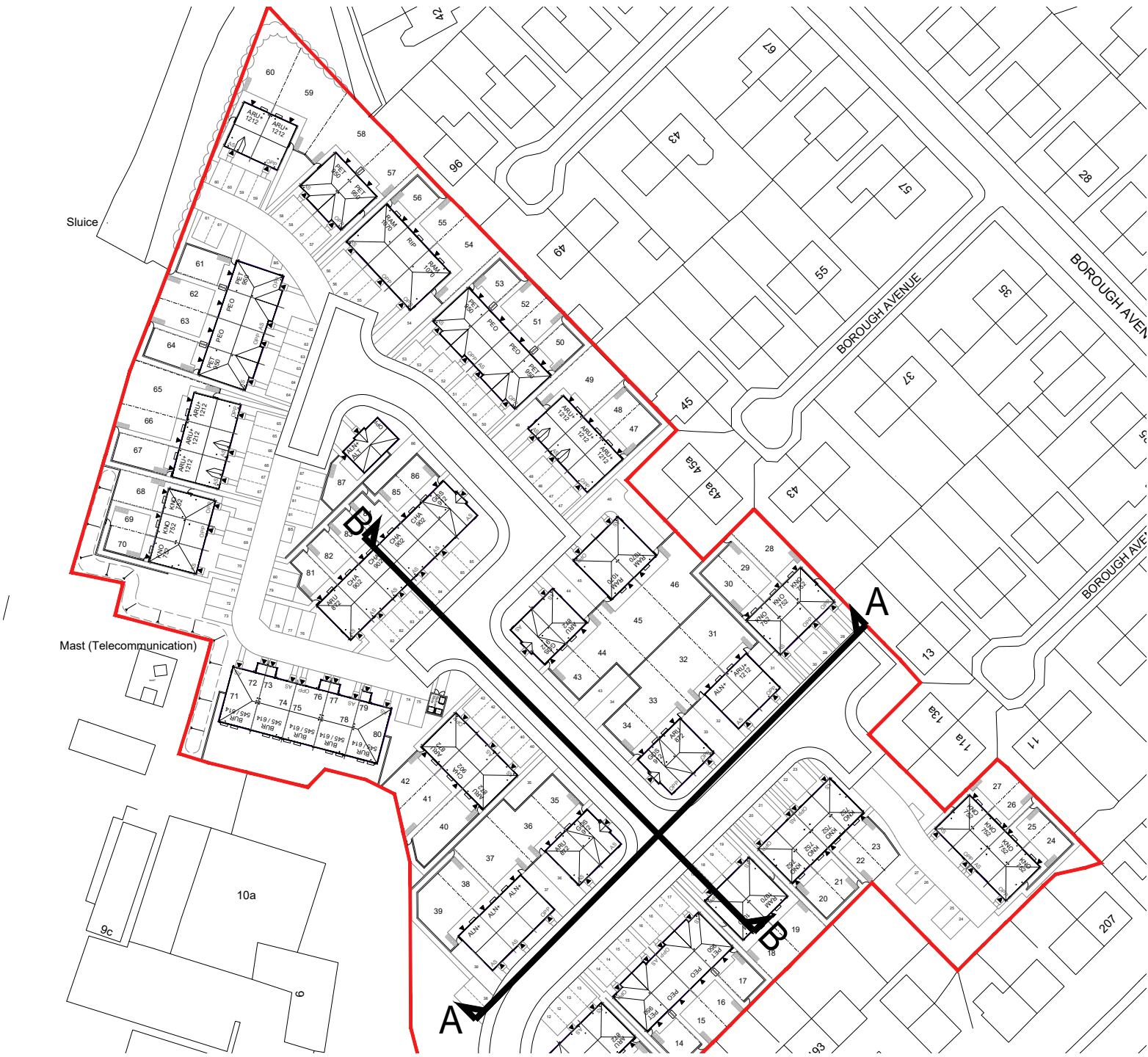


SECTION A-A



SECTION B-B

LOCATION PLAN
SCALE 1:1000



Rev.

Date

By

Description

Client:

W

Westchurch
Homes

Project:
BEALEY_INDUSTRIAL_ESTATE

Drawing Title:
SITE
CROSS-SECTIONS

Drawn:
PWS

Checked:
#

Scale:
SHOWN

Date:
DEC'24

Job No:
1025

Drawing No:
XS01

Rev:
#

Flood risk assessment data

Location of site: 379756 / 408097 (shown as easting and northing coordinates)

Document created on: 29 August 2024

This information was previously known as a product 4.

