Land at Mersey Bank Playing Fields
West Didsbury
Manchester
M20 2YJ

Site Reference: NTQ 39053

Flood Risk Assessment

December 2023

Contents

1.0 Introduction 2
1.1 Background 2
1.2 Existing Site 2
1.3 Geology 2
1.4 River Catchment and Climate Change Allowances 3
1.5 Data Limitations 4
2.0 Sources of Flooding 5
2.1 General Overview 5
2.2 Fluvial 6
2.3 Groundwater 8
2.4 Surface water 9
2.5 Reservoirs 12
2.6 Tidal 13
3.0 Accounting for Flooding 13
4.0 Conclusions and Recommendations 15
5.0 References 17

Plans:

Plan 1**:** Site Plans

Appendices

Appendix 1: Site Photographs

Appendix 2: LiDAR Topographic Data

Appendix 3: Environment Agency Product 4 Data

1.0 Introduction

1.1 Background

The following Flood Risk Assessment (FRA) is for a telecoms mast at Mersey Bank Playing Fields, Didsbury, M20 2YJ.

This report is based upon observations made on site during a walkover undertaken on the 8th of November 2023 and upon data driven research. This FRA includes the analysis of historical maps, geological, hydrogeological, and hydrological data, and other relevant Third-Party environmental information, including the Environment Agency's (EA) Product 4 Data. Product 4 data includes detailed FRA maps which show: flood zones, defences and storage areas, areas benefiting from defences, statutory main river designations, historic flood event outlines and more detailed information from the EA's river models. Product 4 data is freely available and can be requested from GOV.UK.

We can accept no liability for any inaccuracies contained within the Third-Party information referenced. It should be noted that where screenshots of online mapping tools have been used, these contain public sector information licensed under the Open Government Licence v3.0.

1.2 Existing Site

The development at Mersey Bank Playing Fields is a telecoms mast temporarily required for filling a coverage gap in the absence of a previous mast after its removal, which provided the necessary coverage for the area.

The site resides at 28.75 mAOD (see Appendix 2). According to the Plan 1 the mast resides 7m above the base of the River Mersey, and 3.5m above the adjacent riverbank path. The mast is accessed via Mersey Crescent, Didsbury, Manchester, M20 2YJ. The river Mersey is located approximately 12m west of the site.

1.3 Geology

The geology of the area was investigated using the Geology of Britain Viewer from the British Geological Survey (Ref 1) and Soilscapes (Ref 2). The bedrock geology of the site is composed of Wilmslow Formation Sandstone. This sedimentary bedrock formed between 252.2 and 247.1 million years ago during the Triassic period.

In terms of superficial geology, the site is underlain by Alluvium – clay, silt, sand and gravel. This superficial deposit formed between 11.8 thousand years ago and the present during the Quaternary period.

The soil found in the area is a loamy and clayey floodplain soil. Due to the River Mersey being located adjacent to the site, the soil also has a naturally high groundwater level.

1.4 River Catchment and Climate Change Allowances

The River Mersey, which is located approximately 12m east of the site is a major watercourse flowing from the confluence of the Rivers Goyt and Tame in Stockport, westward through south Manchester towards Liverpool before emptying into Liverpool Bay. According to the Upper Mersey Catchment Flood Management Plan (Ref 3), over 2000 people and 1000 properties in Didsbury are vulnerable to the 1 in 100-year flood event.

The Mersey is part of the Upper Mersey catchment area and the Bollin Dean Mersey Upper (Upstream of the Manchester Ship Canal) Operational Catchment, with its own catchment area totalling 54.524km² (Ref 4). As such, the peak river flow allowances for the Mersey Upper Management Catchment broadly apply to the River Mersey. The climate change allowances (CCA) for the Mersey Upper are presented in Table 1. Given the site is designated as 'Essential Infrastructure' according to the NPPF (Ref 5), the Higher allowances are to be used. However, with the Product 4 data providing climate change allowances, a 30% increase in river flow due to climate change has been used, rather than the suggested 17% for a development due to be removed in the 2020s.

Because the river is heavily engineered in terms of its catchment, consideration of how to adequately manage flood risk and/or prepare for increased incidents and severity of flooding due to climate change is a matter local residents and the Lead Local Flood Authority (LLFA) need to pay some attention to. Indeed, the Environment Agency's Mersey Upper Catchment Flood Management Plan has identified Didsbury as the most at risk area to current and future flood risk to property from a 1% annual probability flood event (Ref 3).

Table 1: Mersey Upper Management Catchment peak river flow allowances (Ref 6).

Peak River Flow Allowances			
Timeframe	Central	Higher	Upper
2020s	13%	17%	27%
2050s	22%	31%	51%
2080s	41%	53%	85%

1.5 Data Limitations

Product 4 Data was created by the EA's automated system on 20/10/2023 (see Appendix 3). The Product 4 data includes the 1 in 100-year flood events across defended and undefended scenarios based on the Upper Mersey 2017 model.

It is important to note that flooding records are often incomplete and the EA's Product 4 data only supplies flood risk data relating to flooding from rivers and/or the sea, not other sources of flood risk.

Light Detection and Ranging (LiDAR) was used in order to determine the topography of the area surrounding the proposed development. This technique is less accurate than a topographic survey, however, as this is a temporary development, the cost associated with a topograph were not suitable.

2.0 Sources of Flooding

2.1 General Overview

Flooding can occur from a variety of sources, including fluvial, surface water (pluvial), groundwater, and reservoirs. The site is located in Flood Zone 2 (see Figure 1) and as such, has a Medium probability of fluvial flooding. Table 2 summarises the potential sources of flood risk at the site.

Table 2 - Sources of potential flood risk to the proposed development

Flood Source	Potential Risk					Description
	High	Medium	Low	Very Low	None	
Surface Water				X		There is a Very Low (less than 0.1% chance) risk of pluvial flooding at the site.
Fluvial		X				The site has a Medium (between 1% and 3% chance) risk of fluvial flooding.
Groundwater	X	X				The site has a Medium-High vulnerability to groundwater flooding. The site is located in an area with naturally wet soil and a high water table due to the adjacent River Mersey.
Reservoirs			X			Sykes reservoir is located approximately 5.8 km to the south east of the site. However, with proper reservoir maintenance, the risk of reservoir flooding is reduced.
Tidal					X	There is no Tidal flood risk at the site.

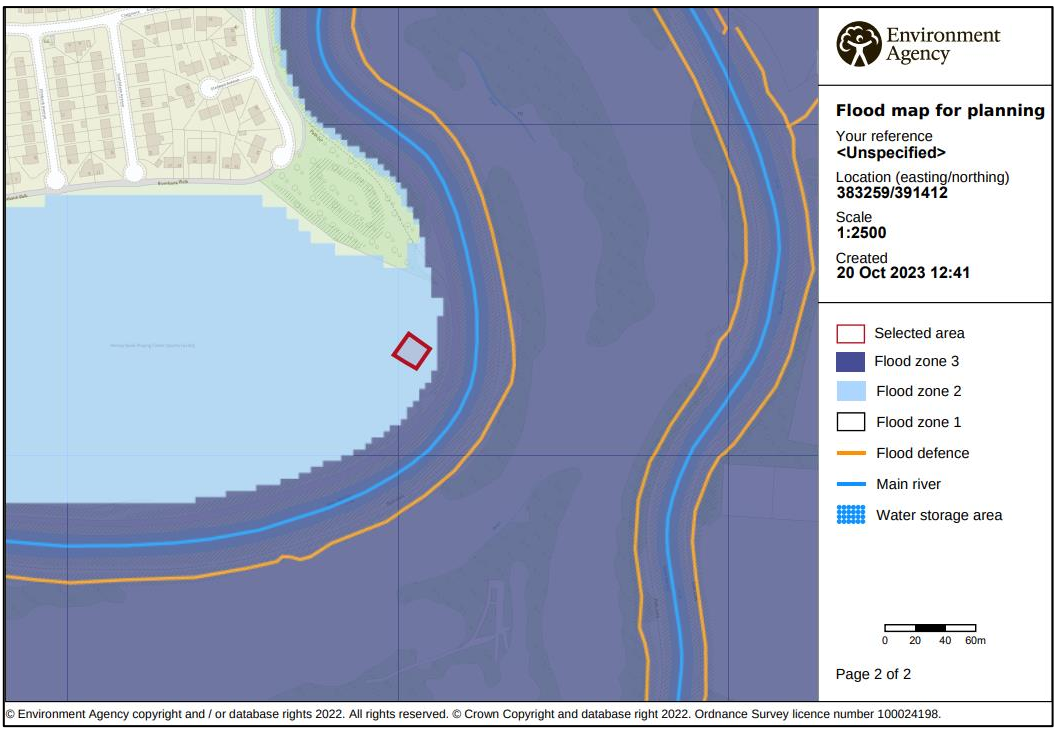


Figure 1 – Flood Zone Map for Site (Ref 7)

2.2 Fluvial

Fluvial flooding occurs when the flow capacity of a watercourse is reached, causing water to flood nearby areas. As previously mentioned, the site borders Flood Zone 3, because of the adjacent river Mersey, with the site itself located in Flood Zone 2

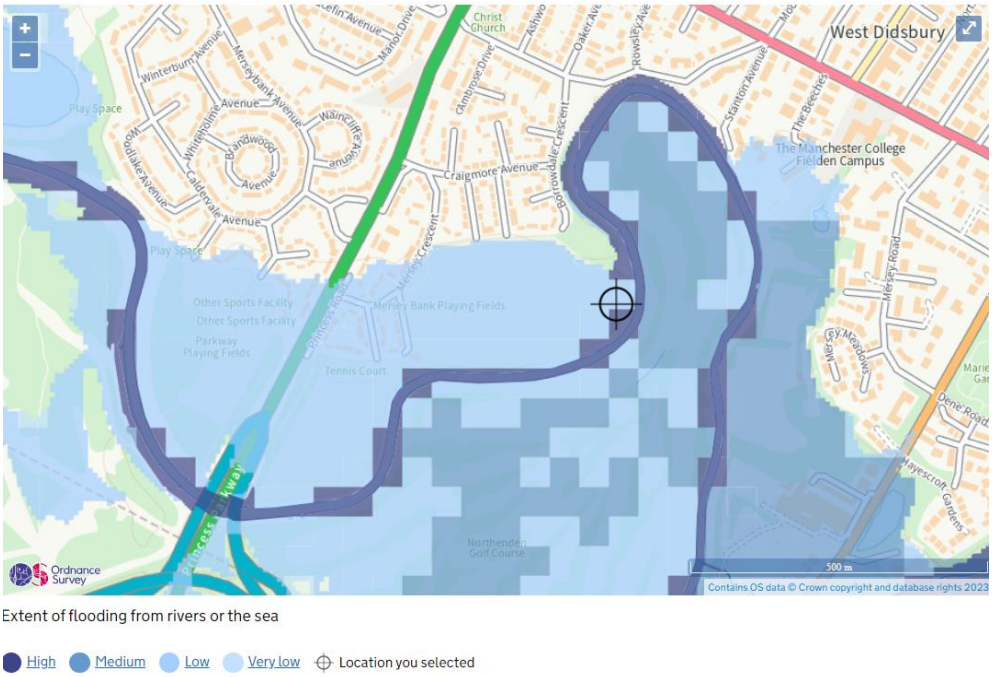
The fluvial flood risk is Medium, between a 1% and 3.3% chance of flooding each year.

The main source of fluvial flood risk to the site is from the River Mersey which is located approximately 12m east of the site. The site is protected from fluvial flooding to some degree due being located on engineered high ground (EA asset 01317MERS) (Ref 8).

In the EA's Product 4 data (see Appendix 3), the site is located closest to node point 6, approximately 15m to the east, and at this point, in most predicted scenarios, the site is protected from flooding. The site is vulnerable to flooding to the 1 in 1000-year flood events in both the defended and undefended scenarios, alongside the 1 in 100-year 35% and 70% increase in flow due to climate change, and the 1 in 1000-year 30% increase in flow due to climate change scenarios. However, the site is only temporary and is therefore only required to be protected against a 17% increase in flow as a result of climate change.

According to the Climate Change allowances included in the Product 4 data, in the defended scenario, a 30% increase in flow of the Mersey would reach an elevation of 28.51 mAOD. With

the site located between 28.75 mAOD, the site would be protected from flooding, but any electrical equipment would be at risk.



Extent of flooding from rivers or the sea

High Medium Low Very low Location you selected

Figure 2: Fluvial flood risk map (Ref 9).

Table 3: Estimated Water Depths from Fluvial Flooding at Node Point 6.

Flood Scenario	Water Depth (mAOD)	
	Defended	Undefended
1 in 20-year	27.28	27.26
1 in 50-year	27.46	27.62
1 in 75-year	27.51	27.79
1 in 100-year	27.64	27.91
1 in 200-year	27.71	28.22
1 in 1000-year	29.53	29.41
1 in 100-year + 30%CC	28.51	28.71

1 in 100-year + 35%CC	28.75	28.81
1 in 100-year + 70%CC	29.42	29.32
1 in 1000-year + 30%CC	29.94	29.85

According to the standing guidance (Ref 10), sensitive electrical equipment, such as the generator and electrical wiring on site, must be elevated at least 600mm above the estimated flood level.

It is important to note, as stated previously stated, that the site is a temporary site and so a climate change factor of 17% was required to be taken into account, as seen in Table 1, not the 30% increase in flow as a result of climate change. For extra protection, the 30% increase in flow has been utilised, as discussed in section 3.0.

2.3 Groundwater

Groundwater flooding occurs when water stored beneath ground level rises to breach the surface. According to the Greater Manchester SFRA (Ref 11), there are no known reports of groundwater flooding in the area. However, Mersey Bank Playing Fields and the surrounding area is known to have a relatively high water table (Ref 3).

The site has been designated a Medium-High risk of groundwater flooding, as DEFRA's groundwater vulnerability map shows (Figure 3). This is likely due to the River Mersey adjacent to the site maintaining high groundwater levels and creating naturally wet soil.

As mentioned in sub-section 1.3, the site resides on a bedrock composed of sandstone, which should easily drain groundwater. However, due to the high-water table and naturally wet soil, it is unlikely to have an impact in the draining of groundwater. With the site's elevation set 7m above the River Mersey, being located on engineered high ground, groundwater flooding is not likely to impact this site.

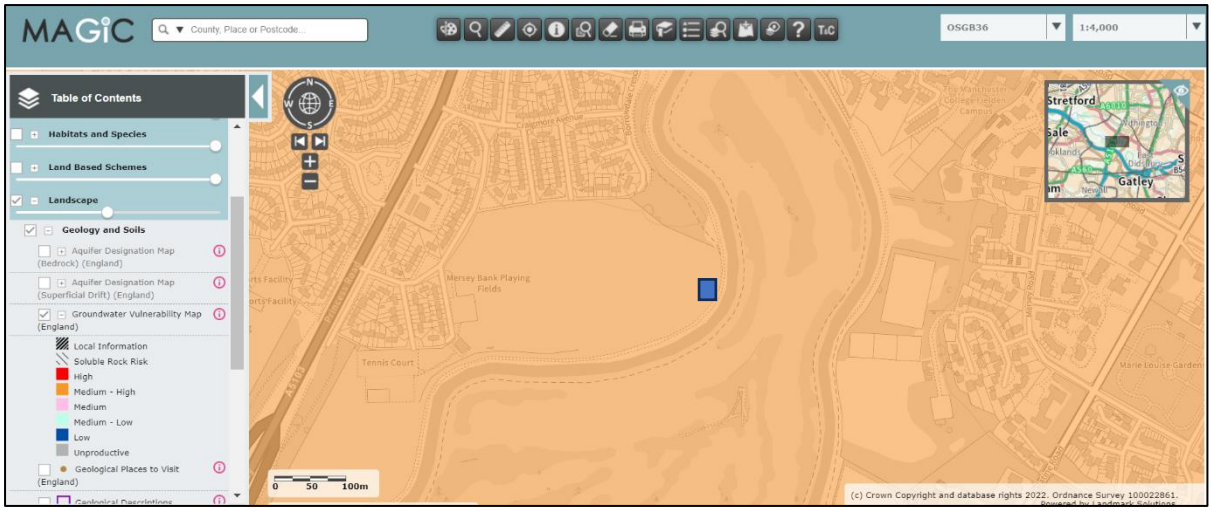


Figure 3: DEFRA's Groundwater vulnerability map showing Mersey Bank Playing Fields as having a Medium-High risk of groundwater flooding, with the site shown in Blue. (Ref 12)

2.4 Surface water

Surface water flooding arises during heavy rainfall events where water accumulates on the surface in low lying or obstructed areas. The risk of surface water flooding increases with the amount of urban area drained to a brook and the creation of impermeable hard surfaces. According to the Greater Manchester SFRA (Ref 11), Didsbury is not listed as an area at risk of surface water flooding.

The site has a Very Low risk of flooding from surface water, which means the area has a chance of flooding of less than 0.1% each year (see Figure 4). In both the Low-risk scenario (Figure 6) and High-risk scenario (Figure 8), there is no estimated surface water flood depth at the site.

The EA's flood maps (based on levels taken from LiDAR data), have identified low-lying points where surface water is most likely to accumulate. As previously mentioned, the site resides at 28.75 mAOD, 7m above the River Mersey, demonstrating that surface water will flow away naturally from the site and into the Mersey.

