

Flood Risk Assessment

Proposal: Two-storey rear extension and conversion of existing utility area to kitchen/utility

Location: 111 Ivygreen Road, Chorlton-cum-Hardy, Manchester M21 9FX

Reference: PP-14426455

Date: 20 October 2025

Revision: P1



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1. Introduction

This Flood Risk Assessment (FRA) has been prepared in support of a **householder planning application** for a **two-storey rear extension** and **internal alterations** at 111 Ivygreen Road, Chorlton-cum-Hardy.

The property is a two-storey semi-detached dwelling with driveway parking and a private rear garden. The proposed works involve modest extensions within the existing curtilage, with **no change to ground levels, finished-floor levels, or drainage arrangements**.

The Environment Agency's **Flood Map for Planning** (Ref: 380872 / 393631, 20 Oct 2025) confirms that the site lies within **Flood Zone 2**, representing an area of *medium probability of flooding* from fluvial sources associated with **Chorlton Brook**, a tributary of the River Mersey located approximately 180 m to the south-west.

This FRA follows the **Environment Agency's standing advice** for developments in Flood Zone 2 and demonstrates that the proposal is appropriate in flood-risk terms.

Site Location

The site is located at 111 Ivygreen Road, Chorlton-cum-Hardy, Manchester M21 9FX, within a well-established suburban residential area to the south-west of Manchester city centre. Ivygreen Road is a quiet residential street comprising predominantly post-war semi-detached dwellings of similar scale and architectural form, many of which have

been extended and modernised over time.

The property occupies a regular-shaped plot on the southern side of Ivygreen Road, featuring a front driveway with off-street parking and a private rear garden enclosed by close-boarded fencing and mature planting. The surrounding area is residential in character, with local shops and services accessible nearby on Barlow Moor Road and Manchester Road.

The site lies approximately 180 metres north-east of Chorlton Brook, a tributary of the River Mersey, which is the principal source of fluvial flood risk in this locality. The proposed development is limited to the rear of the dwelling and remains wholly within the existing domestic curtilage. No changes are proposed to the building's frontage or its access from Ivygreen Road.

Site Description and Development Proposals

The site comprises a **two-storey semi-detached dwelling (C3)** with an attached garage and private rear garden on Ivygreen Road, Chorlton-cum-Hardy. Surrounding properties are similar in form and scale, creating a consistent residential character.

The proposal is for a **two-storey rear extension**, flanked by **single-storey elements**, and internal alterations to improve kitchen, dining and utility space. The works are

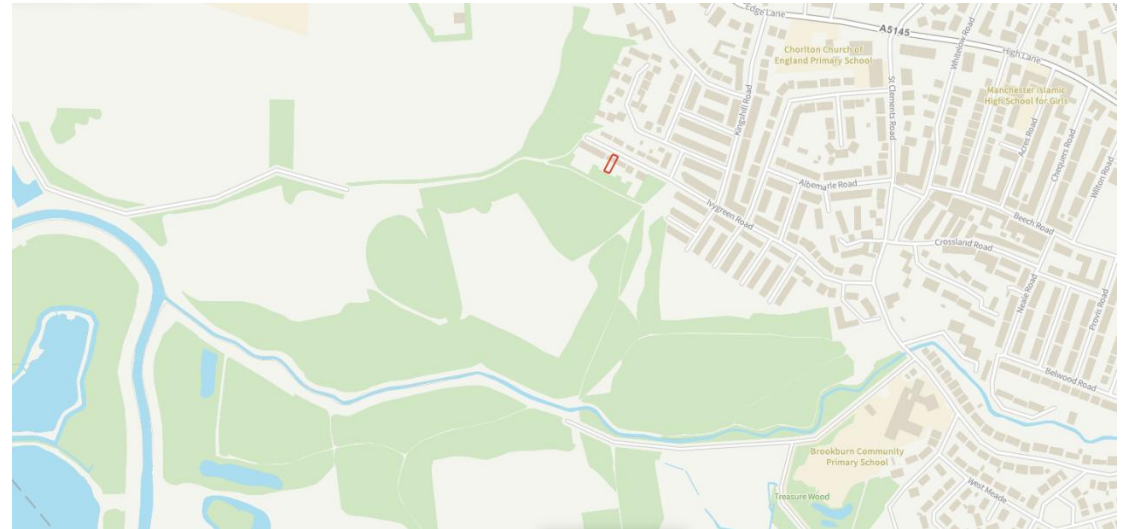


wholly domestic, with no change of use, no alteration to finished-floor levels, and no change to existing drainage connections.

This FRA has been prepared in accordance with the National Planning Policy Framework (2024), the Planning Practice Guidance on Flood Risk, and the Environment Agency's Standing Advice for minor development within Flood Zone 2.

Planning Practice Guidance (PPG) and Manchester Core Strategy Policies EN14 – Flood Risk and DM1 – Development Management

(see Appendix B). *Figure 1: Site Location Plan.*



2. Planning Policy

National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG)

The National Planning Policy Framework (2024), supported by the Planning Practice Guidance (PPG) on Flood Risk and Coastal Change, seeks to direct development away from areas at highest risk of flooding. Where development is necessary within such areas, it must be demonstrated that it can be made **safe for its lifetime** without increasing flood risk elsewhere.

A Flood Risk Assessment (FRA) is required for planning applications where sites are:

- Located within Flood Zone 2 or Flood Zone 3, or
- Located within Flood Zone 1 but exceed 1 hectare, or
- Situated within a Critical Drainage Area (CDA) identified by the Environment Agency (EA).

The EA Flood Map for Planning (Ref: 380872/393631, dated 20 October 2025) identifies 111 Ivygreen Road as lying within Flood Zone 2, an area of *medium probability of flooding* associated with Chorlton Brook, a tributary of the River Mersey. Accordingly, this FRA has been prepared in line with the NPPF, PPG, and EA Standing Advice for householder development in Flood Zone 2.

Local Planning Policy

At the local level, the proposal has been assessed against the Manchester Core Strategy (2012), specifically:

- Policy EN14 – Flood Risk, which seeks to minimise the impact of flooding and ensure new development is appropriately designed for flood resilience; and
- Policy DM1 – Development Management, which promotes good design, safeguards amenity, and requires suitable drainage and flood mitigation measures. (see Appendix B). *Figure 1: Site Location Plan.*



Environment Agency Flood Map

The EA flood maps show fluvial and tidal flood outlines based on the following:

- Flood Zone 1 - land assessed as having less than 1 in 1000 annual probability of river or sea flooding
- Flood Zone 2 - land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding, or between a 1 in 200 and 1 in 1000 annual probability of flooding from the sea.
- Flood Zone 3 - land assessed as having a 1 in 100 or greater annual probability of river flooding, or a 1 in 200 or greater annual probability of flooding from the sea

The Environment Agency Flood Map for Planning (Ref: 380872 / 393631, dated 20 October 2025) identifies the site at **111 Ivygreen Road** as lying within **Flood Zone 2**, an area of *medium probability of flooding* associated with **Chorlton Brook**, a tributary of the River Mersey.

The map extract is provided in Figure 2.

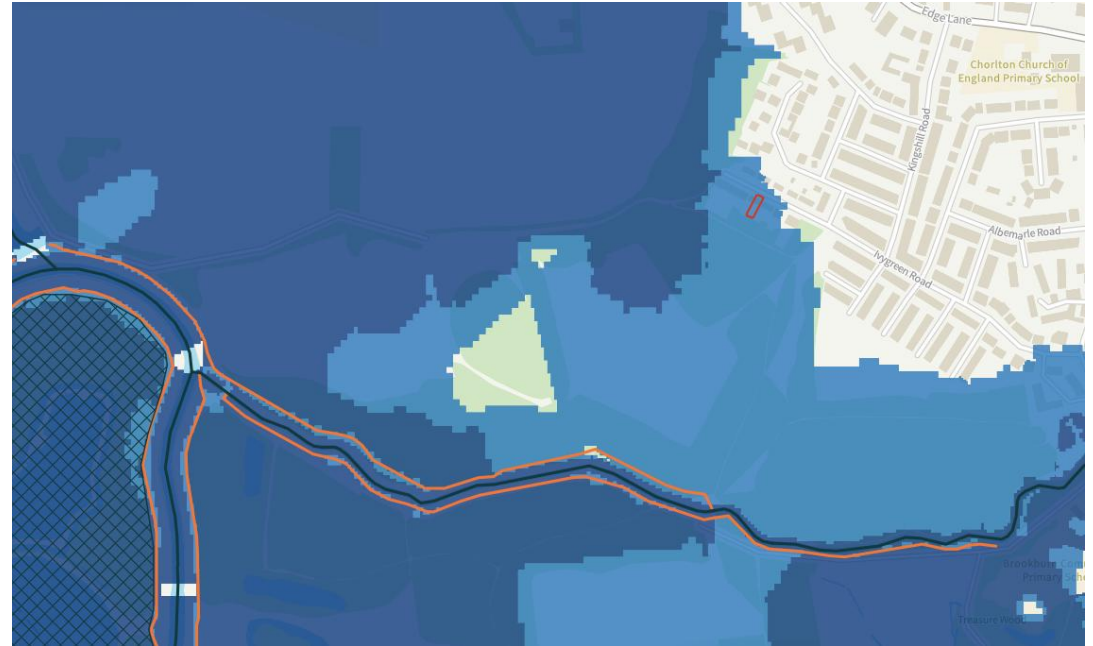


Figure 2: Environment Agency Flood Map

A further assessment of the flood zone classification, as well as an assessment of all sources of flooding at the site and immediate surrounding areas is provided in **Section 4** of this report.

