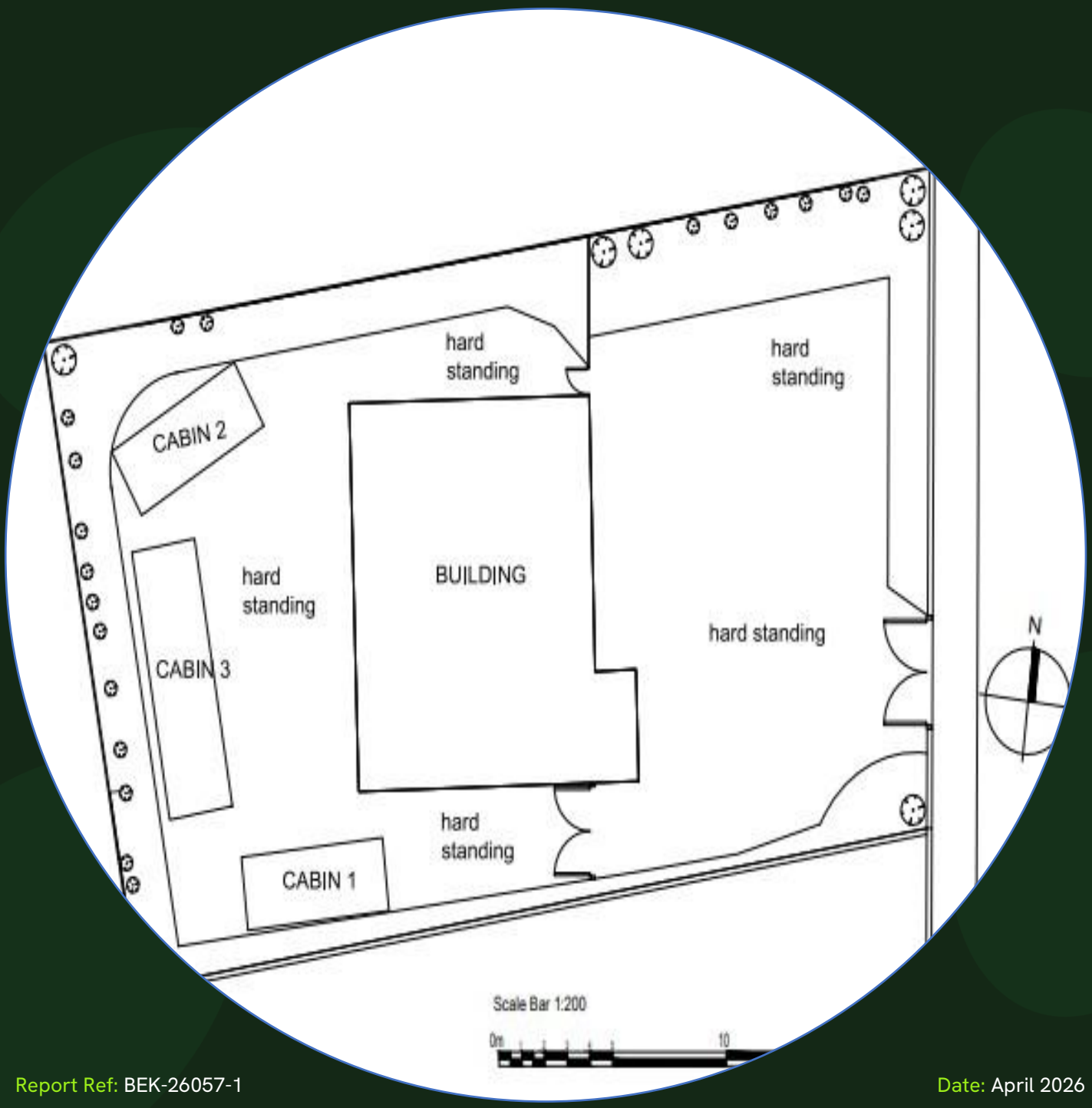
GEO-ENVIRONMENTAL CONSULTING

LAND AT 8 ALEXANDRA ROAD SOUTH, WHALLEY RANGE, MANCHESTER

Flood Risk Assessment



Report Ref: BEK-26057-1

Date: April 2026

GEO-ENVIRONMENTAL CONSULTING

Project Quality Assurance Information Sheet

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Report Title	Flood Risk Assessment
Report Status	Final
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Date	April 2026
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REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked

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Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client. The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

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1. INTRODUCTION

1.1 Appointment

1.1.1 BEK Enviro Limited (BEK) has been commissioned by Included Learning to prepare a Flood Risk Assessment for the proposed re-siting of unauthorised cabins at 8 Alexandra Road South, Manchester (hereafter referred to as 'the site') to assess potential risks associated with flood risk to the development for educational use.

1.2 Background

1.2.1 A site specific flood risk assessment provides and appraisal of flood risk both within the application site and any potential impact that the development will have on flood risk elsewhere and provide recommendations for mitigation measures which may be included within the design of the development to reduce the overall risk of flooding.

1.2.2 An initial assessment indicates that the primary source of flood risk to the development is from fluvial flooding from Chorlton Platt Gore/Corn Brook.

1.3 Objective and Scope of Work

1.3.1 The objective of this report is to evaluate the issues in regard to flood risk at the application site i.e. proposed re-siting of unauthorised cabins to rear of the site at 8 Alexandra Road South, Manchester.

1.3.2 To achieve the objective BEK will undertake the following:

- Suitability of the proposed development in accordance with current planning policy
- Identify the risk to both the development and people from all forms of flooding
- Review the relevant background information for the site, including:
  - National Planning Policy Framework
  - Planning Practice Guidance
  - Building Regulations Approved Document H
  - Environment Agency Flood Mapping
  - Manchester City, Salford City and Trafford Councils Level 2 Hybrid SFRA Level 1 SFRA (March 2010)
  - Manchester City, Salford City and Trafford Councils Level 2 Hybrid SFRA Level 2 SFRA (March 2011)
  - BGS – Historic Borehole Logs
  - Cranfield University Soilscapes Viewer
- Recommendation of appropriate measures to mitigate against flooding both within the proposed development, and neighbouring land and property.

1.4 National Planning Policy Framework

1.4.1 The requirements for undertaking site specific flood risk assessments are generally as set out in the Planning Practice Guide – Flood Risk & Coastal Change.

1.4.2 Site specific flood risk assessment should always be proportionate to the degree of flood risk and make use of information already available. A flood risk assessment should also be appropriate to the scale, nature and location of the development.

1.5 Sequential & Exception Test

1.5.1 The objective of the Sequential Test is to steer new development to areas of the lowest probability of flooding, this takes into account the flood zones and the flood risk vulnerability classification of developments.

1.5.2 The Environment Agency flood map indicates that the proposed development site is within Flood Zone 1 and 2. Flood Zone 1 is defined as land assessed as having a less than 1 in 1000 annual probability of river flooding in any one year and Flood Zone 2 are areas between 1 in 100 and 1 in 1000 annual probability of flooding.

1.5.3 Proposals for the application site involves the re-siting of unauthorised cabins to rear of the site. The site is an educational institute therefore is classified as 'more vulnerable' development to flooding.

1.5.4 As such the proposed cabins will be locate don areas shown to be located within Flood Zones 1 and 2. In accordance with Table 2 'Flood Risk Vulnerability Classification' of the Technical Guidance to the National Planning Policy Framework, educational establishments are defined as 'more vulnerable' development.

Flood Risk Vulnerability Classification		Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test Required	✓	✓
	Zone 3a	Exception Test Required	✓	x	Exception Test Required	✓
	Zone 3b	Exception Test Required	✓	x	x	x

Table 1: Flood Risk Vulnerability and Flood Zone Compatibility

1.5.5 'More Vulnerable' developments within flood zones 1 and 2 are considered appropriate development.

1.6 Climate Change

1.6.1 The National Planning Policy (NPPF) sets out how the planning system should help minimise vulnerability and provide resilience to the impacts of climate change.

Irwell Management Catchment	Central	Higher	Upper
2050's	19%	26%	43%
2080's	35%	46%	75%

Table 2: Peak River Flow Allowances

1.6.2 Due to the location of the site within the Irwell catchment area, within flood zone 2 and classified as 'more vulnerable' development to flooding, central allowances (35%) should be applied to peak river flow.

1.7 Sustainable Drainage Systems (SUDS)

1.7.1 The key planning objectives in the NPPF are to appraise, manage and where possible, reduce flood risk.

1.7.2 The Lead Local Flood Authority i.e. Manchester City Council, is the statutory consultee for surface water flood risk in relation to planning applications. They are now the appropriate body to assess applicants/developers surface water drainage proposals and the Local Planning Authority should consult the Lead Local Flood Authority as necessary during determination of applications.

1.7.3 Sustainable Urban Drainage Systems (SUDS) are designed to reduce the potential impact of new and existing developments with respect to surface water drainage discharges, thereby providing a suitable way of achieving some of these objectives.

1.7.4 Furthermore, the NPPF and Building Regulations Approved Document H encourages developers to use SUDS wherever possible. The Flood and Water Management Act 2010 also reinforces the requirements for SUDS to be implemented where practicable.

1.7.5 The proposals are for the re-siting of unauthorised cabins to rear of the site which is not classified as 'major development'. As such the inclusion of SUDS is not considered mandatory however it is recommended that SUDS are considered as part of any drainage proposals at the site.

1.7.6 Part H of the Building Regulations requires that surface water should be discharged from new development in accordance with the following hierarchy in order of preference:

- Infiltration to the ground via soakaway
- To a watercourse
- To a public surface water sewer
- To a public combined sewer

1.8 Limitations

1.8.1 The conclusions and recommendations presented in this report are the result of our professional interpretation of the information currently available. BEK reserves the right to amend the conclusions and recommendations if further information becomes available.

1.8.2 However, it should be noted that much of the information has been derived from reports written by others and BEK takes no responsibility for the accuracy of that information. Notwithstanding the above, the reports reviewed have all been written by professional environmental consultants with a duty of care to provide relevant and accurate information.

1.9 Local Planning Policy

1.9.1 The following policy relating to flood risk have been taken from the 'Manchester's Local Development Framework – Core Strategy Development Plan Document – Adopted 11th July 2012'. It is understood that the Core Strategy is valid from 2012-2027.

Policy EN 14 – Flood Risk

- In line with the risk-based sequential approach contained within PPS25, development should be directed away from sites at the greatest risk of flooding, and towards sites with little or no risk of flooding; this should take account of all sources of flooding identified in the Manchester-Salford-Trafford Strategic Flood Risk Assessment (SFRA)
- In addition to the requirements for site specific Flood Risk assessments (FRAs) set out in PPS25, an appropriate FRA will also be required for all development proposals, including changes of use, on sites greater than 0.5ha within Critical Drainage Areas (CDAs) and Canal Hazard Zones identified in the SFRA.
- All new development should minimise surface water run-off, including through Sustainable Drainage Systems (SUDS) and the appropriate use of Green Infrastructure. Developers should have regard to the surface water runoff rates in the SFRA User Guide. In CDAs, evidence to justify the surface water runoff approach/rates will be required.
- The City of Manchester contains many sections of rivers which are culverted or 'hidden'; where these are indicated in the SFRA beneath the proposed development site, further investigation will be required and the development should seek to open up culverted/hidden rivers to reduce the associated flood

risk and danger of collapse, taking advantage of opportunities to enhance biodiversity and Green Infrastructure.

2. SITE LOCATION & DESCRIPTION

2.1 Site Location

2.1.1 The site is located to the west of Alexandra Road South in the Whalley Range area of Manchester. The site is approximately 3km south of the centre of Manchester and 8 km north-west of Stockport. Access to the site is from Alexandra Road South from the east which leads to the existing educational facility known as Included Learning.

2.1.2 The National Grid Reference for the centre of the site is 383313, 395247. The site location is shown on BEK Drawing No 26057-1, a copy of which is presented in Appendix D.

2.2 Existing Site Layout

2.2.1 The site occupies a roughly rectangular shaped plot of land of approximately 965 m^2. The site is occupied by an existing single storey detached building known as 8 Alexandra Road South. Areas of hardstanding surround the building with landscaped areas on the periphery of the site. Three cabins are located on site with two to the front of the building in the east of the site and one cabin to the rear of the building in the west of the site. The existing layout is shown on the figure below:

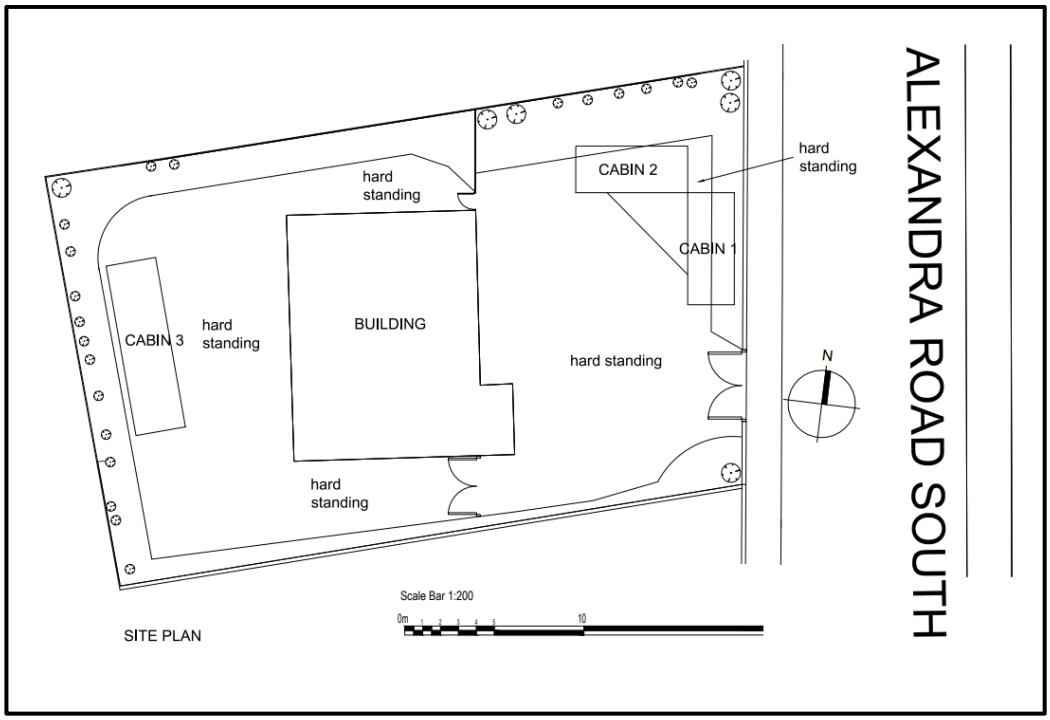


Figure 1: Existing Site Layout

2.3 Surrounding Land Use

2.3.1 The site is located in a predominantly residential area. Alexandra Park is located to the east of the site.

2.4 Proposed Site Layout

2.4.1 The proposed development plans are for the re-siting of the cabins to the rear of the existing single storey building on site. The cabins will be located on existing hardstanding areas as shown in the figure below:

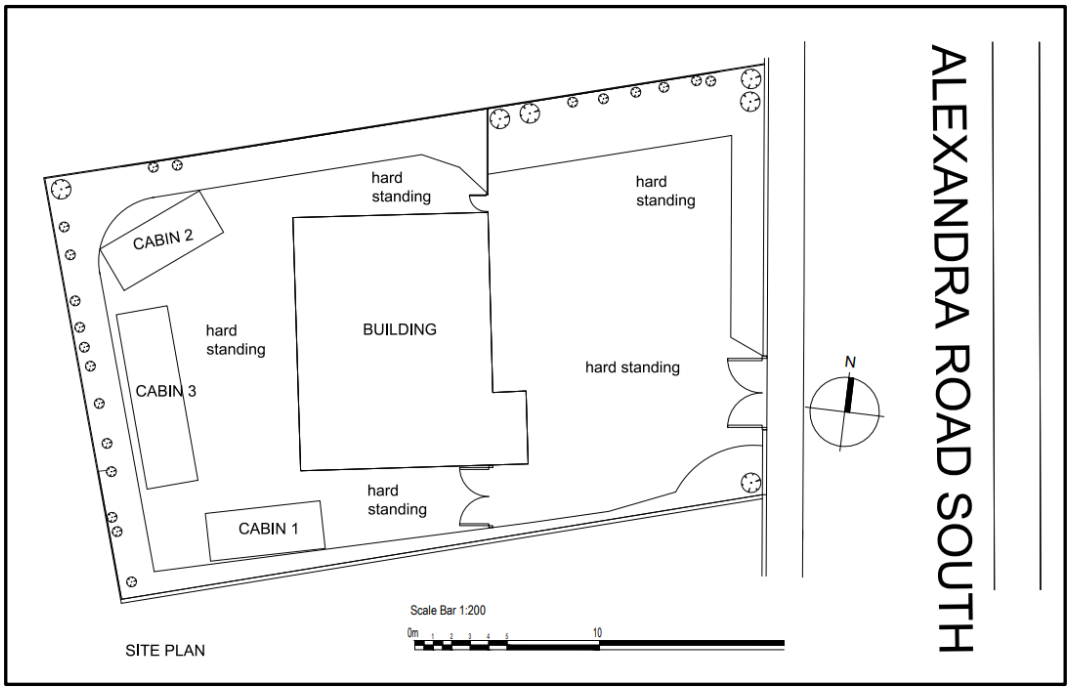


Figure 2: Proposed Site Layout

2.4.2 A copy of the proposed development plan (PHA Architects – Proposed Site Plan Cabins Repositioned, Drawing No: F01/AR/03 RevC, dated 03/2026) is included within Appendix A of this report.