Customer reference number: TD9KXRCJJFCE

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

Surface water and other sources of flooding

Use the [long term flood risk service](#) to find out about the risk of flooding from:

- surface water
- ordinary watercourses
- reservoirs

Or you can contact your Lead Local Flood Authority for further information.

Your Lead Local Flood Authority is Bury.

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

About the models used

Model name: Radcliffe and Redvales 2016

Scenario(s): Defended fluvial, defences removed fluvial

Date: 29 April 2019

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

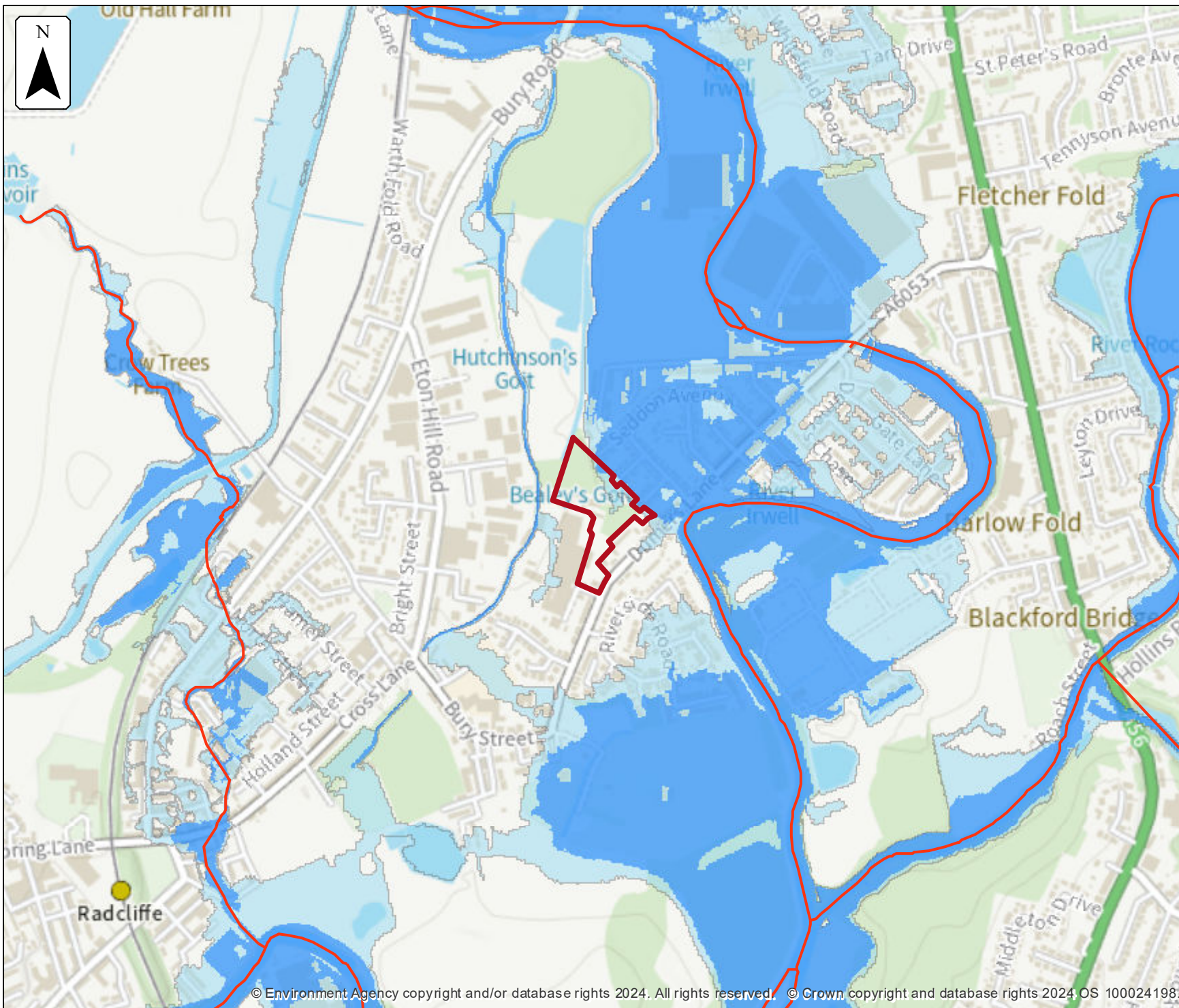
Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

- 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

The flood zones are not currently being updated. The last update was in November 2023. Some of the flood zones may have changed, however all source data is included in the models below.