Sequential and Exception Tests

The aim of the Sequential Test is to steer new development toward areas of lowest flood risk (Flood Zone 1). Where no reasonably available sites exist in Zone 1, decision-makers may consider land in Zone 2, applying the Exception Test if necessary.

However, under the NPPF (2024) and Planning Practice Guidance, householder extensions and other minor development are not subject to the Sequential or Exception Tests, provided a site-specific Flood Risk Assessment demonstrates the proposal can be made safe without increasing flood risk elsewhere.

Strategic Flood Risk Assessment

The **Manchester, Salford and Trafford Strategic Flood Risk Assessment (SFRA, 2011)** inform the local planning authorities' approach to managing flood risk. The SFRA identifies parts of Chorlton-cum-Hardy as being within the **fluvial floodplain of Chorlton Brook**, primarily affecting areas near its confluence with the River Mersey. The assessment supports development that incorporates appropriate mitigation and resilience measures, consistent with the conclusions of this FRA.



3. Sources of Flood Risk

In assessing the risk of flooding to the site, reference has been made to the following information sources:

- Environment Agency Flood Map for Planning and associated online mapping tools.
- Detailed Environment Agency modelled flood data for the Chorlton Brook catchment.
- Manchester, Salford and Trafford Strategic Flood Risk Assessment (SFRA, 2011).
- British Geological Survey (BGS) 'Geology of Britain' mapping.
- Cranfield Soil and Agrifood Institute 'Soilscales' database.

These datasets together provide an accurate representation of potential flood mechanisms affecting the site and surrounding area.

Fluvial Flood Risk

The primary source of flood risk to the site arises from **Chorlton Brook**, which flows in a generally south-westerly direction approximately **180 metres from the property** before joining the River Mersey.

As noted previously, the Environment Agency Flood Map for Planning identifies **111 Ivygreen Road** as being located within **Flood Zone 2**, representing land with between a 1 in 100 and 1 in 1,000 annual probability of river flooding. The property itself sits at approximately **31–32 metres AOD**, which is above the nearest channel levels of Chorlton Brook, providing a degree of protection from typical fluvial events.

The area benefits from **localised flood defences and channel capacity improvements** maintained by the Environment Agency, which reduce the likelihood of flooding during lower-order events. Modelled mapping indicates that flood depths at the site during a 1 in 100-year event are expected to be shallow, with limited velocity and minimal hazard. To refine the understanding of local risk, **detailed EA model data for the Chorlton Brook catchment** has been reviewed, confirming that flood extents in the 1 in 100+ climate change event do not encroach significantly beyond the Brook's immediate floodplain. On this basis, flood risk to the property is considered **low to moderate**, consistent with its Flood Zone 2 classification.



Detailed Flood Map

The Environment Agency's detailed flood mapping (Appendix C) confirms that the site at 111 Ivygreen Road lies within Flood Zone 2, which represents an area of *medium probability of flooding* from fluvial sources.

This flood risk classification is associated with Chorlton Brook, located approximately 180 metres south-west of the property.

The mapping shows that predicted flood extents during a 1 in 100 to 1 in 1,000-year event may reach parts of the lower-lying land surrounding Chorlton Brook but **do not directly encroach on the site**. The property sits at around 31–32 m AOD, slightly above adjacent floodplain levels, which provides a modest level of natural protection.

Defences

The site is situated in an area where **local flood management measures** along Chorlton Brook provide a degree of protection to surrounding properties.

The Environment Agency maintains the channel and associated embankments as part of routine flood-risk management for this section of the **River Mersey catchment**. These engineered features improve channel capacity and reduce the likelihood of fluvial flooding during lower-order events.

It is important to note that the EA Flood Map for Planning does not account for existing defences, instead showing the *natural floodplain extent* that could be affected if such defences were not present.

According to available EA asset data and the Manchester, Salford and Trafford SFRA (2011), flood-management infrastructure within the Chorlton Brook corridor typically offers a **standard of protection up to the 1 in 100-year event**, with routine inspection and maintenance carried out by the Environment Agency. The work proposed at 111 Ivygreen Road falls entirely outside these defended areas and **will not affect or rely upon any formal flood-defence structures**.

Further mapping showing the local flood-defence context is provided in Appendix D.



Modelled Water Levels

The **Environment Agency** has provided **modelled flood data** for the **Chorlton Brook catchment** (Appendix D), including predicted water levels for a range of return-period events, namely the **1 in 100-year**, **1 in 100-year plus climate change**, and **1 in 1,000-year** fluvial events.

These datasets incorporate the most recent **climate change allowances** for the North-West River Basin District, in line with the **Environment Agency (2021) guidance**, which recommends increased flow allowances of **+20% to +35%** for residential development in Flood Zone 2.

No detailed **topographic survey** has been undertaken for this householder proposal, as the development involves minor extensions to an existing dwelling with **no changes to finished-floor levels**. However, the site is situated at approximately **31–32 m AOD**, marginally above the adjacent modelled floodplain associated with Chorlton Brook, and is therefore considered to have **limited susceptibility to direct flooding**.

Although the modelled flood levels indicate that the wider area could experience **shallow, low-velocity flooding** during an extreme (1 in 1,000-year) event, the proposed extension will incorporate appropriate **flood-resilient construction measures**. These include:

- Retaining **existing finished-floor levels** above surrounding ground level.
- Using **water-resistant materials** (e.g. cementitious mortar and closed-cell insulation) in floor and wall construction.
- Locating **electrical sockets and services** at least **450 mm above floor level**.
- Ensuring **non-return valves** are fitted to drainage outfalls where practical.

These measures will ensure that the residual risk of flooding is **appropriately mitigated** and that the property can be made **safe for its lifetime** in accordance with **NPPF** and **EA Standing Advice**.



Groundwater Flooding

Groundwater flooding can occur during prolonged rainfall when the water table rises above ground level, particularly in low-lying areas underlain by permeable soils and geology.

According to British Geological Survey (BGS) mapping, the site is underlain by **superficial alluvial deposits** of clay, silt, sand and gravel, overlying **Chester Pebble Beds Formation sandstone**. The Cranfield Soils database identifies the local soils as **freely draining, slightly acidic loamy soils**.

These conditions suggest a **low to moderate susceptibility** to groundwater emergence, typical for the Chorlton area. However, the property is situated above the adjacent floodplain of **Chorlton Brook**, and no records of groundwater flooding have been identified at or near the site.

Given that the proposal involves **extensions to an existing dwelling with no change to finished-floor levels**, the risk from groundwater flooding is considered **low**. Standard measures such as the use of **damp-proof membranes** and **water-resistant materials** at ground-floor level will provide adequate mitigation.

Surface Water Flooding

Surface water flooding results from overland flow where rainfall exceeds the capacity of drainage systems or infiltration into the ground.

Environment Agency surface water mapping shows the site itself as being at **very low risk**, with isolated low-lying areas on Ivygreen Road potentially affected during intense rainfall. The site benefits from existing hard standing and roof drainage connected to the public sewer system.

Following the proposed development, there will be **no increase in impermeable areas**, as the new footprint replaces existing decked or paved surfaces. Consequently, **runoff rates and volumes will remain unchanged**, and surface water flood risk will not be increased either on or off-site.



Sewer Flooding

Sewer flooding can occur when capacity within underground drainage networks is exceeded or when outfalls are restricted by high water levels in receiving systems. Information from **United Utilities** and the **Manchester SFRA** indicates **no recorded sewer flooding incidents** in the immediate area. The development will **reuse existing drainage connections**, with no increase in discharge rate or volume.

Accordingly, the proposed works **will not exacerbate the risk of sewer flooding**, and the risk to the site remains **low**.

4. Flood Mitigation

Finished Floor Levels

No alterations to existing finished-floor levels are proposed or required. The current ground-floor level already sits slightly above surrounding garden levels, providing a modest degree of protection against shallow surface water or fluvial flooding.

Flood Resilient Construction

Appropriate flood-resilient and flood-resistant construction measures will be incorporated into the design, in accordance with the Department for Communities and Local Government's guidance "Improving the Flood Performance of New Buildings" (2007) and the Environment Agency's Standing Advice.