2.5 Site Topography

2.5.1 A topographical survey of the site has not been undertaken however LIDAR data has been obtained for the site (Appendix B) which indicates that site levels generally range from 30.1 mAOD at the entrance of the site from Alexandra Road South to 30.75 mAOD in the north-eastern corner. The proposed cabins are to be located on areas with an approximate ground level of 30.5 mAOD. The lidar topography is shown in the figures overleaf:

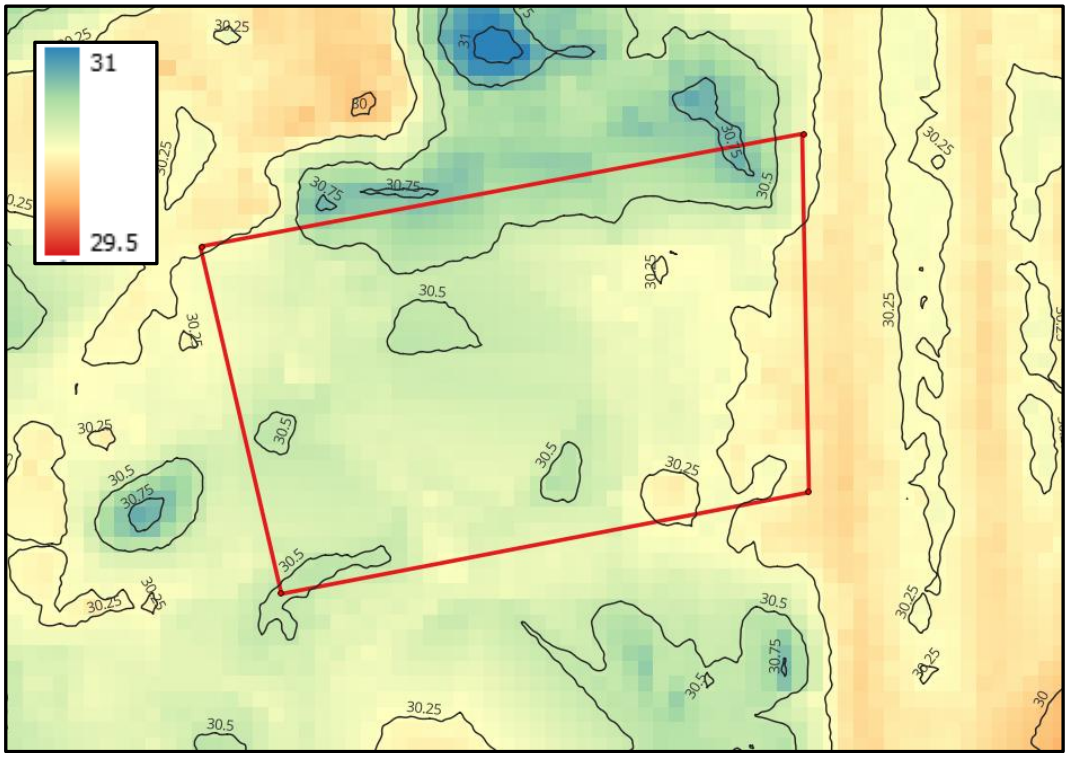


Figure 3: Lidar Topography

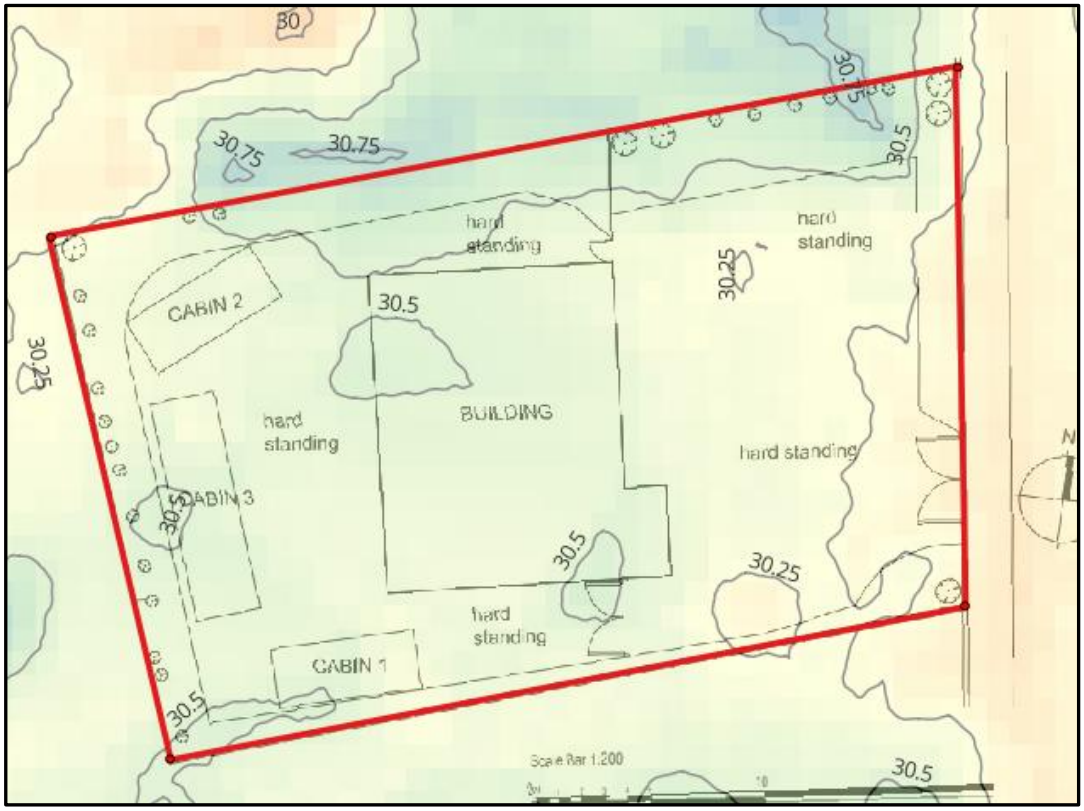


Figure 4: Lidar Topography (with Proposed Site Layout underlain)

3. HISTORIC FLOODING

3.1 MST Level 1 Strategic Flood Risk Assessment (March 2010)

3.1.1 Section 2.8 of the Manchester City, Salford City and Trafford Councils Strategic Flood Risk Assessment Level 1 (March 2010) provides a table of historical flood events in the Manchester area from 1799 – 2008. A review of the table indicates that there is no reference to Alexandra Park/Whalley Range within Section 2.8 of the MST Strategic Flood Risk Assessment.

3.2 Environment Agency Historic Flood Information

3.2.1 The Environment Agency have confirmed via their consultation response that they do not hold any records of flooding at the site.

4. SOURCES OF FLOOD RISK

4.1 Environment Agency Flood Map

4.1.1 The Environment Agency Flood Map shown within the Figure below confirms that the proposed development site is located within Flood Zone 1 and 2.

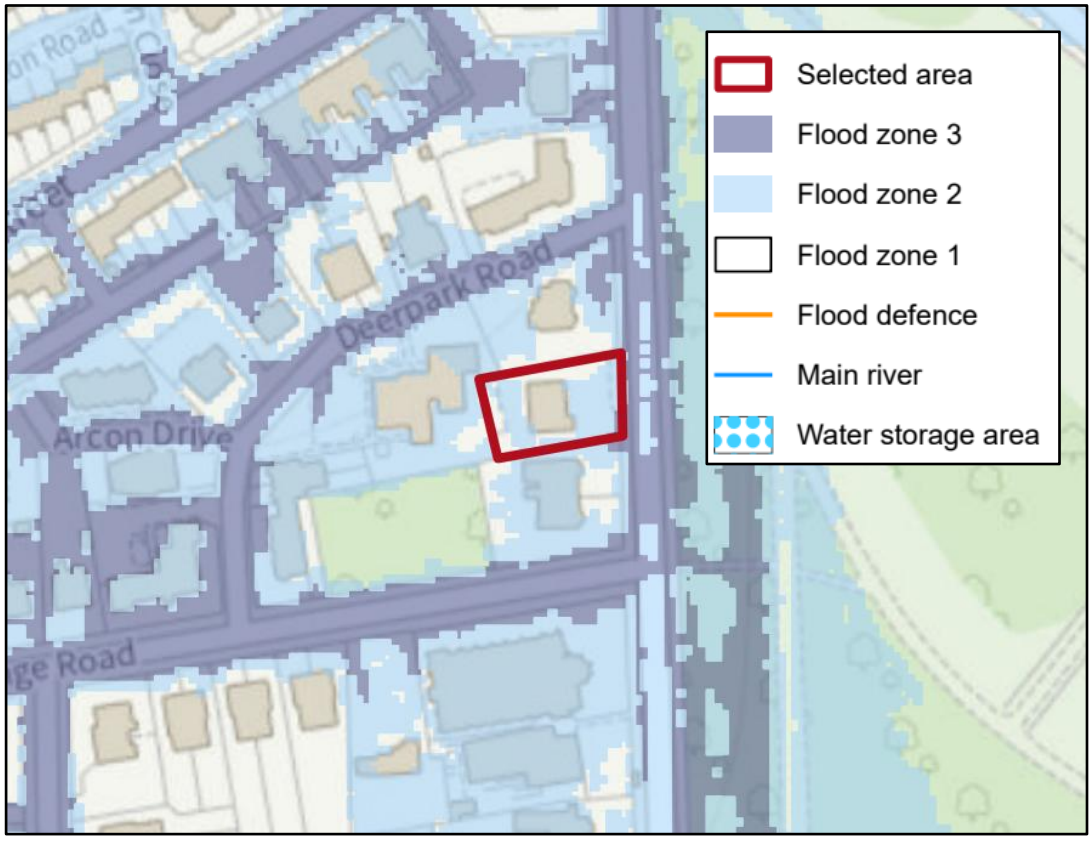


Figure 5: Environment Agency Flood Map

4.1.2 Flood Zone 1 is the low flood risk area and is assessed as having a less than 1 in 1000 annual probability of river or sea flooding. Flood Zone 2 is the medium flood risk area with land assesses as having between a 1 in 100 and 1 in 1000 annual probability of river flooding. As such the risk of fluvial flooding will be assessed in more detail in Section 5 of this report.

4.2 Pluvial: Surface Water Flooding

4.2.1 The Environment Agency Surface Water Flood Map (present day and climate change scenarios) indicates that the majority of the site is shown to be at low risk of flooding. Low risk means between 0.1% and 1% chance of flooding each year.

4.2.2 The proposed cabins will be located to the rear of the site which are shown to be at low risk of surface water flooding during the present day and climate change scenarios.

4.2.3 Figures 6, 7, 8 and 9 below show that the maximum depth of flooding during the low risk surface water climate change flood event at the location of the proposed cabins (rear of the site) is 20cm. Suitable mitigation measures will be included to mitigate risk of surface water flooding as referenced in Section 7 of this report.

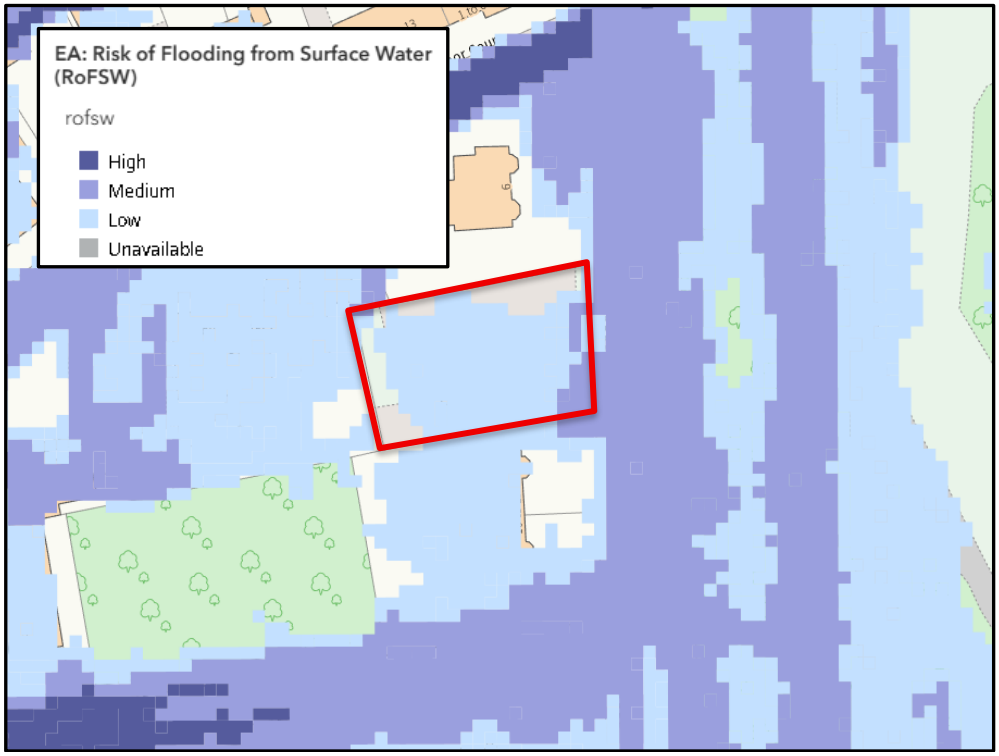


Figure 6: Environment Agency RofSW Mapping (Present day)

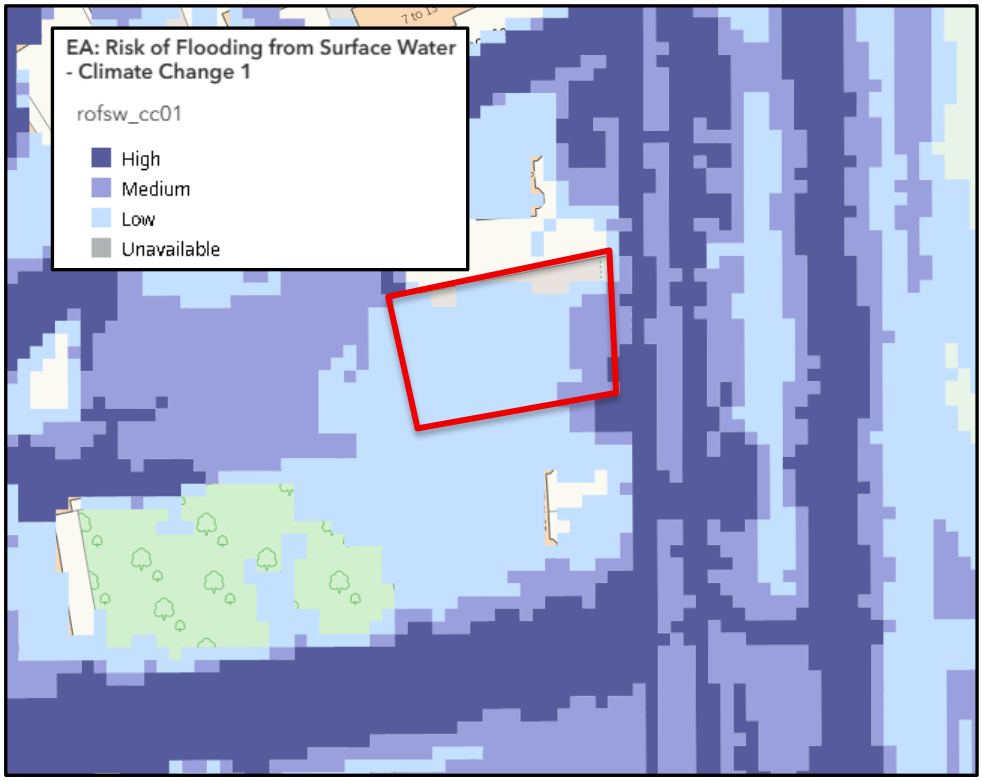


Figure 7: Environment Agency RofSW Mapping (Year 20240 to 2060)

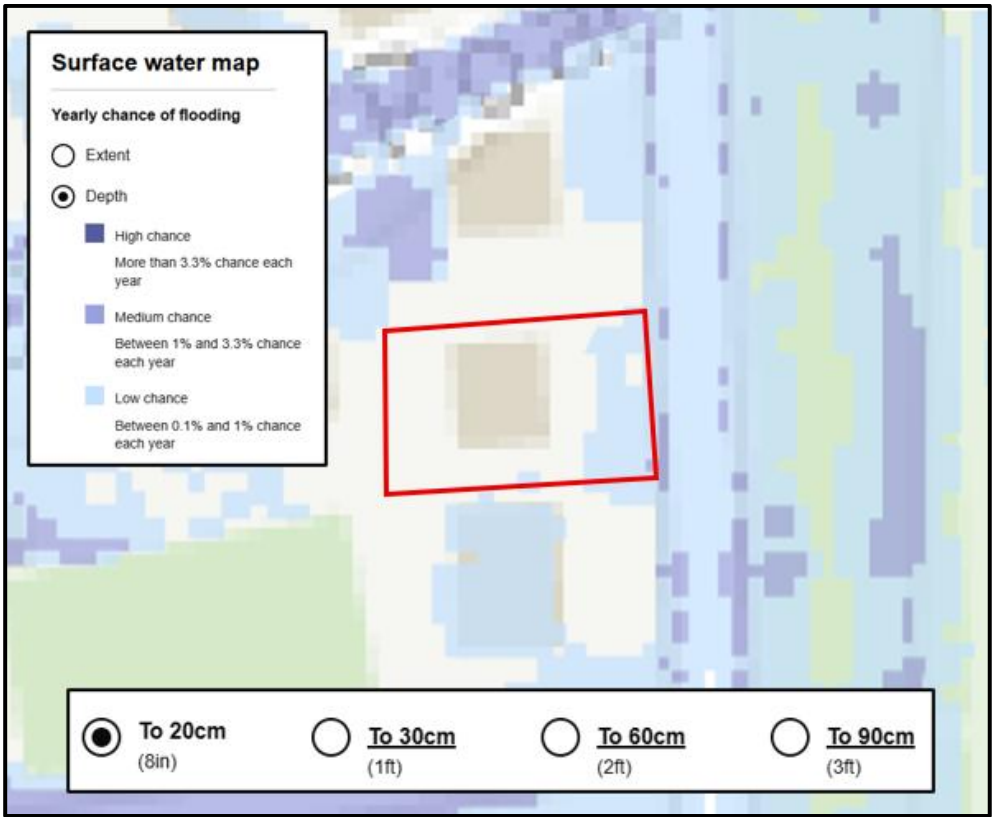


Figure 8: RofSW Mapping (Present Day depth of flooding – 20cm depth)

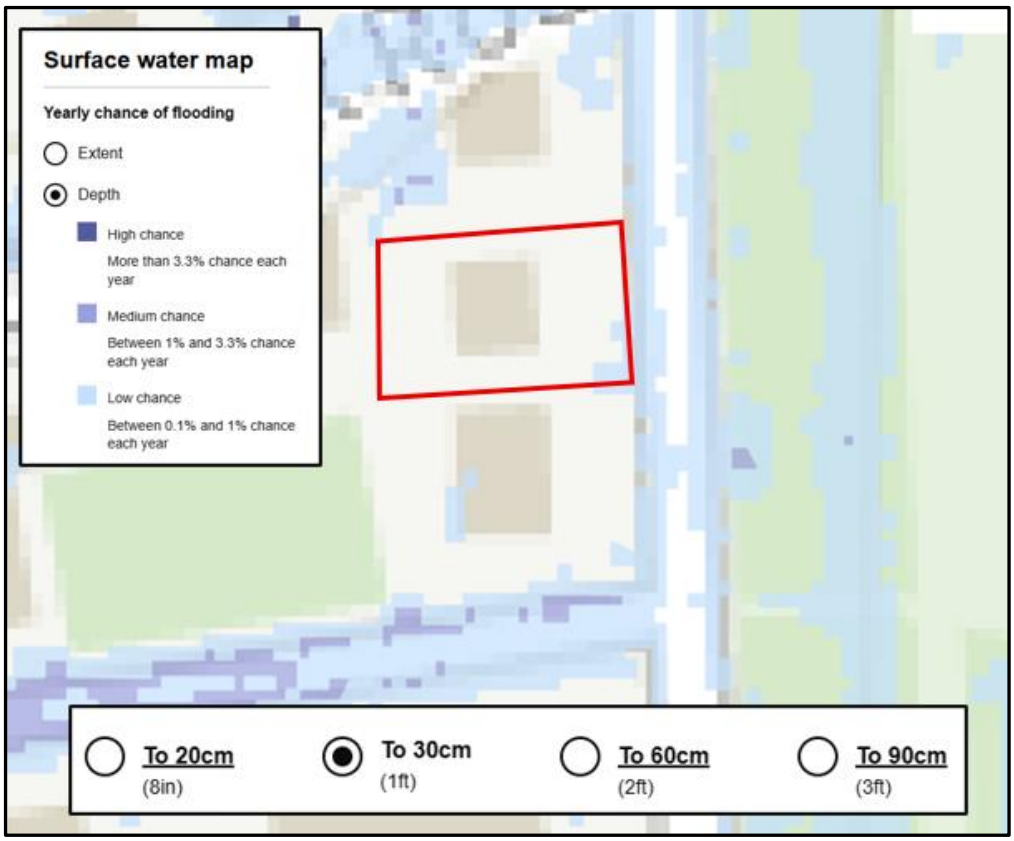


Figure 9: RofSW Mapping (Present Day depth of flooding – 30cm depth)

Figure 10: RofSW Mapping (Climate Change depth of flooding – 20cm depth)

Figure 11: RofSW Mapping (Climate Change depth of flooding – 30cm depth)

4.3 Groundwater

4.3.1 Groundwater flooding is caused by the emergence of water originating from beneath the ground. The water may emerge from either point or diffuse locations. The occurrence of groundwater flooding is usually local and does not generally pose a significant risk to life due to the slow rate at which the water level rises but can cause significant damage to property (especially below ground structures such as basements.