Extent of flooding from surface water

High Medium Low Very low Location you selected

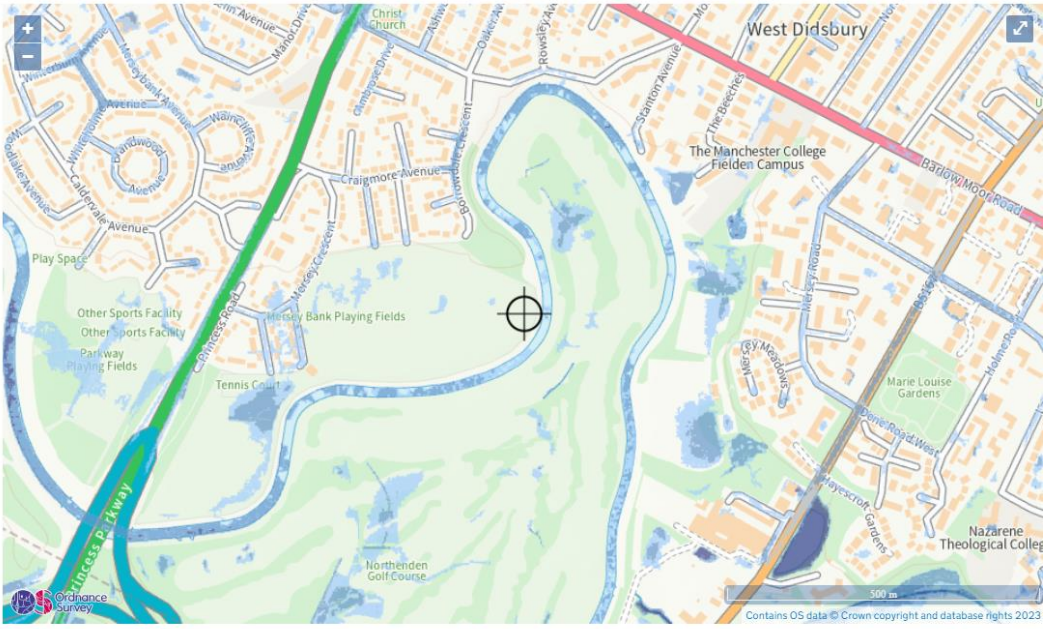
Figure 4 – Extent of Surface Water Flooding (Ref 9)

Surface water flood risk: water velocity in a low risk scenario

Flood velocity (metres/second)

Over 0.25 m/s Less than 0.25 m/s Direction of water flow Location you selected

Figure 5 – Low Risk Surface Water Velocity Map (Ref 9)



Surface water flood risk: water depth in a low risk scenario
Flood depth (millimetres)

Over 900mm · 300 to 900mm · Below 300mm · Location you selected

Figure 6 – Low Risk Surface Water Depth Map (Ref 9)

Surface water flood risk: water velocity in a high risk scenario
Flood velocity (metres/second)

Over 0.25 m/s · Less than 0.25 m/s · Direction of water flow · Location you selected

Figure 7 – High Risk Surface Water Velocity Map (Ref 9)

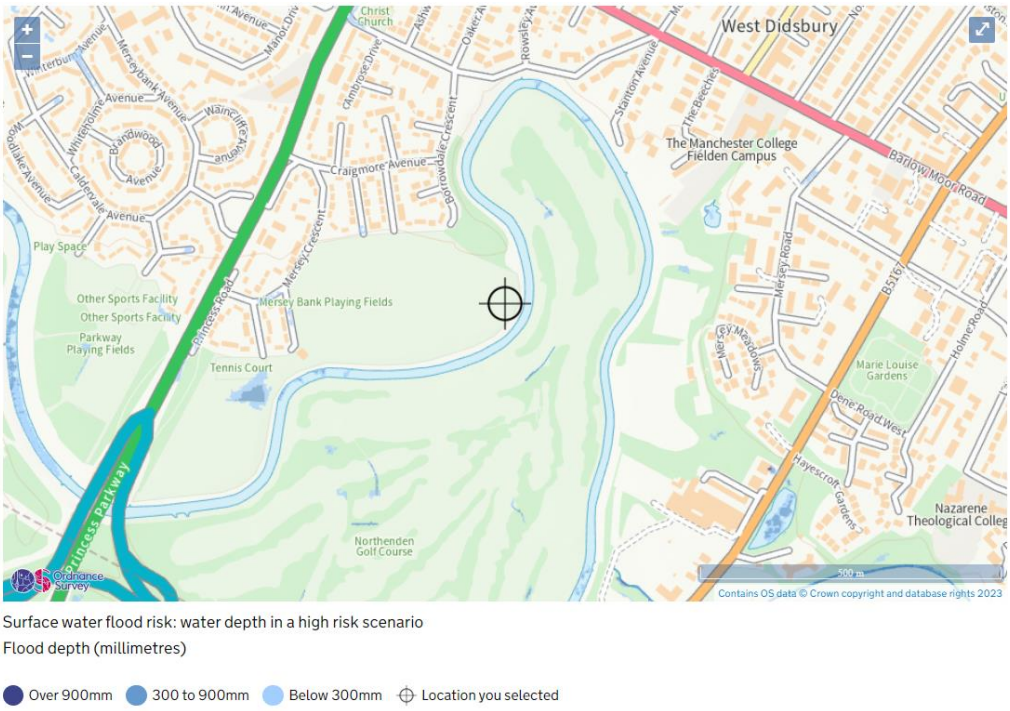


Figure 8 – High Risk Surface Water Depth Map (Ref 9)

2.5 Reservoirs

The EA's 'Long-Term Flood Risk Map' (Ref 9) identifies the site as at risk of flooding from reservoirs (see Figure 9). Sykes reservoir is located approximately 5.8 km to the southeast of the site.

Flooding from reservoirs may come from overtopping due to greater inflows than outflows, or from full or partial failure of the dam walls. The site's relative proximity to reservoirs means there is a risk of reservoir flooding from dam failure or overtopping of the reservoir. The reservoir undertaker is responsible for providing emergency flood and evacuation plans to the relevant persons interested in the reservoir. Furthermore, inspections are to be undertaken by an independent qualified civil engineer, and a report is completed, including any maintenance works required, the time of the next inspection, and any safety measures that must be completed in a designated timeframe.

Hence, the risk of flooding from reservoirs is low. Reservoirs are regularly inspected by engineers and are typically safe in the UK. For this reason, this FRA has classified the risk of reservoir flooding as Low, although it is important to note that the EA's flood maps do not categorise reservoir flooding in terms of High to Low risk.

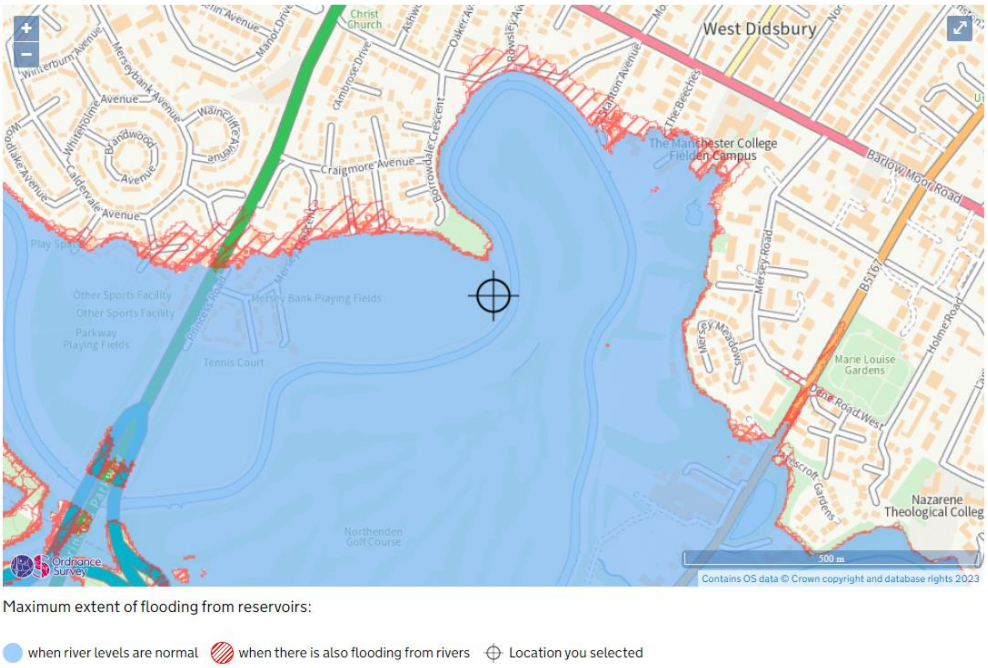


Figure 9 – Extent of Flood Risk from Reservoirs (Ref 9)

2.6 Tidal

The site is not at risk of tidal flooding, and therefore, analysis is not applicable.

3.0 Accounting for Flooding

The NPPF classifies the proposed development as 'Essential Infrastructure' (Ref 5), given the mast services a coverage gap in the area.

'Essential Infrastructure' developments located in Flood Zone 3 require a sequential test. However, the site is located in Flood Zone 2 and flood risks at the site can be adequately managed, alongside the necessity for coverage being provided in this area, whilst a more permanent site is identified. The site is also classified as a minor development being under 250m². For these reasons, it is the view of this FRA that the sequential test for the site is not necessary.

As outlined in Section 2.4, the site has a Very Low (less than 0.1% chance) risk of surface water flooding each year. Surface water does not accumulate at any point on the site due to the site being located on engineered high ground.

The telecom mast has a negligible impact on the impermeable area, therefore having minimal impact on the surface water runoff in the area.

In terms of fluvial flood risk, the proposed development is located in Flood Zones 2. As such, the site has a Medium (between 1% and 3.3% chance) probability of flooding (Ref 10).

The site is located at 28.75 mAOD and is therefore protected against most predicted scenarios of flooding, with just the 1 in 1000-year flood event, reaching an elevation of 29.53 mAOD, 0.78m above site, in the defended scenario, alongside the 1 in 100-year 35% and 70% increase in flow due to climate change and 1 in 1000-year 30% increase in flow due to climate change events, reaching 28.75 mAOD, level with the site, and 29.42 mAOD, 0.67m above the site, and 29.94 mAOD, 1.19m above the site, in the defended scenarios, resulting in flooding on site. However, with this being a temporary site, it is only required to be protected for a 1 in 100-year flood event with a 17% climate change factor.

Due to the electrical equipment located on site, this FRA recommends that any electrical equipment, such as the generator, be elevated at least 600mm above the estimated flood level to 29.11 mAOD, as recommended by the standing guidance (Ref 9). This is a 360mm increase from the site ground level. It is suggested that this is achieved through the use of a concrete platform, or multiple, at least 360mm in height, with a combined area of approximately 45m².

Sykes reservoir is located approximately 5.8 km to the south east of the site. Due to the site's proximity to reservoirs, the EA's maps have identified the site as being at risk of reservoir flooding. That being said, it is important to note that reservoir failure is unlikely given engineers should be regularly working on and monitoring the UK's reservoirs. Hence, this FRA has classified the risk of reservoir flooding the property as Low.

As previously mentioned, the site is located within an area with a high water table. However, with the site having no mentioned historic instances of groundwater flooding, and not being specified in Greater Manchester Councils SFRA (Ref 11), alongside being located on engineered high ground, the site is unlikely to be at risk to groundwater flooding.

Despite the River Mersey being a tidal river, tidal influences do not impact this area of the river, thus the site is not at risk of tidal flooding.

It is the view of this FRA that it is appropriate for this telecoms mast to be located in this area, due to the critical provision of services to an area with a coverage gap, providing that the electrical equipment found on site is elevated at least 600mm above ground level, following the standing flood risk guidance (Ref 10).

Nonetheless, due to the likelihood of fluvial flooding due to climate change, it would be appropriate for the site operators to monitor flood warnings of the nearby area. It would also be helpful to provide the site with temporary flood defences, such as temporary flood barriers, when flood warnings have been issued. It could also help prevent the electrical equipment from being washed away.

4.0 Conclusions and Recommendations

The NPPF classifies the site as 'Essential Infrastructure' due to the site providing critical coverage in an area where there is a gap, and resides in Flood Zone 2.

Surface water flooding does not accumulate on the site due to the topography sloping eastwards towards the River Mersey.

In most scenarios, the site is protected from fluvial flooding, with the 1 in 1000-year flood and all 1 in 1000-year climate change scenarios, the 1 in 100-year 35 and 70% increase in flow due to climate change, scenarios the only exceptions, resulting in flooding at elevations of 29.53 mAOD, 29.94 mAOD, 28.75 mAOD and 29.42 mAOD, 0.78m, 1.19m, level and 0.67m above the site's elevation of 28.75 mAOD in the defended scenarios respectively.

Despite the site being a temporary site and being classified as 'Essential Infrastructure', therefore only requiring a climate change factor of 17% to be utilised, as seen in Table 1, a factor of 30% has been used in order to provide increased protection from flood events. This is likely to result in predicted flood levels at a higher elevation than would be required to be considered.

Standing advice states that the electrical equipment on site must be protected at least 600mm above the estimated flood levels. At present, the electrical equipment, such as the generator, are not elevated enough to provide them protection from flood events.

Due to the limitations of LiDAR data when determining the topography of the site, it is possible that the electrical equipment should be elevated further.

The telecoms mast has a negligible impact on the number of impermeable surfaces in the area, and so will not increase the risk of surface water flooding elsewhere, due to the fact that the only impermeable surface will be the proposed concrete block, taking up an area of approximately 45m². However, it is down to the site operators to determine a material they see fit to elevate the electrical equipment.

Whilst the site may be at risk of groundwater flooding due to the high water table, the location of the site on engineered high ground, along with Greater Manchester's SFRA not indicating Didsbury as an area of increased risk of groundwater flooding, likely means that risk of groundwater flooding is low.

The site's risk of reservoir flooding is directly related to reservoir maintenance and upkeep. It is the responsibility of reservoir engineers to ensure that reservoir safety is maintained at all times.

Despite the Mersey being a tidal river, there is no tidal influence exerted this far up the catchment. Therefore, there is no risk of tidal flooding associated with the site.

To summarise, this FRA makes the following recommendations to mitigate flood risks at the property:

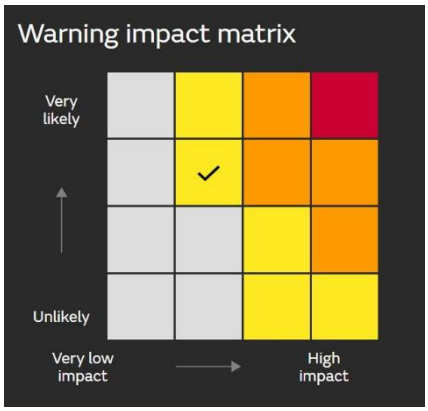
1. The electrical equipment found on site should be elevated at least 600mm above the estimated flood level as stated in the standing guidance (Ref 10). This could be done by utilising a concrete block at least 360mm tall to raise the equipment from 28.75 mAOD to an elevation of 29.11 mAOD, 600mm above the estimated 28.51 mAOD flood level. Whilst it is recommended that the electrical equipment be elevated using a concrete block, it is down to the site operators to ensure the equipment is elevated to 29.11 mAOD utilising a material that they see fit.
2. It is recommended that the operators of the site monitor flood warnings for the area, in order to respond to any warnings by implementing temporary flood barriers at the site, further protecting it from fluvial flood events.
3. The site's operators should monitor the Mersey and report any debris and obstructions to the EA.

5.0 References

1. British Geological Survey (Geology of Britain). Available At: http://mapapps.bgs.ac.uk/geologyofbritain/home.html
2. Soilscapes. Available at: https://www.landis.org.uk
3. Upper Mersey Catchment Plan (Accessed at: https://assets.publishing.service.gov.uk/media/5a7b9e20e5274a7202e1854c/Upper_Mersey_Catchment_Flood_Management_Plan.pdf)
4. Government Website: The Environment Agency's Catchment Data Explorer (Accessed at: https://environment.data.gov.uk/catchment-planning)
5. Government Website: National Planning Policy Framework - Annex 3: Flood risk vulnerability classification (accessed at: https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification)
6. Government Website: Flood risk assessments: climate change allowances (Accessed: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances#when-to-use-climate-change-allowances)
7. Government website. *Flood Map for Planning.* Online at: https://flood-map-for-planning.service.gov.uk/flood-zone-results?easting=385340&northing=389908&location=M20%205PB&fullName=%20&recipientemail=%20
8. EA Asset Register. Available at: https://environment.data.gov.uk
9. Government website. *Check the long term flood risk for an area in England.* Online at: https://www.gov.uk/check-long-term-flood-risk
10. Government Website: Preparing a flood risk assessment: standing advice (accessed at: https://www.gov.uk/guidance/flood-risk-assessment-standing-advice#advice-for-minor-extensions)
11. Greater Manchester Strategic Flood Risk Assessment (SFRA) (accessed at: https://www.greatermanchester-ca.gov.uk/media/1726/gmca-final-strategic-sfra-framework-january-2019.pdf)
12. Magic Map: DEFRA's Groundwater Vulnerability Map (accessed at: https://magic.defra.gov.uk/MagicMap.aspx)

Flood Risk Assessment (FRA) Glossary

Abbreviation or Key Word	Definition/Description
Flood Zone 1 (Low Probability)	Land having less than a 1 in 1,000 annual probability of river or sea flooding. Shown as clear on a flood zone map.
Flood Zone 2 (Medium Probability)	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding. Or land having between 1 in 200 and 1 in 1,000 sea flooding. Both shown as light blue on a flood zone map.
Flood Zone 3a (High Probability)	Land having a 1 in 100 or greater annual probability of river flooding, or land having a 1 in 200 or greater annual probability of sea flooding. Shown in dark blue on the flood zone map.
Flood Zone 3b – The Functional Floodplain	This zone comprises land where water must flow or be stored in times of flooding. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. This is not separately distinguished on a flood zone map and is also shown in dark blue.
Annual Probability of Surface water Flooding	The flood map for surface water assesses flooding scenarios as a result of rainfall with the following chance of occurring in any given year (annual probability of flooding shown in brackets. - 1:30 (3.3%) - 1:100 (1%) - 1:1000 (0.1%) -
Flood Warnings	As the UK's official weather service, the MET Office is responsible for issuing weather warnings, which warn of impacts caused by serve weather. The Met Office provide warnings up to seven days ahead of rain, thunderstorms, wind, snow, lightening, ice and fog. Met Office weather warnings are available in a number of ways, which make it easy to get the very latest information wherever you are. These include the Met Office App and website, social media, email alerts, TV, Radio and RSS. It is recommended that the site owner sign up to the national weather warning service. More information can be found here: https://www.metoffcie.go.uk/weather/guides/warnings

	The Met Office issues weather warnings, through the National Severe Weather Warning Service, when severe weather has the potential to bring impacts to the UK. These warnings are given a colour (yellow, amber or red) depending on a combination of both the impact the weather may have and the likelihood of those impacts occurring. 
Yellow Weather Warning	Yellow weather warnings can be issued for a range of weather situations. Many are issued when it is likely that the weather will cause some low level impacts, including some disruption to travel in a few places. Many people may be able to continue with their daily routine, but there will be some that will directly impact and so it is important to access if you could be affected. Other Yellow warnings are issued when the weather could bring much more severe impacts to the majority of people but the certainty of those impacts occurring is much lower. It is important to read the content of yellow warnings to determine which weather situation is being covered by the yellow warning.
Amber Weather Warning	There is an increased likelihood of impacts from severe weather, which could potentially disrupt your plans. This means there is the possibility of travel delays, road and rail closures, power cuts and the potential risk to life and property. You should think about changing your plans and taking action to protect yourself and your property. You may want to consider the impact of the weather on your family and your community and whether there is anything you need to do ahead of the severe weather to minimise the impact.
Red Weather Warning	Dangerous weather is expected and, if you haven't already don so, you should take action now to keep yourself and others safe from the impacts of the severe weather. It is very likely that there will be a risk to life, with substantial disruption to travel, energy supplies and possibly widespread damage to property and infrastructure. You should avoid travelling, where possible and follow the advice of the emergency services and local authorities.
Flood Plan	It is recommended that the applicant and future owners, occupiers and landlords of the property prepare a flood plan to protect life and property during a flood event.