Recommended measures include:

- Use of water-resistant materials and finishes to external walls, floors and skirtings.
- Sealing of ducts, fixings, and service penetrations to prevent water ingress.
- Raising electrical sockets and consumer units to at least 450 mm above finished-floor level.
- Locating kitchen extract vents and air bricks above predicted flood levels or fitting proprietary flood covers.
- Use of closed-cell insulation and non-absorbent mortar below damp-proof course level.

These measures will ensure that the building fabric and services remain durable and recoverable in the unlikely event of internal flooding.

Flood Warnings

The site is located within an 'Environment Agency Flood Warning Area' for Chorlton Brook. Future occupants can call Floodline services on 0345 988 1188 to register. Alternatively, visit www.gov.uk/sign-up-for-flood-warnings.

Flood Management Plan - Access and Egress

In the unlikely event of flooding, safe pedestrian and vehicular access to **higher ground** is available along **Ivygreen Road** toward **St Werburgh's Road** and **Barlow Moor Road**.

A simple **Flood Management Plan** should be prepared by the occupants in consultation with **Manchester City Council Emergency Planning officers**, setting out:

- Evacuation routes and procedures.
- Location of key utilities and emergency shut offs; and
- Contact details for emergency services and the Environment Agency.

This will ensure a coordinated and safe response in any future flood event.



Surface Water Management

There will be no increase in surface water runoff as a result of the proposed development because:

- The impermeable area will remain effectively unchanged, replacing existing decked and paved areas with the new footprint.
- No new drainage connections or diversions are proposed.
- The existing surface-water management system (roof drainage to existing rainwater goods and sewer connections) will be retained.

Accordingly, a detailed surface-water drainage strategy is not required.

The proposal will not increase flood risk on or off site and fully complies with the Environment Agency's Standing Advice for minor development in Flood Zone 2.

5. Conclusions

The proposed development at 111 Ivygreen Road, Chorlton-cum-Hardy lies within Flood Zone 2, an area of *medium probability of flooding* associated with Chorlton Brook, approximately 180 metres to the south-west.

The works comprise minor householder extensions and internal alterations to an existing C3 dwelling and are therefore classed as "less vulnerable" development under the National Planning Policy Framework (2024).

Key points:

- No changes to finished-floor levels are proposed.
- No increase in impermeable areas or surface-water runoff will occur.
- No new vulnerable use is introduced, and the proposal remains wholly domestic.
- The development lies outside the defended floodplain of Chorlton Brook and is at low to moderate fluvial risk.
- The property benefits from local flood management infrastructure maintained by the Environment Agency as part of the River Mersey catchment flood strategy.
- The design incorporates appropriate flood-resilient construction and flood-warning registration measures, ensuring the dwelling can be made safe for



its lifetime without increasing flood risk elsewhere.

Overall Conclusion:

The proposed two-storey rear extension and associated works represent a **minor, proportionate and policy-compliant form of development** within Flood Zone 2.

The project complies fully with:

- The National Planning Policy Framework (2024) and Planning Practice Guidance on Flood Risk.
- Manchester Core Strategy Policies EN14 – Flood Risk and DM1 – Design and Amenity; and
- The Environment Agency’s Standing Advice for householder development.

No floor level changes, no additional runoff, and no new vulnerable use are proposed



6. Recommendations

- Flood-resilient construction techniques should be incorporated into the design, in accordance with the Department for Communities and Local Government guidance *"Improving the Flood Performance of New Buildings: Flood Resilient Construction"* (2007) and the Environment Agency's Standing Advice for householder development.
- Future occupants should register with the Environment Agency's Floodline Warning Service (0345 988 1 188 or www.gov.uk/sign-up-for-flood-warnings) to receive advance notification of potential flood events affecting Chorlton Brook.
- A simple Flood Management Plan should be prepared in consultation with Manchester City Council Emergency Planners, identifying safe access and evacuation routes, utility shut-off points, and emergency contact details.



Appendices

Appendix A- Site Location Plan

111 Ivygreen Road, Chorlton-cum-Hardy, Manchester, M21 9FX

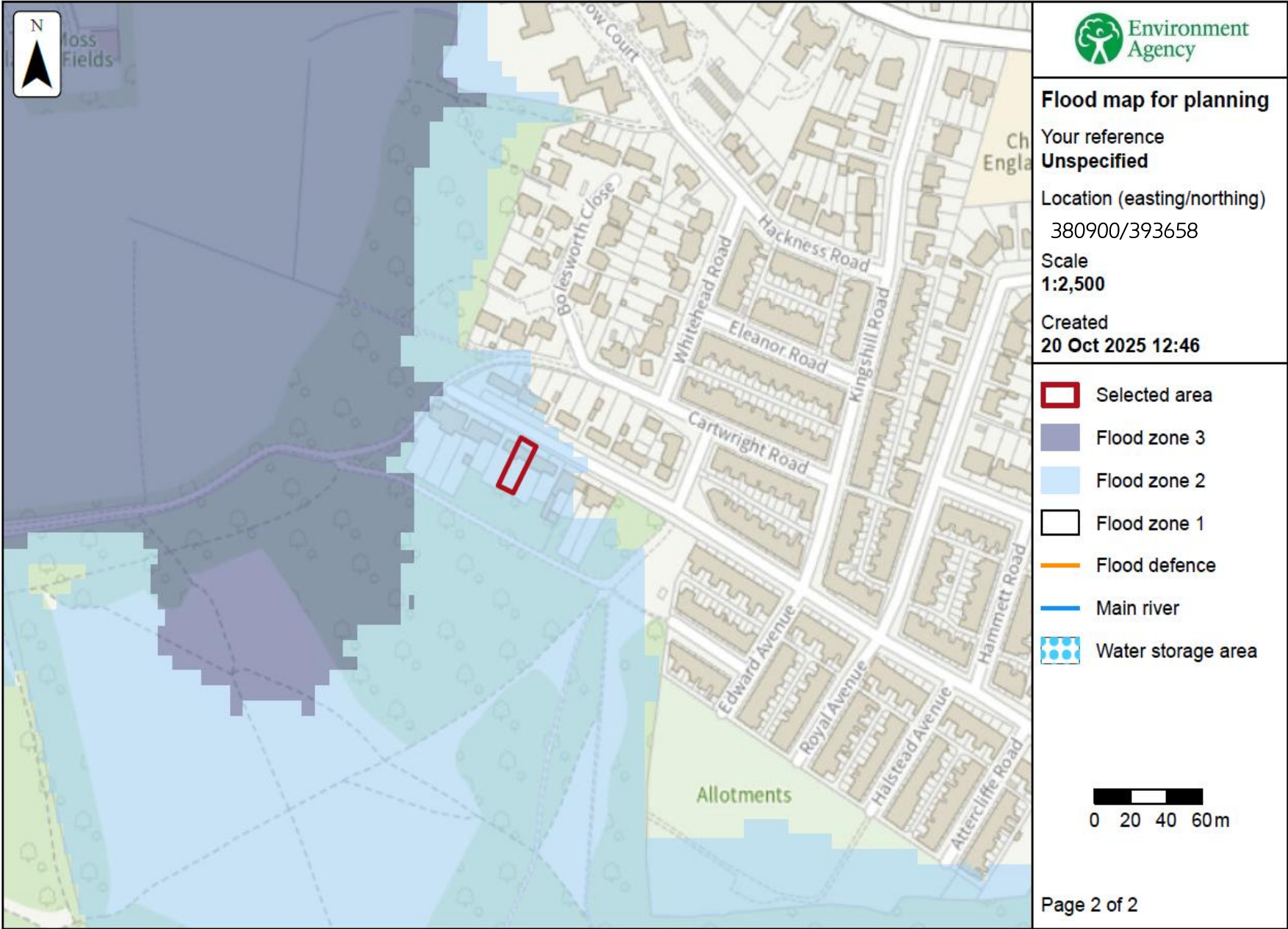


Site Plan shows area bounded by 380830 – 380970E, 393600 – 393720N (at a scale of 1:1250) the representation of a road, track or path is no evidence of a right of way. The representation of features as lines is no evidence of a property boundary.