4.3.2 The Environment Agency check long term flood risk service indicates that the site is outside of a groundwater flood alert area, and it is understood that no basements/cellars are proposed as part of the proposed development therefore the risk of groundwater flooding to the proposed re-siting of cabins at the site is considered to be low.

4.4 Sewer Flooding

4.4.1 Flooding from the sewer network mainly occurs when flows entering sewers exceed the capacity of the sewer or the sewer system is blocked or unable to discharge flows therefore water surcharges (usually through manholes) at the surface.

4.4.2 The Manchester City Council Level 1 Strategic Flood Risk Assessment Critical Drainage Area Map indicates that the site Is not located within a designated Critical Drainage Area.

4.4.3 United Utilities sewer records have not been obtained however it is likely that United Utilities sewers are situated within Alexandra Road South. The elevation at the proposed location of the cabins is approximately 30.5 mAOD and approximately 35m from Alexandra Road South with the level of the road (and cover level of the sewers) at an approximate level of 30.1 mAOD therefore the risk of flooding from sewers to the proposed cabins on site is considered to be low.

4.5 Infrastructure Failure: Reservoirs, Canals and Artificial Sources

4.5.1 The Environment Agency flooding from Reservoirs map identifies that the site is within the extent of flooding following a breach of a reservoir when river levels are normal as shown in the figure below:

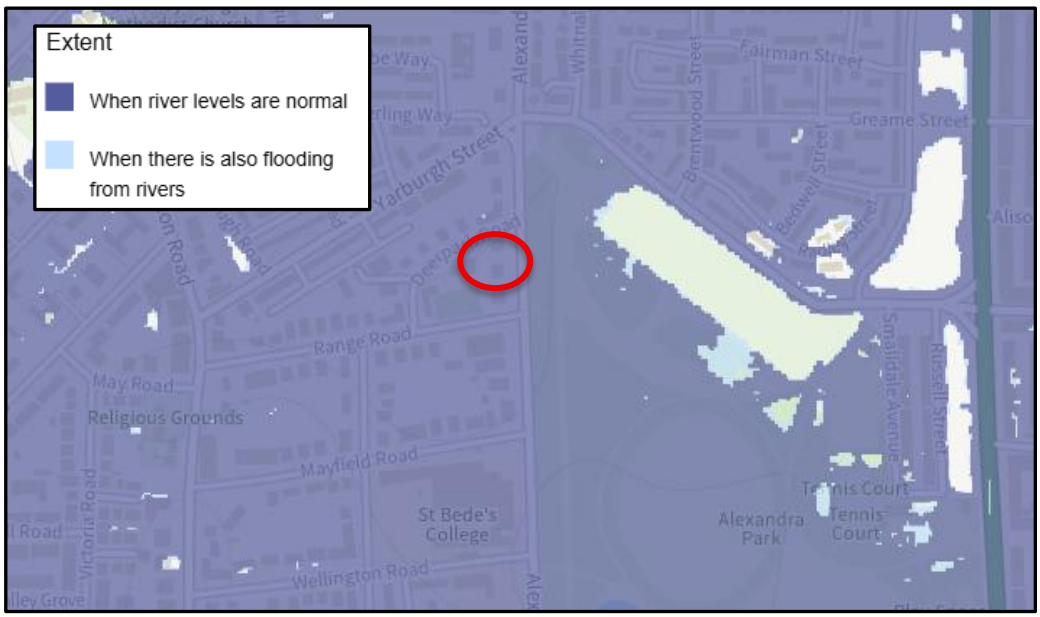


Figure 12: Reservoir Breach Flood Map

4.5.2 It is noted that large areas of southern Manchester are shown to be at risk of flooding following a breach of reservoir but it is considered that reservoir flooding is extremely unlikely to happen. There has been no loss of life in the UK from reservoir flooding since 1925. As such the risk of flooding from this source to the site is considered to be low.

5. QUANTITATIVE FLOOD RISK ASSESSMENT

5.1 River Flooding – Environment Agency Modelled Flood Data

5.1.1 The fluvial modelled flood data provided by the Environment Agency are taken from the Chorlton Platt Gore 2024 and Corn Brook 2017 models. The EA have provided data the following scenarios:

- 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

5.1.2 A review of the Environment Agency modelled flood data (Appendix C) indicates that the site would not be anticipated to flood during the following scenarios:

- Defences removed 1% AEP scenario
- Defences removed 1% AEP + 41% climate change scenario
- Defences removed 1% AEP + 53% climate change scenario
- Defences removed 1% AEP + 85% climate change scenario
- Defences removed 0.1% AEP scenario
- Defended 1% AEP scenario
- Defended 1% AEP + 41% climate change scenario
- Defended 1% AEP + 53% climate change scenario
- Defended 1% AEP + 85% climate change scenario
- Defended 0.1% AEP scenario
- No defences exist 1% AEP + 70% climate change scenario

5.1.3 The site would only experience flooding during the defences removed 0.1% AEP + 53% climate change, defended 0.1% AEP + 53% climate change, no defences exist 0.1% AEP + 30% climate change and no defences exist 0.1% AEP flood scenarios.

5.2 Fluvial Extent – No defences exist 0.1% AEP Event

5.2.1 The EA modelled data shows that the area to the west of the of the site where the cabins are to be located would not experience flooding during the no defences exist

0.1% AEP event with flooding in the east of the site shown to have a maximum depth of flooding of 30.39mAOD.

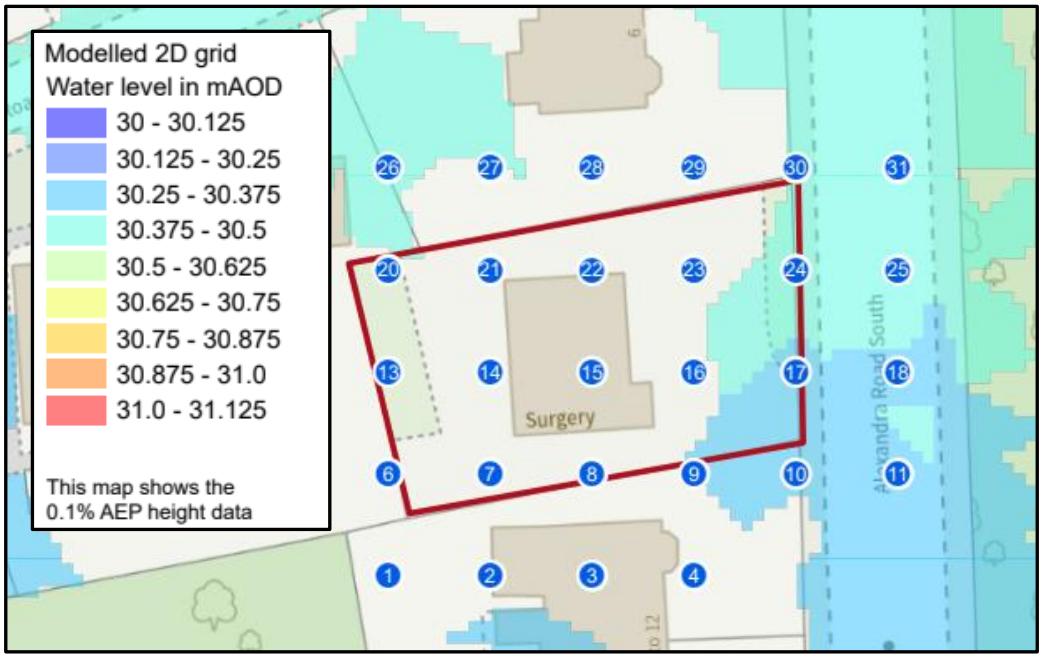


Figure 13: No defences exist 0.1% AEP modelled height data

5.3 Fluvial Extent – Defended 0.1% AEP + 53% climate change Event

5.3.1 The EA modelled data shows that the area to the east and west of the of the site would experience flooding to a maximum height of 30.40 mAOD.

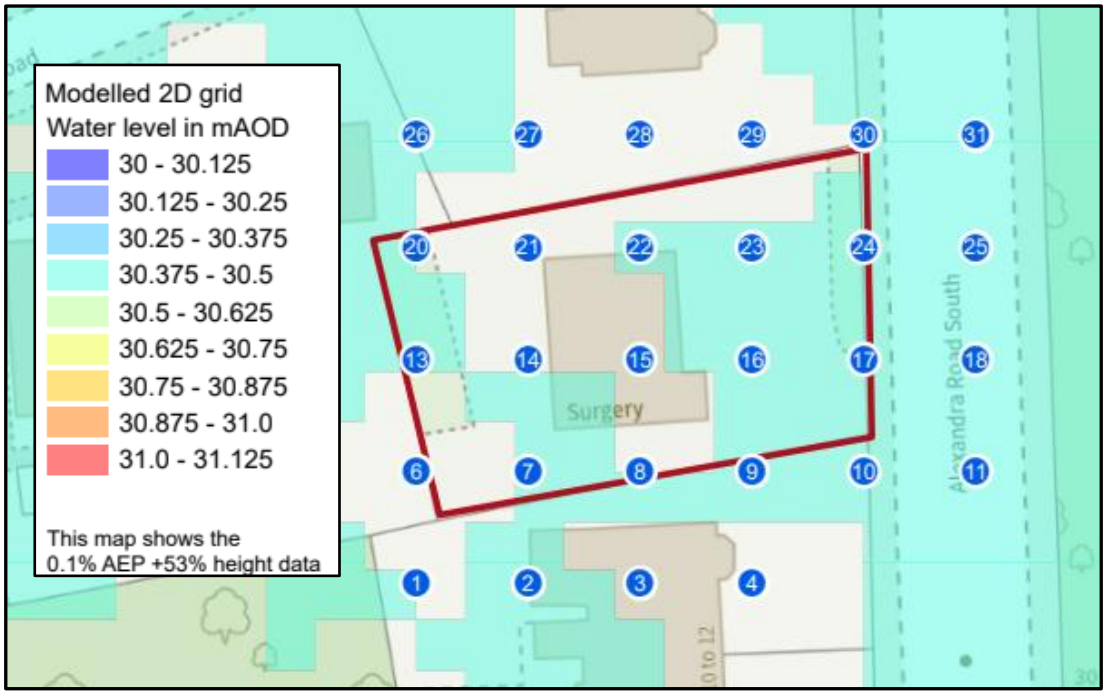


Figure 14: Defended 0.1% AEP + 53% CC modelled height data

5.4 Fluvial Extent – Defences Removed 0.1% AEP + 53% climate change Event

5.4.1 The EA modelled data shows that the area to the east and west of the of the site would experience flooding to a maximum height of 30.39 mAOD.

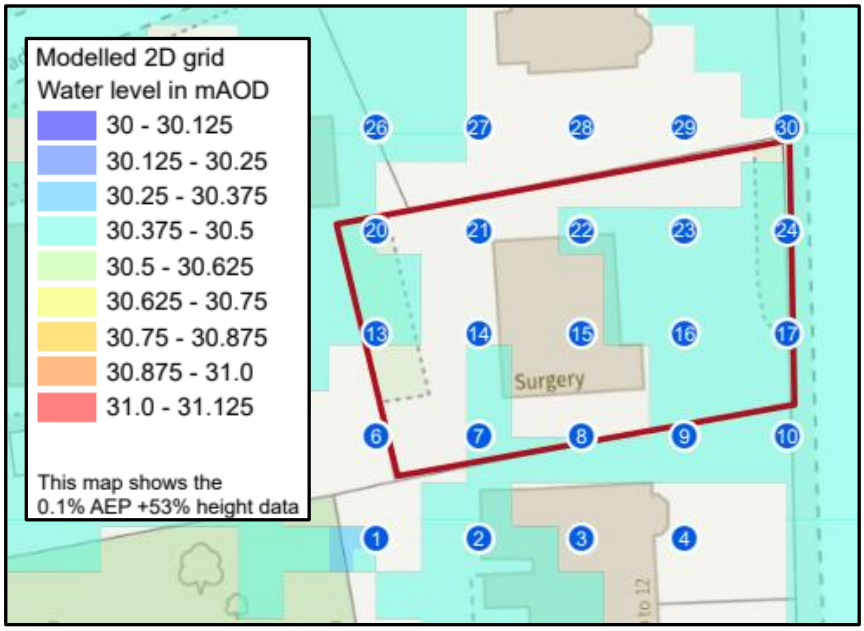


Figure 15: Defences Removed 0.1% AEP + 53% CC modelled height data

5.5 Fluvial Extent – No defences exist 0.1% AEP + 30% climate change Event

5.5.1 The EA modelled data shows that the area to the west of the of the site where the cabins are to be located would not experience flooding during the no defences exist 0.1% AEP plus 30% climate change event with flooding in the east of the site shown to have a maximum depth of flooding of 30.44mAOD.

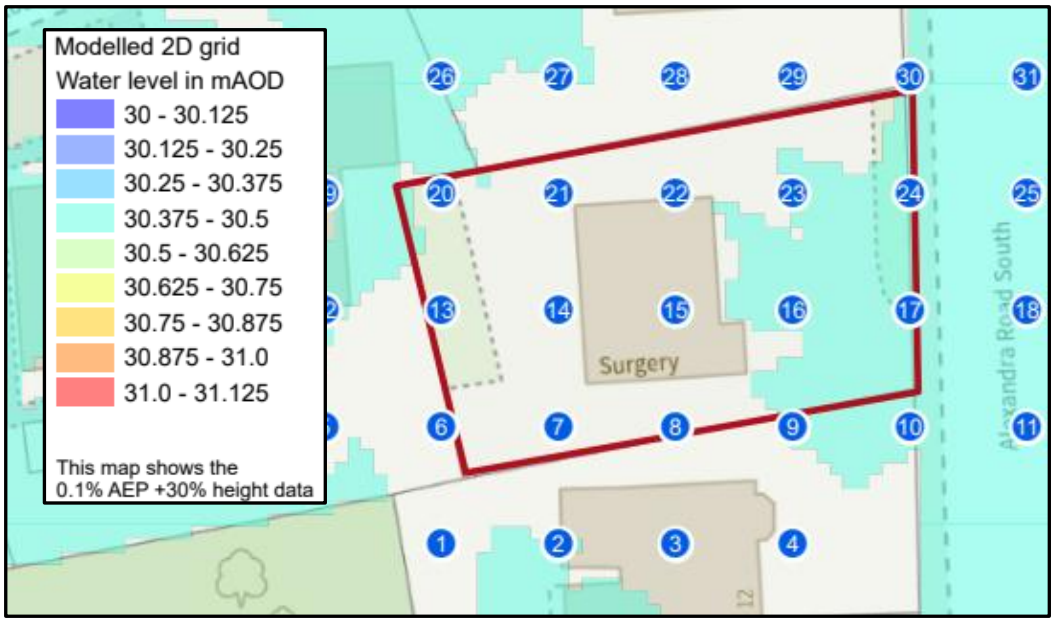


Figure 16: No defences exist 0.1% AEP + 30% CC modelled height data

5.6 Fluvial Flooding Conclusions

5.6.1 The Environment Agency modelled flood data indicates that the site would only flood during the defences removed 0.1% AEP + 53% climate change, defended 0.1% AEP + 53% climate change, no defences exist 0.1% AEP + 30% climate change and no defences exist 0.1% AEP flood scenarios.

5.6.2 The maximum height of flooding during these scenarios is 30.44 mAOD with the Lidar data for the site indicating an elevation of approximately 30.50 mAOD at the locations where the cabins are to be re-sited. As such the proposed cabins and finished floor levels are set above the extreme 1 in 1000 year plus climate change allowances flood scenarios.

5.6.3 Due to the potential inaccuracies with modelled flood data and lidar data and the approximate depth of flooding of 20 cm during the surface water flood events, it is considered prudent that flood resilience/resistance is employed within the cabins as included within Section 7 of this report.

6. SURFACE WATER DRAINAGE

6.1 It is understood that the cabins on site currently discharge surface water informally onto the existing hardstanding which is assumed to be positively drained. Following re-siting of the cabins, surface water will continue to discharge informally onto the hardstanding areas.

6.2 Alternatively, surface water from the roofs of the cabins can be discharged into water butts for potential re-use on site e.g. watering plants which would create a betterment compared to the existing situation.

7. MITIGATION MEASURES

7.1 Finished Development Levels

7.1.1 The site is not shown to experience flooding during the 1 in 100 year (1% AEP) including climate change flood events however the site would experience localised areas of flooding during the extreme 1 in 1000 year (0.1% AEP) plus climate change flood events. Additionally there is a risk of surface water flooding to depths of 20 cm at the site.

7.1.2 The cabins are to be sited on existing hardstanding with general elevations of 30.50 mAOD and finished floor levels approximately 0.15 m above this level i.e. 30.65 mAOD with maximum flood depths indicated by the Environment Agency modelled flood data to be 30.44 mAOD therefore finished floor levels are approximately 0.21 m above the maximum flood heights.

7.1.3 However the depths of flooding associated with surface water at the site are approximately 20 cm above existing site levels which indicate a height of flooding of approximately 30.70 mAOD. As such it is considered that finished floor levels of the cabins should be set above 30.70 mAOD or flood resilience/resistance is installed in the cabins to a level 300mm above finished floor levels.

7.2 Flood Resilience/Resistance

7.2.1 Identified below are a range of typical flood proofing measures which may, where appropriate, be incorporated into the cabins to a level 300 mm above existing finished floor levels:

- Careful consideration of materials: use low permeability materials to limit water penetration if dry proofing required. Consider applying a water-resistant coating.
- Avoid use of gypsum plaster and plasterboards; use more flood resistant linings (e.g. hydraulic lime, ceramic tiles). Avoid use of stud partition walls if possible.
- Wall sockets should be raised as high as is feasible and practicable in order to minimise damage if flood water inundate the cabins i.e. no less than 300 mm above finished floor levels.
- Any wood fixings on ground floor should be robust and/or protected by suitable coatings in order to minimise damage during a flood event.
- Storage of any materials or possessions that may be susceptible to flood damage should be stored as high as possible to limit the damage caused in the event of a flood.
- Avoid using fitted carpets on ground floors
- Locate electrical, gas and telecommunication equipment at least 300 mm above finished floor levels.

7.2.2 Keeping water out of buildings or limiting the ingress of floodwater is recommended when considering flood protection measures. Excluding water will help to reduce damage to the internal fabric of the building and its contents. Such measures include:

- Temporary flood barriers
- Measures to reduce seepage through walls and floors
- The installation of non-return valves on sewers

7.2.3 Proprietary flood doors and windows or demountable barrier systems; and airbrick covers etc. can be effective at preventing or reducing the volume of flood water entering through doors and other external opening in walls, such as windows and airbricks/weepholes, products should be installed in accordance with the manufacturer's instructions.

7.2.4 Although passive flood doors may not totally prevent the ingress of water into a building, they can provide valuable time in which to move people, vehicles, expensive equipment and other essential items to higher levels before flood water potentially enters the buildings.

7.2.5 Flood barriers on wall openings can also reduce the amount of silty flood water entering the buildings. Water that does seep through into the buildings during extreme flood events is likely to be filtered to some extent and therefore is usually cleaner than floodwater entering larger openings such as gaps around doors and airbricks.

7.2.6 There are a number of suppliers and various types of flood doors/barriers and other flood protection equipment which may be utilised for the cabins.

7.3 Access and Egress

7.3.1 In accordance with the requirements set out within the National Planning Policy Framework, it is essential to ensure that the route into and out of the application site will not present a danger to people during a flood event.