	Before a flood: - Find out if you are at risk of flooding. - Find out if you can receive flood warnings. - Prepared and keep a list of all your important contacts to hand or save them on your mobile phone. - Think about what items you can move now and what you would want to move to safety during a flood such as pets, cars furniture and electrical equipment. - Know how to turn off gas, electricity and water supplies. - Prepared a flood kit of essential items and keep it handy, It can include copies of important documents, a torch, a battery powered or windup radio, blankets an warm clothing, waterproofs, rubber gloves and a first aid kit including all essential medication. - Consider buying flood protection products such as flood boards and airbrick covers to help reduce flood water getting into your property. During a flood: - Tune into your local radio station on a battery or windup radio. - Fill jugs and saucepans with water. - Grab you flood kit – if you have one prepared. - Collect blankets, torch, first aid kit, medication and food. - Move important documents, personal items, valuables and lightweight belongings upstairs or to high shelves. - Raise large items of furniture or put them in large bags if you have them. - Move people, outdoor belongings, cars and pets to higher ground. - Switch off water, gas an electricity at the mains when water enters your home. Do not touch sources of electricity when standing in water. - Fit flood protection products if you have them for example flood boards, airbrick covers and sandbags. - Put plugs in sinks and baths. Weigh them down with a pillowcase or plastic bag filled with soil. - If you do not have non-return valves fitted plug water inlet pipes with towels or clothes. - Move your family and pets upstairs or to a high place with a means of escape. - Listen to the advice of the emergency service and evacuate if told to do so. - Avoid walking or driving through flood water. Six inches of fast flowing water can knock over an adult and two feet of water van move a car. After a flood: - If you have flooded, contact your insurance company as soon as possible. - Take photographs and videos of your damaged property as a record for your insurance company. - If you don't have insurance, contact your local authority for information on grants and charities what may help you. - Flood water can contain sewage, chemicals and animal waste. Always wear waterproof outerwear, including gloves, wellington boots and a face mask. - Have your electrics, central heating and water checked by a qualifies engineer before switching them back on.

Plan 1: Site Plans

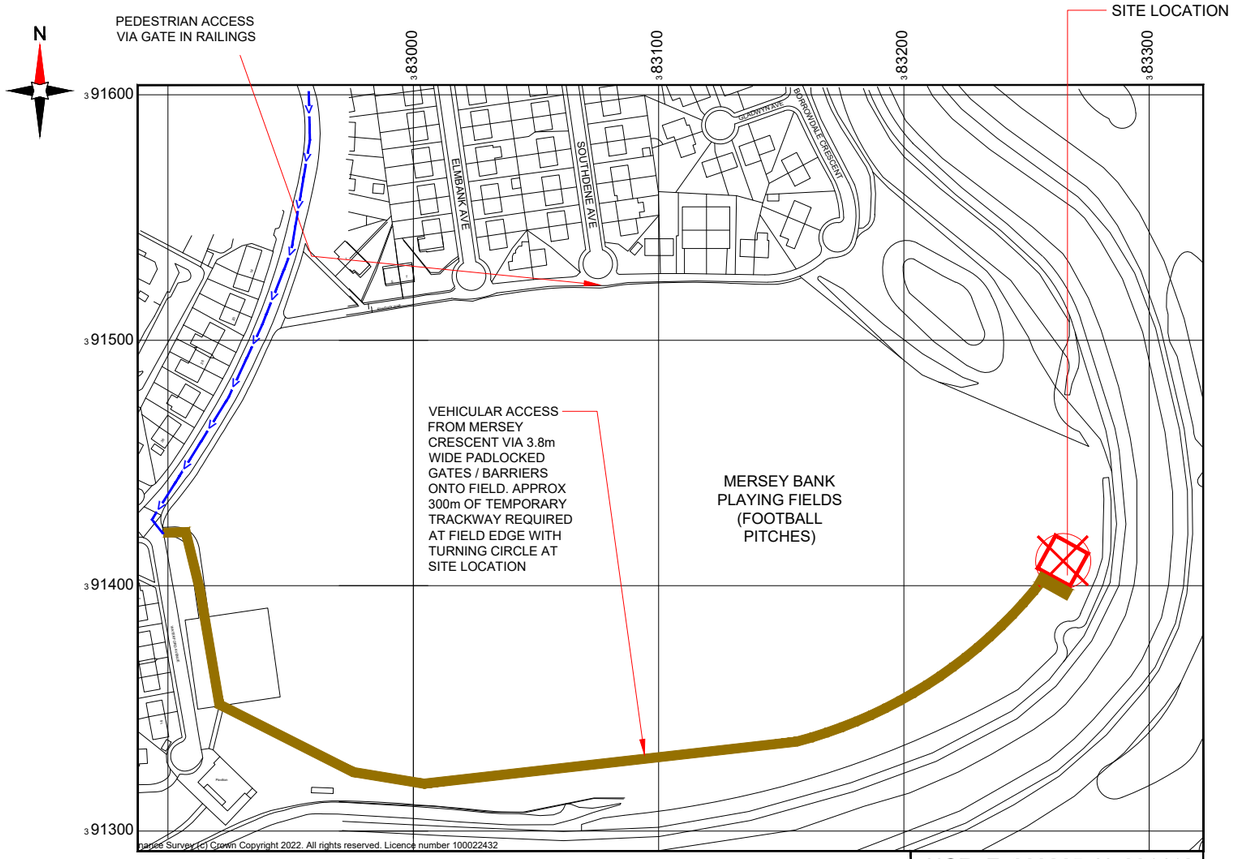
V 1.8

Reproduced by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office All rights reserved. © Crown Copyright licence no. 100022432

SITE AREA PLAN

Scale 1:50,000

0 1:50,000 1km 2



Reproduced by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office All rights reserved. © Crown Copyright licence no. 100022432

NGR E: 383265 N: 391410

SITE LOCATION PLAN

Scale 1:2500

0 1:2500 50m 100

SITE PHOTOGRAPH

GOOGLE MAPS QR CODE

GOOGLE MAP - Hyperlink to map of the site

GOOGLE STREETVIEW - Hyperlink to streetview of the site

NOTES:

1. ALL DIMENSIONS IN MM UNLESS OTHERWISE NOTED.

From M60 junction 5 head towards Manchester on the A5103. At the junction with the A5145 perform a u-turn back on the A5103. Take the second left onto Mersey Crescent. Continue for 260m and vehicular access onto the playing fields is on the left hand side via padlocked gates / barriers. The site is located at the far end of the playing fields (approx. 300m along field edge).

Site Boundary:

Access Route To Site:

Access Route:

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date: 03/05/2022	Revision / Upgrade Description: Tower Type & position Amended			
Drawn: D.PARTON				
Checked: A.FANNING				
Approved: P.CONVERY				
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M003	MBNL	NTQ	Construction	A2
Date: 15/03/22	Revision / Upgrade Description: Site location amended			
Drawn: L.COLEBOURN				
Checked: A.FANNING				
Approved: P.CONVERY				
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M002	MBNL	NTQ	Construction	A1
Date: 04/03/22	Revision / Upgrade Description: Construction Issue			
Drawn: A. FANNING				
Checked: J. CAMPBELL				
Approved: J. CAMPBELL				
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M001	MBNL	NTQ	Planning	A
Date: 13/01/22	Revision / Upgrade Description: First Issue			
Drawn: J. BOOTE				
Checked: J. STOCKDALE				
Approved: J. STOCKDALE				

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001

H3G Base Station Information line:
0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

Tel: 01707 315000
Fax: 01707 319001

MBNL
Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:
WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH

Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name: MERSEY BANK TEMP

Site ID: 1664166

Address: MERSEY BANK PLAYING FIELDS, MERSEY CRESCENT, WEST DIDSBURY, MANCHESTER, M20 2YJ

Title: 002 SITE LOCATION PLAN

Project: NTQ

Purpose of Issue: CONSTRUCTION

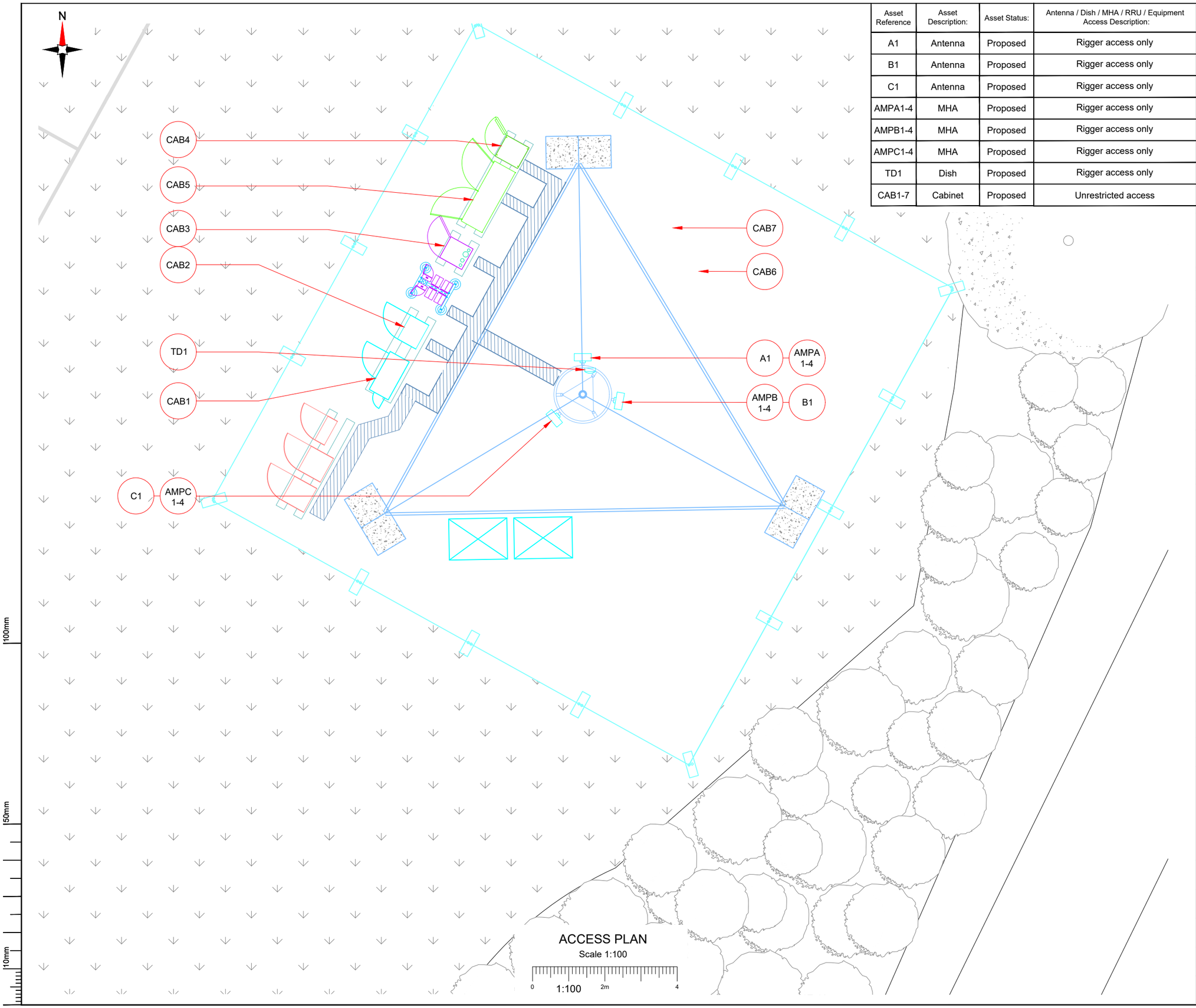
EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004

Issue: A3

100mm 50mm 10mm

V 1.8



Asset Reference	Asset Description:	Asset Status:	Antenna / Dish / MHA / RRU / Equipment Access Description:
A1	Antenna	Proposed	Rigger access only
B1	Antenna	Proposed	Rigger access only
C1	Antenna	Proposed	Rigger access only
AMPA1-4	MHA	Proposed	Rigger access only
AMPB1-4	MHA	Proposed	Rigger access only
AMPC1-4	MHA	Proposed	Rigger access only
TD1	Dish	Proposed	Rigger access only
CAB1-7	Cabinet	Proposed	Unrestricted access

NOTES:

1. ALL DIMENSIONS IN MM UNLESS OTHERWISE NOTED.

SHARED CONFIGURATION SITE	
CONFIG TYPE	TEMP B

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date: 03/05/2022	Drawn: D.PARTON	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Tower Type & position Amended
M003	MBNL	NTQ	Construction	A2
Date: 15/03/22	Drawn: L.COLEBOURN	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Site location amended
M002	MBNL	NTQ	Construction	A1
Date: 04/03/22	Drawn: A. FANNING	Checked: J. CAMPBELL	Approved: J. CAMPBELL	Revision / Upgrade Description: Construction Issue
M001	MBNL	NTQ	Planning	A
Date: 13/01/22	Drawn: J. BOOTE	Checked: J. STOCKDALE	Approved: J. STOCKDALE	Revision / Upgrade Description: First Issue

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001

H3G Base Station Information line:
0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

Tel: 01707 315000
Fax: 01707 319001

Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:

WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH

Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name:
MERSEY BANK TEMP

Site ID:
1664166

Address:
MERSEY BANK PLAYING FIELDS,
MERSEY CRESCENT,
WEST DIDSBURY,
MANCHESTER,
M20 2YJ

Title:
003 ACCESS PLAN

Project:
NTQ

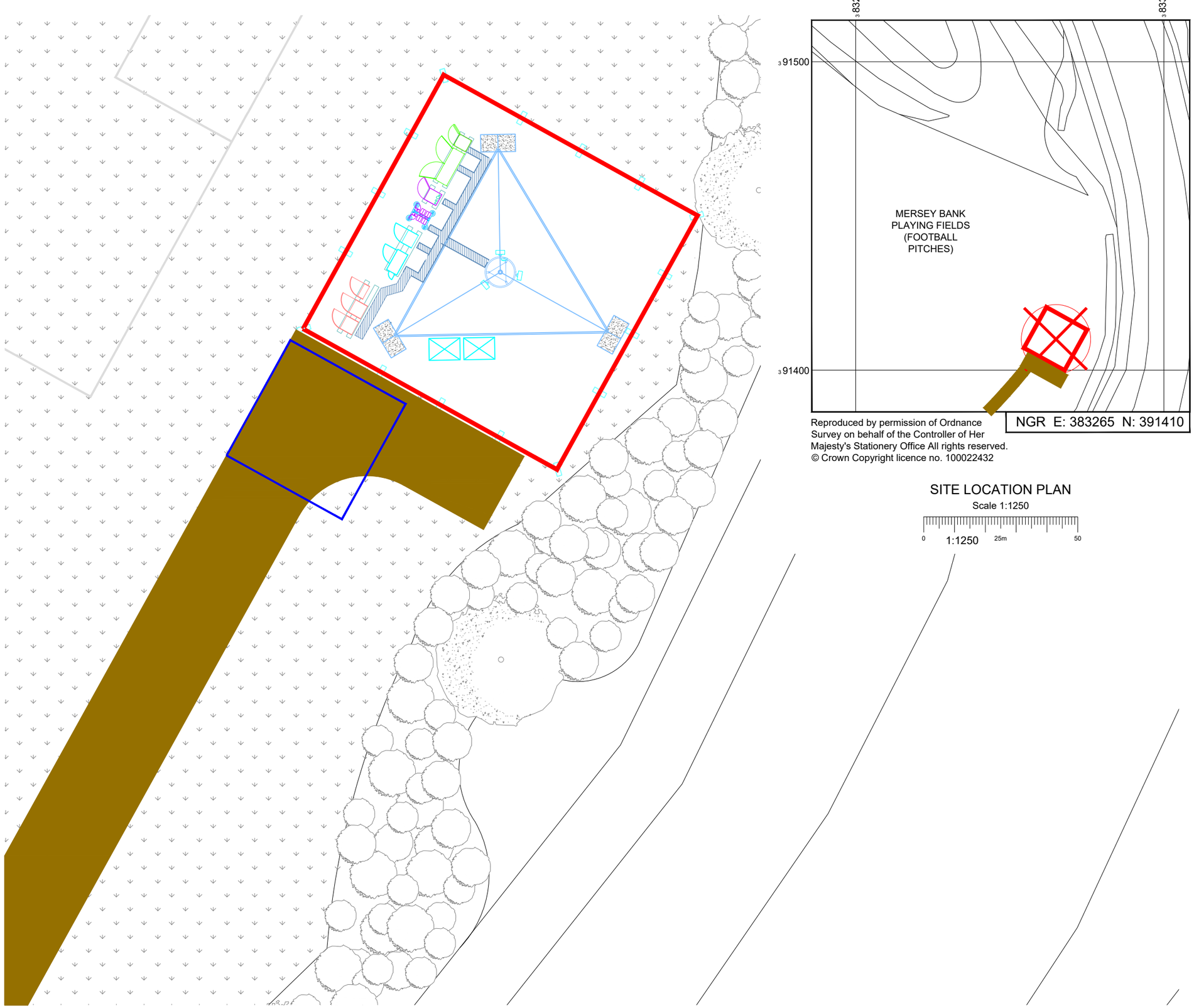
Purpose of Issue:
CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004

Issue: A3

V 1.8



Reproduced by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office All rights reserved.
© Crown Copyright licence no. 100022432

SITE LOCATION PLAN

Scale 1:1250

0 1:1250 25m 50

100mm
50mm
10mm

NEW CODE:

Demise:	Outlined in Red	
Access Route:	Solid Brown	
Set Down Area:	Outlined in Blue	

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date: 03/05/2022	Drawn: D.PARTON	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Tower Type & position Amended
M003	MBNL	NTQ	Construction	A2
Date: 15/03/22	Drawn: L.COLEBOURN	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Site location amended
M002	MBNL	NTQ	Construction	A1
Date: 04/03/22	Drawn: A. FANNING	Checked: J. CAMPBELL	Approved: J. CAMPBELL	Revision / Upgrade Description: Construction Issue
M001	MBNL	NTQ	Planning	A
Date: 13/01/22	Drawn: J. BOOTE	Checked: J. STOCKDALE	Approved: J. STOCKDALE	Revision / Upgrade Description: First Issue

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001
H3G Base Station Information line:
0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW
Tel: 01707 315000
Fax: 01707 319001

Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:
WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH
Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name: MERSEY BANK TEMP