- Existing & Proposed Site Layout



Detailed Flood Map centred on Ivygreen Road, Manchester, M21 9FX. Created 20/10/2025



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:

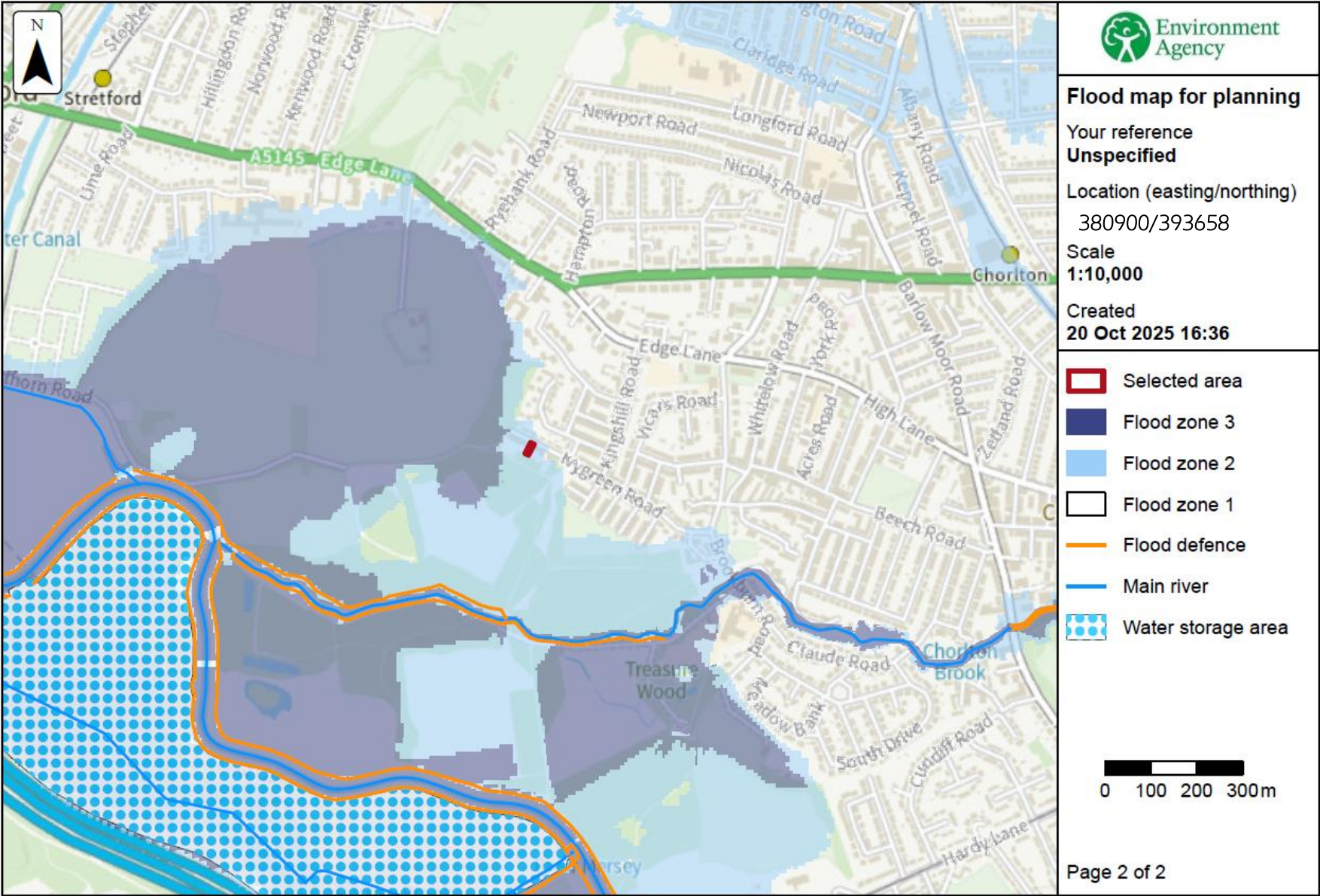
- between a 0.1% and 0.5% probability of occurring in any year for flooding from the sea
- between a 0.1% and 1% probability of occurring in any year for fluvial (river) flooding

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

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.

Detailed Flood Map centred on Ivygreen Road, Manchester, M21 9FX. Created 20/10/2025



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:

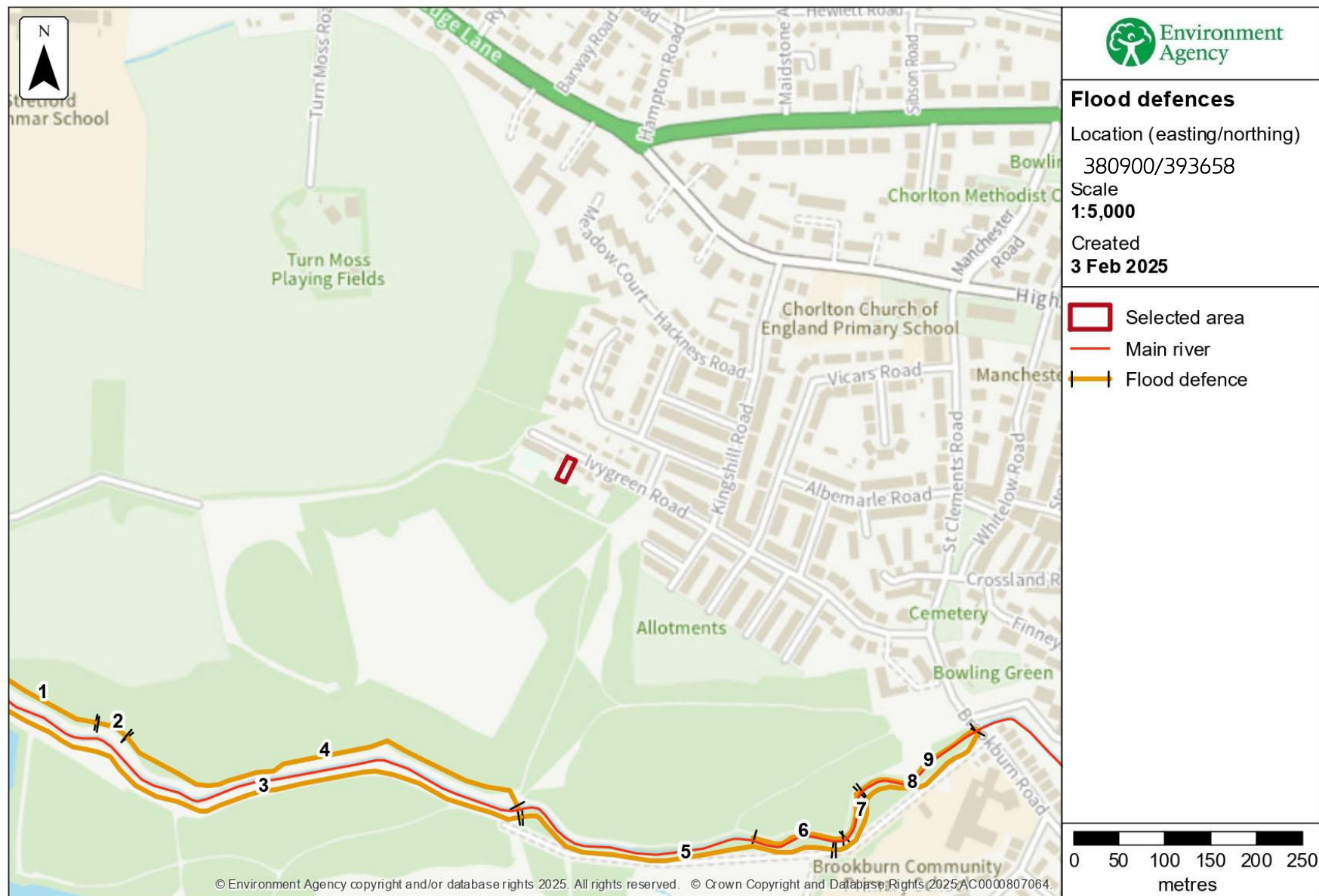
- to help you assess if there is a reduced flood risk for this location because of defences
- with any information in the modelled data section to find out the impact of defences on flood risk

Flood defences 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	122257	Embankment	50		22.17	24.19	
2	122259	Engineered High Ground	50		22.17	22.17	
3	122258	Embankment	50		24.21	23.94	
4	120856	Embankment	50		22.17	23.20	
5	120857	Embankment	50		23.94	24.08	
6	120860	Engineered High Ground	5		22.38	21.93	
7	120654	Engineered High Ground	5		21.74	21.72	
8	125813	Embankment			24.08	25.91	
9	120655	Engineered High Ground	50		23.35	21.72	

Any blank cells show where a particular value has not been recorded for an asset.