7.3.2 The Environment Agency mapping shows that the access route into and out of the site will remain free from flooding during the 1 in 100 year and 1 in 100 year plus climate change allowances flood events with flooding only anticipated during the extreme 1 in 1000 year plus climate change events. Therefore safe access and egress will be available during the design (1 in 100 year plus climate change) flood events.

7.4 Flood Warning/Alerts

7.4.1 It is recommended that the staff/owners of the site register and interest/sign up to receive flood alerts/warnings from the Environment Agency.

7.4.2 The Flood Warning's Direct Service is a free service which enables the Environment Agency to send a direct message when flooding is expected and may affect areas close to the proposed development. Flood warnings are designed to provide businesses/properties the time to prepare for flooding. Flood warnings can be sent by telephone, mobile, email SMS text message or fax.

7.4.3 Site owners/staff can register for flood alerts/warnings at: https://www.gov.uk/get-flood-warnings. The Environment Agency is able to monitor rainfall, river levels and sea conditions 24 hours a day and use this information to forecast the possibility of flooding. If flooding is forecast then information will be sent to site owners/staff if registered to receive them.

8. CONCLUSIONS & RECOMMENDATIONS

8.1 The proposed development at Land at 8 Alexandra Road South, Whalley Range, Manchester is for the re-siting of existing cabins to the rear of the existing educational building at the site.

8.2 The site is shown to be partially located within Flood Zone 2 of the Environment Agency Flood Map of Planning and would be anticipated to flood during the 1 in 1000 year plus climate change flood events.

8.3 Additionally, parts of the site are shown to be at risk of surface water flooding during the low risk events to a maximum depth of 20 cm.

8.4 Lidar data for the site indicates that the cabins will be located on ground with a general elevation of 30.5mAOD with the maximum depth of flooding shown in the EA modelled flood data to be 30.44 mAOD. As such it is considered that the cabins would be elevated higher than the modelled depths of flooding and therefore would not experience flooding.

8.5 However the EA Risk of Flooding from Surface Water Maps show that the site would experience flooding to a depth 0.2 m above existing ground levels therefore it is considered prudent that flood resistance/resilience is incorporated into the cabins to a level 300 mm above finished floor levels to mitigate any risks associated with flooding at the site.

8.6 It is considered prudent that flood resistance/resilience such as incorporating passive flood door/demountable flood barriers and locating electrical sockets, gas and telecommunication equipment at least 300 mm above finished floor levels are installed in the cabins. Alternatively, raising finished floor levels 300mm above existing ground levels would mean that the cabins would be elevated above the fluvial and surface water flood events.

8.7 The cabins will be located on existing hardstanding areas that are understood to be positively drained. Therefore surface water from the cabins will be discharged onto the hardstanding as per the existing situation. Alternatively, water butts could be introduced on rainwater downspouts for re-use of water on site and to create a betterment to the existing situation.

8.8 It is considered that following introduction of flood resilience/resistance to a level 300mm above finished floor levels or raising finished floor levels 300mm above existing ground levels, the cabins would be at low risk from all sources of flooding and will not increase the risk of flooding at the site or downstream of the site and will be safe for people and property throughout its lifetime.

APPENDIX A

Existing & Proposed Plans

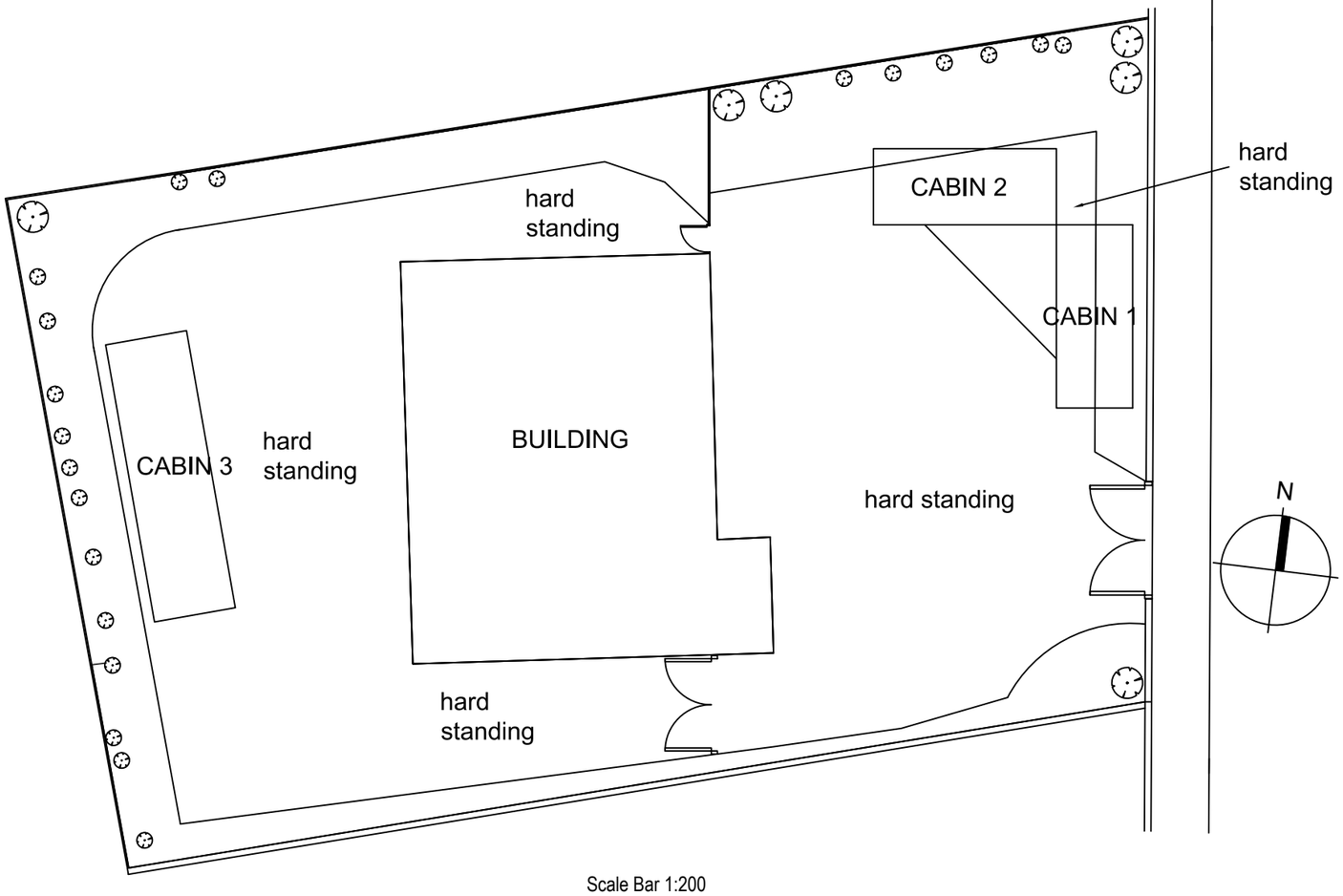
Notes :-
Do not scale from this drawing .

All dimensions to be checked on site prior to the commencement of works.

All work & drainage to be to the entire satisfaction of the local authority , statutory undertakings & in accordance with the current building regulations.

Any drains passing under building to be exposed & encased in 150mm conc.

All structural timber is to be stress graded



SITE PLAN

Scale Bar 1:200

0m 1 2 3 4 5 10

ALEXANDRA ROAD SOUTH

Rev.		By	Date

pha ARCHITECTS

Chartered Architects & Interior Designers
1 Cranleigh Avenue
Stockport
SK4 3 PZ

Tel : 07581 056 056

Site
8 ALEXANDRA ROAD SOUTH
WHALLEY RANGE
MANCHESTER

Title
EXISTING SITE PLAN

Project Manager/ Checked	Drawn By	Scale	Date
		1:200@ A3	0326
Arch./Des.	Drawing Number F01/AR/01		Rev.

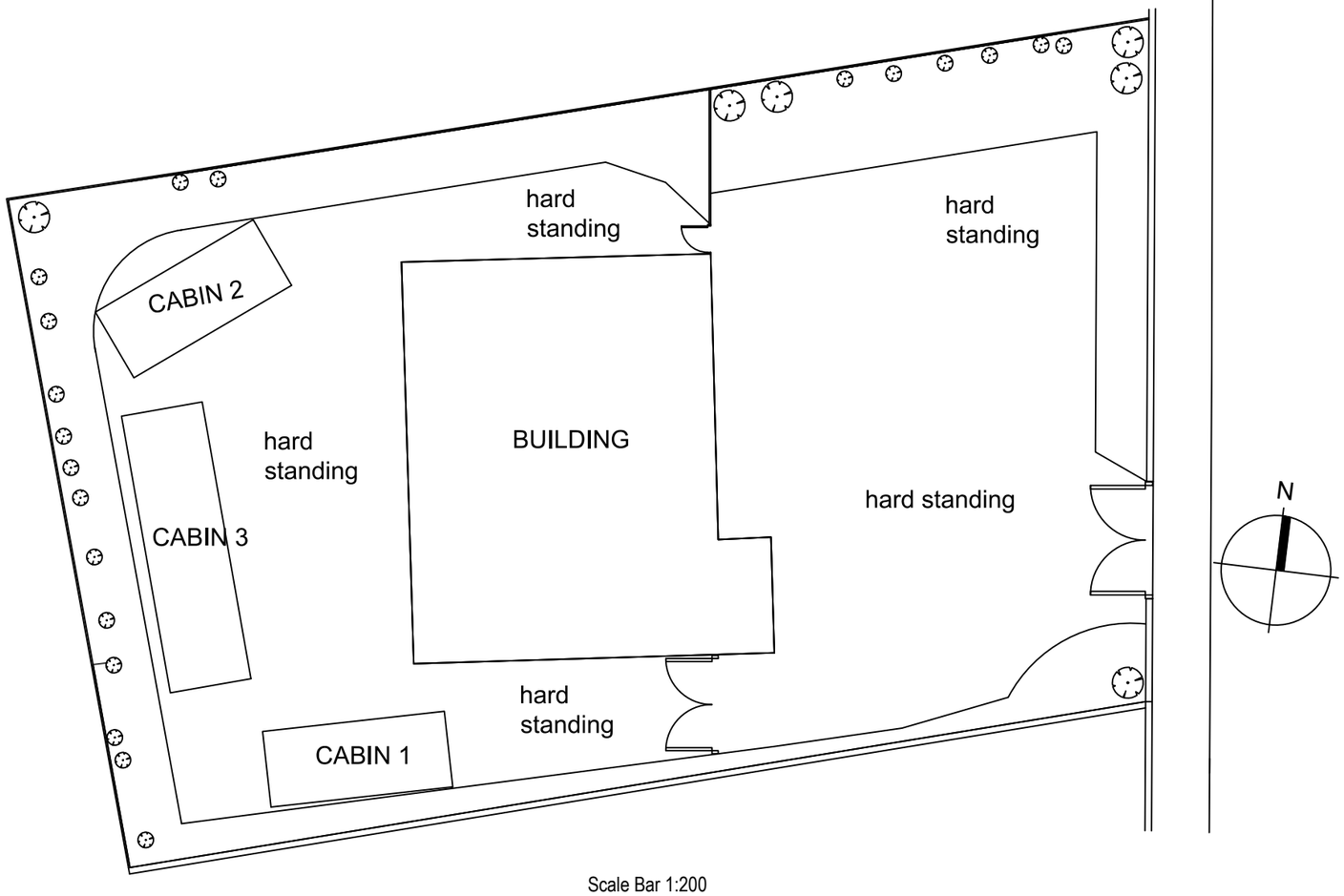
Notes :-
Do not scale from this drawing .

All dimensions to be checked on site prior to the commencement of works.

All work & drainage to be to the entire satisfaction of the local authority , statutory undertakings & in accordance with the current building regulations.

Any drains passing under building to be exposed & encased in 150mm conc.

All structural timber is to be stress graded



SITE PLAN

Scale Bar 1:200

0m 1 2 3 4 5 10

ALEXANDRA ROAD SOUTH

Rev.		By	Date

pha ARCHITECTS

Chartered Architects & Interior Designers
1 Cranleigh Avenue
Stockport
SK4 3 PZ

Tel : 07581 056 056

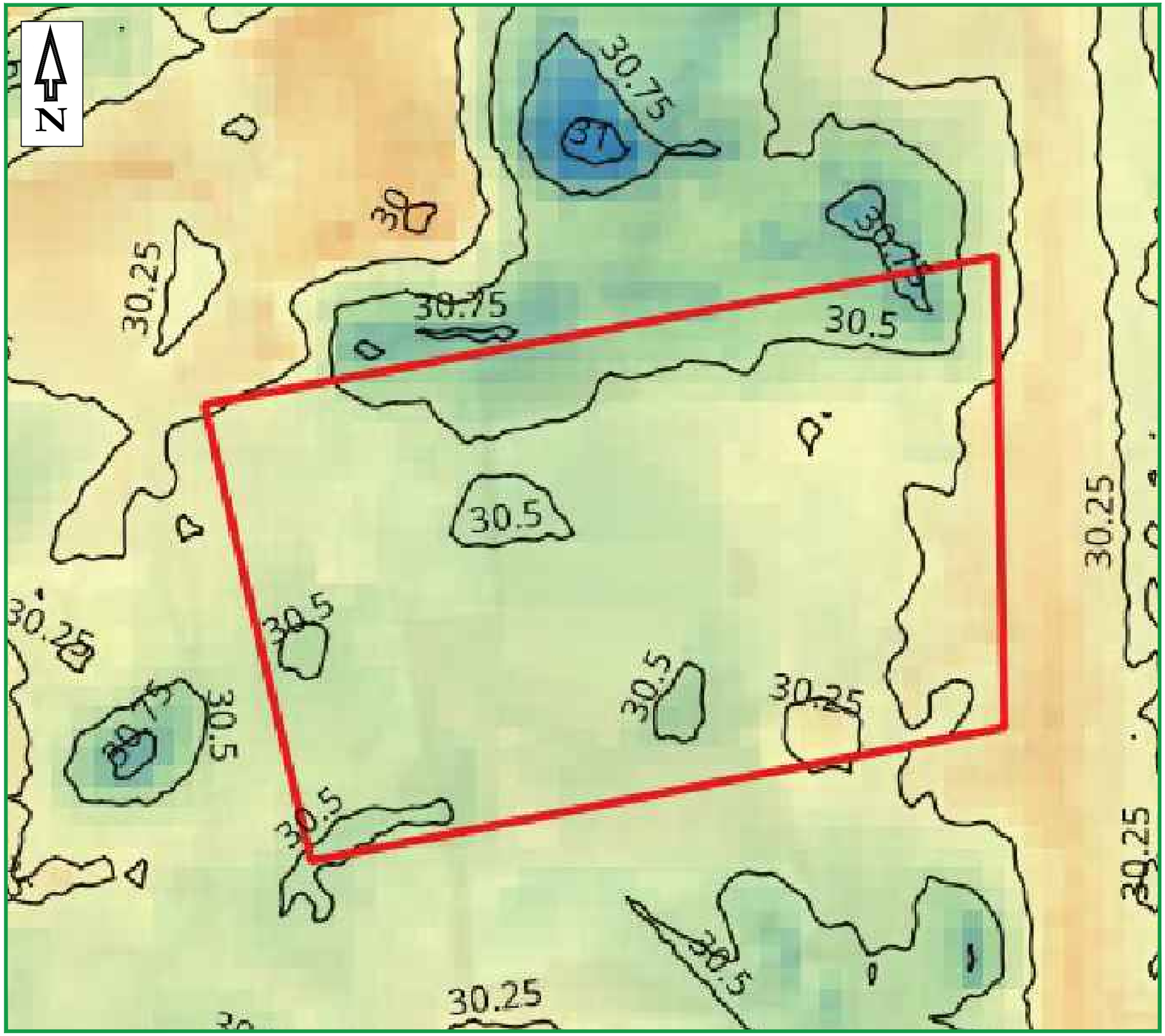
Site
8 ALEXANDRA ROAD SOUTH
WHALLEY RANGE
MANCHESTER

Title
PROPOSED SITE PLAN
CABINS REPOSITIONED

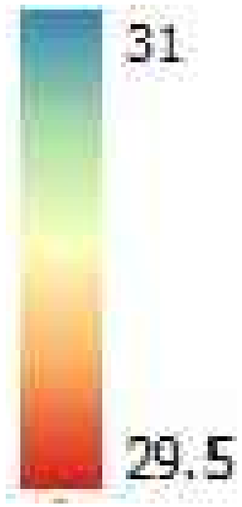
Project Manager/ Checked	Drawn By	Scale	Date
		1:200@ A3	0326
Arch./Des.	Drawing Number F01/AR/03		Rev. C

APPENDIX B

Lidar Topography



LEGEND



REV	DESCRIPTION	DATE	BY

GEO-ENVIRONMENTAL CONSULTING
No 2 Landwick Court, Metcalf Drive, Altham Business Park, Lancashire, BB5 5GY
Tel: 01254 377622 Mob: 07906753583
Email: mbuckley@bekenviro.co.uk
Web: www.bekenviro.co.uk

CLIENT.
INCLUDED LEARNING

JOB TITLE.
LAND AT 8 ALEXANDRA ROAD SOUTH, WHALLEY RANGE, MANCHESTER

DRAWING TITLE.
LIDAR DATA

SCALE @ A3.	DRAWN BY.	APPROVED BY.	DATE.
NTS	D.E.	M.B.	23/04/26

DRAWING No.	REV.
26057-3	-

APPENDIX C

Environment Agency Modelled Flood Data

Flood risk assessment data

Location of site: 383313 / 395247 (shown as easting and northing coordinates)
Document created on: 8 April 2026
This information was previously known as a product 4.
Customer reference number: GMBY5H58N73F

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

Information that's unavailable

This document **does not** contain:

- past floods
- flood defences and attributes

We do not have past 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

When using the surface water map on the check your long term flood risk service the following considerations apply:

- surface water extents are suitable for use in planning
- surface water climate change scenarios may help to inform risk assessments, but the available data fall short of what is required to assess planned development
- surface water depth information should not be used for planning purposes

To find out about other factors that might affect the flood risk of this location, you should also check:

- reservoir flood risk
- groundwater flood risk - you could use the British Geological Survey groundwater flooding data, groundwater: current status and flood risk and the guide on mining and groundwater constraints for development - further information may be available from the lead local flood authority (LLFA)
- your local planning authority's SFRA, which includes future flood risk

Your Lead Local Flood Authority is Manchester District.