Site ID: 1664166

Address: MERSEY BANK PLAYING FIELDS, MERSEY CRESCENT, WEST DIDSBURY, MANCHESTER, M20 2YJ

Title: 002 SITE LOCATION PLAN

Project: NTQ

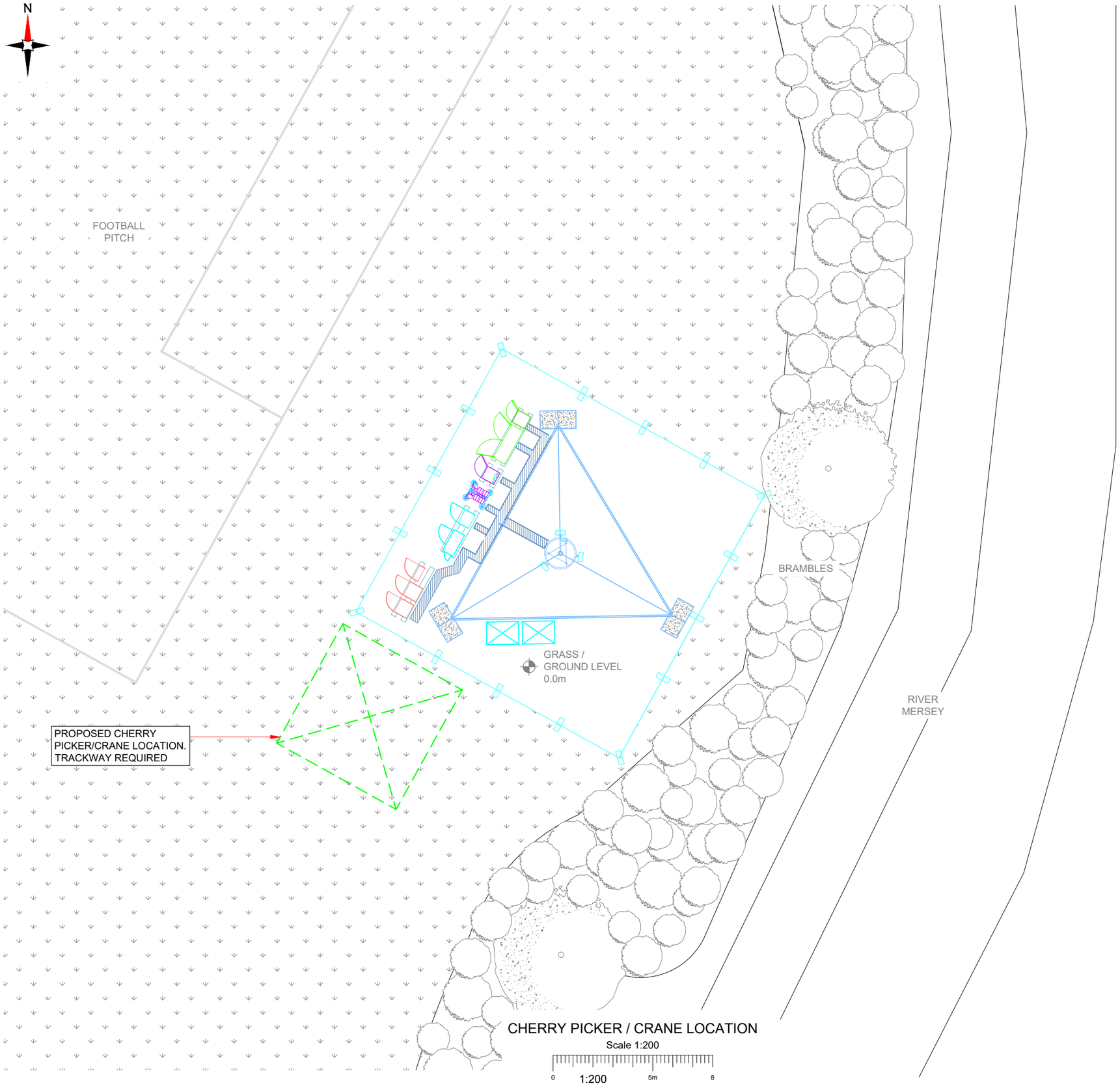
Purpose of Issue: CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004

Issue: A3

V 1.8



CHERRY PICKER / CRANE LOCATION

Scale 1:200

0 1:200 5m 8

NOTES:

1. ALL DIMENSIONS IN MM UNLESS OTHERWISE NOTED.

PROPOSED CRANE OR CHERRY PICKER LOCATION:

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date:	03/05/2022	Revision / Upgrade Description:		
Drawn:	D.PARTON	Tower Type & position Amended		
Checked:	A.FANNING			
Approved:	P.CONVERY			
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M003	MBNL	NTQ	Construction	A2
Date:	15/03/22	Revision / Upgrade Description:		
Drawn:	L.COLEBOURN	Site location amended		
Checked:	A.FANNING			
Approved:	P.CONVERY			
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M002	MBNL	NTQ	Construction	A1
Date:	04/03/22	Revision / Upgrade Description:		
Drawn:	A. FANNING	Construction Issue		
Checked:	J. CAMPBELL			
Approved:	J. CAMPBELL			
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M001	MBNL	NTQ	Planning	A
Date:	13/01/22	Revision / Upgrade Description:		
Drawn:	J. BOOTE	First Issue		
Checked:	J. STOCKDALE			
Approved:	J. STOCKDALE			

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001

H3G Base Station Information line:
0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

Tel: 01707 315000
Fax: 01707 319001

Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:

WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH

Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name:
MERSEY BANK TEMP

Site ID:
1664166

Address:
MERSEY BANK PLAYING FIELDS,
MERSEY CRESCENT,
WEST DIDSBURY,
MANCHESTER,
M20 2YJ

Title:
005 CHERRY PICKER & CRANE LOCATION

Project:
NTQ

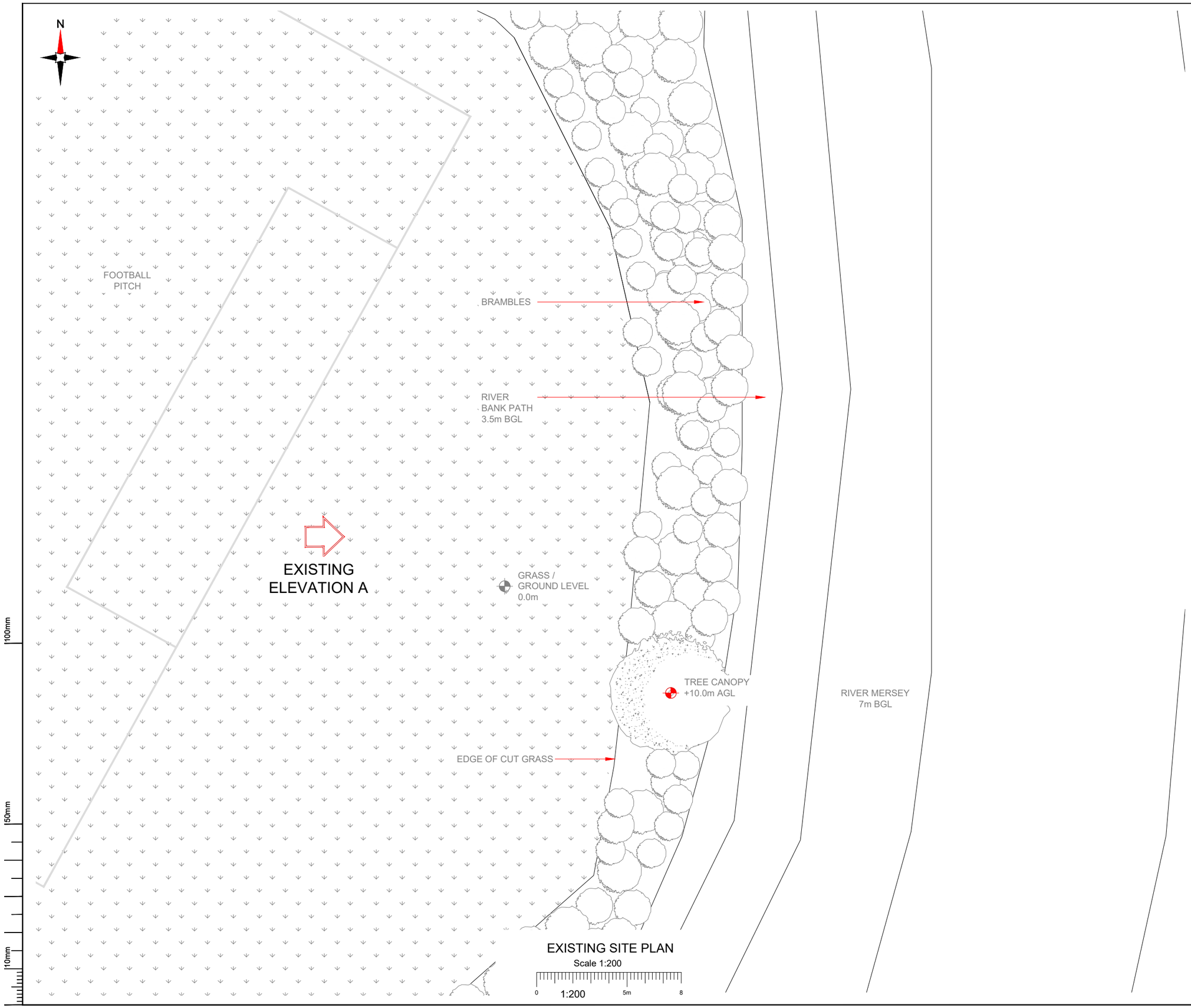
Purpose of Issue:
CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004

Issue: A3

V 1.8



EXISTING SITE PLAN

Scale 1:200

NOTES:

1. ALL DIMENSIONS IN MM UNLESS OTHERWISE NOTED.

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date: 03/05/2022	Revision / Upgrade Description: Tower Type & position Amended			
Drawn: D.PARTON				
Checked: A.FANNING				
Approved: P.CONVERY				
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M003	MBNL	NTQ	Construction	A2
Date: 15/03/22	Revision / Upgrade Description: Site location amended			
Drawn: L.COLEBOURN				
Checked: A.FANNING				
Approved: P.CONVERY				
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M002	MBNL	NTQ	Construction	A1
Date: 04/03/22	Revision / Upgrade Description: Construction Issue			
Drawn: A. FANNING				
Checked: J. CAMPBELL				
Approved: J. CAMPBELL				
Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M001	MBNL	NTQ	Planning	A
Date: 13/01/22	Revision / Upgrade Description: First Issue			
Drawn: J. BOOTE				
Checked: J. STOCKDALE				
Approved: J. STOCKDALE				

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001

H3G Base Station Information line:
0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

Tel: 01707 315000
Fax: 01707 319001

Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:

WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH

Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name: MERSEY BANK TEMP

Site ID: 1664166

Address: MERSEY BANK PLAYING FIELDS, MERSEY CRESCENT, WEST DIDSBURY, MANCHESTER, M20 2YJ

Title: 100 EXISTING SITE PLAN

Project: NTQ

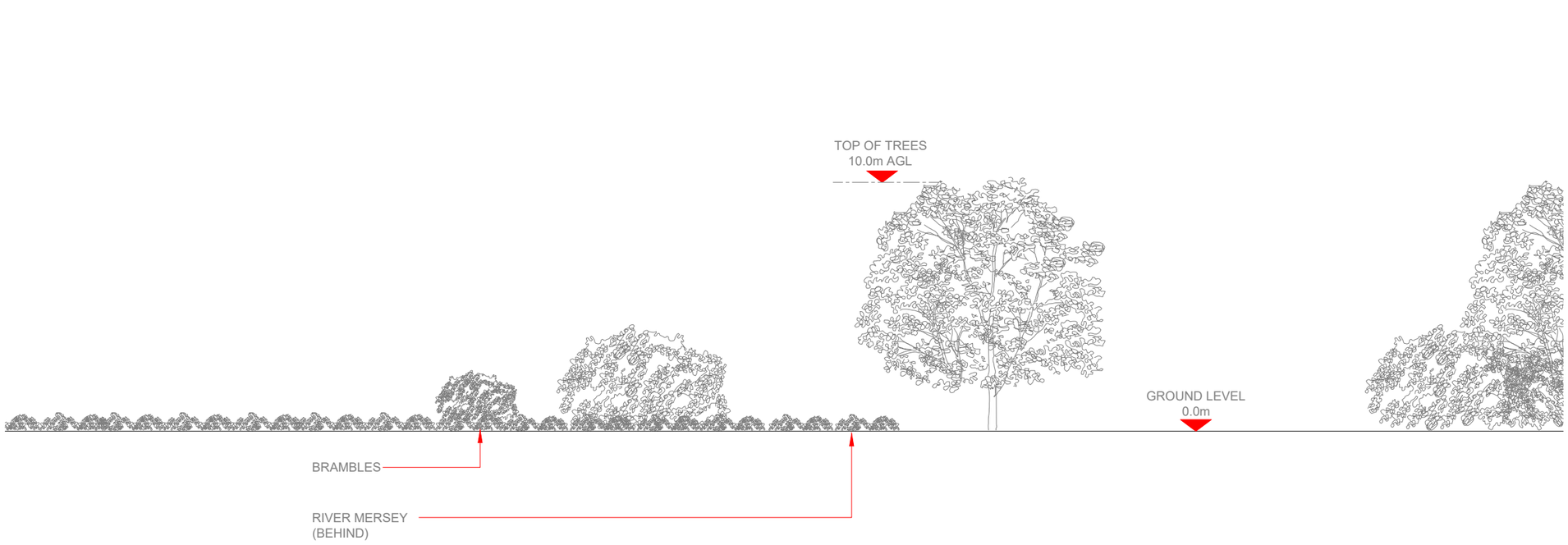
Purpose of Issue: CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004

Issue: A3

V 1.8



EXISTING ELEVATION A

Scale 1:200

0 1:200 5m 8

100mm

50mm

10mm

NOTES:

1. ALL DIMENSIONS IN MM UNLESS OTHERWISE NOTED.

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date: 03/05/2022	Drawn: D.PARTON	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Tower Type & position Amended
M003	MBNL	NTQ	Construction	A2
Date: 15/03/22	Drawn: L.COLEBOURN	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Site location amended
M002	MBNL	NTQ	Construction	A1
Date: 04/03/22	Drawn: A. FANNING	Checked: J. CAMPBELL	Approved: J. CAMPBELL	Revision / Upgrade Description: Construction Issue
M001	MBNL	NTQ	Planning	A
Date: 13/01/22	Drawn: J. BOOTE	Checked: J. STOCKDALE	Approved: J. STOCKDALE	Revision / Upgrade Description: First Issue

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001
H3G Base Station Information line:
0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW
Tel: 01707 315000
Fax: 01707 319001

Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:
WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH
Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name: MERSEY BANK TEMP

Site ID: 1664166

Address: MERSEY BANK PLAYING FIELDS, MERSEY CRESCENT, WEST DIDSBURY, MANCHESTER, M20 2YJ

Title: 150 EXISTING ELEVATION A

Project: NTQ

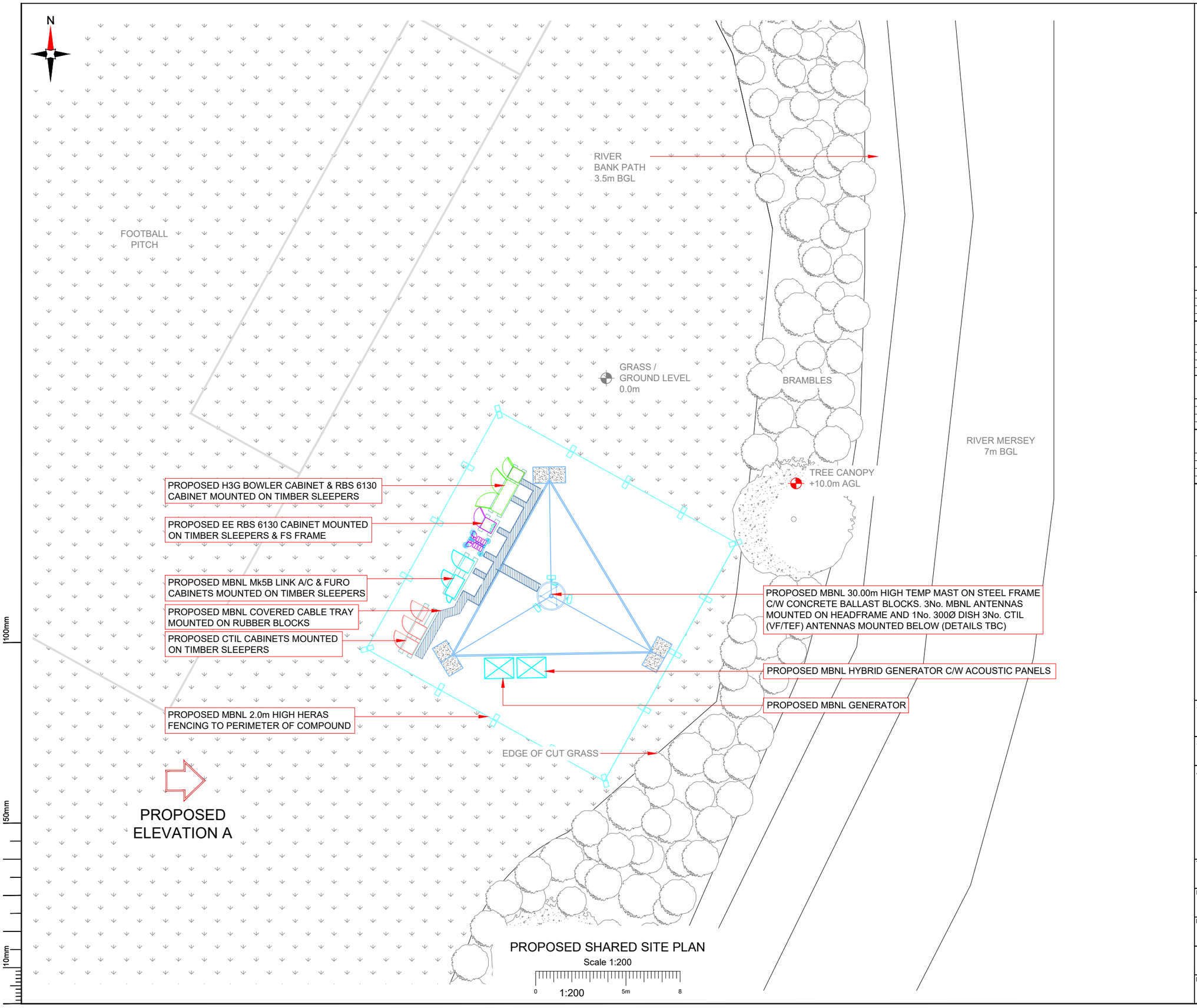
Purpose of Issue: CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004

Issue: A3

V 1.8



PROPOSED SHARED SITE PLAN

Scale 1:200

NOTES:

1. ALL DIMENSIONS IN MM UNLESS OTHERWISE NOTED.

SHARED CONFIGURATION SITE	
CONFIG TYPE	TEMP B

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date: 03/05/2022	Drawn: D.PARTON	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Tower Type & position Amended
M003	MBNL	NTQ	Construction	A2
Date: 15/03/22	Drawn: L.COLEBOURN	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Site location amended
M002	MBNL	NTQ	Construction	A1
Date: 04/03/22	Drawn: A. FANNING	Checked: J. CAMPBELL	Approved: J. CAMPBELL	Revision / Upgrade Description: Construction Issue
M001	MBNL	NTQ	Planning	A
Date: 13/01/22	Drawn: J. BOOTE	Checked: J. STOCKDALE	Approved: J. STOCKDALE	Revision / Upgrade Description: First Issue