Detailed Flood Defence Map centred on Ivygreen Road, Manchester, M21 9FX. Created 03/02/2025



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

Modelled node locations data

Defended

Label	Modelled location ID	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
				Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
1	1290535	380023	393555	22.62	22.97	23.05	23.42	23.51	23.55	23.60	23.73	23.80	23.86	25.36
2	1290753	380168	393155	23.32	23.63	23.70	24.06	24.14	24.18	24.24	24.31	24.37	24.44	25.51
3	1290521	380169	393171	23.08	23.40	23.47	23.83	23.90	23.95	24.0	24.09	24.15	24.21	25.45
4	1290579	380170	393010	23.42	23.73	23.80	24.16	24.24	24.28	24.34	24.41	24.47	24.53	25.46
5	1290702	380200	393425	22.82	23.16	23.25	23.60	23.68	23.72	23.78	23.88	23.94	24.0	25.42
6	1290798	380230	393403	22.83	23.22	23.35	23.62	23.70	23.74	23.79	23.88	23.93	23.97	25.45
7	1290794	380382	393321	22.83	23.23	23.36	23.62	23.70	23.74	23.79	23.88	23.93	23.97	25.38
8	1290792	380655	393312	22.84	23.24	23.37	23.63	23.70	23.74	23.79	23.88	23.93	23.96	25.28
9	1290833	380946	393213	22.84	23.26	23.41	23.63	23.71	23.74	23.80	23.88	23.93	23.97	25.41
10	1290731	381305	393336	22.95	23.41	23.62	23.80	23.90	23.94	24.0	24.03	24.06	24.09	25.77

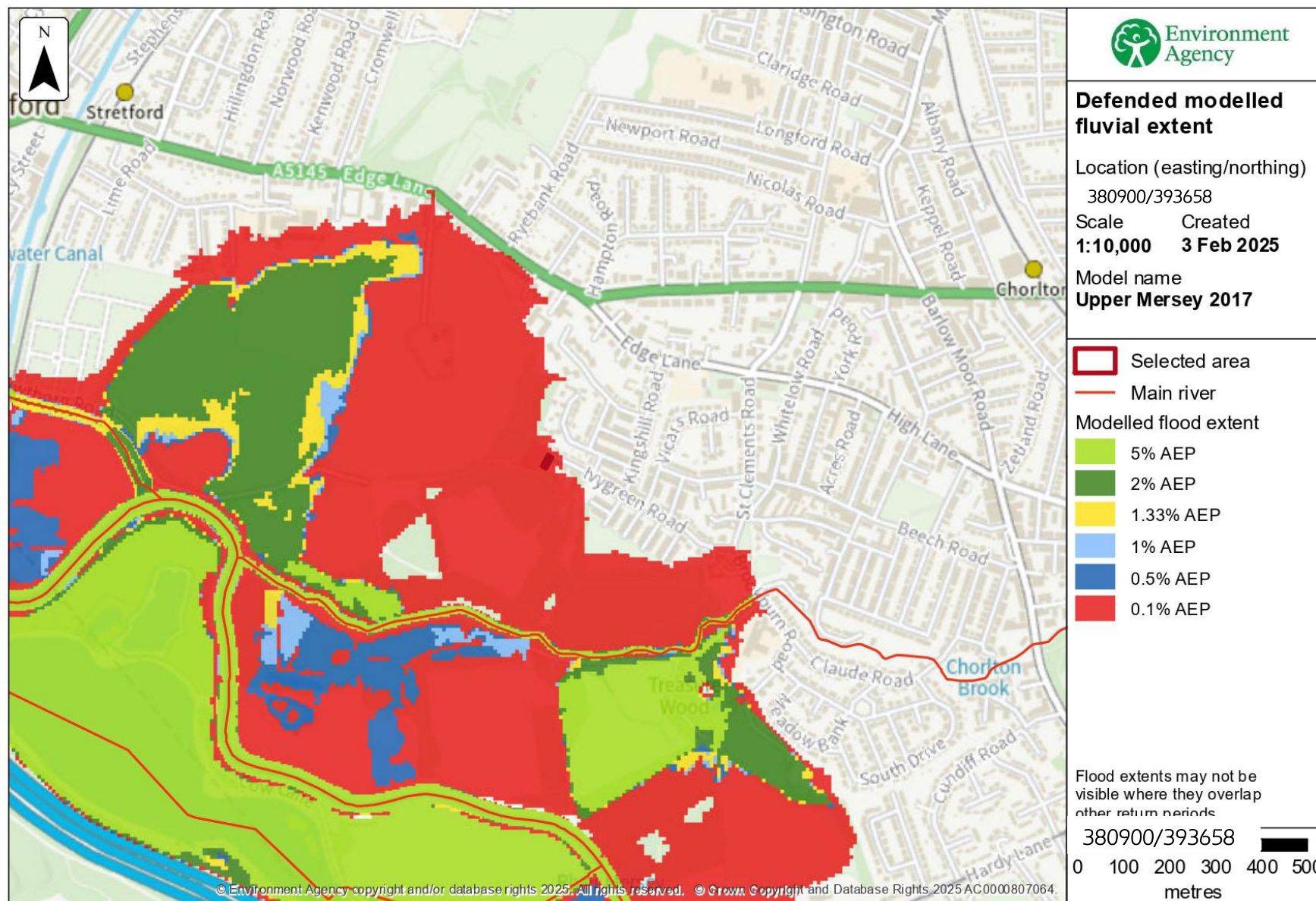
Data in this table comes from the Upper Mersey 2017 model.

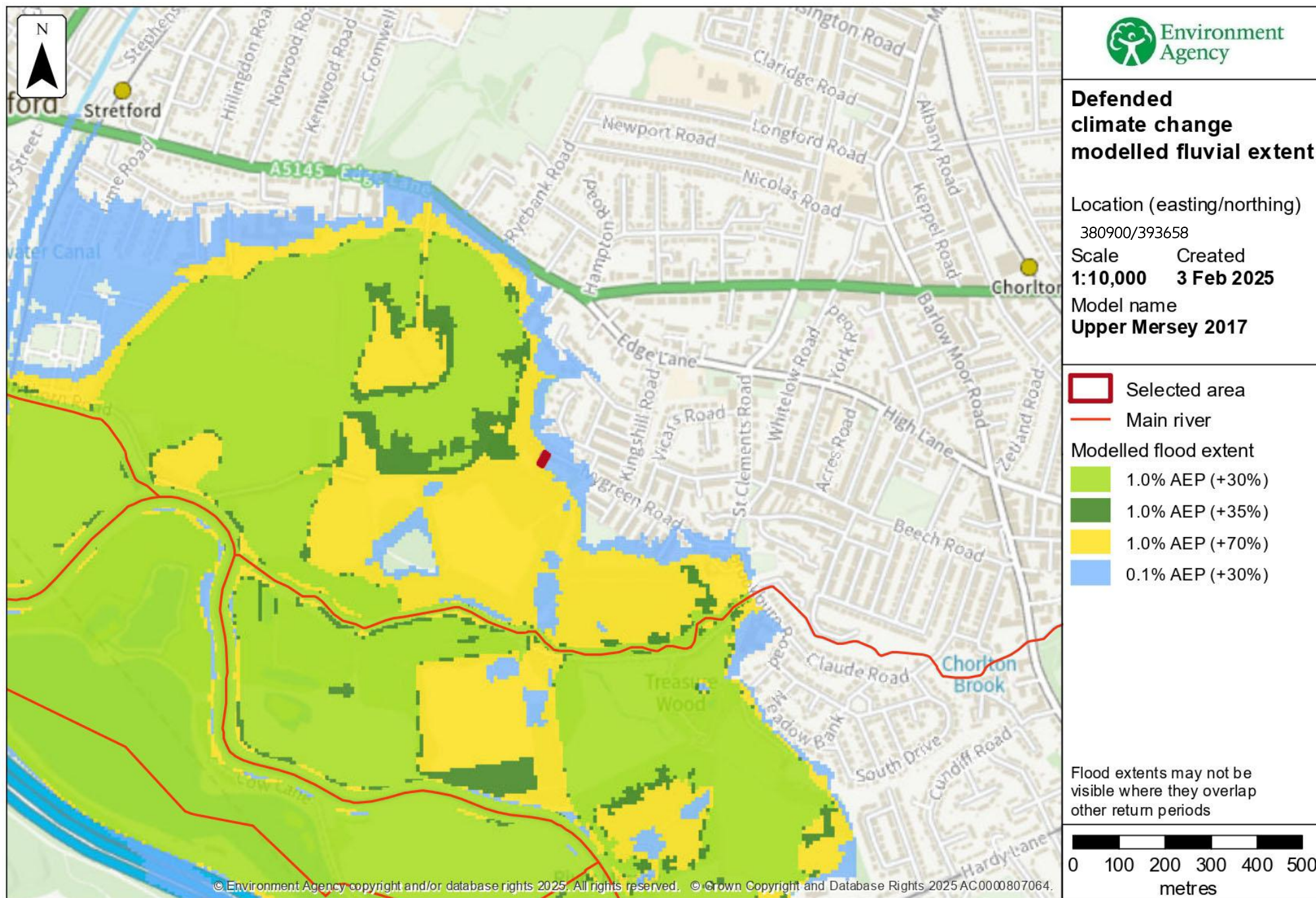
Level values are shown in mAOD, and flow values are shown in cubic metres per second.