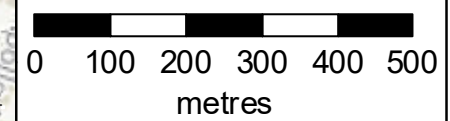
Flood map for planning

Location (easting/northing)
379756/408097

Scale
1:10,000

Created
29 Aug 2024

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



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Historic flooding

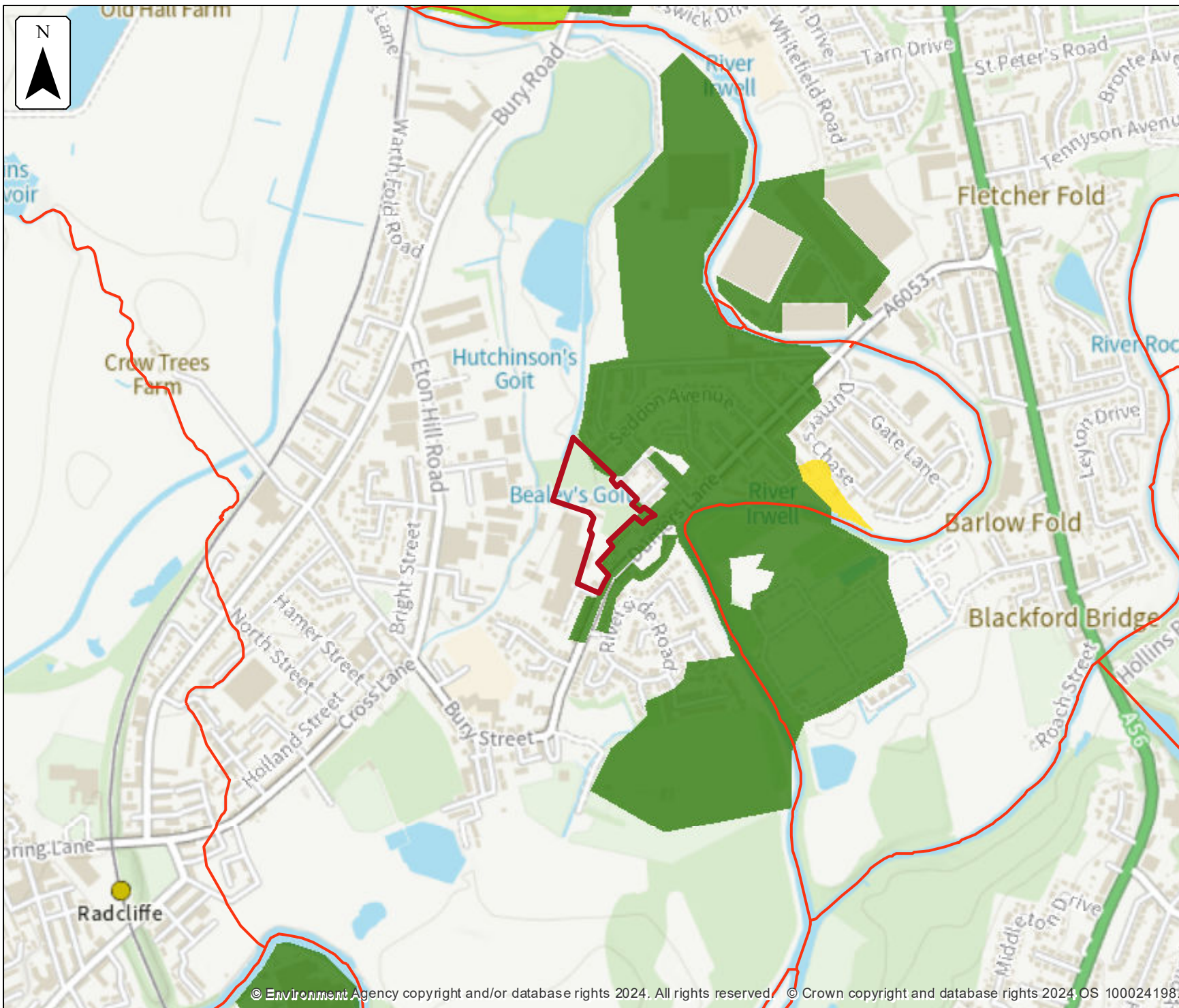
This map is an indicative outline of areas that have previously flooded. Remember that:

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

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

Your Lead Local Flood Authority is Bury.