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001
H3G Base Station Information line: 0845 600 6000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW
Tel: 01707 315000
Fax: 01707 319001

MBNL
Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:
WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH
Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name: MERSEY BANK TEMP

Site ID: 1664166

Address: MERSEY BANK PLAYING FIELDS, MERSEY CRESCENT, WEST DIDSBURY, MANCHESTER, M20 2YJ

Title: 200 PROPOSED SHARED SITE PLAN

Project: NTQ

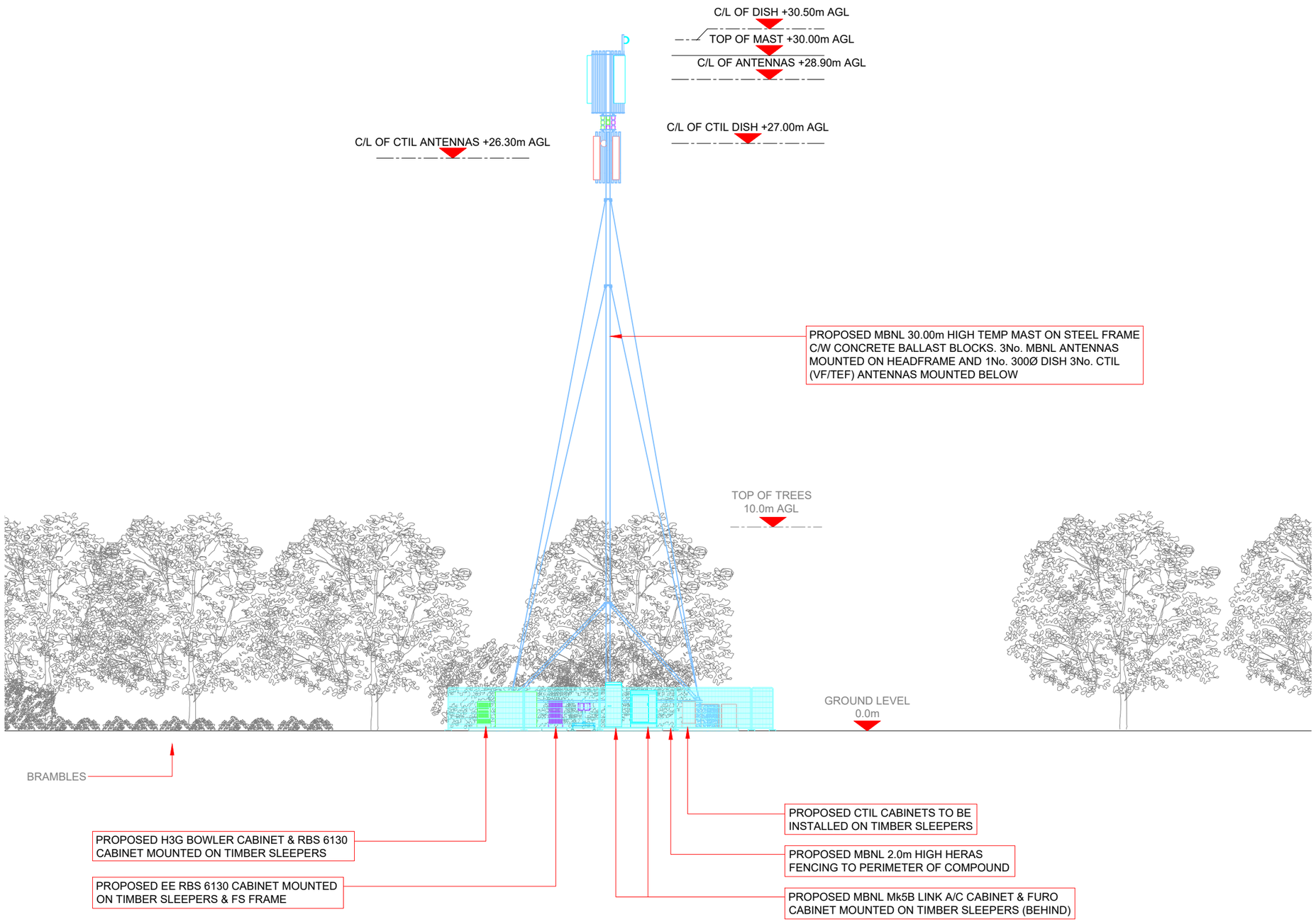
Purpose of Issue: CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004

Issue: A3

V 1.8



PROPOSED SHARED ELEVATION A

Scale 1:200

0 1:200 5m 8

100mm 50mm 10mm

NOTES:

1. ALL DIMENSIONS IN MM UNLESS OTHERWISE NOTED.

SHARED CONFIGURATION SITE	
CONFIG TYPE	TEMP B

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date: 03/05/2022	Drawn: D.PARTON	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Tower Type & position Amended
M003	MBNL	NTQ	Construction	A2
Date: 15/03/22	Drawn: L.COLEBOURN	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Site location amended
M002	MBNL	NTQ	Construction	A1
Date: 04/03/22	Drawn: A. FANNING	Checked: J. CAMPBELL	Approved: J. CAMPBELL	Revision / Upgrade Description: Construction Issue
M001	MBNL	NTQ	Planning	A
Date: 13/01/22	Drawn: J. BOOTE	Checked: J. STOCKDALE	Approved: J. STOCKDALE	Revision / Upgrade Description: First Issue

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001
H3G Base Station Information line:
0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW
Tel: 01707 315000
Fax: 01707 319001

Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:
WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH
Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name: MERSEY BANK TEMP

Site ID: 1664166

Address: MERSEY BANK PLAYING FIELDS, MERSEY CRESCENT, WEST DIDSBURY, MANCHESTER, M20 2YJ

Title: 250 PROPOSED SHARED ELEVATION A

Project: NTQ

Purpose of Issue: CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004

Issue: A3

V 1.8

Max Configuration Antenna Aperture Schedule & RF Equipment Capacity

Antenna Aperture ID	Antenna Aperture Size (Length x Width x Depth)	Aperture Height C/L	Aperture Max Weight (kg)	Proposed Bearing	Tech:	Operator: Shared/ EE/H3G	Antenna Aperture Coordinates		RRU No. Max Size & Weight L=520mm W=400mm D=150mm Weight=25kg	MHA No. Max Size & Weight L=300mm W=300mm D=150mm Weight=10kg	Main Feeder			BOB Max Size & Weight (300x300x250mm & 5kg)		Active Router No. Max Size & Weight (370x260x150mm & 10kg)	Passive Router No. Max Size & Weight (350x220x150mm & 10kg)
							Eastings	Northings			Size	Length	No.	No. Top	No. Bottom		
A1	2200x550x350mm	28.9m	100kg	0°	2G/3G/4G	EE/H3G	-	-	-	4	LDF6-50	35m	8	-	-	-	-
B1	2200x550x350mm	28.9m	100kg	100°	2G/3G/4G	EE/H3G	-	-	-	4	LDF6-50	35m	8	-	-	-	-
C1	2200x550x350mm	28.9m	100kg	230°	2G/3G/4G	EE/H3G	-	-	-	4	LDF6-50	35m	8	-	-	-	-

Passive Infrastructure Equipment Capacity

A	B	C
TEMP B	TEMP B	TEMP B

STATUS KEY:

Installed:	Existing
Retain:	Existing and to remain
Relocate:	Existing and to be relocated
Remove:	Existing to be removed from site
Proposed:	New on site

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3

		Revision / Upgrade Description:
Date:	03/05/2022	Tower Type & position Amended
Drawn:	D.PARTON	
Checked:	A.FANNING	
Approved:	P.CONVERY	

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M003	MBNL	NTQ	Construction	A2

		Revision / Upgrade Description:
Date:	15/03/22	Site location amended
Drawn:	L.COLEBOURN	
Checked:	A.FANNING	
Approved:	P.CONVERY	

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M002	MBNL	NTQ	Construction	A1

		Revision / Upgrade Description:
Date:	04/03/22	Construction Issue
Drawn:	A. FANNING	
Checked:	J. CAMPBELL	
Approved:	J. CAMPBELL	

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M001	MBNL	NTQ	Planning	A

		Revision / Upgrade Description:
Date:	13/01/22	First Issue
Drawn:	J. BOOTE	
Checked:	J. STOCKDALE	
Approved:	J. STOCKDALE	

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001

H3G Base Station Information line:
0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

Tel: 01707 315000
Fax: 01707 319001

Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:

WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH

Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name:
MERSEY BANK TEMP

Site ID:
1664166

Address:
MERSEY BANK PLAYING FIELDS,
MERSEY CRESCENT,
WEST DIDSBURY,
MANCHESTER,
M20 2YJ

Title:
304 MAX CONFIGURATION ANTENNA SCHEDULE & LINE CONFIGURATION

Project:
NTQ

Purpose of Issue:
CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No:
1664166_MAN560_39053_M004

Issue:
A3

100mm
50mm
10mm

V 1.8

Support Structure Schedule

Structure ID	Status	Equipment Description / Type	Structure Manufacturer	Height AGL (m)	Colour (RAL Colour)	Headframe Details	Foundation / Support Grillage / Host Structure Details	Support Bolt Details	MBNL Ref:	Comments
ST1	PROPOSED	TEMP MAST	TBC	30.00m	GALVANISED	LEG-MOUNTED	BALLAST FRAME	-	-	SEE NOTE BELOW

MAST MOUNTED ON STEEL FRAME C/W PRECAST CONCRETE BALLAST BLOCKS. FRAME FOOTPRINT (4mx4m) SITS ON ~200mm HIGH 5mx5m COMPACTED STONE SUB-BASE. MAST IS CLIMBABLE WITH ANTI-CLIMB FITTED AT ~5m AGL. PROPOSED CTIL 3No. ANTENNAS & 1No. DISH TO BE MOUNTED BELOW MBNL.

Equipment Schedule

Equipment ID	Quantity	Status	Equipment Description / Type	Equipment Manufacturer	Dimensions (W x D x H)	Weight (kg)	Colour (RAL Colour)	Material	Location	Power	Power cable length (m)	MBNL Ref:	Comments
CAB1	1	Proposed	MK5B LINK AC	-	1200x600x1600	-	RAL 7035	STEEL	OUTDOOR	-	-	-	
CAB2	1	Proposed	EE/H3G - FURO	ICD	750x600x2100	-	RAL 7035	STEEL	OUTDOOR	-	-	-	
CAB3	1	Proposed	EE - RBS6130	-	650x700x950	-	RAL 7035	STEEL	OUTDOOR	-	-	-	-
CAB4	1	Proposed	H3g - RBS6130	-	650x700x950	-	RAL 7035	STEEL	OUTDOOR	-	-	-	-
CAB5	1	Proposed	H3G - BOWLER	COMMSCOPE	1900x600x1752	-	RAL 7035	STEEL	OUTDOOR	-	-	-	
CAB6	1	Proposed	GENERATOR	-	TBC	-	TBC	STEEL	OUTDOOR	-	-	-	DETAILS / SIZE TBC
CAB7	1	Proposed	HYBRID GENERATOR	-	TBC	-	TBC	STEEL	OUTDOOR	-	-	-	DETAILS / SIZE TBC
CTIL	1	Proposed	BTS3900AL	-	770x750x1725	-	RAL 7035	STEEL	OUTDOOR	-	-	-	-
CTIL	1	Proposed	BTS3900AL	-	770x750x1725	-	RAL 7035	STEEL	OUTDOOR	-	-	-	-
CTIL	1	Proposed	METER CABINET	-	655x255x1015	-	RAL 7035	STEEL	OUTDOOR	-	-	-	-
-	6	Proposed	BOB MK2	-	-	-	RAL 7035	-	-	-	-	-	EE -L800/GL1800/L2100 & L2600
-	3	Proposed	RD0800-H401	-	-	-	RAL 7035	-	FS FRAME	-	-	-	EE - GL1800/L2100 & L2600
-	3	Proposed	RD0725-H4-06	-	-	-	RAL 7035	-	SUPPORT POLE	-	-	-	EE - GL1800/L2100 & L2600
-	3	Proposed	ERS 2262	ERICSSON	-	-	RAL 7035	STEEL	FS FRAME	-	-	-	EE - 800
-	3	Proposed	ERS 2260	ERICSSON	-	-	RAL 7035	STEEL	FS FRAME	-	-	-	EE - GL1800/2100
-	3	Proposed	ERS 4419	ERICSSON	-	-	RAL 7035	STEEL	FS FRAME	-	-	-	EE - 2600
-	3	Proposed	UCU MK2	-	-	-	RAL 7035	-	FURO	-	-	-	H3G U2100 & EE U2100
-	3	Proposed	RD0569-H4-01	-	-	-	RAL 7035	-	SUPPORT POLE	-	-	-	EE & H3G 800
-	3	Proposed	E14R00P41	-	-	-	RAL 7035	-	SUPPORT POLE	-	-	-	EE & H3G 800
-	3	Proposed	RD0448-H412	-	-	-	RAL 7035	-	SUPPORT POLE	-	-	-	H3G - U2100 & EE U2100
-	3	Proposed	ERS 2460	ERICSSON	398x190x553	37.5kg	RAL 7035	STEEL	BOWLER	-	-	-	H3G - 800
-	3	Proposed	ERS 4480	ERICSSON	398x190x553	32kg	RAL 7035	STEEL	BOWLER	-	-	-	H3G - 1800/2100
-	3	Proposed	ERS 2012	ERICSSON	342x131x42	17kg	RAL 7035	STEEL	BOWLER	-	-	-	H3G - 1400
-	3	Proposed	KRF102 452	KATHREIN	-	-	-	-	BOWLER	-	-	-	H3G - 1400 FILTER
-	3	Proposed	Kathrein 78211533	-	-	-	RAL 7035	-	BOWLER	-	-	-	H3G -1400/1800/2100
-	3	Proposed	Kathrein 7821 1107	-	-	-	RAL 7035	-	SUPPORT POLE	-	-	-	H3G -1400/1800/2100
-	3	Proposed	RD0877-H4-06	-	-	-	RAL 7035	-	SUPPORT POLE	-	-	-	H3G - 700 & EE/H3G - 800

POWER SCHEDULE

Supply Status	Type	Supplier	Supply Type	Location	Comments
PROPOSED	GENERATOR	TBC	TBC	FENCED COMPOUND	C/W HYBRID (NOISE REDUCTION - NIGHT TIME RUNNING)

STATUS KEY:

Installed: Existing
Retain: Existing and to remain
Relocate: Existing and to be relocated
Remove: Existing to be removed from site
Proposed: New on site

LOCATION KEY:

Outdoor: Located outside
Indoor: Located within an equipment cabin or equipment room
Internal: located inside a cabinet or item of equipment

Master:	MBNL / EE / H3G:	Project:	Purpose of Issue:	Issue:
M004	MBNL	NTQ	Construction	A3
Date: 03/05/2022	Drawn: D.PARTON	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Tower Type & position Amended
M003	MBNL	NTQ	Construction	A2
Date: 15/03/22	Drawn: L.COLEBOURN	Checked: A.FANNING	Approved: P.CONVERY	Revision / Upgrade Description: Site location amended
M002	MBNL	NTQ	Construction	A1
Date: 04/03/22	Drawn: A. FANNING	Checked: J. CAMPBELL	Approved: J. CAMPBELL	Revision / Upgrade Description: Construction Issue
M001	MBNL	NTQ	Planning	A
Date: 13/01/22	Drawn: J. BOOTE	Checked: J. STOCKDALE	Approved: J. STOCKDALE	Revision / Upgrade Description: First Issue

Hutchison 3G UK Limited
Star House, 20 Grenfell Road
Maidenhead, SL6 1EH
Tel: 01628 765 000
Fax: 01628 765 001
H3G Base Station Information line: 0845 6043000
Available 8am-8pm Monday to Friday

Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW
Tel: 01707 315000
Fax: 01707 319001

Mobile Broadband Network Limited
Sixth Floor, Thames Tower, Station Road, Reading, RG1 1LX

Design Consultant & Principal Contractor:
WHP Telecoms
Unit 1 Maple Park,
Low Fields Avenue, Leeds
LS12 6HH
Tel: 01133023550
e-mail: info@whptelecoms.com

Site Name: MERSEY BANK TEMP

Site ID: 1664166

Address: MERSEY BANK PLAYING FIELDS, MERSEY CRESCENT, WEST DIDSBURY, MANCHESTER, M20 2YJ

Title: 305 EQUIPMENT SCHEDULE & SUPPORT STRUCTURE DETAILS

Project: NTQ

Purpose of Issue: CONSTRUCTION

EE Cell ID:	MBNL Cell ID:	3UK Cell ID:
39053	MAN560	-

Master Drawing No: 1664166_MAN560_39053_M004 | Issue: A3

Appendix 1: Site Photographs

Photo 1: View of the Telecoms Mast

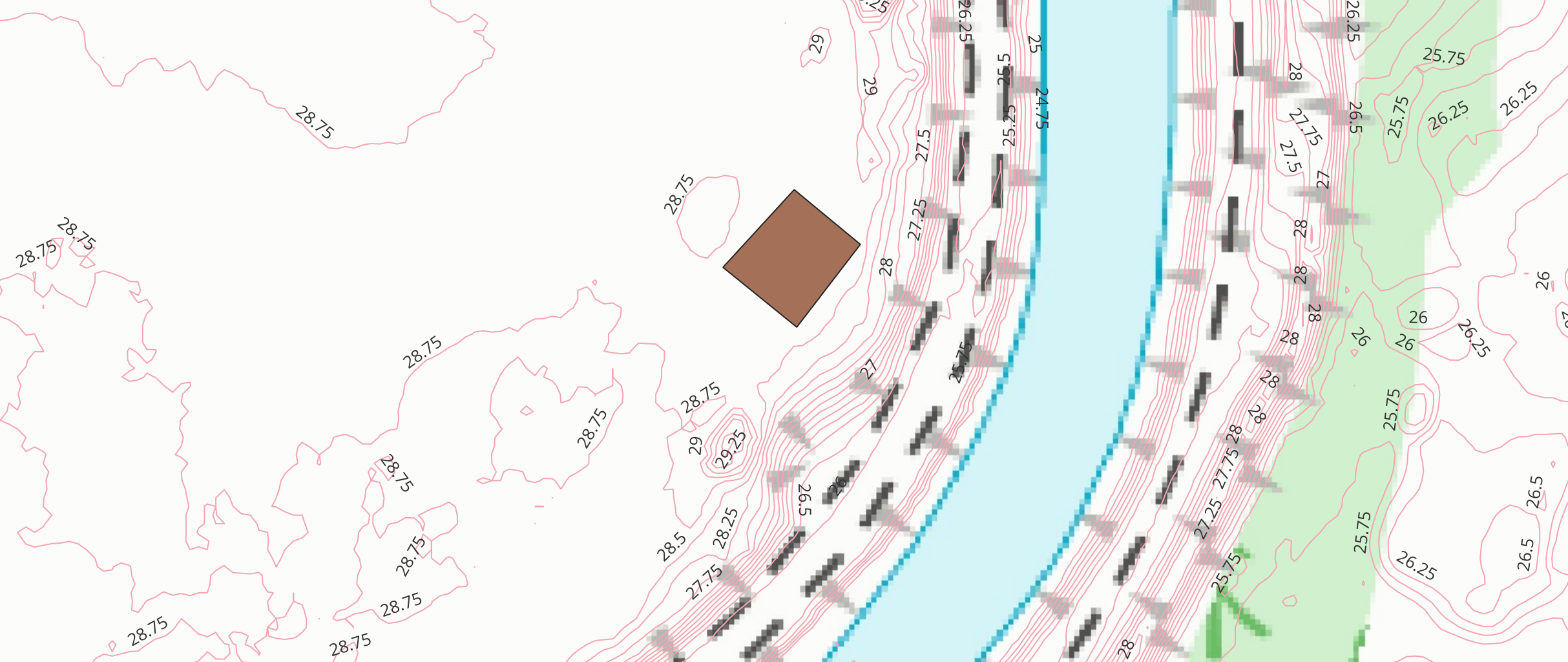
Photo 2: View of the River Mersey from Telecoms Mast