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

About the models used

Model name: Chorlton Platt Gore 2024
Scenario(s): Defended fluvial, defences removed fluvial, defended climate change fluvial, defences removed climate change fluvial
Date: 15 April 2024

Model name: Corn Brook 2017
Scenario(s): No defences exist fluvial, no defences exist climate change fluvial
Date: 31 December 2017

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 occuring 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:

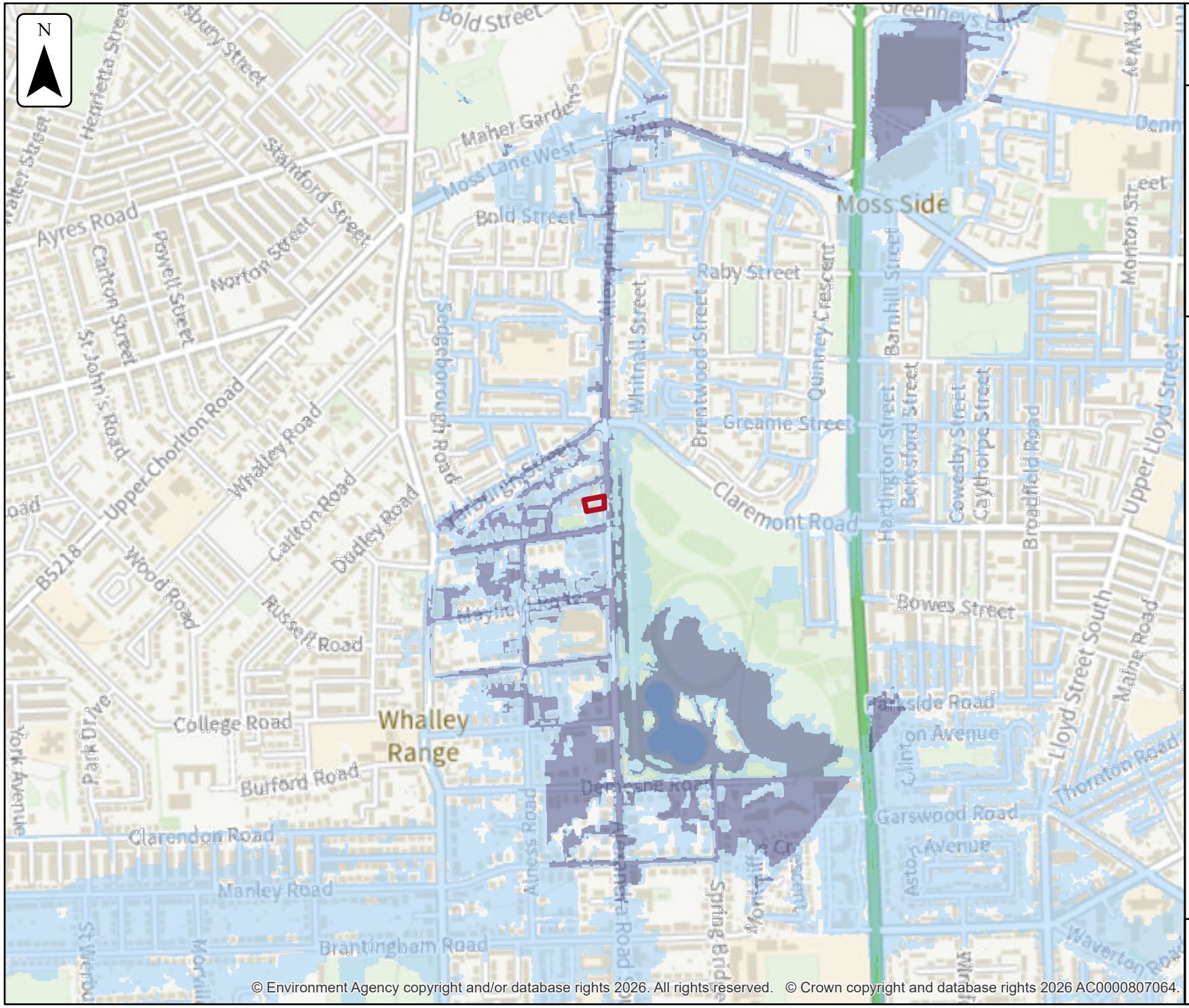
- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

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



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Environment Agency

Flood map for planning

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

- Selected area
- Flood Zone 3
- Flood Zone 2

0 100 200 300 400 500
metres

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

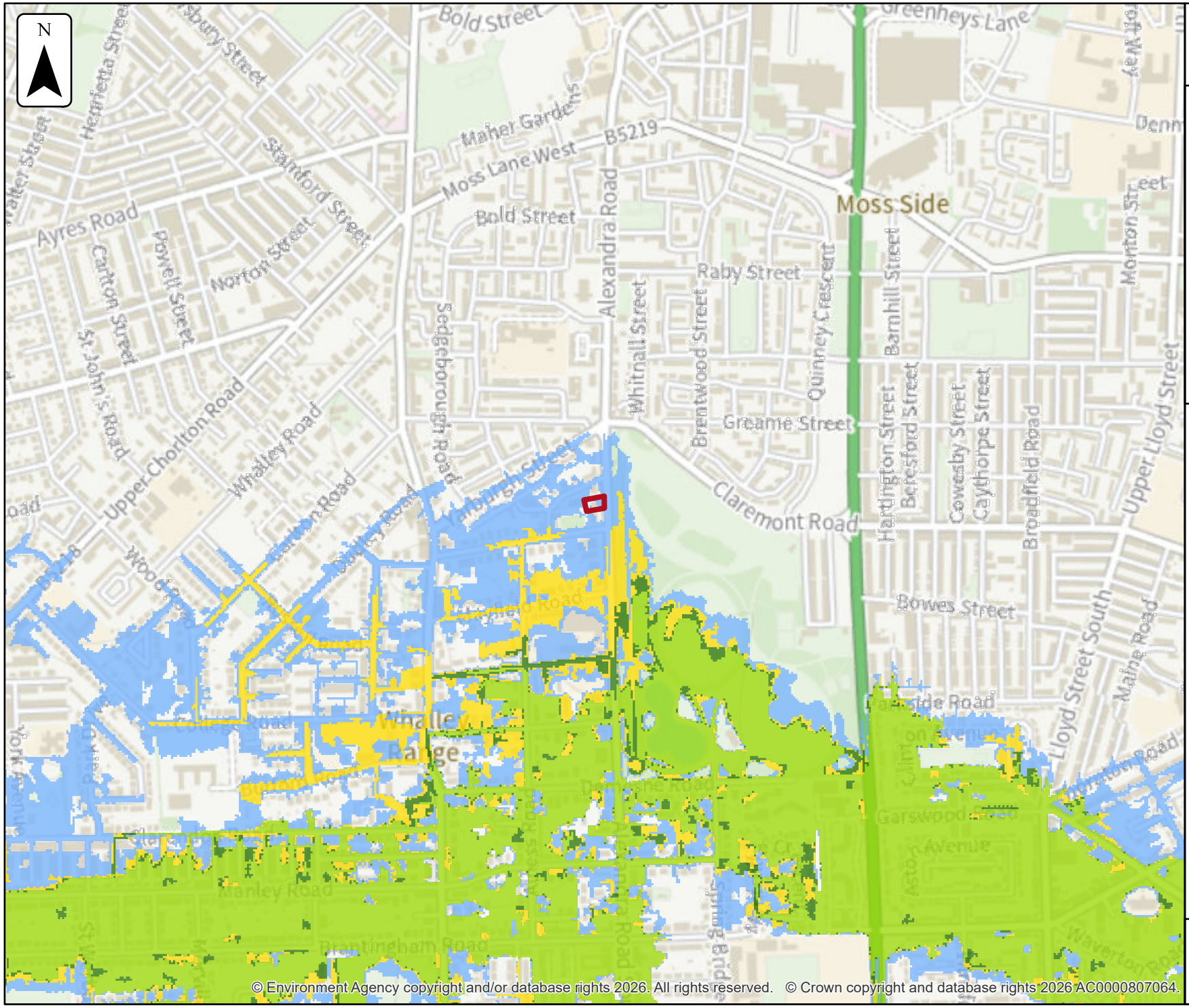
The following scenarios are included:

- 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

No data available

We do not have any height or depth data at this location for the following models:

Model name: Chorlton Platt Gore 2024
Scenario(s): Defences removed modelled fluvial, Defended modelled fluvial



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Defences removed climate change modelled fluvial extent

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

Model name
Chorlton Platt Gore 2024

Selected area

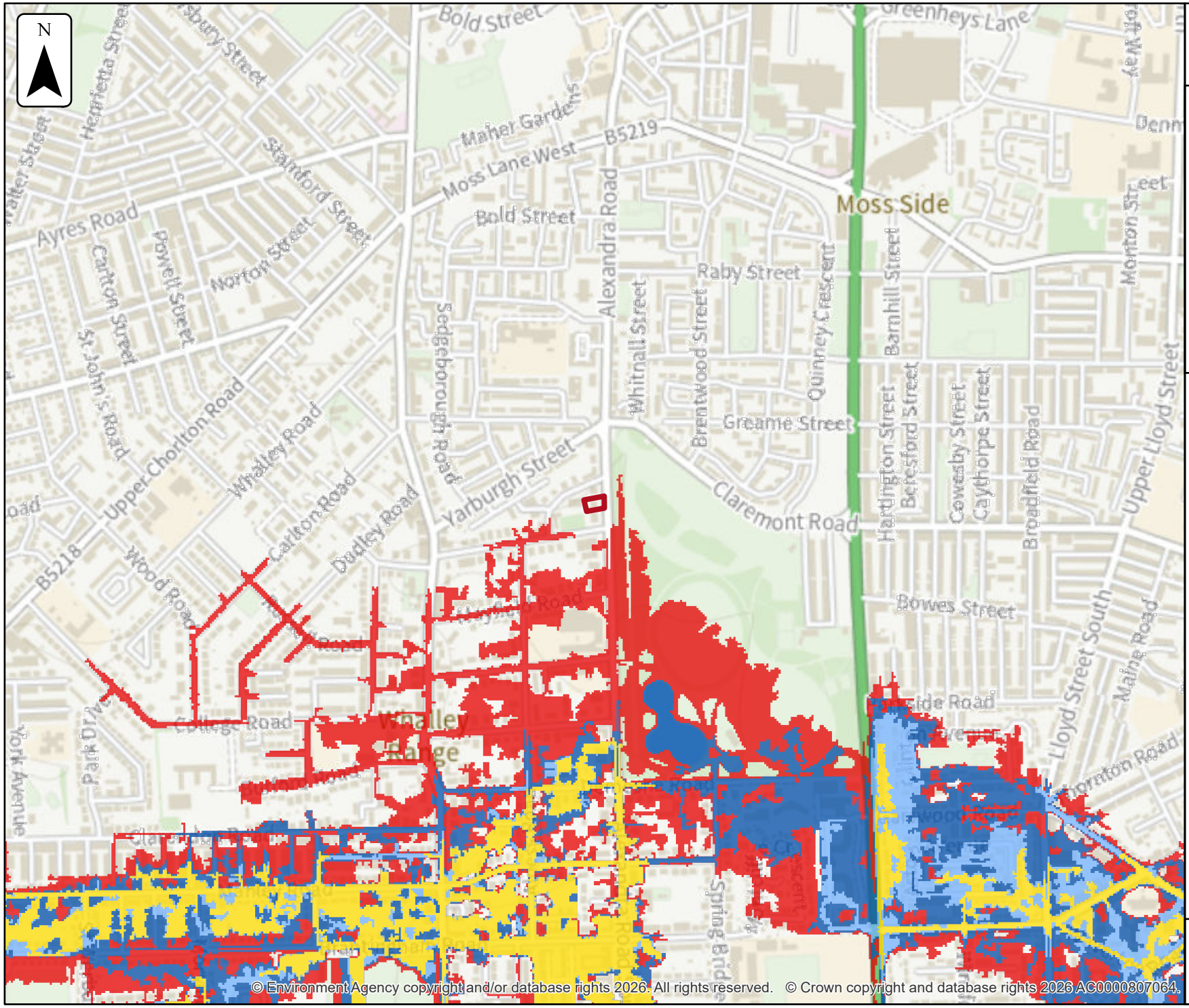
Main river

Modelled flood extent

- 1% AEP (+41%)
- 1% AEP (+53%)
- 1% AEP (+85%)
- 0.1% AEP (+53%)

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

0 100 200 300 400 500
metres



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Environment Agency

Defences removed modelled fluvial extent

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

Model name
Chorlton Platt Gore 2024

Selected area

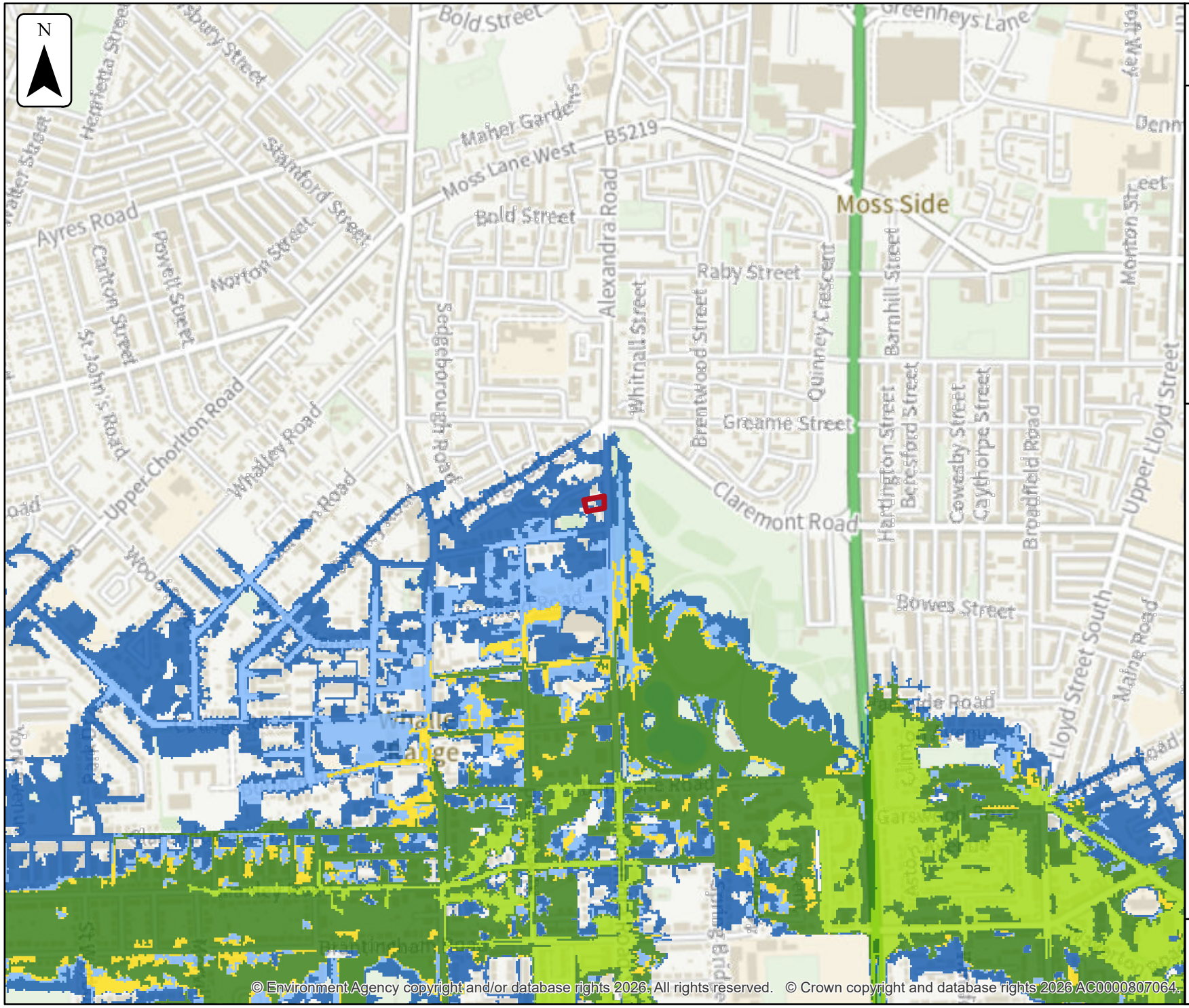
Main river

Modelled flood extent

- 1.33% AEP
- 1% AEP
- 0.5% AEP
- 0.1% AEP

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

0 100 200 300 400 500
metres



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Environment Agency

Defended climate change modelled fluvial extent

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

Model name
Chorlton Platt Gore 2024

Selected area

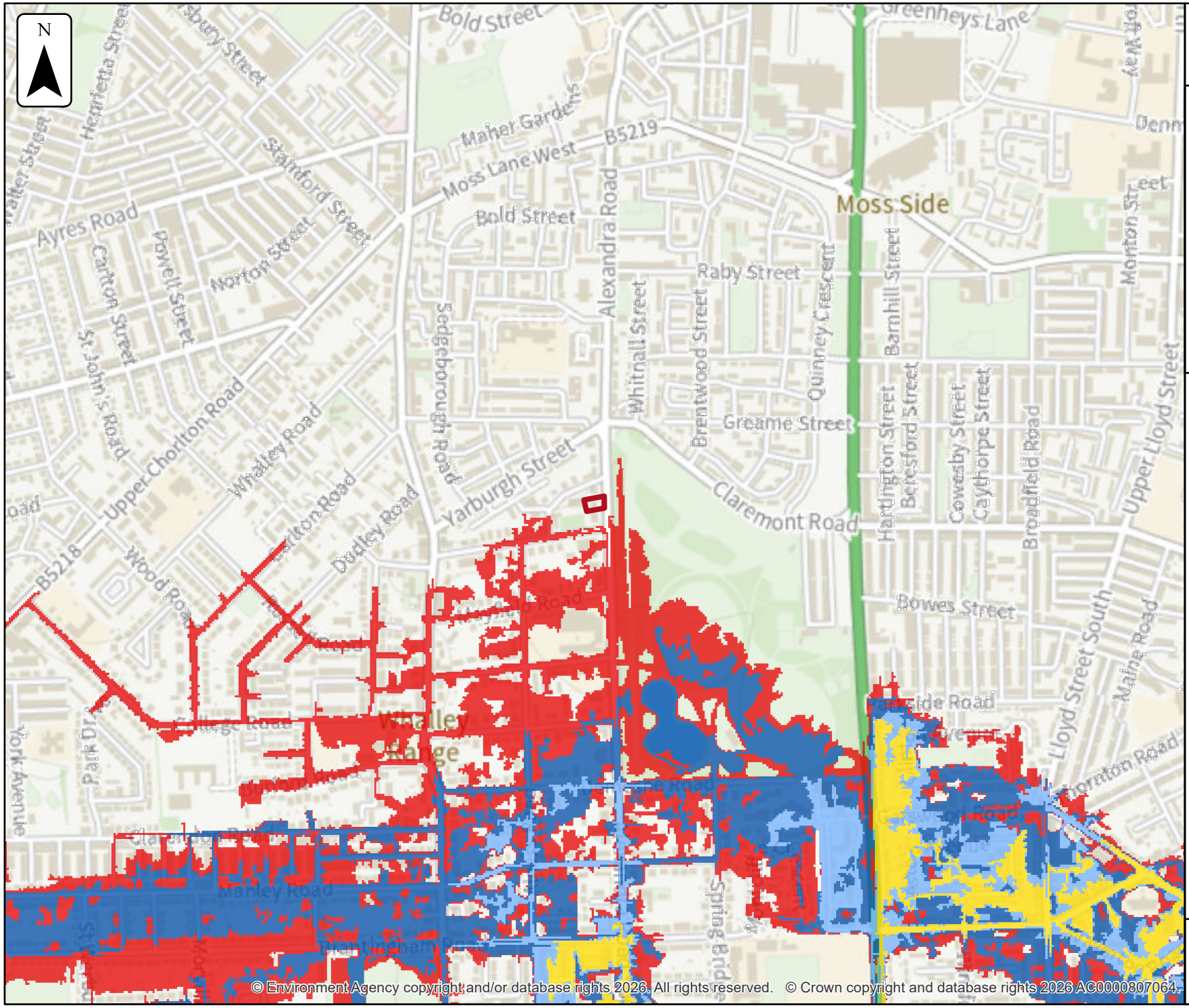
Main river

Modelled flood extent

- 5% AEP (+53%)
- 1% AEP (+41%)
- 1% AEP (+53%)
- 1% AEP (+85%)
- 0.1% AEP (+53%)