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



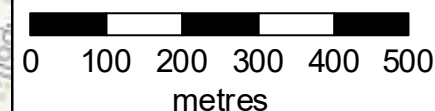
Historic flood map

Location (easting/northing)
379756/408097

Scale
1:10,000

Created
29 Aug 2024

-  Selected area
-  Main river
- Date of flood event
 -  February, 2020
 -  December, 2015
 -  June, 2012
 -  June, 2002



Historic flood event data

Start date	End date	Source of flood	Cause of flood	Affects location
9 February 2020	9 February 2020	main river	channel capacity exceeded (no raised defences)	No
26 December 2015	26 December 2015	main river	channel capacity exceeded (no raised defences)	Yes
22 June 2012	22 June 2012	main river	channel capacity exceeded (no raised defences)	No
14 June 2002	15 June 2002	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



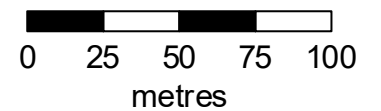
Flood defences

Location (easting/northing)
379756/408097

Scale
1:2,500

Created
29 Aug 2024

-  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	749893	Wall	100		67.57	67.57	
2	749898	Embankment	100		67.77	67.77	
3	749889	Wall	100		67.66	67.66	
4	601083	Embankment			66.25	67.16	65.02
5	65256	Embankment			67.65	66.61	
6	94107	Embankment			64.96	65.73	64.96
7	749884	Wall	100		67.66	67.77	67.66
8	520200	Engineered High Ground			65.40	65.61	

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

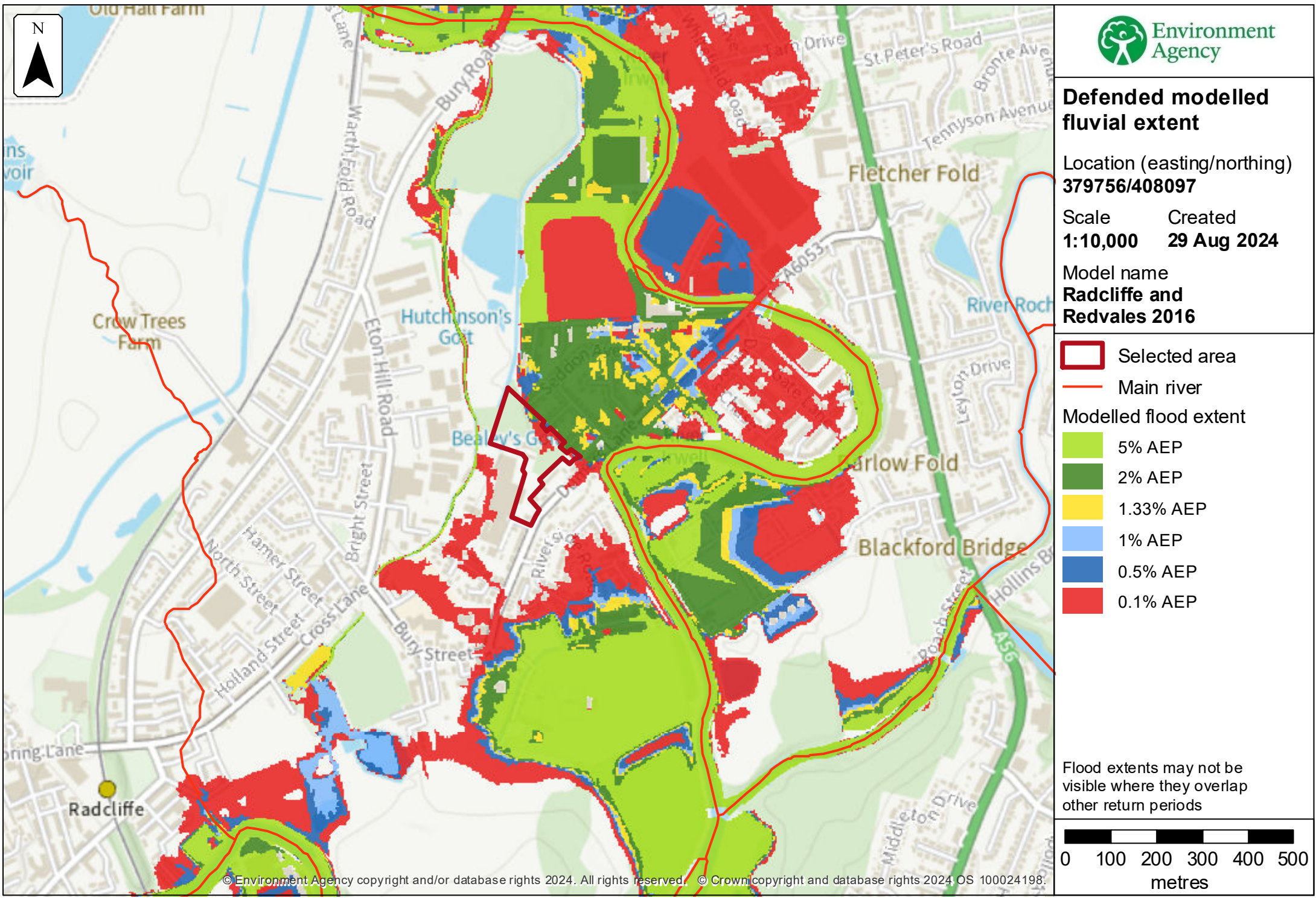
The climate change data included in the models may not include the latest [flood risk assessment climate change allowances](#). Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