Photo 3: Power Generator Located on Site

Photo 4: Electrical Equipment Surrounding Telecoms Mast

Photo 5: Electrical Wiring on Site

Appendix 2: LiDAR Topographic Data

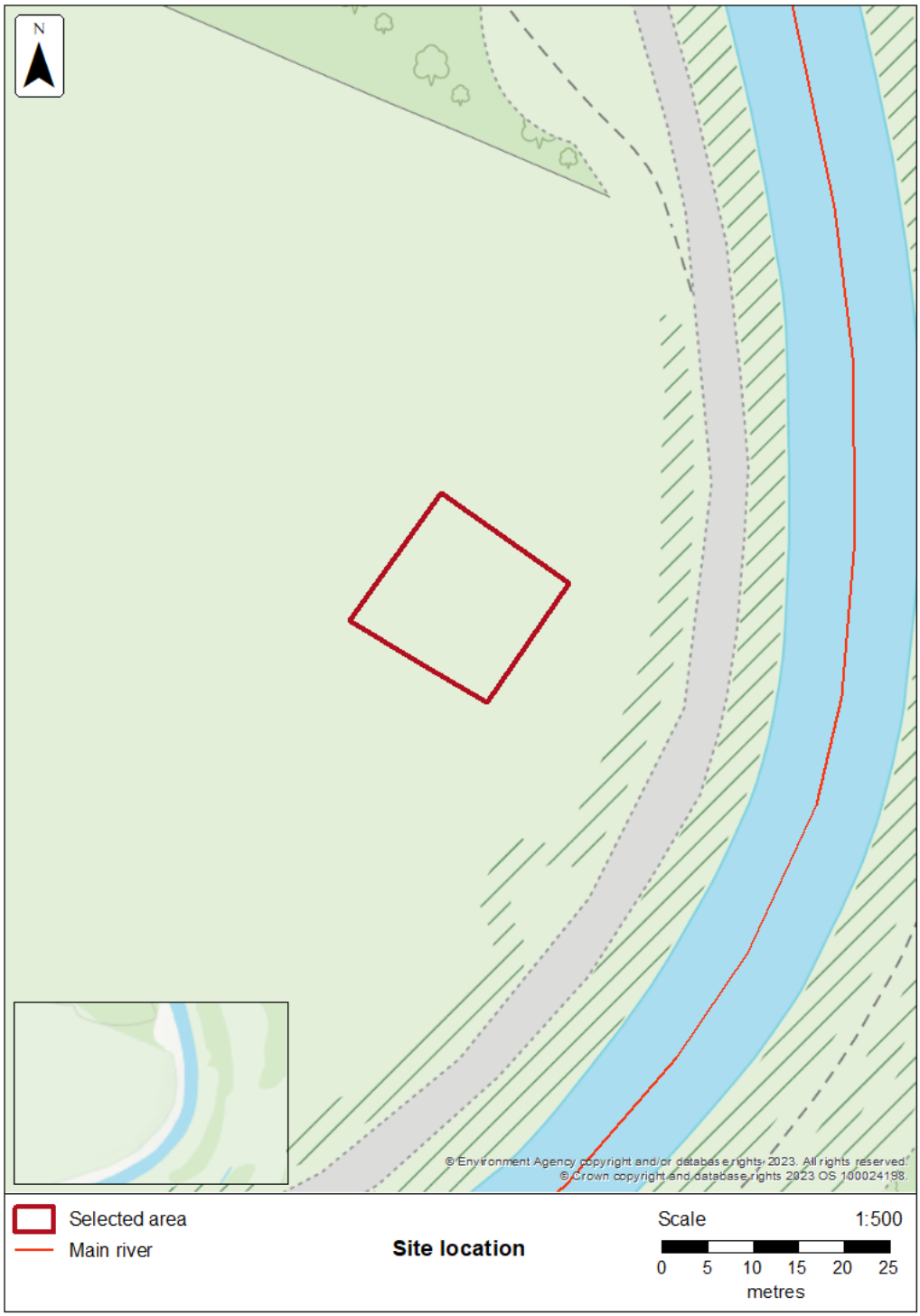

28.75
28.75
28.75
28.75
28.75
28.75
28.75
28.75
28.75
28.75
28.75
29
29
29
29.25
28.5
28.25
27.75
27.5
27.25
27
26.5
26.25
25.5
25.25
25
24.75
25.75
26.25
26.5
26
28
27.75
27.5
27
28
28
28
28
28
28
28
28
27.75
27.25
25.75
25.75
26.25
26.5
26.5
26.25
26
26
26
26.25
25.75
25.75
26.25
26.5
26.5
26
28

Appendix 3: Environment Agency Product 4 Data

Flood risk assessment data

Location of site: 383259 / 391412 (shown as easting and northing coordinates)
Document created on: 20 October 2023
This information was previously known as a product 4.
Customer reference number: G3A7TGM84K3G

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

Not included in this document

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

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

Include a site location map in your request.

Information that's unavailable

This document **does not** contain:

- historic flooding

We do not have historic flooding data for this location.

Please note that:

- flooding may have occurred that we do not have records for
- flooding can come from a range of different sources
- we can only supply flood risk data relating to floodng 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.

Surface water and other sources of flooding

Use the long term flood risk service to find out about the risk of flooding from:

- surface water
- ordinary watercourses
- reservoirs

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

About the models used

Model name: Upper Mersey 2017
Scenario(s): Defended fluvial, defences removed fluvial, defended climate change fluvial, defences removed climate change fluvial
Date: 14 April 2022

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

Terminology used

Annual exceedance probability (AEP)

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

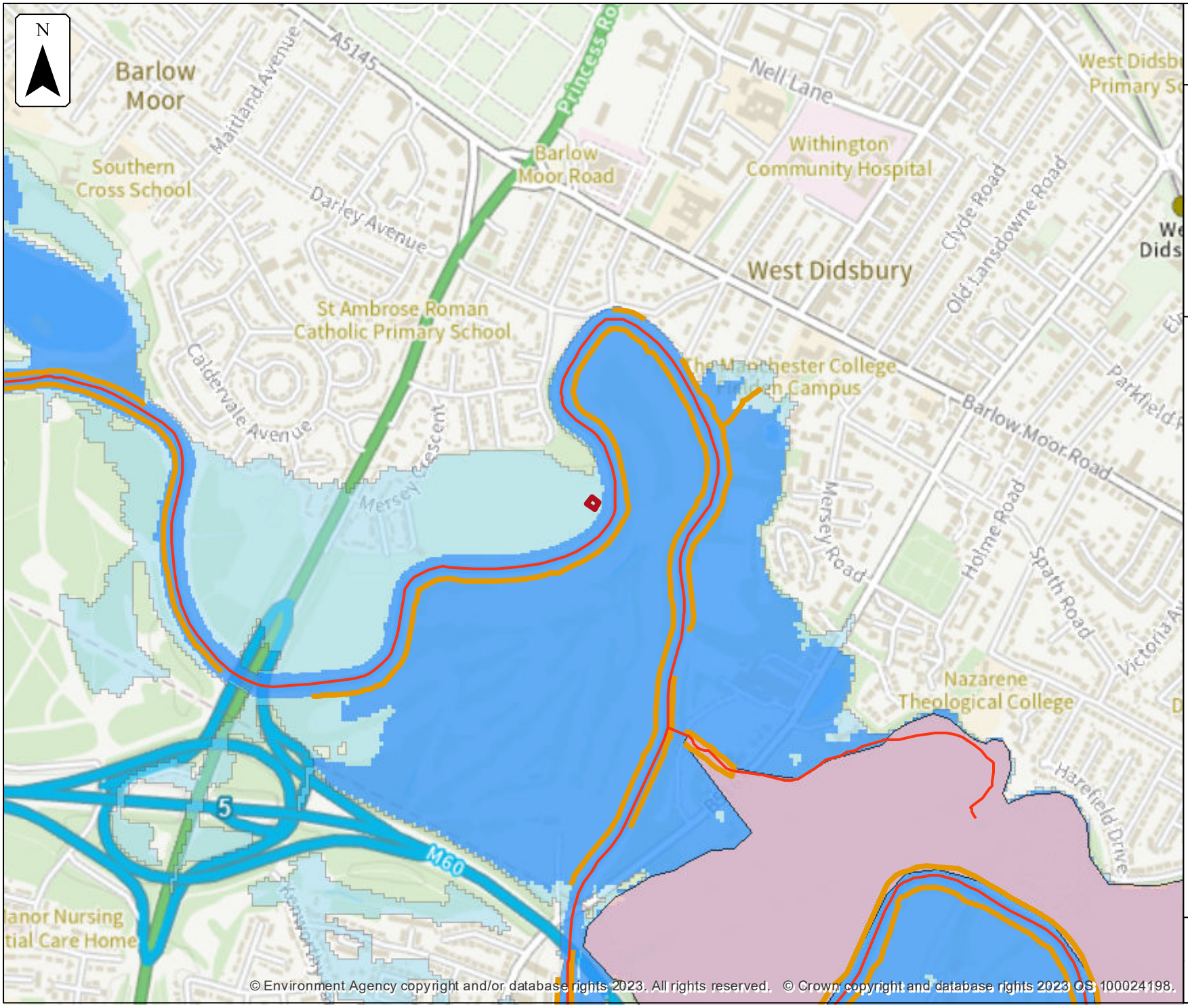
Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

- 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

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



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Flood map for planning

Location (easting/northing)
383259/391412

Scale
1:10,000

Created
20 Oct 2023

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

0 100 200 300 400 500
metres

Flood defences and attributes

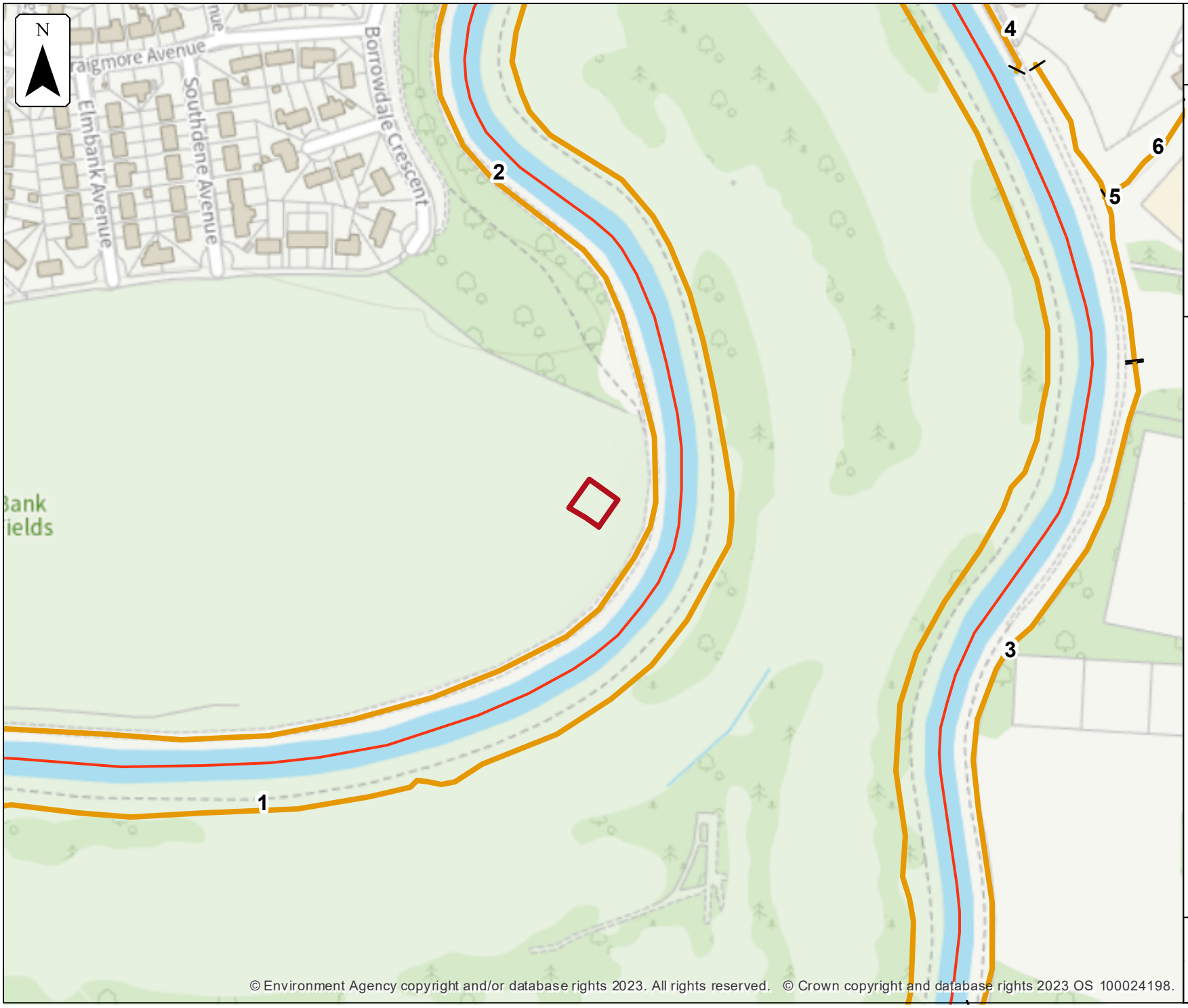
The flood defences map shows the location of the flood defences present.

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



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Flood defences

Location (easting/northing)
383259/391412

Scale
1:2,500

Created
20 Oct 2023

Selected area
Main river
Flood defence

0 25 50 75 100
metres

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	120551	Embankment	100	Fair	27.48	29.16	
2	120564	Engineered High Ground	100	Fair	30.22	23.74	
3	121968	Embankment	100	Fair	28.60	28.96	
4	120553	Embankment	100		29.74	29.69	
5	181859	Embankment	100	Fair	29.09	28.52	
6	9702	Embankment	100	Fair	29.25	28.53	

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

Modelled data

This section provides details of different scenarios we have modelled and includes the following (where available):

- outline maps showing the area at risk from flooding in different modelled scenarios
- modelled node point map(s) showing the points used to get the data to model the scenarios and table(s) providing details of the flood risk for different return periods
- map(s) showing the approximate water levels for the return period with the largest flood extent for a scenario and table(s) of sample points providing details of the flood risk for different return periods

Climate change

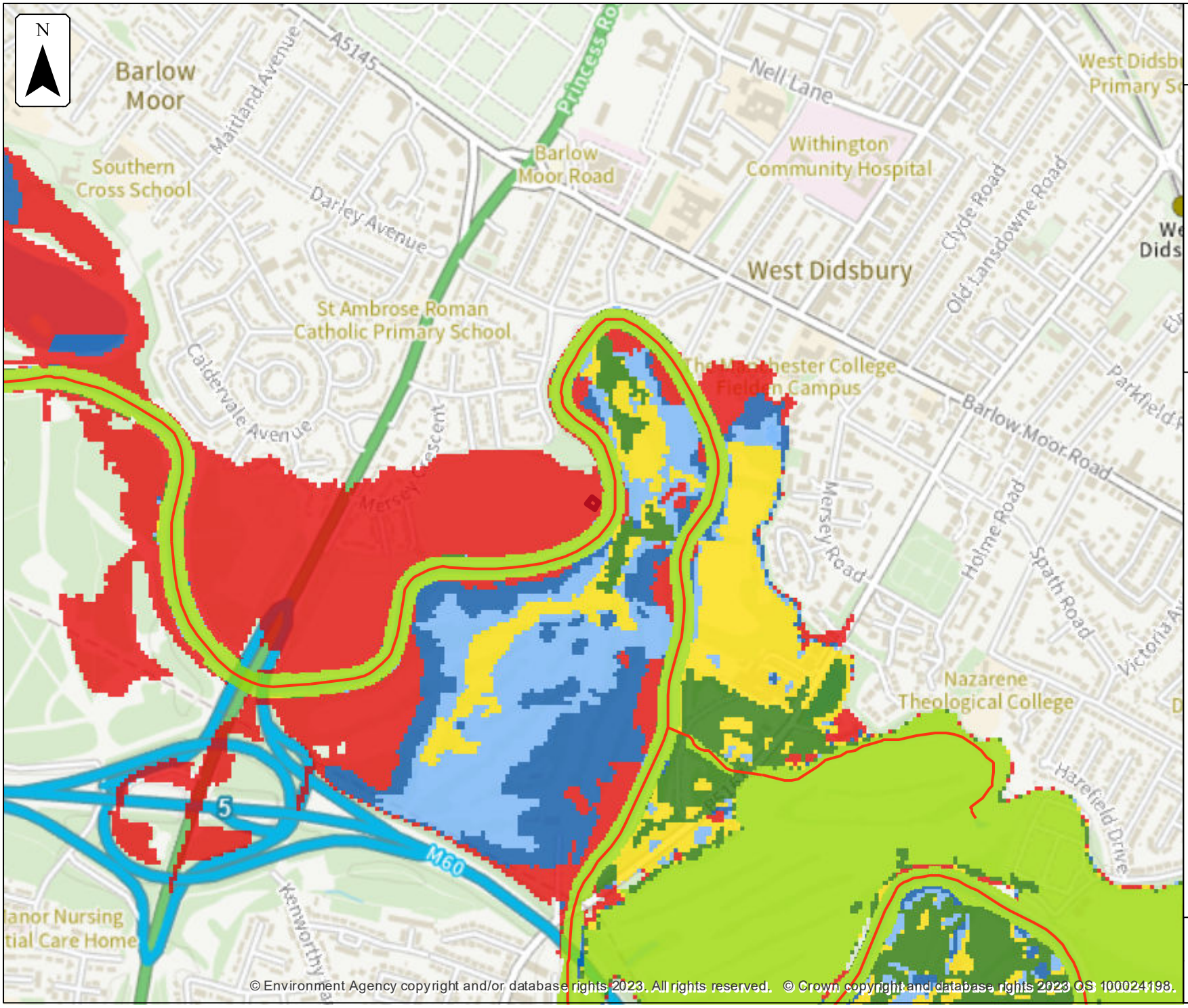
The climate change data included in the models may not include the latest flood risk assessment climate change allowances. Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