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

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

Detailed Flood Map centred on Ivygreen Road, Manchester, M21 9FX. Created 03/02/2025





Defences removed climate change modelled fluvial extent

Location (easting/northing)

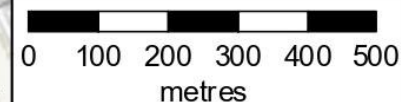
380900/393658

Scale Created
1:10,000 3 Feb 2025

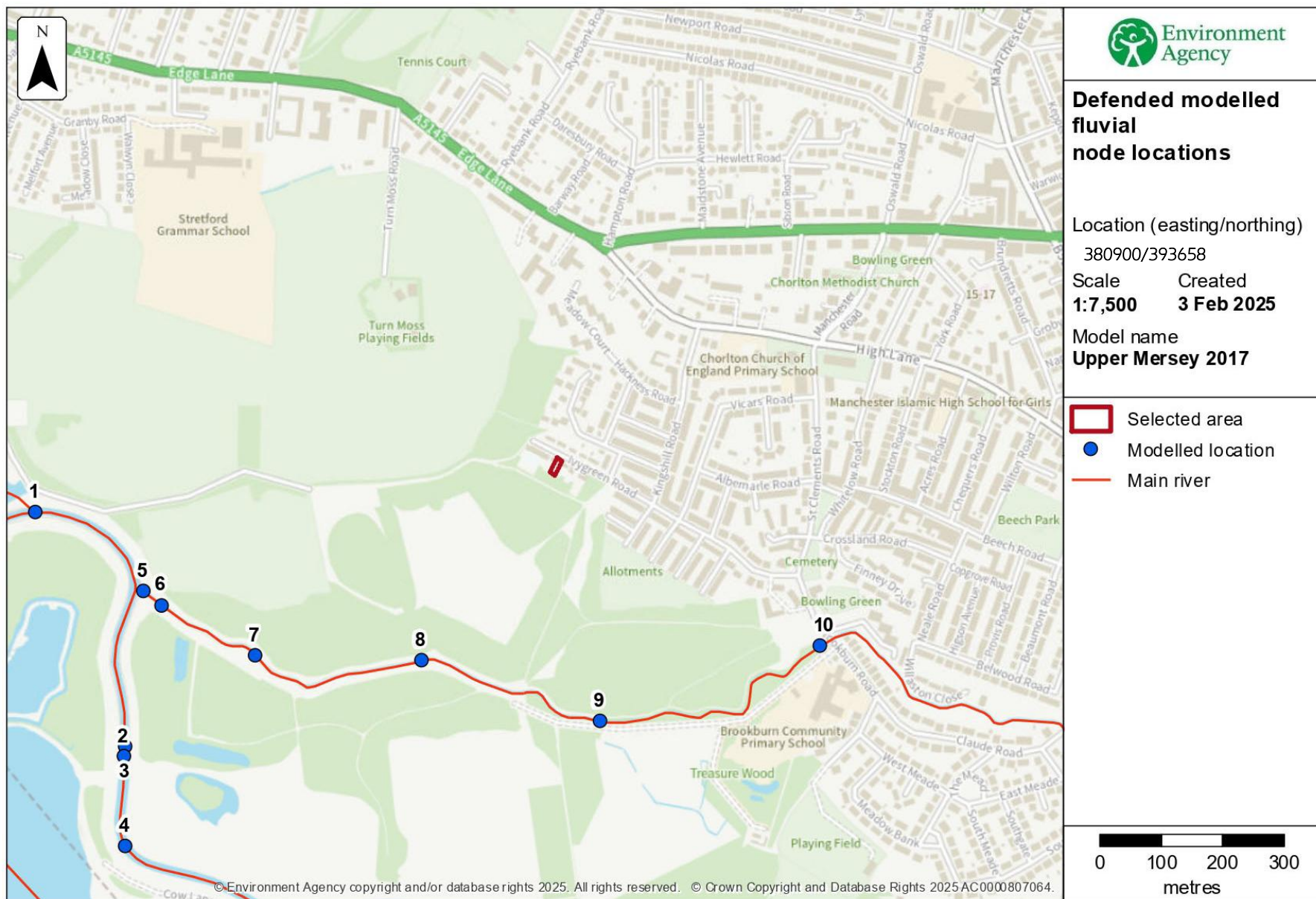
Model name
Upper Mersey 2017

-  Selected area
-  Main river
- Modelled flood extent
 -  1.0% AEP (+30%)
 -  1.0% AEP (+35%)
 -  1.0% AEP (+70%)
 -  0.1% AEP (+30%)

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



Detailed Flood Map centred on Ivygreen Road, Manchester, M21 9FX. Created 03/02/2025



Modelled node locations data

Defended

Label	Modelled location ID	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
				Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
1	1290535	380023	393555	22.62	22.97	23.05	23.42	23.51	23.55	23.60	23.73	23.80	23.86	25.36
2	1290753	380168	393155	23.32	23.63	23.70	24.06	24.14	24.18	24.24	24.31	24.37	24.44	25.51
3	1290521	380169	393171	23.08	23.40	23.47	23.83	23.90	23.95	24.0	24.09	24.15	24.21	25.45
4	1290579	380170	393010	23.42	23.73	23.80	24.16	24.24	24.28	24.34	24.41	24.47	24.53	25.46
5	1290702	380200	393425	22.82	23.16	23.25	23.60	23.68	23.72	23.78	23.88	23.94	24.0	25.42
6	1290798	380230	393403	22.83	23.22	23.35	23.62	23.70	23.74	23.79	23.88	23.93	23.97	25.45
7	1290794	380382	393321	22.83	23.23	23.36	23.62	23.70	23.74	23.79	23.88	23.93	23.97	25.38
8	1290792	380655	393312	22.84	23.24	23.37	23.63	23.70	23.74	23.79	23.88	23.93	23.96	25.28
9	1290833	380946	393213	22.84	23.26	23.41	23.63	23.71	23.74	23.80	23.88	23.93	23.97	25.41
10	1290731	381305	393336	22.95	23.41	23.62	23.80	23.90	23.94	24.0	24.03	24.06	24.09	25.77

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.

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

Defended

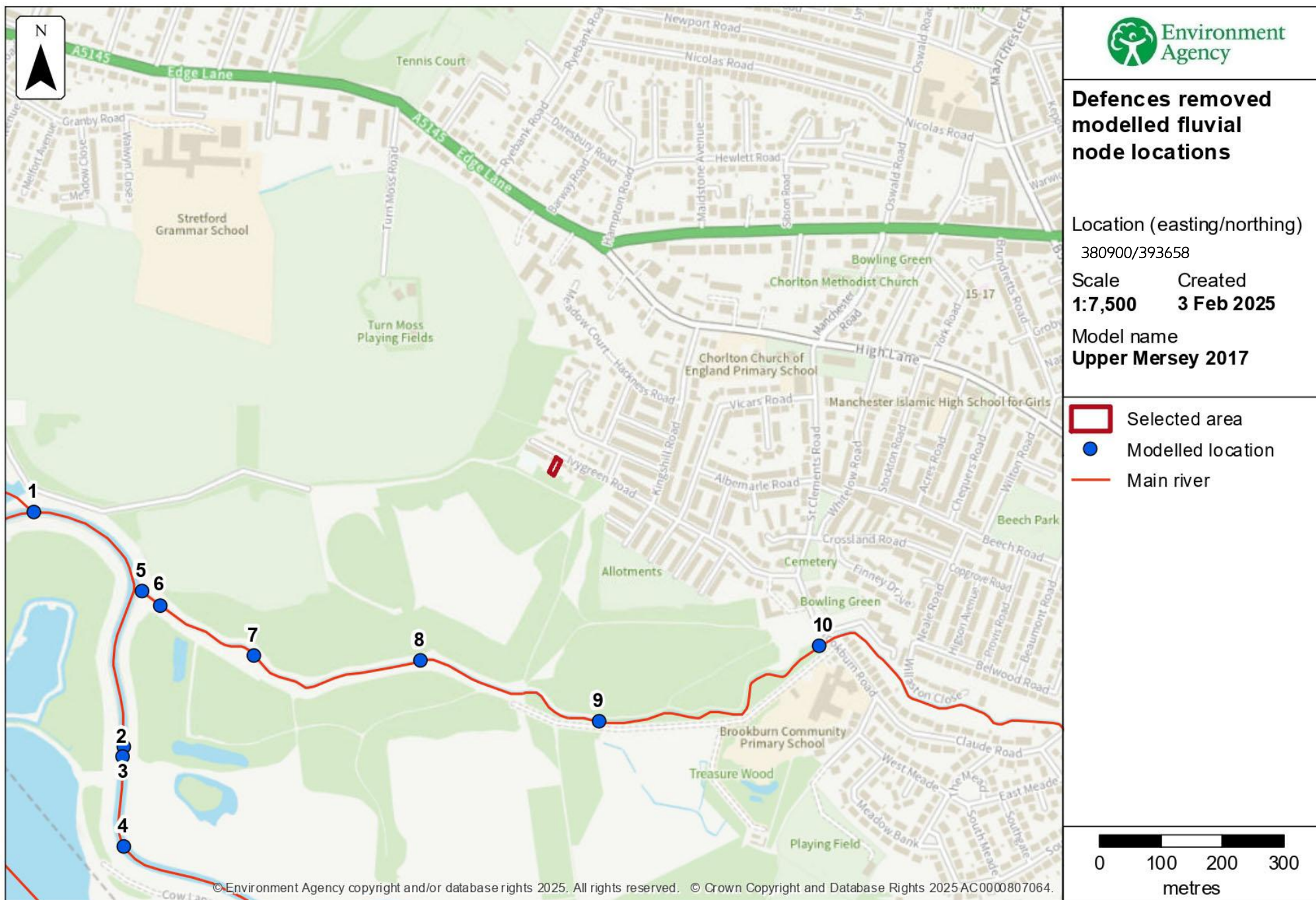
Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	4% AEP	3.33% AEP	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow
1	1290535	380023	393555	206.02	233.49	239.78	267.99	274.28	277.60	282.69	286.51	292.0	295.34	410.37
2	1290753	380168	393155	202.56	226.03	231.07	262.98	269.75	273.74	279.67	285.87	292.34	295.75	398.11
3	1290521	380169	393171	202.56	226.03	231.07	262.98	269.75	273.74	279.67	285.87	292.34	295.75	398.11
4	1290579	380170	393010	202.56	226.09	231.09	262.99	269.77	273.75	279.67	285.92	292.36	295.82	398.24
5	1290702	380200	393425	7.29	10.60	13.15	17.19	19.48	20.41	21.07	21.53	21.80	22.14	19.25
6	1290798	380230	393403	7.33	10.66	13.23	17.28	19.57	20.50	21.17	21.62	21.87	22.24	19.39
7	1290794	380382	393321	7.48	10.88	13.50	17.61	19.91	20.86	21.65	22.06	22.38	22.79	75.47
8	1290792	380655	393312	7.71	11.21	13.95	18.14	20.43	21.41	22.38	23.04	23.36	23.84	125.65
9	1290833	380946	393213	7.85	11.48	14.29	18.51	20.78	21.77	22.80	23.67	23.98	24.48	154.94
10	1290731	381305	393336	7.90	11.60	14.50	19.0	21.90	23.50	25.40	27.10	28.10	30.10	31.10