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

0 100 200 300 400 500
metres



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Environment Agency

Defended modelled fluvial extent

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

Model name
Chorlton Platt Gore 2024

Selected area

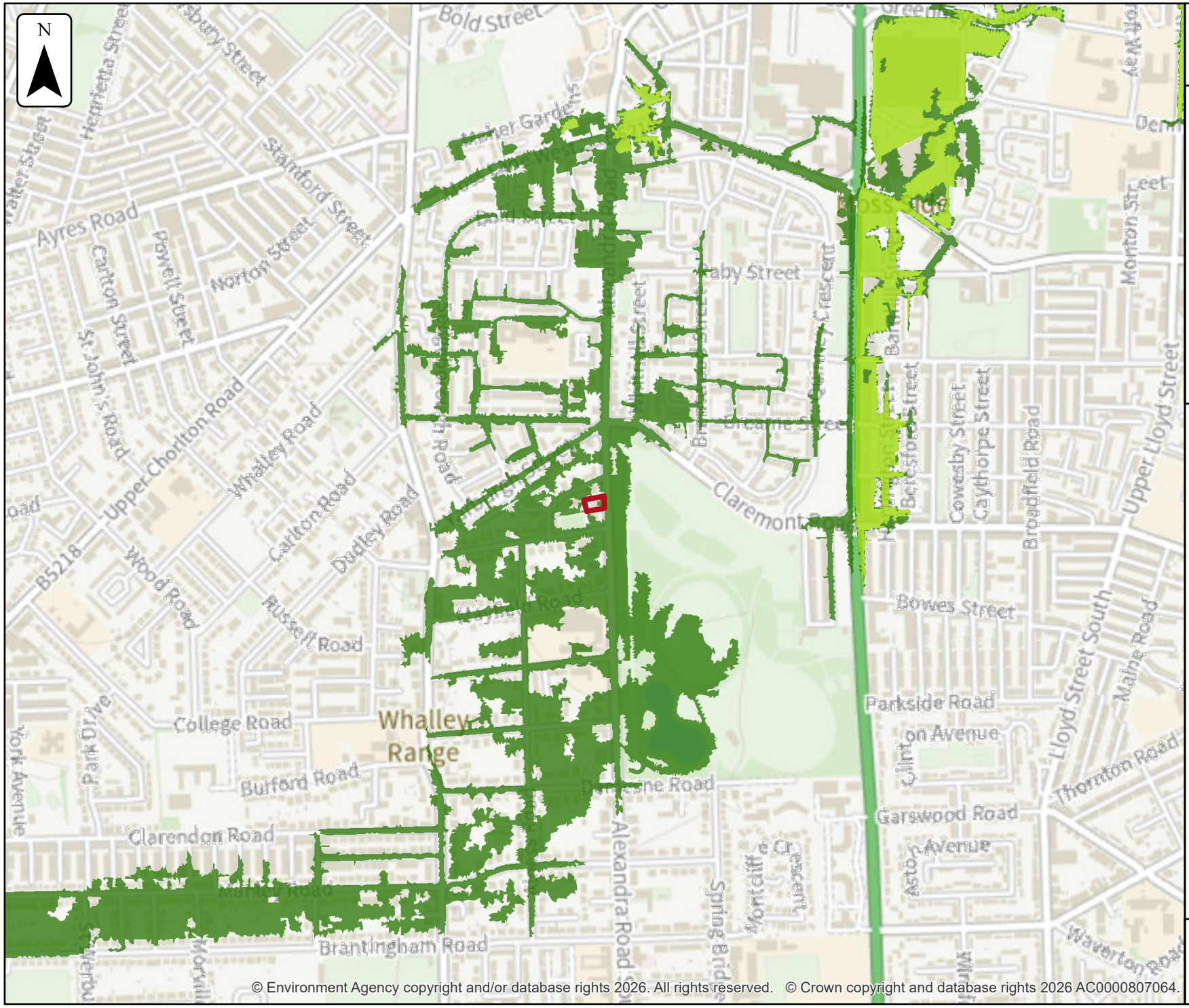
Main river

Modelled flood extent

- 1.33% AEP
- 1% AEP
- 0.5% AEP
- 0.1% AEP

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

0 100 200 300 400 500
metres



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Environment Agency

No defences exist climate change modelled fluvial extent

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

Model name
Corn Brook 2017

Selected area

Main river

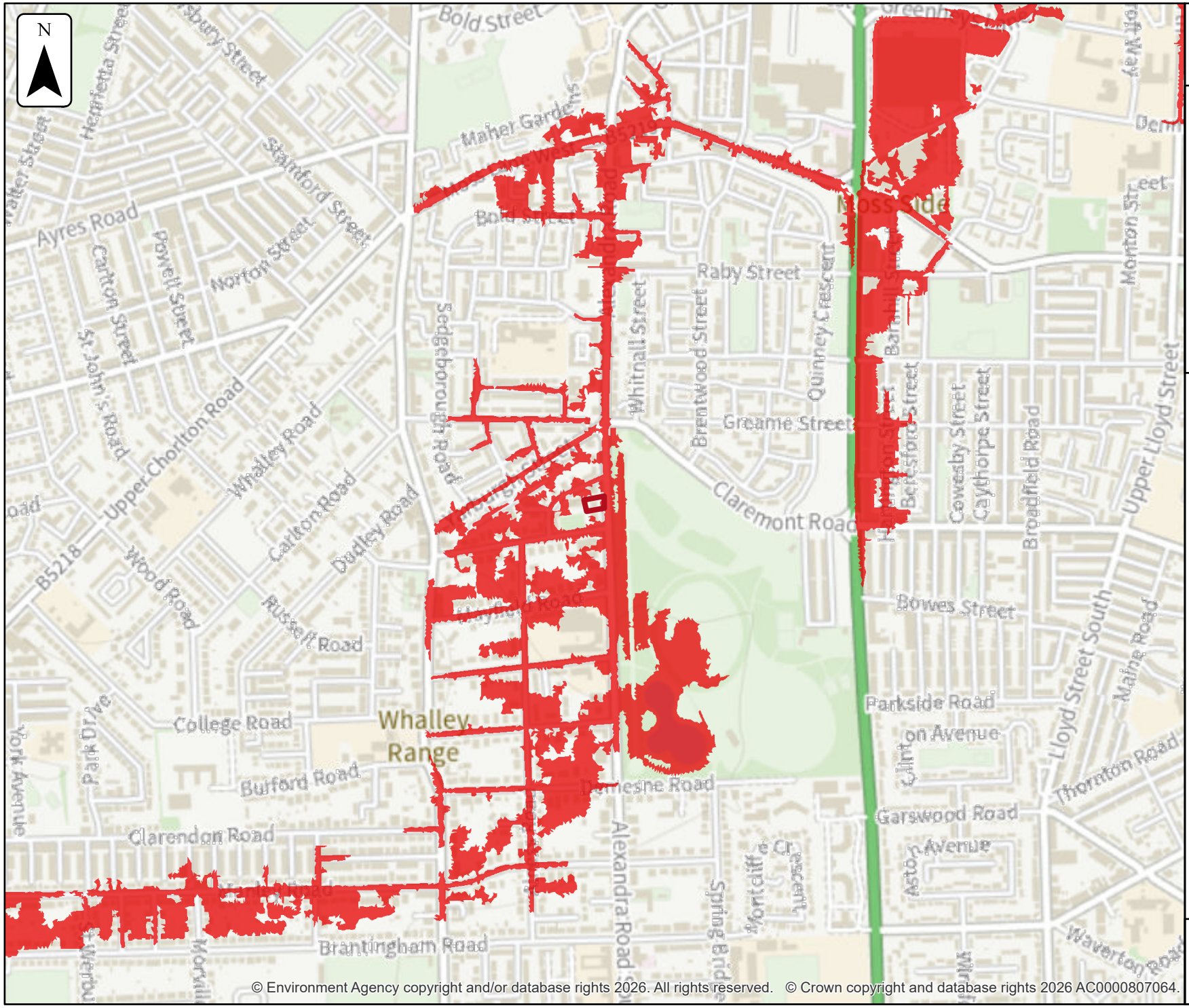
Modelled flood extent

1% AEP (+70%)

0.1% AEP (+30%)

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

0 100 200 300 400 500
metres



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Environment Agency

No defences exist modelled fluvial extent

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

Model name
Corn Brook 2017

Selected area

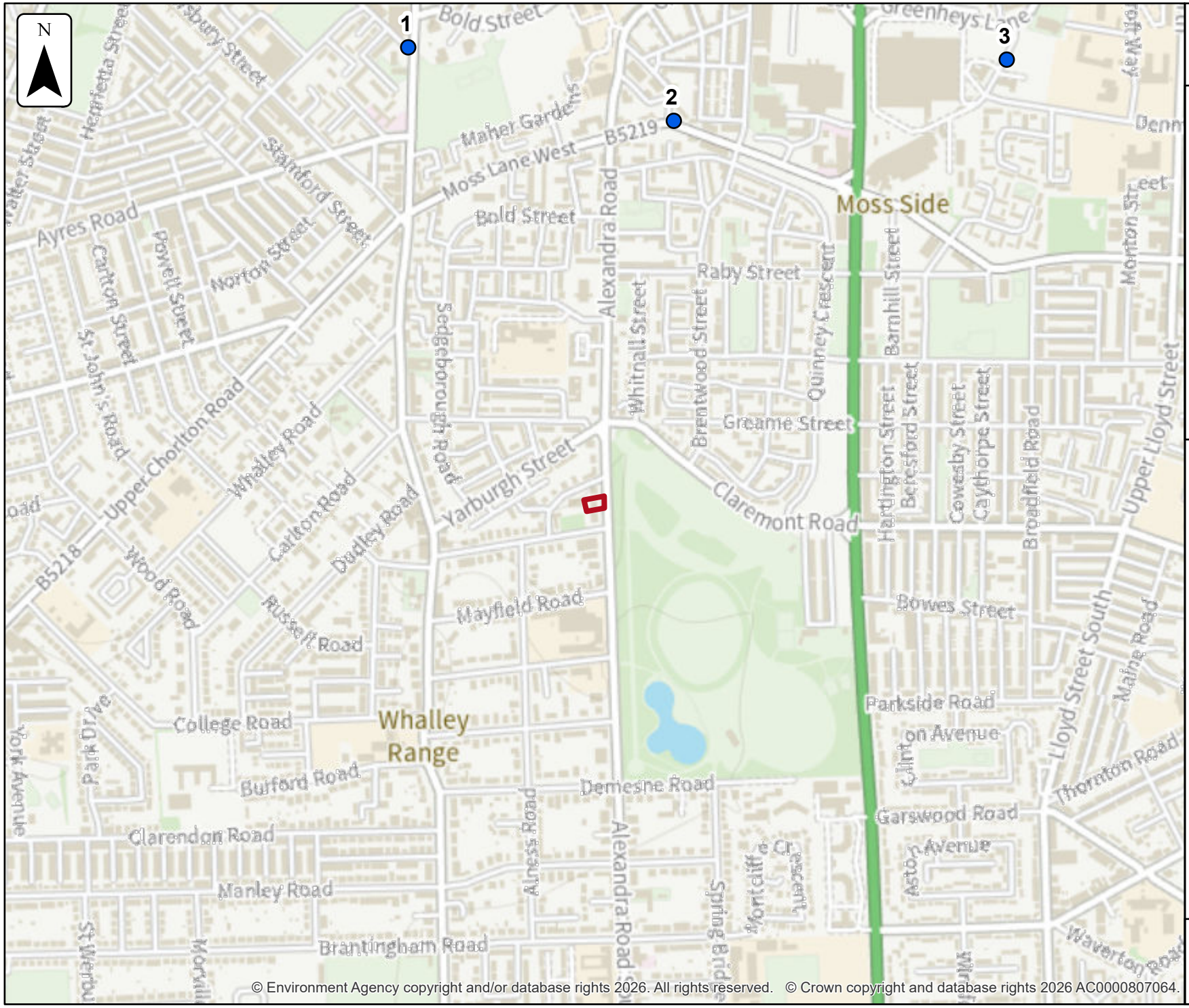
Main river

Modelled flood extent

0.1% AEP

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

0 100 200 300 400 500
metres



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Environment Agency

No defences exist modelled fluvial node locations

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

Model name
Corn Brook 2017

Selected area
Modelled location
Main river

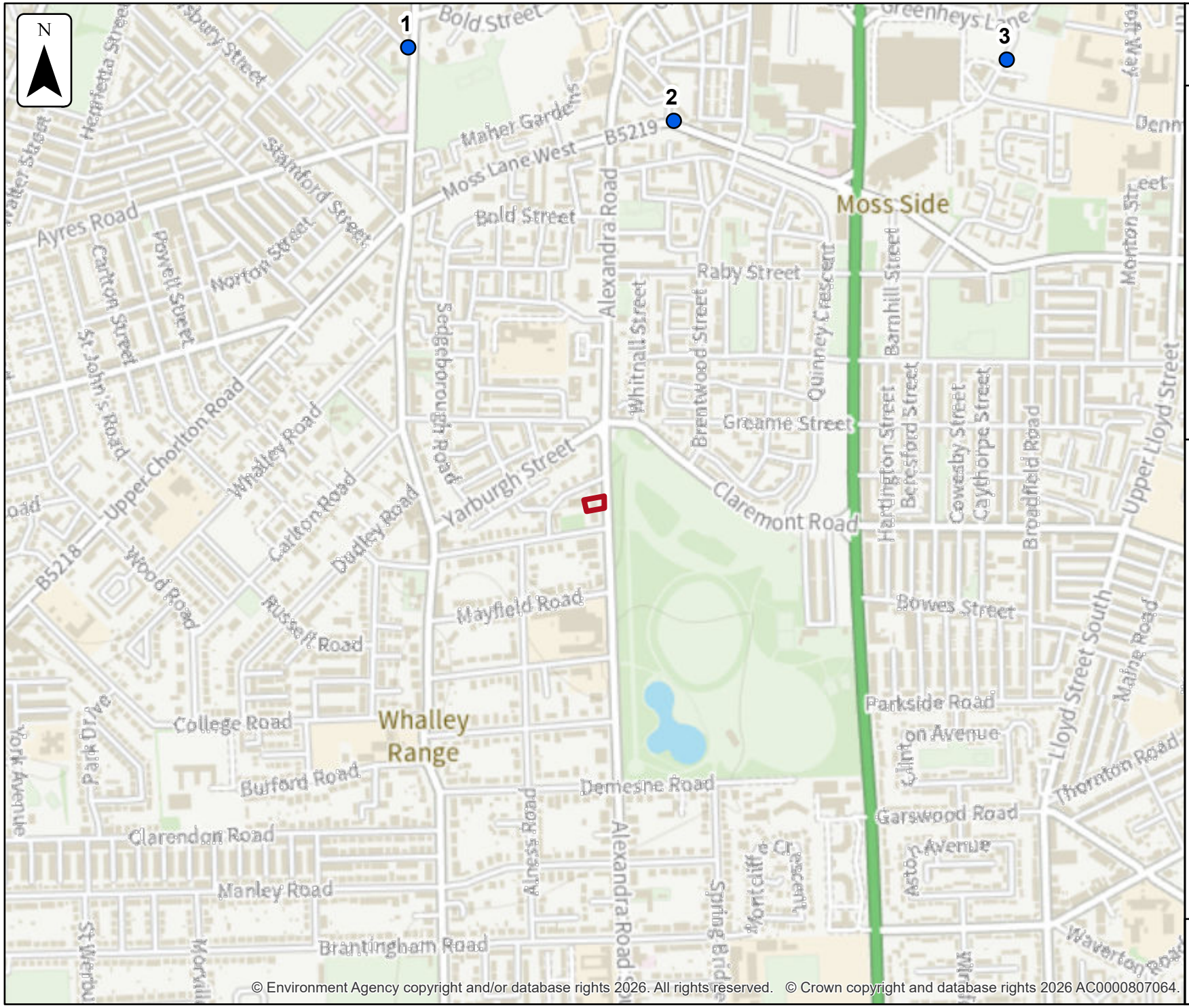
0 100 200 300 400 500
metres

Modelled node locations data

No defences exist

Label	Modelled location ID	Easting	Northing	0.1% AEP	0.1% AEP
				Level	Flow
1	952451	382950	396136	31.73	5.10
2	952452	383467	395993	33.28	4.60
3	952465	384116	396112	34.34	3.47

Data in this table comes from the Corn Brook 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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Environment Agency

No defences exist climate change modelled fluvial node locations

Location (easting/northing)
383313/395247

Scale
1:10,000

Created
8 Apr 2026

Model name
Corn Brook 2017

Selected area
Modelled location
Main river

0 100 200 300 400 500
metres

Modelled node locations data

No defences exist climate change

Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level
1	952451	382950	396136	30.34	30.39	30.82	31.99
2	952452	383467	395993	32.78	32.81	32.99	33.39
3	952465	384116	396112	33.75	33.79	34.02	34.46

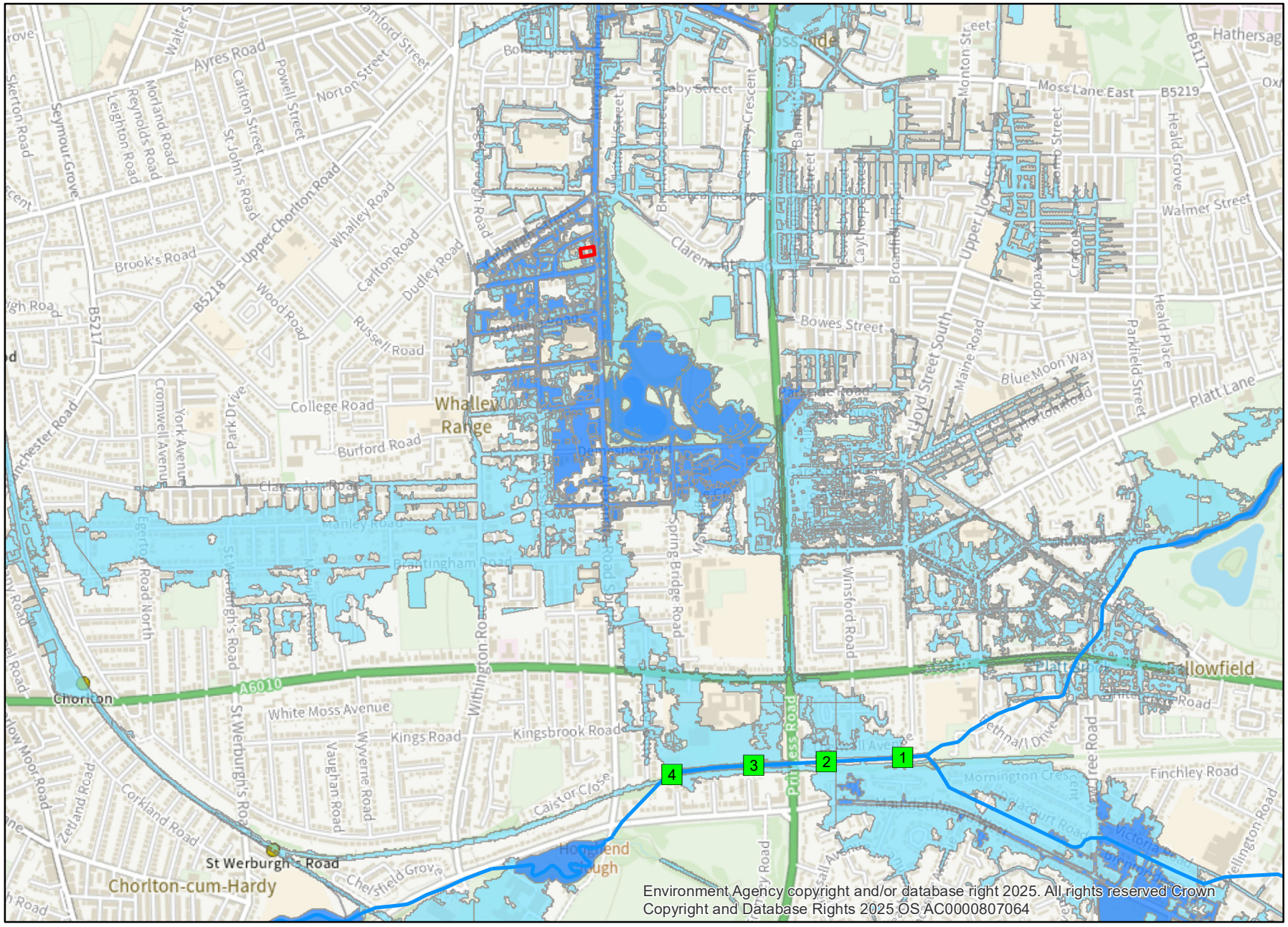
Data in this table comes from the Corn Brook 2017 model.
Level values are shown in mAOD, and flow values are shown in cubic metres per second.
Any blank cells show where a particular scenario has not been modelled for this location.