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

Modelled scenarios

The following scenarios are included:

- Defended modelled fluvial: risk of flooding from rivers where there are flood defences
- Defences removed modelled fluvial: risk of flooding from rivers where flood defences have been removed
- 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



Environment Agency

Defended modelled fluvial extent

Location (easting/northing)
383259/391412

Scale
1:10,000

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area

Main river

Modelled flood extent

- 5% AEP
- 2% AEP
- 1.33% AEP
- 1% AEP
- 0.5% AEP
- 0.1% AEP

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

0 100 200 300 400 500
metres

Environment Agency

Defences removed modelled fluvial extent

Location (easting/northing)
383259/391412

Scale
1:10,000

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area

Main river

Modelled flood extent

- 5% AEP
- 2% AEP
- 1.33% AEP
- 1% AEP
- 0.5% AEP
- 0.1% AEP

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

0 100 200 300 400 500
metres

© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defended climate change modelled fluvial extent

Location (easting/northing)
383259/391412

Scale
1:10,000

Created
20 Oct 2023

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

0 100 200 300 400 500
metres

Environment Agency

Defences removed climate change modelled fluvial extent

Location (easting/northing)
383259/391412

Scale
1:10,000

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area

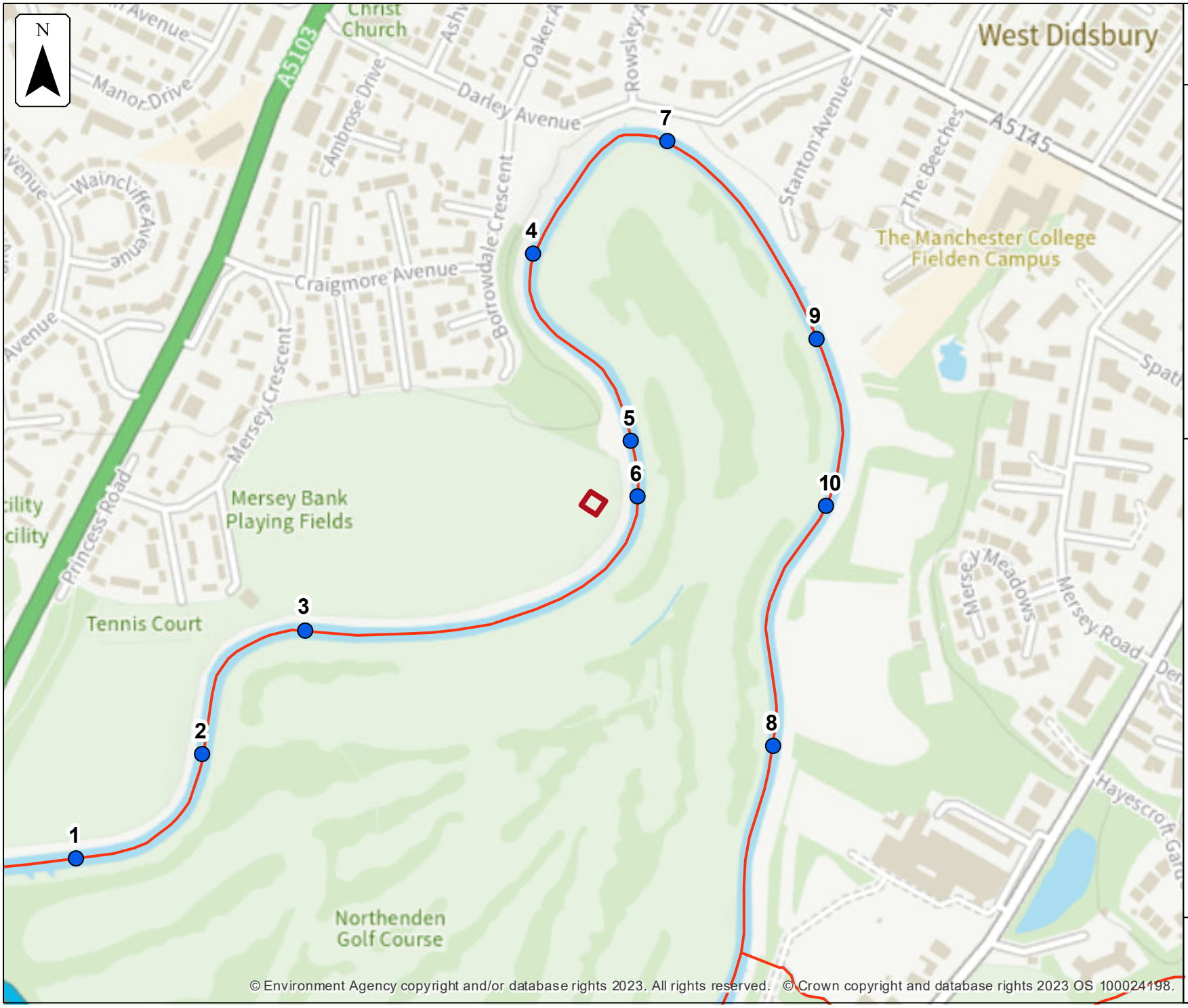
Main river

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

0 100 200 300 400 500
metres



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defended modelled fluvial node locations

Location (easting/northing)
383259/391412

Scale
1:5,000

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area
Modelled location
Main river

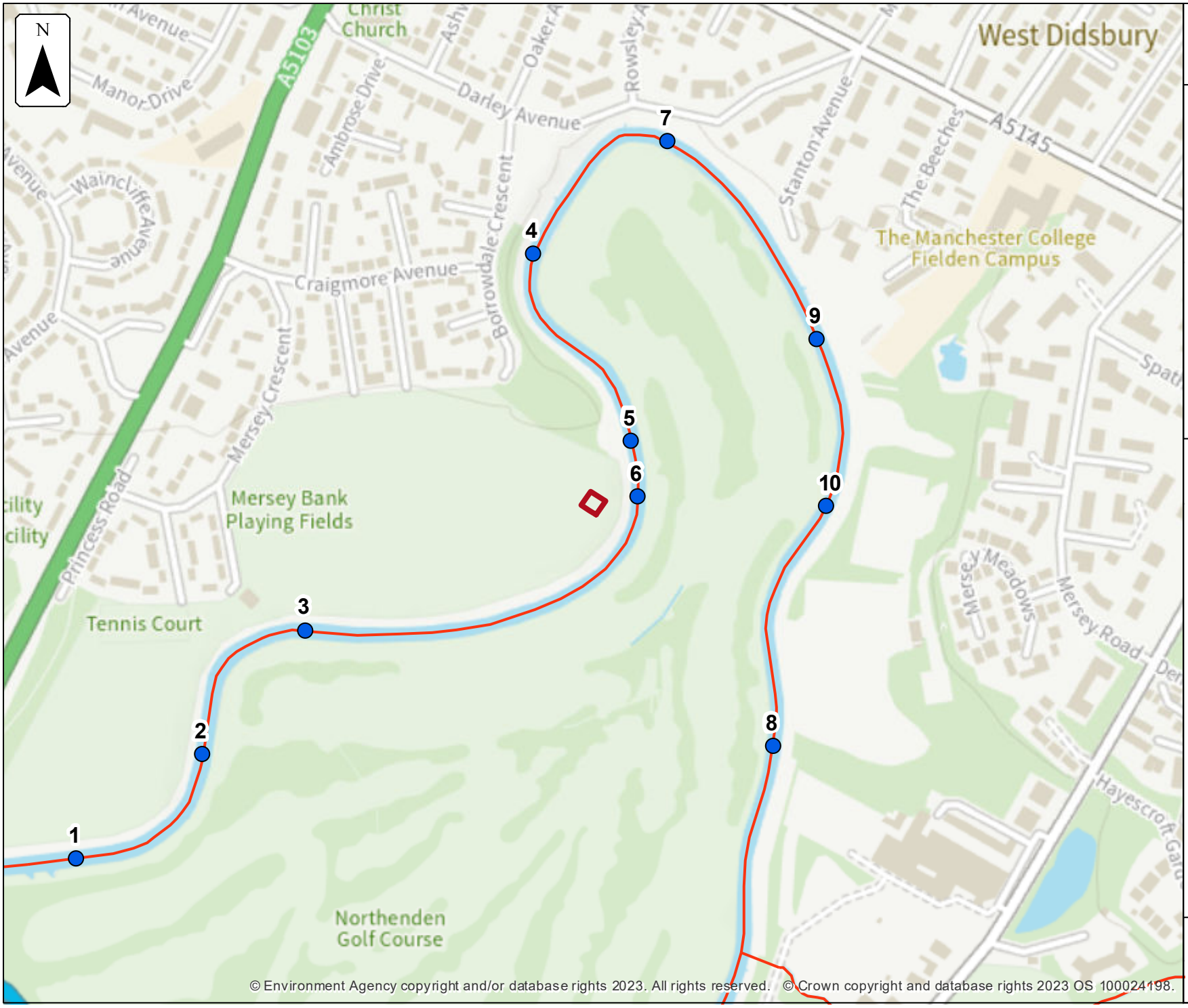
0 50 100 150 200 250
metres

Modelled node locations data

Defended

Label	Modelled location ID	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
				Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow
1	1290628	382755	391065	26.83	280.09	27.0	299.79	27.06	306.46	27.19	323.18	27.26	332.03	29.42	433.63
2	1290808	382878	391166	26.94	280.07	27.11	299.80	27.17	306.48	27.30	323.19	27.37	332.05	29.48	403.04
3	1290664	382979	391287	27.03	280.15	27.20	299.80	27.26	306.56	27.39	323.22	27.46	332.07	29.48	371.95
4	1290826	383201	391654	27.68	280.27	27.86	299.87	27.92	306.81	28.05	323.56	28.12	333.31	29.55	400.06
5	1290751	383296	391472	27.51	280.16	27.68	299.82	27.74	306.66	27.88	323.35	27.95	332.18	29.56	381.26
6	1290663	383302	391417	27.28	280.16	27.46	299.82	27.51	306.66	27.64	323.35	27.71	332.18	29.53	381.26
7	1290632	383331	391764	27.86	280.30	28.03	299.91	28.08	307.24	28.22	325.61	28.28	336.78	29.56	420.47
8	1290523	383434	391174	28.38	280.21	28.55	300.02	28.61	307.61	28.74	330.0	28.81	347.83	29.58	456.57
9	1290543	383477	391571	28.11	280.30	28.28	299.98	28.34	307.30	28.47	325.86	28.54	337.89	29.52	440.64
10	1290806	383486	391409	28.25	280.43	28.42	299.97	28.47	307.37	28.61	328.04	28.69	343.54	29.52	431.27

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.



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defences removed modelled fluvial node locations

Location (easting/northing)
383259/391412

Scale
1:5,000

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area
Modelled location
Main river

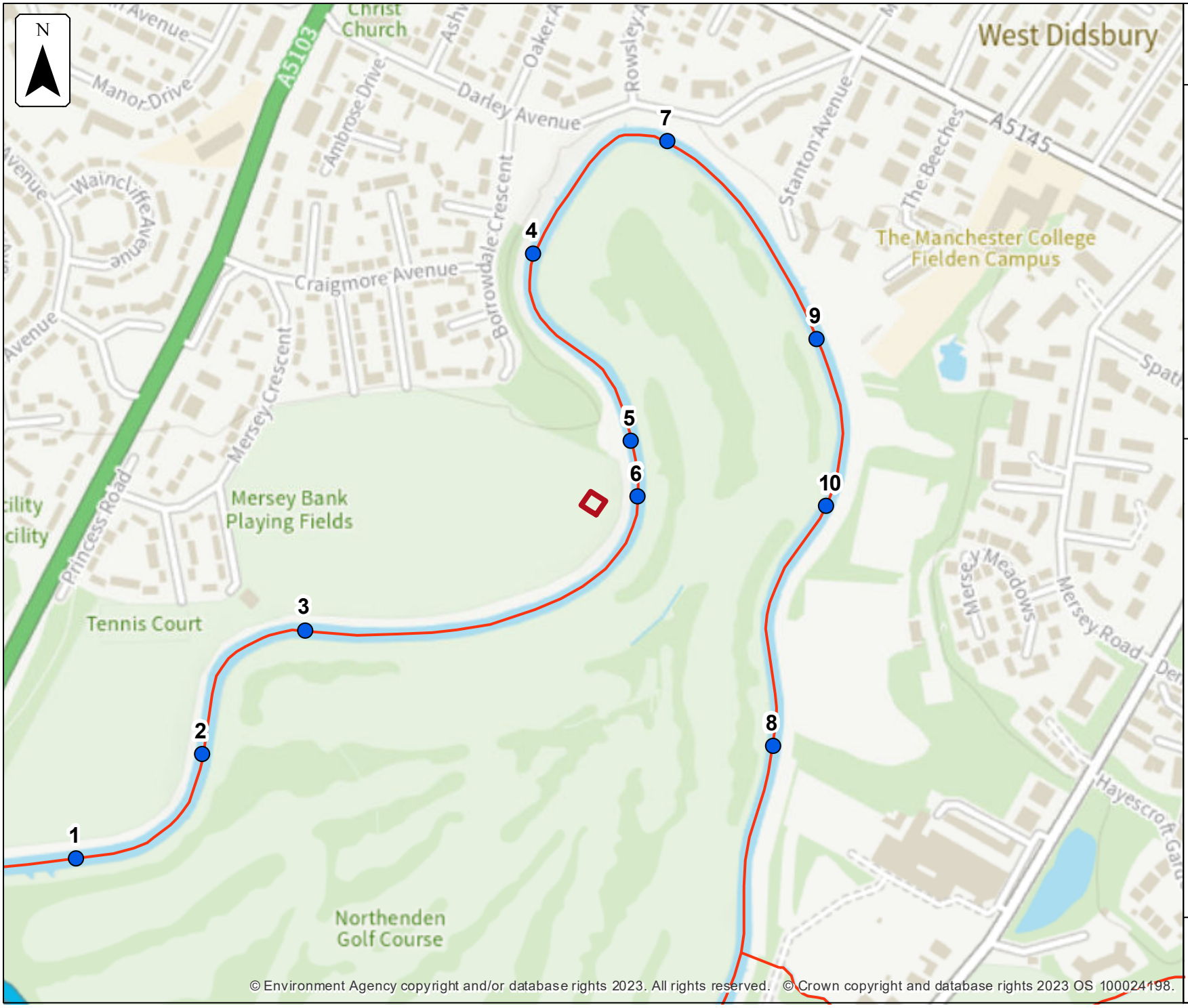
0 50 100 150 200 250
metres

Modelled node locations data

Defences removed

Label	Modelled location ID	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
				Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow	Level	Flow
1	1290628	382755	391065	26.69	286.83	27.04	334.82	27.20	356.58	27.31	372.83	27.63	412.36	29.24	430.61
2	1290808	382878	391166	26.91	251.60	27.35	258.89	27.56	259.34	27.71	259.60	28.10	260.18	29.35	262.42
3	1290664	382979	391287	27.21	139.64	27.59	140.48	27.77	140.77	27.89	140.90	28.21	141.37	29.36	179.06
4	1290826	383201	391654	27.28	127.84	27.64	128.30	27.80	128.52	27.92	128.68	28.23	128.99	29.39	248.73
5	1290751	383296	391472	27.27	129.48	27.63	130.13	27.80	130.51	27.92	130.65	28.23	131.09	29.41	132.42
6	1290663	383302	391417	27.26	129.48	27.62	130.13	27.79	130.51	27.91	130.65	28.22	131.09	29.41	132.42
7	1290632	383331	391764	27.28	128.16	27.64	128.68	27.81	128.90	27.92	129.10	28.23	129.43	29.41	153.17
8	1290523	383434	391174	27.27	158.65	27.64	163.25	27.82	165.10	27.94	166.32	28.26	169.33	29.45	289.35
9	1290543	383477	391571	27.27	127.78	27.63	128.31	27.78	128.51	27.89	131.83	28.19	149.72	29.41	239.34
10	1290806	383486	391409	27.25	121.80	27.61	142.43	27.76	154.43	27.87	165.12	28.15	193.11	29.40	312.93

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.