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.

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



Modelled node locations data

Defences removed

Label	Modelled location ID	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
				Level	Level	Level	Level	Level	Level	Level	Level	Level	Level	Level
1	1290535	380023	393555	21.72	22.21	22.46	22.71	22.82	22.90	23.10	23.27	23.33	23.54	25.03
2	1290753	380168	393155	22.19	22.48	22.65	22.85	22.93	22.99	23.16	23.31	23.38	23.59	25.03
3	1290521	380169	393171	22.02	22.39	22.59	22.81	22.89	22.96	23.14	23.29	23.36	23.57	25.03
4	1290579	380170	393010	22.28	22.48	22.60	22.74	22.81	22.87	23.02	23.15	23.21	23.39	24.89
5	1290702	380200	393425	21.85	22.30	22.52	22.76	22.86	22.92	23.12	23.28	23.36	23.57	24.93
6	1290798	380230	393403	21.87	22.39	22.60	22.81	22.89	22.95	23.13	23.28	23.36	23.57	25.03
7	1290794	380382	393321	21.88	22.42	22.62	22.81	22.89	22.95	23.13	23.28	23.36	23.57	25.01
8	1290792	380655	393312	21.91	22.48	22.65	22.83	22.91	22.96	23.14	23.29	23.36	23.58	25.03
9	1290833	380946	393213	21.92	22.48	22.66	22.84	22.92	22.98	23.15	23.29	23.36	23.58	25.03
10	1290731	381305	393336	22.95	23.23	23.43	23.71	23.84	23.89	23.95	24.0	24.03	24.08	25.03

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.

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

Defences removed

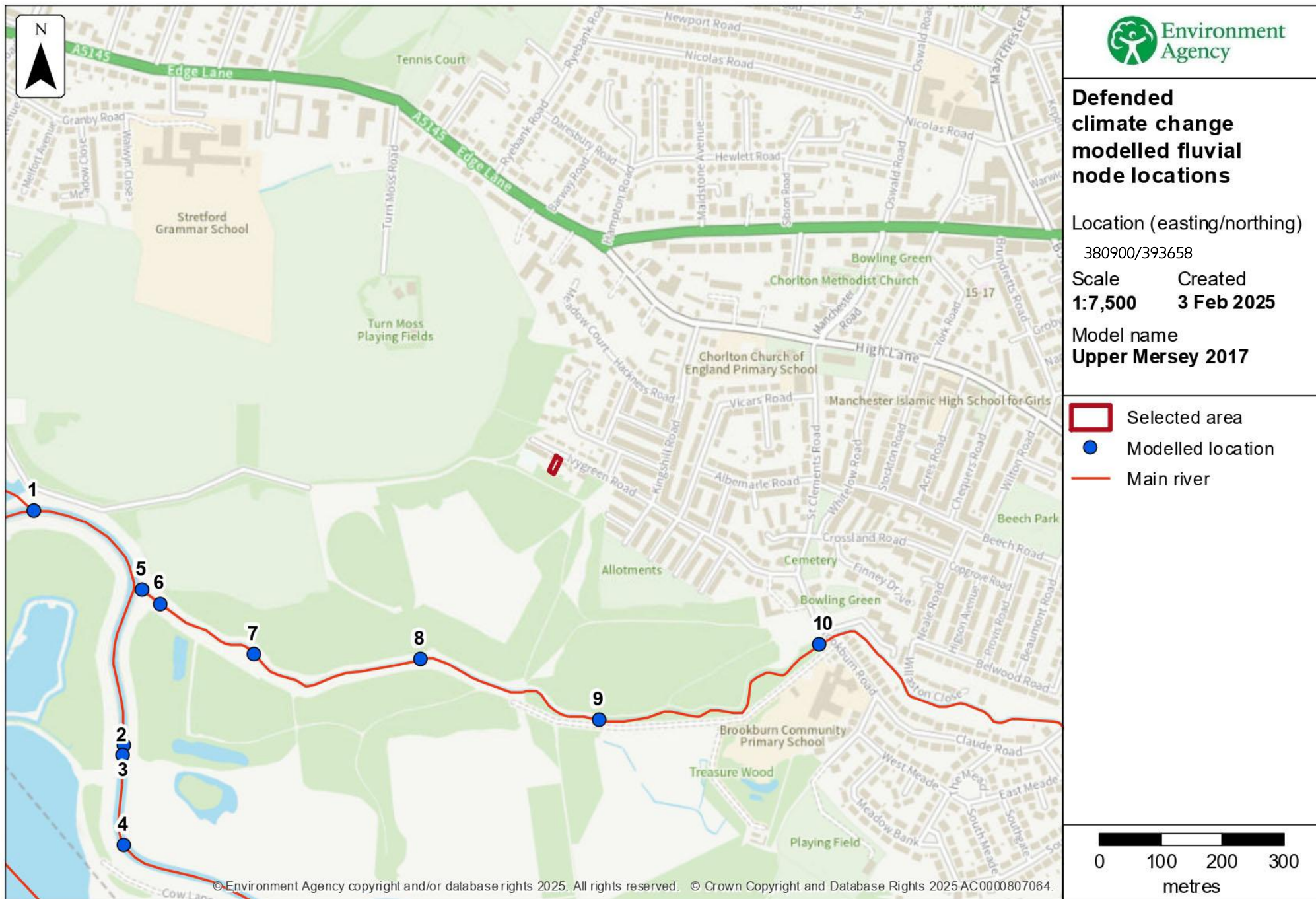
Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	4% AEP	3.33% AEP	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow
1	1290535	380023	393555	123.50	129.98	133.03	136.75	138.63	139.81	141.80	142.81	143.35	144.39	144.90
2	1290753	380168	393155	119.52	122.35	122.63	122.54	122.21	122.09	122.23	122.64	122.91	123.44	130.73
3	1290521	380169	393171	119.52	122.35	122.63	122.54	122.21	122.09	122.23	122.64	122.91	123.44	130.73
4	1290579	380170	393010	119.76	123.61	124.46	126.81	130.81	134.69	144.43	154.02	162.05	180.77	425.49
5	1290702	380200	393425	7.79	11.55	14.43	18.87	20.61	21.04	21.37	21.62	21.74	21.94	21.84
6	1290798	380230	393403	7.80	11.56	14.43	18.87	20.61	21.05	21.38	21.62	21.76	21.95	21.85
7	1290794	380382	393321	7.83	11.59	14.44	18.90	20.64	21.07	21.39	21.64	21.77	21.98	51.30
8	1290792	380655	393312	7.86	11.56	14.46	18.30	20.35	21.19	21.81	22.37	22.58	23.0	30.07
9	1290833	380946	393213	7.89	11.58	14.48	18.96	21.04	21.77	22.41	22.90	23.19	23.76	28.63
10	1290731	381305	393336	7.90	11.60	14.50	19.0	21.90	23.50	25.40	27.10	28.10	30.10	31.10

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.