No defences exist climate change

Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Flow	Flow	Flow	Flow
1	952451	382950	396136	2.24	2.33	2.93	6.63
2	952452	383467	395993	2.03	2.11	2.66	5.98
3	952465	384116	396112	1.57	1.63	2.05	4.51

Data in this table comes from the Corn Brook 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.

Detailed Flood Map Centred on Alexandra Road South, Manchester, M16 8ER.
Created 09/04/2026 [EIR2026/17097]



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Environment Agency

1:15,001

N

Legend

- Site Location
- Chorlton Platt Gore 2024
- Main River
- Flood Zone 2
- Flood Zone 3

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					Defended													Undefended												
Map Reference	Model Node Reference	Easting	Northing	Data	50 % AEP (1 in 2 year)	20 % AEP (1 in 5 year)	10 % AEP (1 in 10 year)	5 % AEP (1 in 20 year)	2 % AEP (1 in 50 year)	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1% AEP (1 in 100 year) + 41 increase in flow	1% AEP (1 in 100 year) + 53% increase in flow	1% AEP (1 in 100 year) + 85% increase in flow	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)	0.1% AEP (1 in 1000 year) + 53% increase in flow	50 % AEP (1 in 2 year)	20 % AEP (1 in 5 year)	10 % AEP (1 in 10 year)	5 % AEP (1 in 20 year)	2 % AEP (1 in 50 year)	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1% AEP (1 in 100 year) + 41 increase in flow	1% AEP (1 in 100 year) + 53% increase in flow	1% AEP (1 in 100 year) + 85% increase in flow	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)	0.1% AEP (1 in 1000 year) + 53% increase in flow
1	ea013_0317_04693	384191	393841	Modelled Water Level (m aodN)	31.44	31.71	31.87	32.04	32.13	32.14	32.15	32.20	32.21	32.23	32.17	32.23	32.28	31.44	31.71	31.85	32.00	32.11	32.14	32.15	32.20	32.20	32.23	32.17	32.22	32.26
				Modelled Flow (cumecs)	12.20	16.88	19.97	23.40	26.56	27.13	27.72	30.07	30.64	32.03	28.92	31.79	34.97	12.17	15.38	17.52	19.99	22.48	23.52	24.17	26.14	26.34	26.26	24.98	27.99	31.83
2	ea013_0317_04482	383870	393836	Modelled Water Level (m aodN)	30.88	31.15	31.32	31.52	31.67	31.68	31.69	31.78	31.80	31.85	31.74	31.84	31.95	30.88	31.16	31.34	31.47	31.54	31.59	31.63	31.73	31.75	31.81	31.68	31.80	31.90
				Modelled Flow (cumecs)	12.20	16.87	19.96	23.34	24.77	25.13	25.28	26.35	26.62	27.17	25.76	27.07	28.00	12.16	16.17	18.16	20.44	22.43	23.09	23.50	23.97	23.85	24.26	23.61	24.54	25.13
3	ea013_0317_4315/1	383769	393831	Modelled Water Level (m aodN)	30.33	30.56	30.74	31.04	31.25	31.26	31.26	31.29		31.30	31.28	31.30	31.32	30.33	30.56	30.73	30.91	31.06	31.09	31.09	31.16	31.18	31.21	31.14	31.21	31.26
				Modelled Flow (cumecs)	12.19	16.86	19.93	23.24	24.55	24.75	25.00	27.36		29.08	26.17	28.84	31.34	12.15	16.85	19.76	21.77	22.60	22.74	24.53	23.18	23.23	23.71	23.04	23.45	25.08
4	ea013_0317_04053	383553	393811	Modelled Water Level (m aodN)	28.03	28.85	29.78	30.70	31.00	31.03	31.04	31.10	31.11	31.14	31.07	31.15	31.22	28.03	28.86	29.78	30.55	30.87	30.92	30.94	31.02	31.04	31.08	30.99	31.09	31.17
				Modelled Flow (cumecs)	12.19	16.80	19.77	22.67	23.61	23.65	23.73	23.75	23.75	23.72	23.74	23.83	23.67	12.16	16.78	19.62	21.55	22.14	22.21	26.95	22.23	22.22	22.21	22.26	22.23	22.12

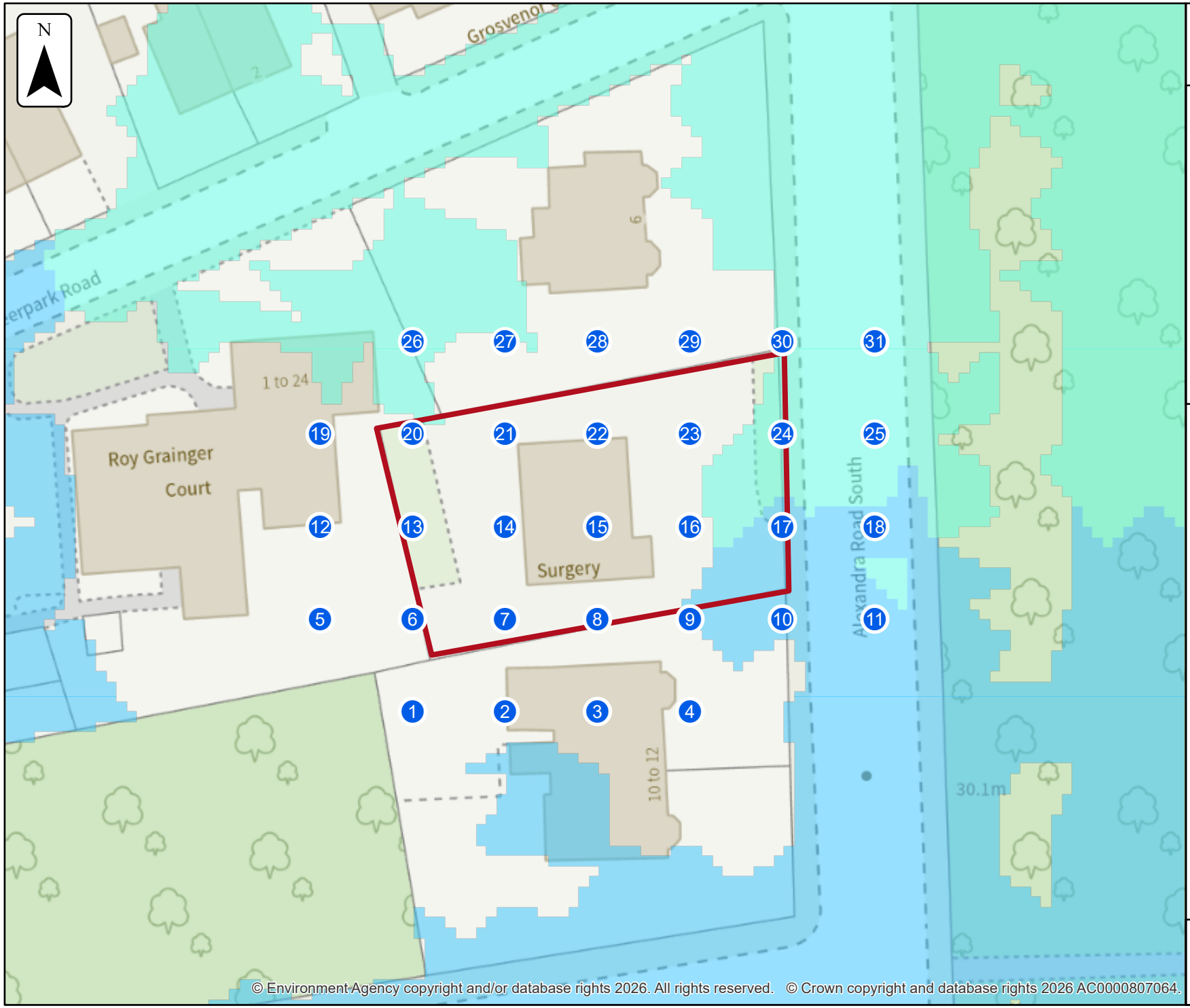
Model data taken from Chorlton Platt Gore 2024

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes: *Climate Change Scenario - 41%, 53% and 85% increases in flow calculated for the 2080's (2070 - 2115). Please see https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances for more information regarding the new climate change guidance. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.



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Environment Agency

No defences exist modelled fluvial extent and height

Location (easting/northing)
383313/395247

Scale
1:500

Created
8 Apr 2026

Model name
Corn Brook 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 30 - 30.125
- 30.125 - 30.25
- 30.25 - 30.375
- 30.375 - 30.5
- 30.5 - 30.625
- 30.625 - 30.75
- 30.75 - 30.875
- 30.875 - 31.0
- 31.0 - 31.125

This map shows the 0.1% AEP height data

0 5 10 15 20
metres

Sample point data

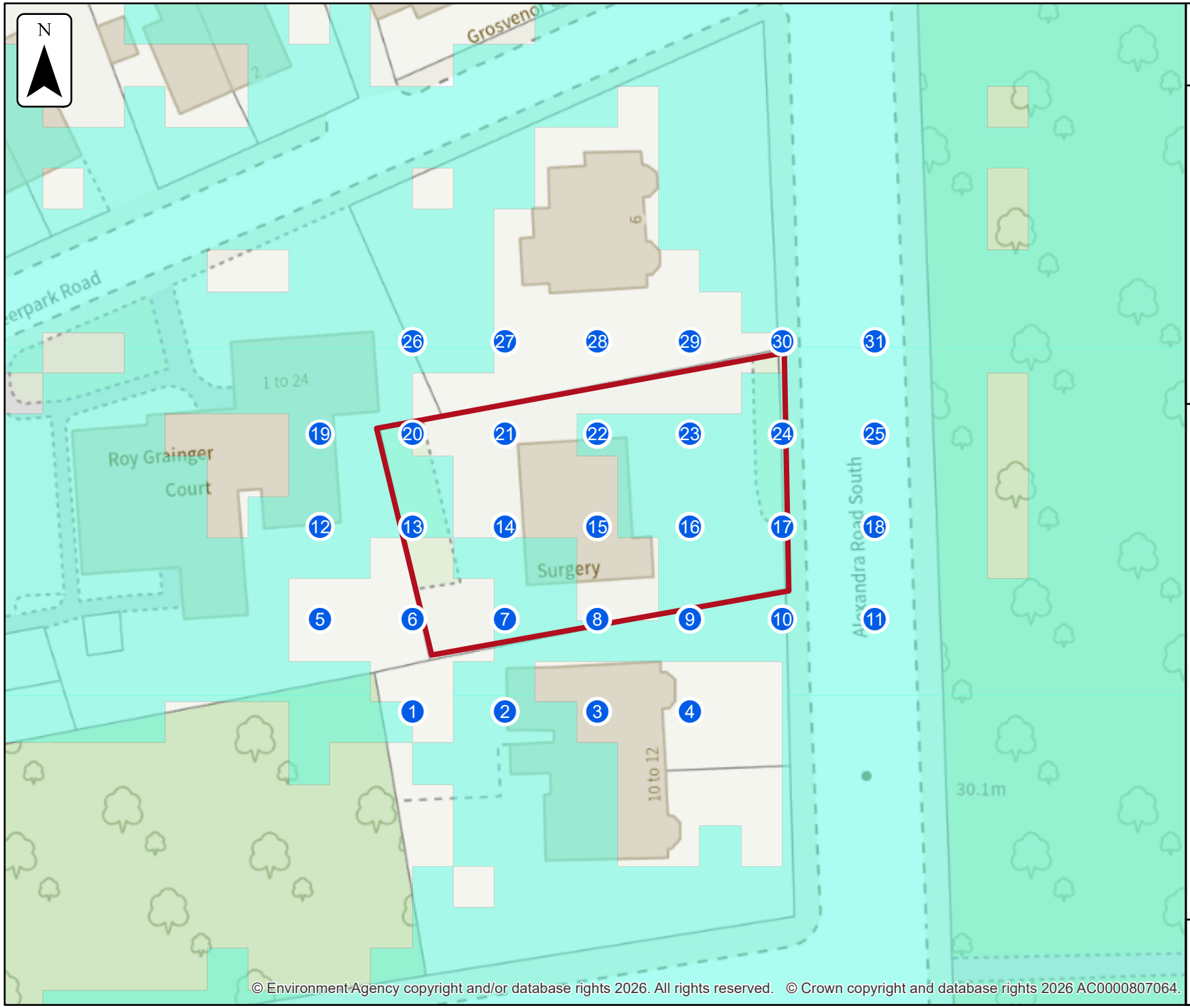
No defences exist

Label	Easting	Northing	0.1% AEP	0.1% AEP
			Height	Depth
1	383296	395227	NoData	NoData
2	383305	395227	NoData	NoData
3	383314	395227	NoData	NoData
4	383323	395227	NoData	NoData
5	383287	395236	NoData	NoData
6	383296	395236	NoData	NoData
7	383305	395236	NoData	NoData
8	383314	395236	NoData	NoData
9	383323	395236	30.37	0.13
10	383332	395236	30.37	0.23
11	383341	395236	30.37	0.17
12	383287	395245	NoData	NoData

Label	Easting	Northing	0.1% AEP	0.1% AEP
			Height	Depth
13	383296	395245	NoData	NoData
14	383305	395245	NoData	NoData
15	383314	395245	NoData	NoData
16	383323	395245	NoData	NoData
17	383332	395245	30.37	0.18
18	383341	395245	30.38	0.19
19	383287	395254	NoData	NoData
20	383296	395254	NoData	NoData
21	383305	395254	NoData	NoData
22	383314	395254	NoData	NoData
23	383323	395254	NoData	NoData
24	383332	395254	30.38	0.11

Label	Easting	Northing	0.1% AEP	0.1% AEP
			Height	Depth
25	383341	395254	30.38	0.19
26	383296	395263	30.39	0.21
27	383305	395263	30.39	0.21
28	383314	395263	NoData	NoData
29	383323	395263	NoData	NoData
30	383332	395263	30.39	0.15
31	383341	395263	30.39	0.20
Max value in selected area:			30.39	0.23

Data in this table comes from the Corn Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.
Any blank cells show where a particular scenario has not been modelled for this location.
Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.



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Environment Agency

Defended climate change modelled fluvial extent and height

Location (easting/northing)
383313/395247

Scale
1:500

Created
8 Apr 2026

Model name
Chorlton Platt Gore 2024

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 30 - 30.125
- 30.125 - 30.25
- 30.25 - 30.375
- 30.375 - 30.5
- 30.5 - 30.625
- 30.625 - 30.75
- 30.75 - 30.875
- 30.875 - 31.0
- 31.0 - 31.125

This map shows the 0.1% AEP +53% height data

0 5 10 15 20
metres

Sample point data

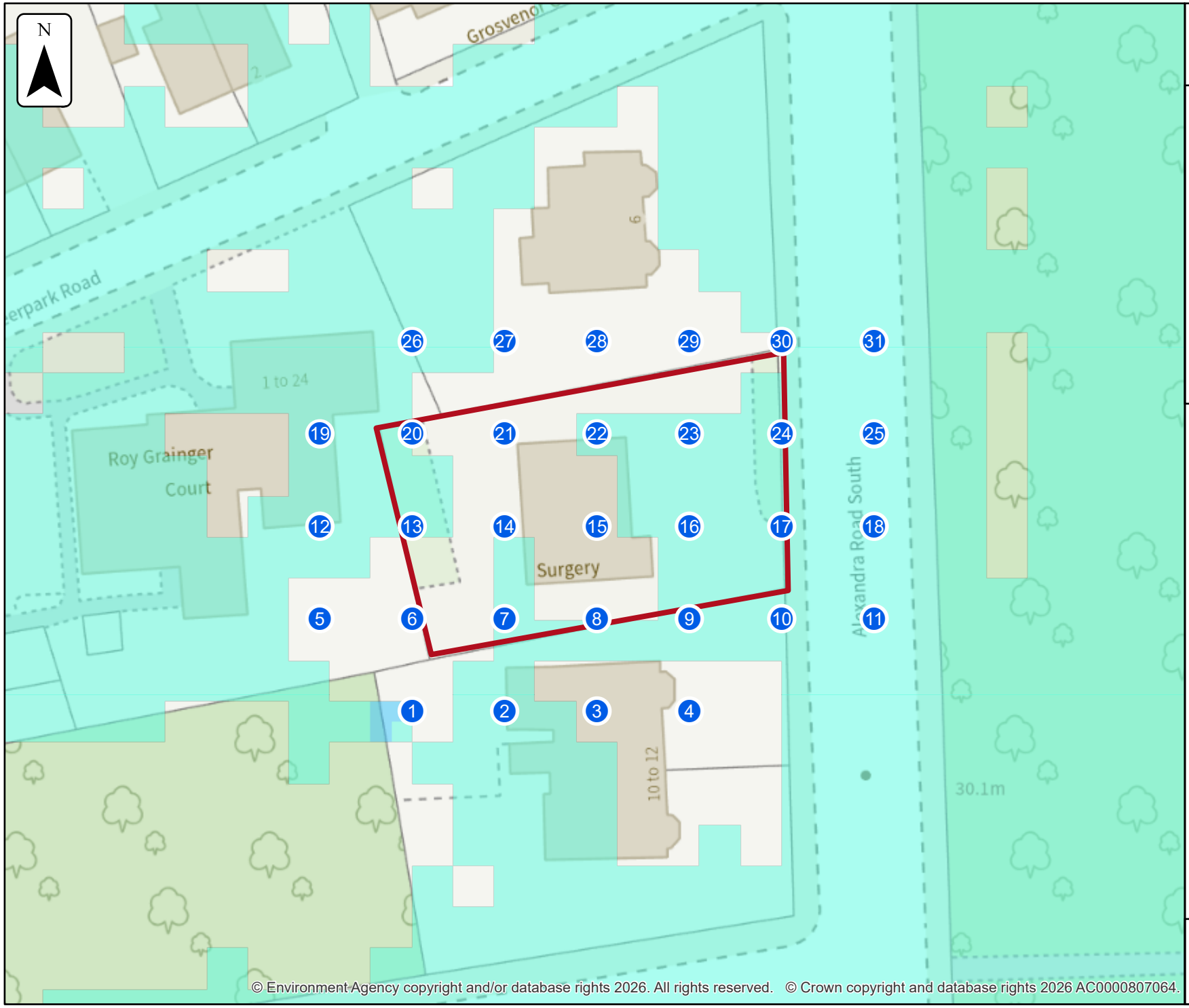
Defended climate change

Label	Easting	Northing	0.1% AEP (+53%)	0.1% AEP (+53%)
			Height	Depth
1	383296	395227	NoData	NoData
2	383305	395227	30.40	0.09
3	383314	395227	NoData	NoData
4	383323	395227	NoData	NoData
5	383287	395236	NoData	NoData
6	383296	395236	NoData	NoData
7	383305	395236	30.40	0.01
8	383314	395236	NoData	NoData
9	383323	395236	30.40	0.13
10	383332	395236	30.40	0.28
11	383341	395236	30.40	0.14
12	383287	395245	30.39	0.10

Label	Easting	Northing	0.1% AEP (+53%)	0.1% AEP (+53%)
			Height	Depth
13	383296	395245	30.39	0.01
14	383305	395245	NoData	NoData
15	383314	395245	NoData	NoData
16	383323	395245	30.40	0.07
17	383332	395245	30.40	0.26
18	383341	395245	30.40	0.18
19	383287	395254	30.39	0.12
20	383296	395254	NoData	NoData
21	383305	395254	NoData	NoData
22	383314	395254	30.40	0.01
23	383323	395254	30.40	0.11
24	383332	395254	30.40	0.23

Label	Easting	Northing	0.1% AEP (+53%)	0.1% AEP (+53%)
			Height	Depth
25	383341	395254	30.40	0.15
26	383296	395263	30.39	0.21
27	383305	395263	NoData	NoData
28	383314	395263	NoData	NoData
29	383323	395263	NoData	NoData
30	383332	395263	30.40	0.17
31	383341	395263	30.40	0.17
Max value in selected area:			30.40	0.22

Data in this table comes from the Chorlton Platt Gore 2024 model. Height values are shown in mAOD, and depth values are shown in metres.
Any blank cells show where a particular scenario has not been modelled for this location.
Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.