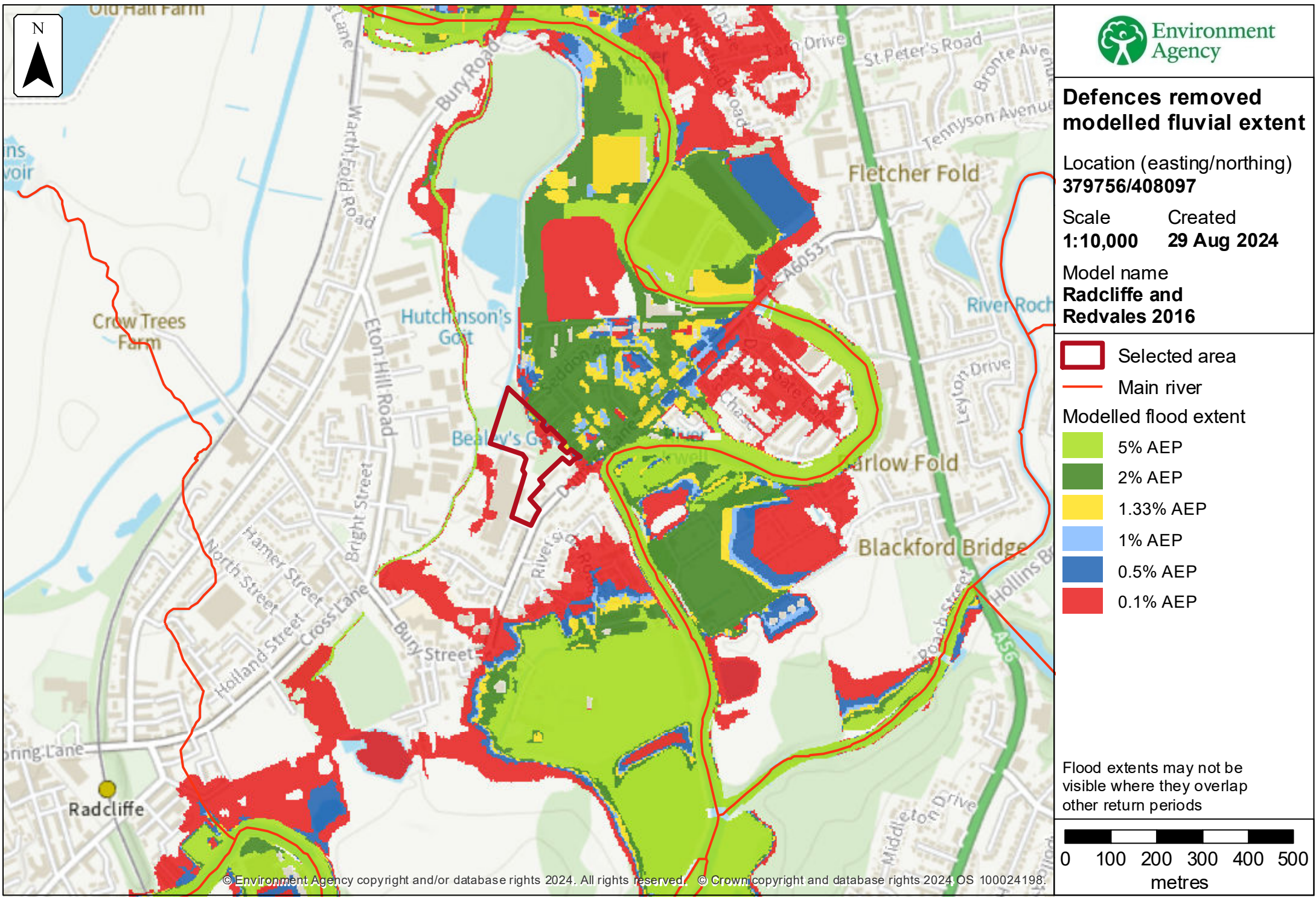
The Environment Agency will incorporate the new allowances into future modelling studies. For now, it's your responsibility to demonstrate that new developments will be safe in flood risk terms for their lifetime.