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Modelled node locations data

Defended climate change

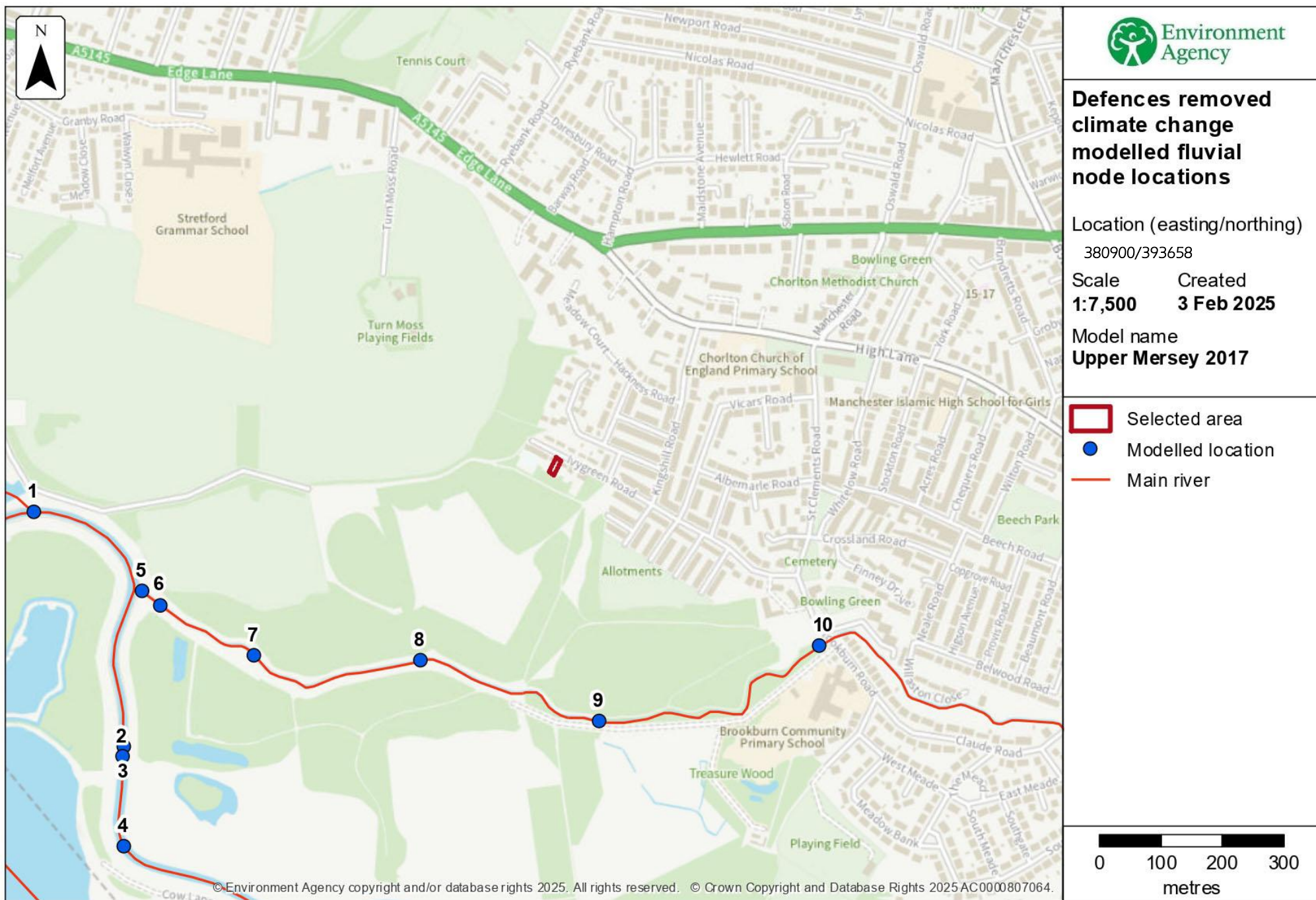
Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level	Flow	Flow	Flow	Flow
1	1290535	380023	393555	24.02	24.05	24.89	26.07	321.81	332.43	402.29	458.78
2	1290753	380168	393155	24.66	24.72	25.22	26.21	333.46	344.71	391.65	429.88
3	1290521	380169	393171	24.41	24.45	25.06	26.16	333.46	344.71	391.65	429.88
4	1290579	380170	393010	24.76	24.82	25.28	26.17	333.31	344.77	391.86	426.37
5	1290702	380200	393425	24.17	24.20	24.95	26.10	23.25	23.43	24.25	24.34
6	1290798	380230	393403	24.10	24.17	24.97	26.14	23.36	23.54	24.37	25.31
7	1290794	380382	393321	24.10	24.17	24.94	26.13	24.0	24.16	63.57	88.62
8	1290792	380655	393312	24.09	24.14	24.94	26.14	25.06	32.91	92.29	94.37
9	1290833	380946	393213	24.15	24.29	25.14	26.16	25.68	25.97	79.99	76.26
10	1290731	381305	393336	24.24	24.41	25.34	26.19	36.53	37.94	48.0	40.40

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



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%)	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level	Flow	Flow	Flow	Flow
1	1290535	380023	393555	24.01	23.95	24.89	25.84	146.75	147.49	148.24	213.76
2	1290753	380168	393155	24.0	24.08	24.90	25.93	124.40	124.67	127.15	166.53
3	1290521	380169	393171	23.99	24.06	24.90	25.90	124.40	124.67	127.15	166.53
4	1290579	380170	393010	23.85	23.86	24.77	25.87	230.74	256.74	396.31	260.02
5	1290702	380200	393425	24.0	24.06	24.89	25.87	22.62	22.97	24.28	24.34
6	1290798	380230	393403	23.98	24.03	24.91	25.89	22.63	22.98	24.30	24.35
7	1290794	380382	393321	23.97	24.04	24.87	25.89	30.95	42.85	26.70	39.46
8	1290792	380655	393312	24.02	24.07	24.88	25.90	24.84	26.64	38.75	30.15
9	1290833	380946	393213	23.99	24.09	24.88	25.98	26.56	28.56	40.19	30.92
10	1290731	381305	393336	24.25	24.29	24.89	26.03	36.53	37.94	48.0	40.40

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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Model Data and Historic Flooding (for 111 Ivygreen Rd)

Environment Agency Flood Model: *Upper Mersey 2017*

Model type: Defended fluvial / Defences removed fluvial / Climate change fluvial

Model date: 14 April 2022

Model coverage: Chorlton Brook and tributaries within the Upper Mersey catchment

EA Data product: Flood Risk Assessment Data (Product 4), issued 3 Feb 2025

Parameter	Value / Information	Source / Notes
Location (OSGB 36):	E 380900 / N 393658	Approx. midpoint of 111 Ivygreen Rd
Flood Zone classification:	Flood Zone 2 (Fluvial – Chorlton Brook)	EA Flood Map for Planning (Feb 2025)
Defended model:	<i>Upper Mersey 2017 – Defended Fluvial</i>	Includes existing Chorlton Brook defences
Defence type:	EA embankments and engineered high ground	Standard of Protection ≈ 50 years
Typical crest levels:	22.2 – 24.2 m AOD (N)	EA flood defence attribute table (p. 8 of Product 4)
Modelled 1% AEP (1 in 100 yr) flood level:	≈ 23.6 – 23.9 m AOD	Nearest model nodes 1290833 / 1290798
Modelled 0.1% AEP (1 in 1000 yr) flood level:	≈ 25.3 – 25.4 m AOD	“Defended Modelled Fluvial” table
1% AEP + 35% CC allowance level:	≈ 24.9 – 25.0 m AOD	“Defended Climate Change” table
Indicative flood depth at site (0.1% AEP defended):	c. 0.8 – 1.3 m	Product 4 sample points 380829–380850 / 393642–393663
Historic flood records:	None recorded by EA for this location	Product 4 states “no past flooding data available”
Strategic context:	Manchester / Salford / Trafford SFRA (2011 – Upper Mersey Catchment)	Identifies Chorlton Brook as a managed flood corridor
Primary source of flood risk:	Fluvial – Chorlton Brook / Upper Mersey catchment	No significant surface-water interaction recorded

Interpretation

- The Environment Agency mapping confirms that 111 Ivygreen Rd lies in Flood Zone 2 (defended) within the Upper Mersey 2017 model extent.
- Modelled water levels ($\approx 23.6 - 25.4$ m AOD) and indicative depths (≤ 1.3 m) match those derived for 119 Ivygreen Rd, so the flood behaviour and mitigation assumptions are the same for your plot.
- No historic flood incidents are recorded at this location, and the site benefits from the same EA embankment system providing ~ 50 -year standard of protection.