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Environment Agency

Defences removed climate change modelled fluvial extent and height

Location (easting/northing)
383313/395247

Scale
1:500

Created
8 Apr 2026

Model name
Chorlton Platt Gore 2024

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 30 - 30.125
- 30.125 - 30.25
- 30.25 - 30.375
- 30.375 - 30.5
- 30.5 - 30.625
- 30.625 - 30.75
- 30.75 - 30.875
- 30.875 - 31.0
- 31.0 - 31.125

This map shows the 0.1% AEP +53% height data

0 5 10 15 20
metres

Sample point data

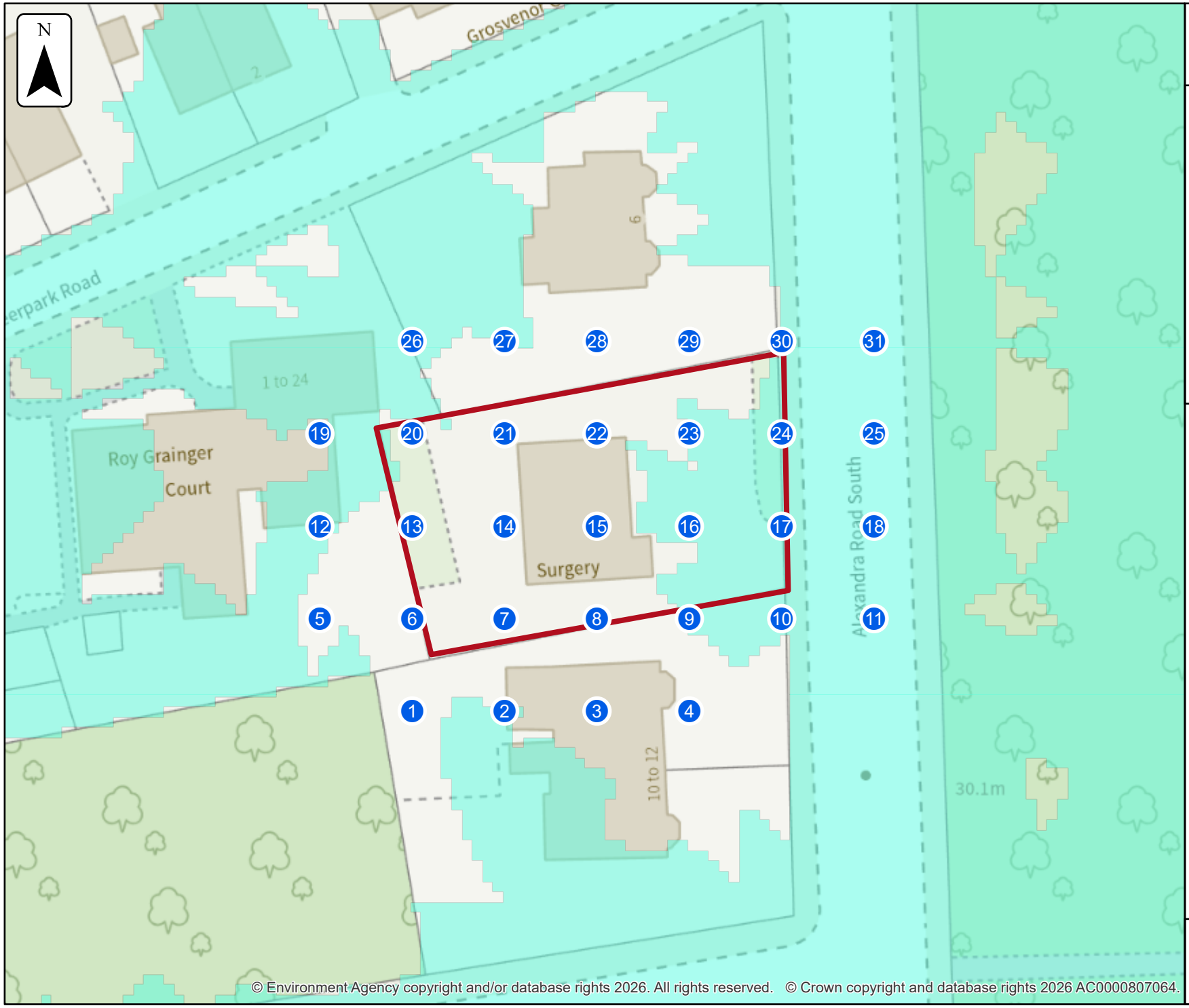
Defences removed climate change

Label	Easting	Northing	0.1% AEP (+53%)	0.1% AEP (+53%)
			Height	Depth
1	383296	395227	NoData	NoData
2	383305	395227	30.39	0.08
3	383314	395227	NoData	NoData
4	383323	395227	NoData	NoData
5	383287	395236	NoData	NoData
6	383296	395236	NoData	NoData
7	383305	395236	30.39	0.00
8	383314	395236	NoData	NoData
9	383323	395236	30.39	0.12
10	383332	395236	30.39	0.28
11	383341	395236	30.39	0.14
12	383287	395245	30.38	0.10

Label	Easting	Northing	0.1% AEP (+53%)	0.1% AEP (+53%)
			Height	Depth
13	383296	395245	30.38	0.01
14	383305	395245	NoData	NoData
15	383314	395245	NoData	NoData
16	383323	395245	30.39	0.07
17	383332	395245	30.39	0.25
18	383341	395245	30.39	0.17
19	383287	395254	30.38	0.12
20	383296	395254	NoData	NoData
21	383305	395254	NoData	NoData
22	383314	395254	30.39	0.01
23	383323	395254	30.39	0.11
24	383332	395254	30.39	0.23

Label	Easting	Northing	0.1% AEP (+53%)	0.1% AEP (+53%)
			Height	Depth
25	383341	395254	30.39	0.15
26	383296	395263	30.38	0.21
27	383305	395263	NoData	NoData
28	383314	395263	NoData	NoData
29	383323	395263	NoData	NoData
30	383332	395263	30.39	0.16
31	383341	395263	30.39	0.16
Max value in selected area:			30.39	0.22

Data in this table comes from the Chorlton Platt Gore 2024 model. Height values are shown in mAOD, and depth values are shown in metres.
Any blank cells show where a particular scenario has not been modelled for this location.
Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.



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Environment Agency

No defences exist climate change modelled fluvial extent and height

Location (easting/northing)
383313/395247

Scale
1:500

Created
8 Apr 2026

Model name
Corn Brook 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 30 - 30.125
- 30.125 - 30.25
- 30.25 - 30.375
- 30.375 - 30.5
- 30.5 - 30.625
- 30.625 - 30.75
- 30.75 - 30.875
- 30.875 - 31.0
- 31.0 - 31.125

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

0 5 10 15 20
metres

Sample point data

No defences exist climate change

Label	Easting	Northing	0.1% AEP (+30%)	0.1% AEP (+30%)
			Height	Depth
1	383296	395227	NoData	NoData
2	383305	395227	30.41	0.11
3	383314	395227	NoData	NoData
4	383323	395227	NoData	NoData
5	383287	395236	NoData	NoData
6	383296	395236	NoData	NoData
7	383305	395236	NoData	NoData
8	383314	395236	NoData	NoData
9	383323	395236	30.43	0.17
10	383332	395236	30.43	0.28
11	383341	395236	30.42	0.22
12	383287	395245	30.42	0.13

Label	Easting	Northing	0.1% AEP (+30%)	0.1% AEP (+30%)
			Height	Depth
13	383296	395245	NoData	NoData
14	383305	395245	NoData	NoData
15	383314	395245	NoData	NoData
16	383323	395245	30.43	0.12
17	383332	395245	30.43	0.28
18	383341	395245	30.42	0.28
19	383287	395254	NoData	NoData
20	383296	395254	NoData	NoData
21	383305	395254	NoData	NoData
22	383314	395254	NoData	NoData
23	383323	395254	30.43	0.10
24	383332	395254	30.43	0.19

Label	Easting	Northing	0.1% AEP (+30%)	0.1% AEP (+30%)
			Height	Depth
25	383341	395254	30.43	0.24
26	383296	395263	30.44	0.27
27	383305	395263	NoData	NoData
28	383314	395263	NoData	NoData
29	383323	395263	NoData	NoData
30	383332	395263	30.44	0.20
31	383341	395263	30.44	0.27
Max value in selected area:			30.44	0.31

Data in this table comes from the Corn Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.
Any blank cells show where a particular scenario has not been modelled for this location.
Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

Strategic flood risk assessments

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

This should give you information about:

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

Your Lead Local Flood Authority is Manchester District.

About this data

This data has been generated by strategic scale flood models and is not intended for use at the individual property scale. If you're intending to use this data as part of a flood risk assessment, please include an appropriate modelling tolerance as part of your assessment. The Environment Agency regularly updates its modelling. We recommend that you check the data provided is the most recent, before submitting your flood risk assessment.

Flood risk activity permits

Under the Environmental Permitting (England and Wales) Regulations 2016 some developments may require an environmental permit for flood risk activities from the Environment Agency. This includes any permanent or temporary works that are in, over, under, or nearby a designated main river or flood defence structure.

Find out more about flood risk activity permits

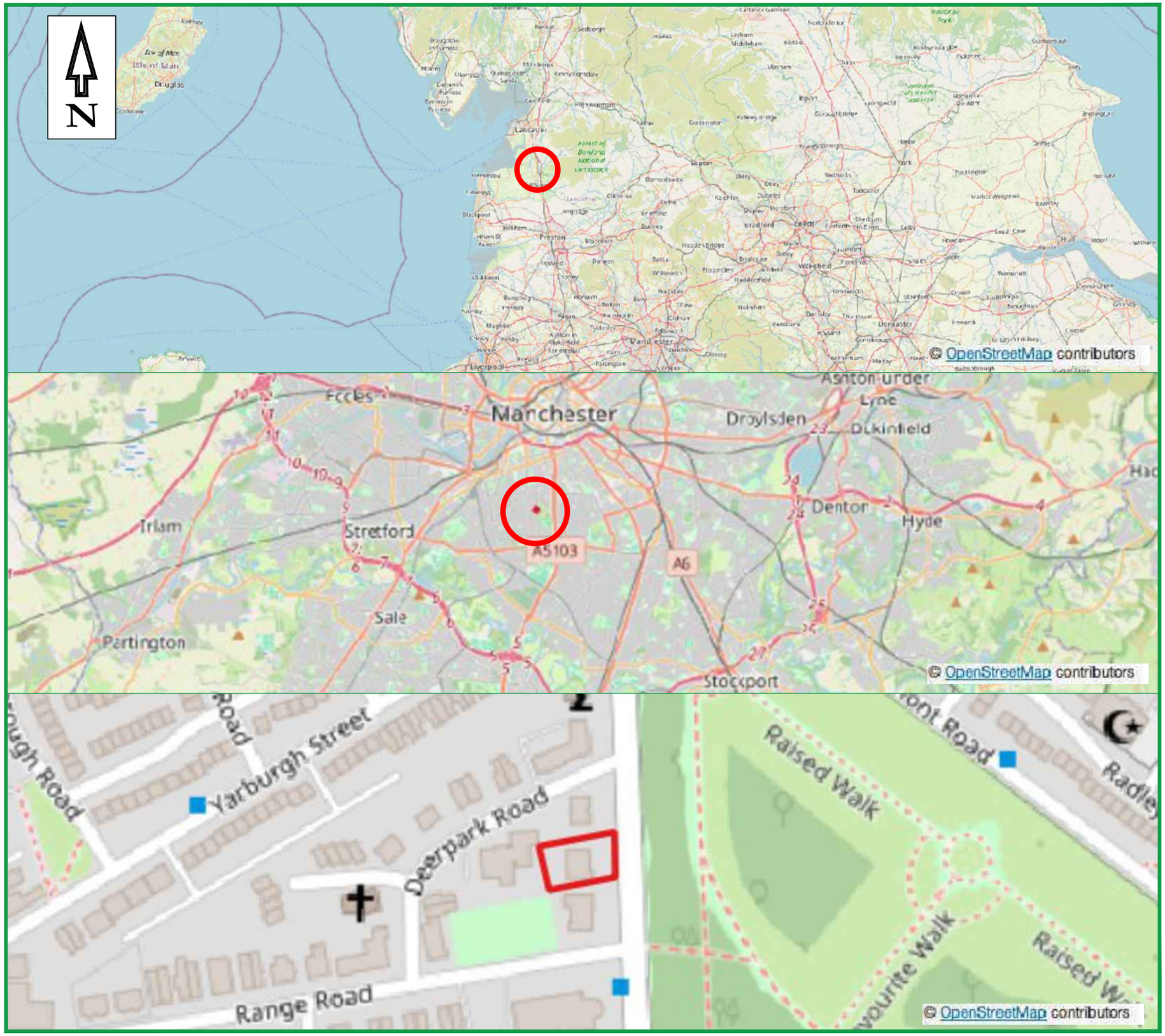
Help and advice

Contact the Greater Manchester Merseyside and Cheshire Environment Agency team at inforequests.gmmc@environment-agency.gov.uk for:

- more information about getting a product 5, 6, 7 or 8
- general help and advice about the site you're requesting data for

APPENDIX D

Drawings



LEGEND

SITE LOCATION

REV	DESCRIPTION	DATE	BY

GEO-ENVIRONMENTAL CONSULTING
No 2 Landwick Court, Metcalf Drive, Altham Business Park, Lancashire
Tel: 01254 377622 Mob: 07906753583
Email: mbuckley@bekenviro.co.uk
Web: www.bekenviro.co.uk

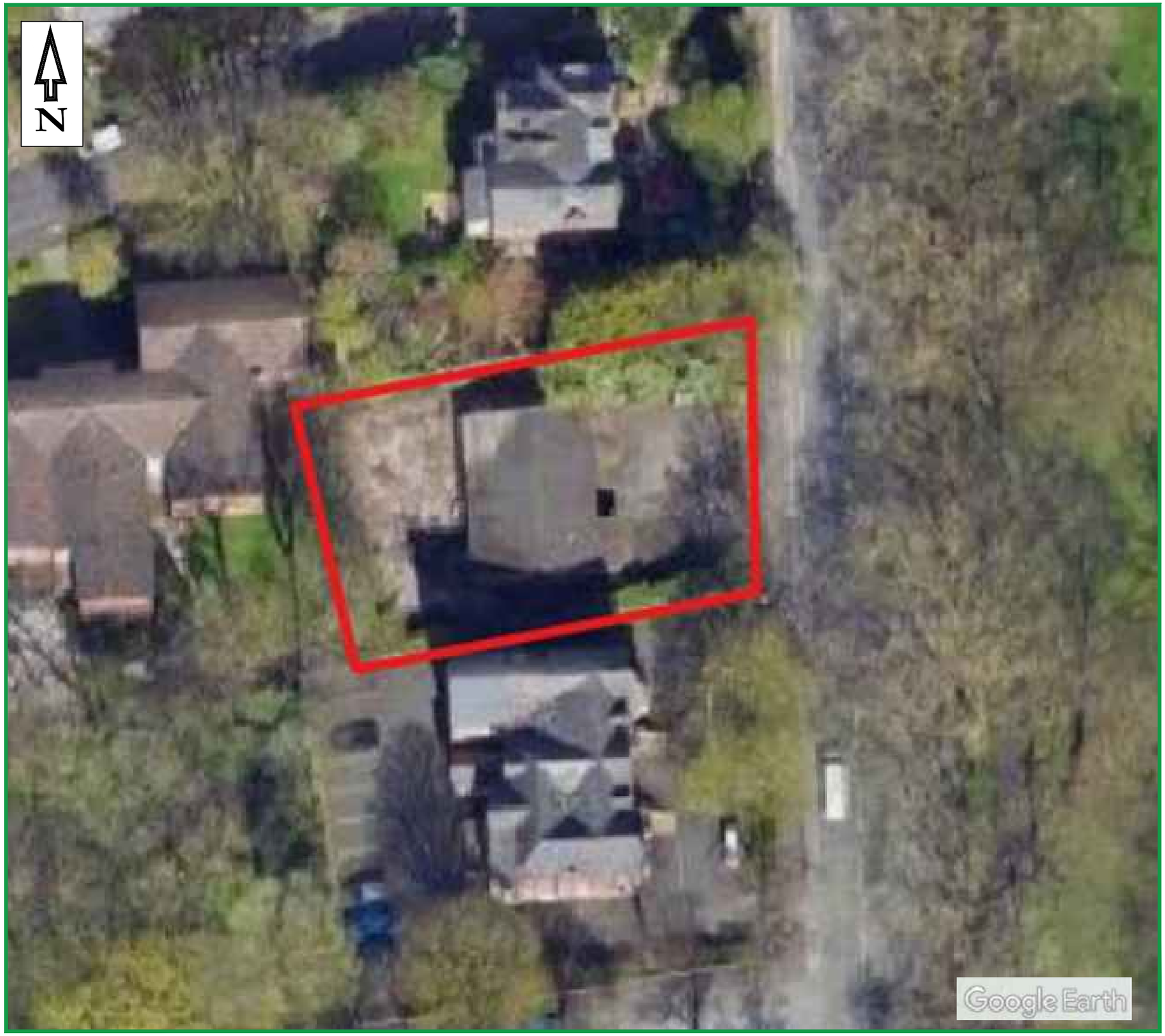
CLIENT.
INCLUDED LEARNING

JOB TITLE.
LAND AT 8 ALEXANDRA ROAD SOUTH, WHALLEY RANGE, MANCHESTER

DRAWING TITLE.
SITE LOCATION PLAN

SCALE @ A3.	DRAWN BY.	APPROVED BY.	DATE.
NTS	D.E.	M.B.	23/04/26

DRAWING No.	REV.
26057-1	-



LEGEND

SITE FOOTPRINT

REV	DESCRIPTION	DATE	BY

GEO-ENVIRONMENTAL CONSULTING
No 2 Landwick Court, Metcalf Drive, Altham Business Park, Lancashire, BB5 5GY
Tel: 01254 377622 Mob: 07906753583
Email: mbuckley@bekenviro.co.uk
Web: www.bekenviro.co.uk

CLIENT.

INCLUDED LEARNING

JOB TITLE.

LAND AT 8 ALEXANDRA ROAD SOUTH, WHALLEY RANGE, MANCHESTER

DRAWING TITLE.

SITE LAYOUT PLAN

SCALE @ A3.	DRAWN BY.	APPROVED BY.	DATE.
NTS	D.E.	M.B.	23/04/26

DRAWING No.	REV.
26057-2	-