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







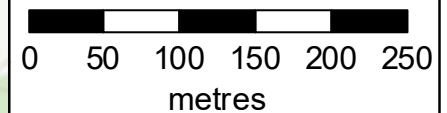
Defended modelled fluvial node locations

Location (easting/northing)
379756/408097

Scale Created
1:5,000 29 Aug 2024

Model name
**Radcliffe and
Redvales 2016**

-  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	Level	Level	Level	Level	Level
1	977097	379523	407882	69.35	69.53	69.58	69.60	69.60	69.82
2	977165	379585	408422	69.51	69.81	69.92	69.95	69.94	70.39
3	977196	379605	408353	69.49	69.77	69.87	69.90	69.89	70.32
4	977174	379619	408027	69.43	69.66	69.74	69.76	69.76	70.09
5	977220	379642	408143	69.46	69.72	69.81	69.83	69.82	70.20
6	977198	379924	408052	65.46	65.86	66.06	66.23	66.55	67.47
7	977087	379962	407992	65.25	65.61	65.80	65.95	66.24	67.18
8	977230	380013	407872	65.14	65.49	65.68	65.83	66.12	67.04
9	977154	380033	407832	65.0	65.33	65.53	65.70	66.01	67.04
10	977099	380135	408104	65.92	66.25	66.43	66.55	66.80	67.49

Data in this table comes from the Radcliffe and Redvales 2016 model.

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

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

If no level or flow data is available for a scenario, no table will be shown.

Defended

Label	Modelled location ID	Easting	Northing	5% AEP	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow	Flow	Flow	Flow
1	977097	379523	407882	0.38	0.92	1.16	1.23	1.22	2.60
2	977165	379585	408422	0.40	0.93	1.17	1.23	1.22	2.68
3	977196	379605	408353	0.40	0.92	1.17	1.23	1.22	2.68
4	977174	379619	408027	0.38	0.92	1.16	1.23	1.22	2.60
5	977220	379642	408143	0.39	0.92	1.16	1.23	1.22	2.68
6	977198	379924	408052	204.72	230.71	240.78	249.51	255.0	270.63
7	977087	379962	407992	205.26	236.92	253.22	265.56	281.25	354.10
8	977230	380013	407872	205.17	239.18	253.85	269.93	288.28	390.24
9	977154	380033	407832	205.15	240.52	257.78	271.02	290.91	409.26
10	977099	380135	408104	204.38	226.64	237.37	244.37	254.20	307.69

Data in this table comes from the Radcliffe and Redvales 2016 model.

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

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

If no level or flow data is available for a scenario, no table will be shown.



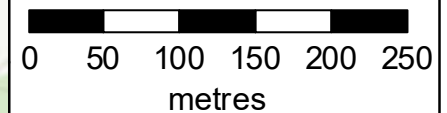
Defences removed modelled fluvial node locations

Location (easting/northing)
379756/408097

Scale Created
1:5,000 29 Aug 2024

Model name
**Radcliffe and
Redvales 2016**

-  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	Level	Level	Level	Level	Level
1	977097	379523	407882	69.40	69.44	69.44	69.45	69.46	69.81
2	977165	379585	408422	69.61	69.68	69.68	69.69	69.71	70.36
3	977196	379605	408353	69.58	69.65	69.65	69.66	69.68	70.29
4	977174	379619	408027	69.50	69.56	69.56	69.56	69.58	70.07
5	977220	379642	408143	69.55	69.60	69.60	69.61	69.63	70.17
6	977198	379924	408052	65.44	65.83	66.04	66.18	66.47	67.45
7	977087	379962	407992	65.22	65.59	65.78	65.90	66.18	67.20
8	977230	380013	407872	65.12	65.47	65.66	65.78	66.06	67.10
9	977154	380033	407832	64.98	65.31	65.50	65.63	65.94	67.09
10	977099	380135	408104	65.89	66.22	66.41	66.51	66.71	67.40

These levels used as the basis of the FRA

Data in this table comes from the Radcliffe and Redvales 2016 model.

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

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

If no level or flow data is available for a scenario, no table will be shown.

Defences removed

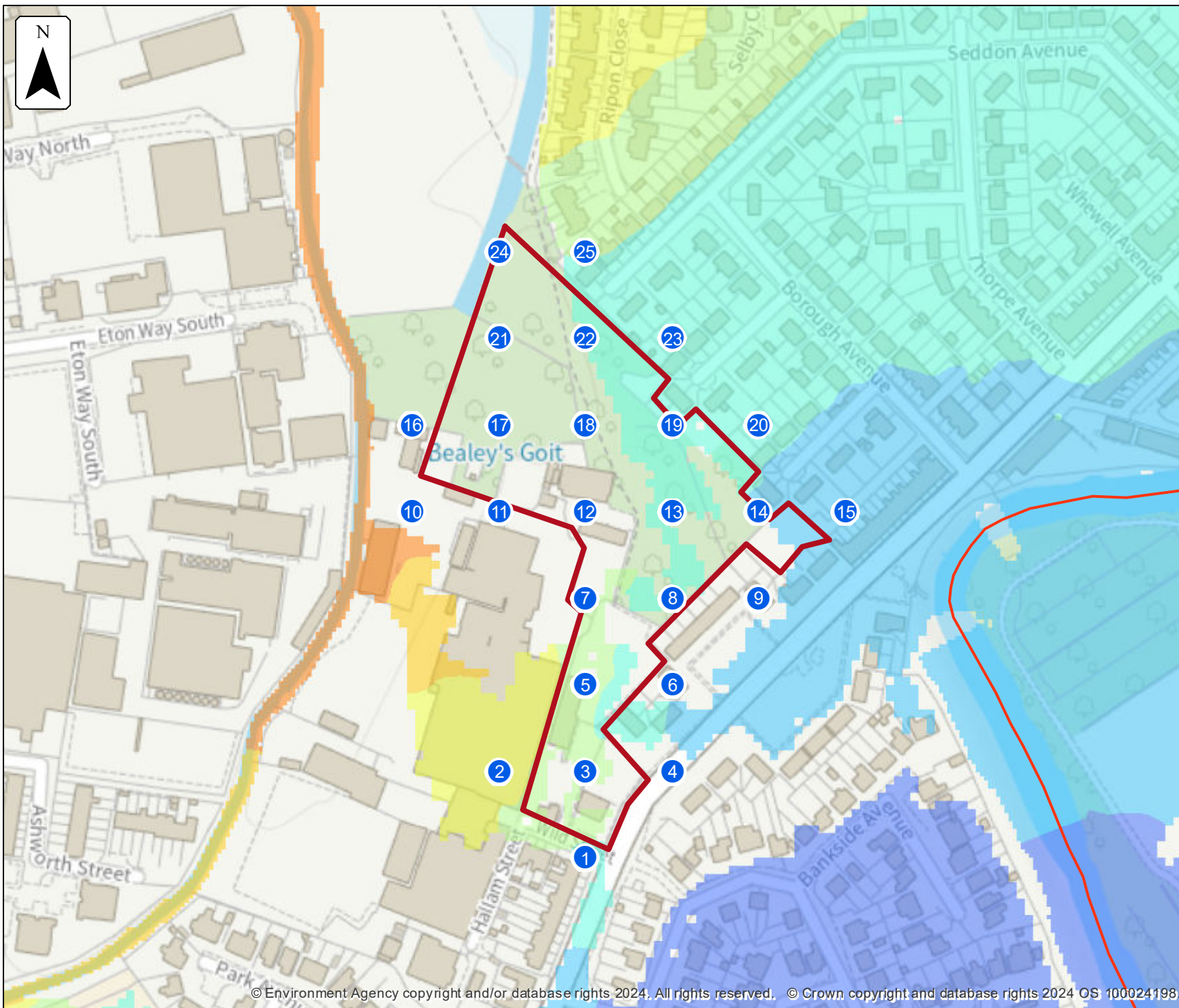
Label	Modelled location ID	Easting	Northing	5% AEP	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow	Flow	Flow	Flow
1	977097	379523	407882	0.55	0.66	0.66	0.68	0.72	2.50
2	977165	379585	408422	0.56	0.66	0.66	0.68	0.72	2.54
3	977196	379605	408353	0.55	0.66	0.66	0.68	0.72	2.54
4	977174	379619	408027	0.55	0.66	0.66	0.68	0.72	2.50
5	977220	379642	408143	0.55	0.66	0.66	0.68	0.72	2.53
6	977198	379924	408052	201.61	228.19	238.04	244.32	251.99	264.01
7	977087	379962	407992	202.01	233.68	249.31	259.81	276.97	323.98
8	977230	380013	407872	201.93	235.89	251.59	262.64	281.79	354.88
9	977154	380033	407832	201.90	237.33	254.89	265.77	285.27	374.65
10	977099	380135	408104	201.50	226.50	235.66	240.93	246.05	270.32

Data in this table comes from the Radcliffe and Redvales 2016 model.

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

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

If no level or flow data is available for a scenario, no table will be shown.



Defended modelled fluvial extent and height

Location (easting/northing)
379756/408097

Scale Created
1:2,500 29 Aug 2024

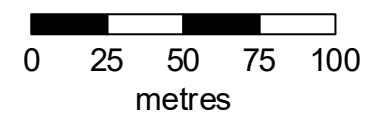
Model name
Radcliffe and Redvales 2016

-  Selected area
-  Main river

Modelled 2D grid
Water level in mAOD

-  0 - 67.0
-  67.0 - 67.5
-  67.5 - 68.0
-  68.0 - 68.5
-  68.5 - 69.0
-  69.0 - 69.5
-  69.5 - 70.0
-  70.0 - 70.5
-  70.5 - 71.0

This map shows the
0.1% AEP height data



Sample point data

Defended

Label	Easting	Northing	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Depth	Depth	Depth	Depth
1	379750	407928	NoData	NoData	NoData	NoData
2	379708	407970	NoData	NoData	NoData	0.09
3	379750	407970	NoData	NoData	NoData	0.09
4	379792	407970	NoData	NoData	NoData	NoData
5	379750	408012	NoData	NoData	NoData	0.02
6	379792	408012	NoData	NoData	NoData	NoData
7	379750	408054	NoData	NoData	NoData	NoData
8	379792	408054	NoData	NoData	NoData	NoData
9	379834	408054	NoData	NoData	NoData	NoData
10	379666	408096	NoData	NoData	NoData	NoData
11	379708	408096	NoData	NoData	NoData	NoData
12	379750	408096	NoData	NoData	NoData	NoData
13	379792	408096	NoData	NoData	NoData	0.12
14	379834	408096	NoData	NoData	NoData	NoData
15	379876	408096	0.51	0.55	0.66	1.18
16	379666	408138	NoData	NoData	NoData	NoData

Label	Easting	Northing	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Depth	Depth	Depth	Depth
17	379708	408138	NoData	NoData	NoData	NoData
18	379750	408138	NoData	NoData	NoData	NoData
19	379792	408138	NoData	NoData	NoData	0.06
20	379834	408138	0.61	0.66	0.78	1.05
21	379708	408180	NoData	NoData	NoData	NoData
22	379750	408180	NoData	NoData	0.18	0.42
23	379792	408180	0.59	0.64	0.77	1.06
24	379708	408222	NoData	NoData	NoData	NoData
25	379750	408222	0.05	0.06	0.15	0.50
Max value in selected area:			0.51	0.55	0.69	0.98

Data in this table comes from the Radcliffe and Redvales 2016 model.

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

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

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

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

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

Defended

Label	Easting	Northing	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Height	Height	Height	Height
1	379750	407928	NoData	NoData	NoData	NoData
2	379708	407970	NoData	NoData	NoData	69.13
3	379750	407970	NoData	NoData	NoData	68.55
4	379792	407970	NoData	NoData	NoData	NoData
5	379750	408012	NoData	NoData	NoData	68.75
6	379792	408012	NoData	NoData	NoData	NoData
7	379750	408054	NoData	NoData	NoData	NoData
8	379792	408054	NoData	NoData	NoData	NoData
9	379834	408054	NoData	NoData	NoData	NoData
10	379666	408096	NoData	NoData	NoData	NoData
11	379708	408096	NoData	NoData	NoData	NoData
12	379750	408096	NoData	NoData	NoData	NoData
13	379792	408096	NoData	NoData	NoData	68.29
14	379834	408096	NoData	NoData	NoData	NoData
15	379876	408096	67.25	67.30	67.41	67.92
16	379666	408138	NoData	NoData	NoData	NoData
17	379708	408138	NoData	NoData	NoData	NoData
18	379750	408138	NoData	NoData	NoData	NoData

Label	Easting	Northing	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Height	Height	Height	Height
19	379792	408138	NoData	NoData	NoData	68.27
20	379834	408138	67.63	67.68	67.80	68.08
21	379708	408180	NoData	NoData	NoData	NoData
22	379750	408180	NoData	NoData	68.04	68.34
23	379792	408180	67.84	67.89	68.02	68.32
24	379708	408222	NoData	NoData	NoData	NoData
25	379750	408222	68.04	68.05	68.16	68.51
Max value in selected area:			67.86	67.91	68.05	69.01

Data in this table comes from the Radcliffe and Redvales 2016 model.

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

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

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

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

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

Strategic flood risk assessments

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

This should give you information about:

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

Your Lead Local Flood Authority is Bury.

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