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defended climate change modelled fluvial node locations

Location (easting/northing)
383259/391412

Scale
1:5,000

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area
Modelled location
Main river

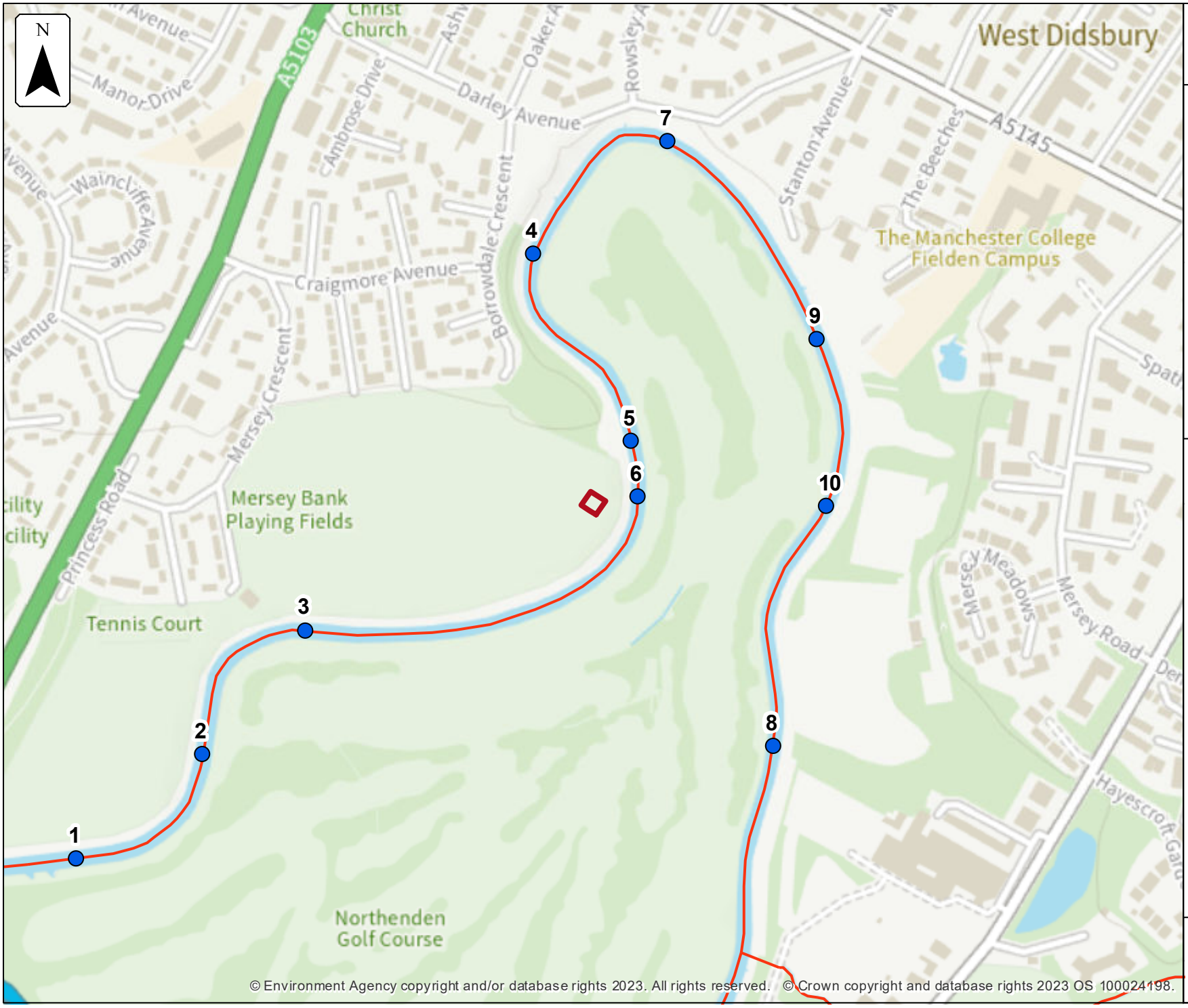
0 50 100 150 200 250
metres

Modelled node locations data

Defended climate change

Label	Modelled location ID	Easting	Northing	1.0% AEP (+30%)		1.0% AEP (+35%)		1.0% AEP (+70%)		0.1% AEP (+30%)	
				Level	Flow	Level	Flow	Level	Flow	Level	Flow
1	1290628	382755	391065	28.03	417.0	28.39	422.07	29.28	431.83	29.86	439.88
2	1290808	382878	391166	28.27	384.32	28.62	389.99	29.36	399.91	29.90	411.71
3	1290664	382979	391287	28.43	358.23	28.69	361.70	29.36	370.29	29.87	386.17
4	1290826	383201	391654	28.60	372.05	28.83	378.48	29.45	396.85	29.96	417.78
5	1290751	383296	391472	28.60	361.92	28.82	366.63	29.45	379.34	29.96	398.87
6	1290663	383302	391417	28.51	361.92	28.75	366.63	29.42	379.34	29.94	398.87
7	1290632	383331	391764	28.61	384.64	28.85	393.24	29.45	416.35	29.97	430.96
8	1290523	383434	391174	29.02	406.27	29.05	416.0	29.44	449.10	30.02	455.41
9	1290543	383477	391571	28.77	393.77	28.87	404.12	29.42	434.35	29.98	449.90
10	1290806	383486	391409	28.96	388.89	29.01	396.93	29.42	423.87	30.03	431.82

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.



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defences removed climate change modelled fluvial node locations

Location (easting/northing)
383259/391412

Scale
1:5,000

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area
Modelled location
Main river

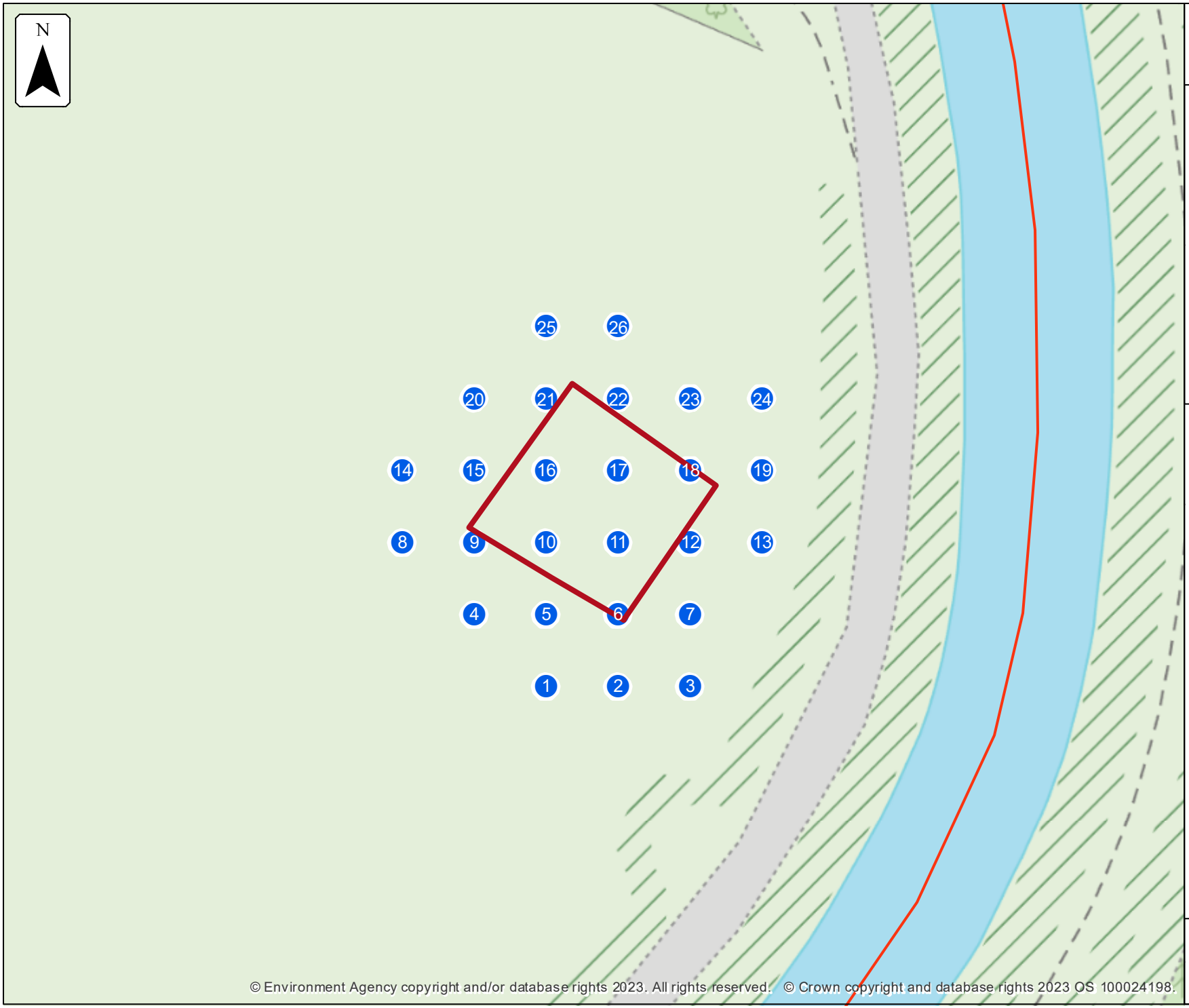
0 50 100 150 200 250
metres

Modelled node locations data

Defences removed climate change

Label	Modelled location ID	Easting	Northing	1.0% AEP (+30%)		1.0% AEP (+35%)		1.0% AEP (+70%)		0.1% AEP (+30%)	
				Level	Flow	Level	Flow	Level	Flow	Level	Flow
1	1290628	382755	391065	28.29	426.58	28.45	427.16	29.13	429.78	29.77	432.77
2	1290808	382878	391166	28.67	261.03	28.78	261.13	29.27	261.94	29.83	264.25
3	1290664	382979	391287	28.71	141.94	28.81	142.02	29.27	173.85	29.81	186.62
4	1290826	383201	391654	28.71	129.40	28.81	129.55	29.32	236.59	29.87	136.55
5	1290751	383296	391472	28.72	131.43	28.82	131.65	29.33	132.10	29.86	133.26
6	1290663	383302	391417	28.71	131.43	28.81	131.65	29.32	132.10	29.85	133.26
7	1290632	383331	391764	28.72	129.92	28.81	130.03	29.34	142.79	29.87	144.81
8	1290523	383434	391174	28.76	175.96	28.86	178.29	29.35	269.66	29.85	245.78
9	1290543	383477	391571	28.68	168.19	28.78	170.57	29.35	231.38	29.86	190.03
10	1290806	383486	391409	28.57	242.20	28.65	252.33	29.34	359.83	29.86	216.31

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.



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defended modelled fluvial extent and height

Location (easting/northing)
383259/391412

Scale
1:500

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 29.0
- 29.0 - 29.125
- 29.125 - 29.25
- 29.25 - 29.375
- 29.375 - 29.5
- 29.5 - 29.625
- 29.625 - 29.75
- 29.75 - 29.875
- 29.875 - 30.0

This map shows the 0.1% AEP height data

0 5 10 15 20
metres

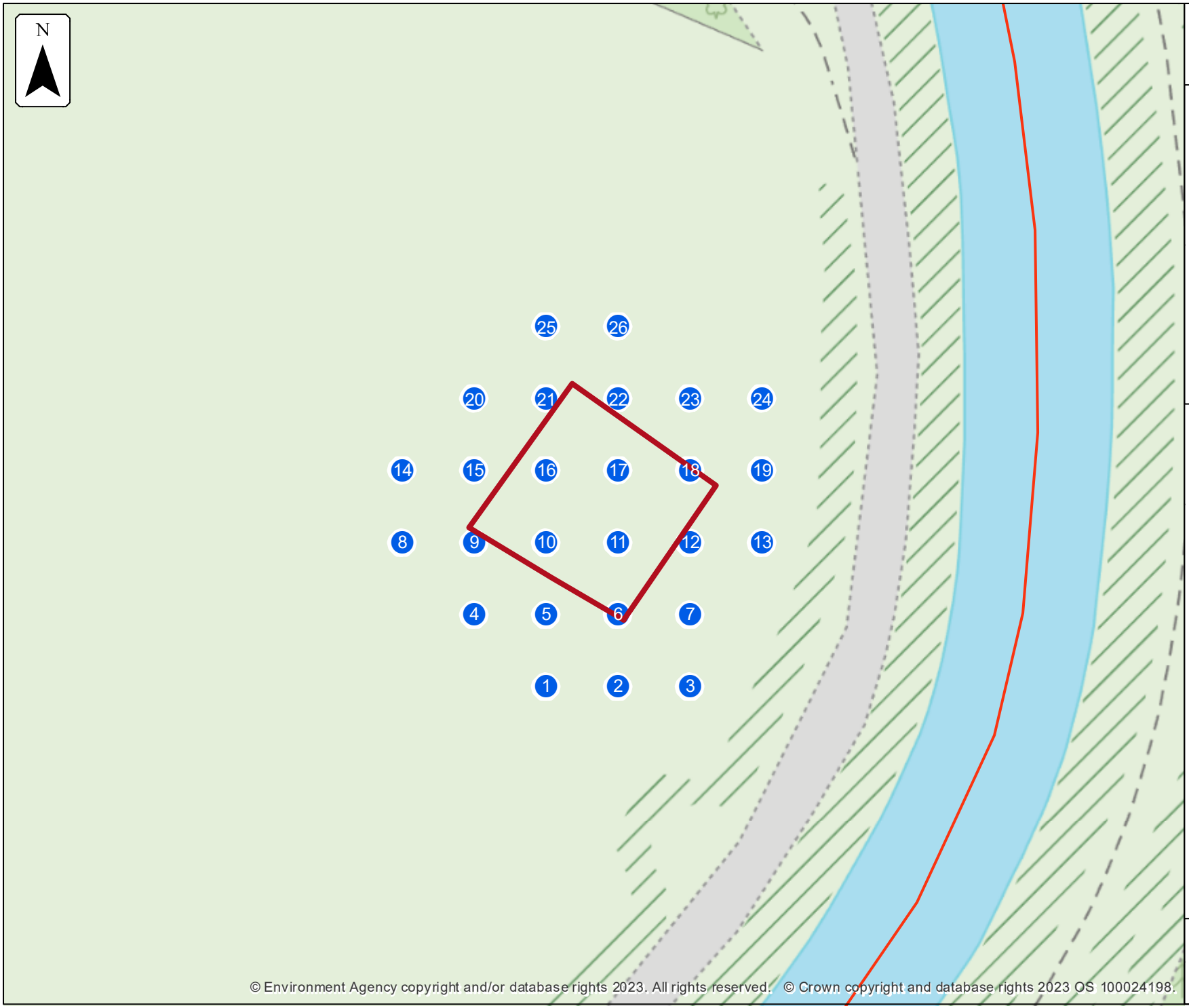
Sample point data

Defended

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	383254	391394	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.78	29.52
2	383261	391394	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.72	29.53
3	383268	391394	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	1.35	29.53
4	383247	391401	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.80	29.52
5	383254	391401	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.80	29.53
6	383261	391401	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.74	29.53
7	383268	391401	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.56	29.53
8	383240	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.78	29.52
9	383247	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.77	29.53
10	383254	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.83	29.53
11	383261	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.78	29.53
12	383268	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.13	29.53
13	383275	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	1.09	29.53
14	383240	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.76	29.52
15	383247	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.76	29.53
16	383254	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.78	29.53

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	383261	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.76	29.53
18	383268	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.69	29.53
19	383275	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	1.09	29.53
20	383247	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.72	29.53
21	383254	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.68	29.53
22	383261	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.66	29.53
23	383268	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.60	29.53
24	383275	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	1.08	29.53
25	383254	391429	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.66	29.53
26	383261	391429	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.61	29.53

Data in this table comes from the Upper Mersey 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.



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defences removed modelled fluvial extent and height

Location (easting/northing)
383259/391412

Scale
1:500

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 29.0
- 29.0 - 29.125
- 29.125 - 29.25
- 29.25 - 29.375
- 29.375 - 29.5
- 29.5 - 29.625
- 29.625 - 29.75
- 29.75 - 29.875
- 29.875 - 30.0

This map shows the 0.1% AEP height data

0 5 10 15 20
metres

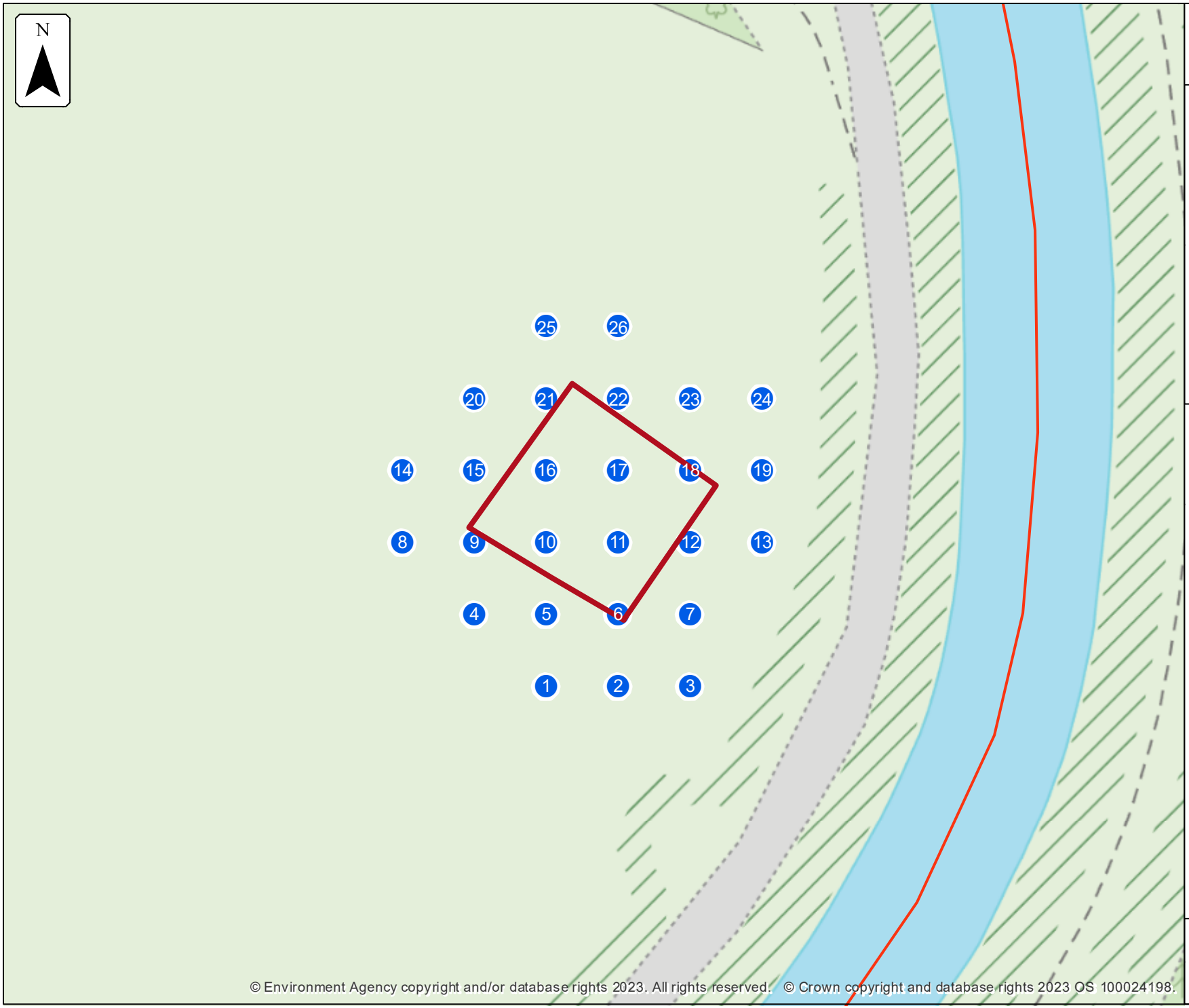
Sample point data

Defences removed

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	383254	391394	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.63	29.38
2	383261	391394	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.57	29.38
3	383268	391394	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.09	28.22	1.22	29.39
4	383247	391401	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.64	29.37
5	383254	391401	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.65	29.37
6	383261	391401	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.59	29.38
7	383268	391401	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.47	29.40
8	383240	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.63	29.37
9	383247	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.62	29.37
10	383254	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.68	29.38
11	383261	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.63	29.38
12	383268	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.12	29.40
13	383275	391408	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.96	29.40
14	383240	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.61	29.37
15	383247	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.61	29.37
16	383254	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.63	29.38

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	383261	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.62	29.38
18	383268	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.54	29.39
19	383275	391415	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.96	29.40
20	383247	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.57	29.38
21	383254	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.53	29.38
22	383261	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.51	29.38
23	383268	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.46	29.39
24	383275	391422	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.95	29.41
25	383254	391429	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.51	29.38
26	383261	391429	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	NoData	0.46	29.39

Data in this table comes from the Upper Mersey 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.



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defended climate change modelled fluvial extent and height

Location (easting/northing)
383259/391412

Scale
1:500

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 29.0
- 29.0 - 29.125
- 29.125 - 29.25
- 29.25 - 29.375
- 29.375 - 29.5
- 29.5 - 29.625
- 29.625 - 29.75
- 29.75 - 29.875
- 29.875 - 30.0

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

0 5 10 15 20
metres

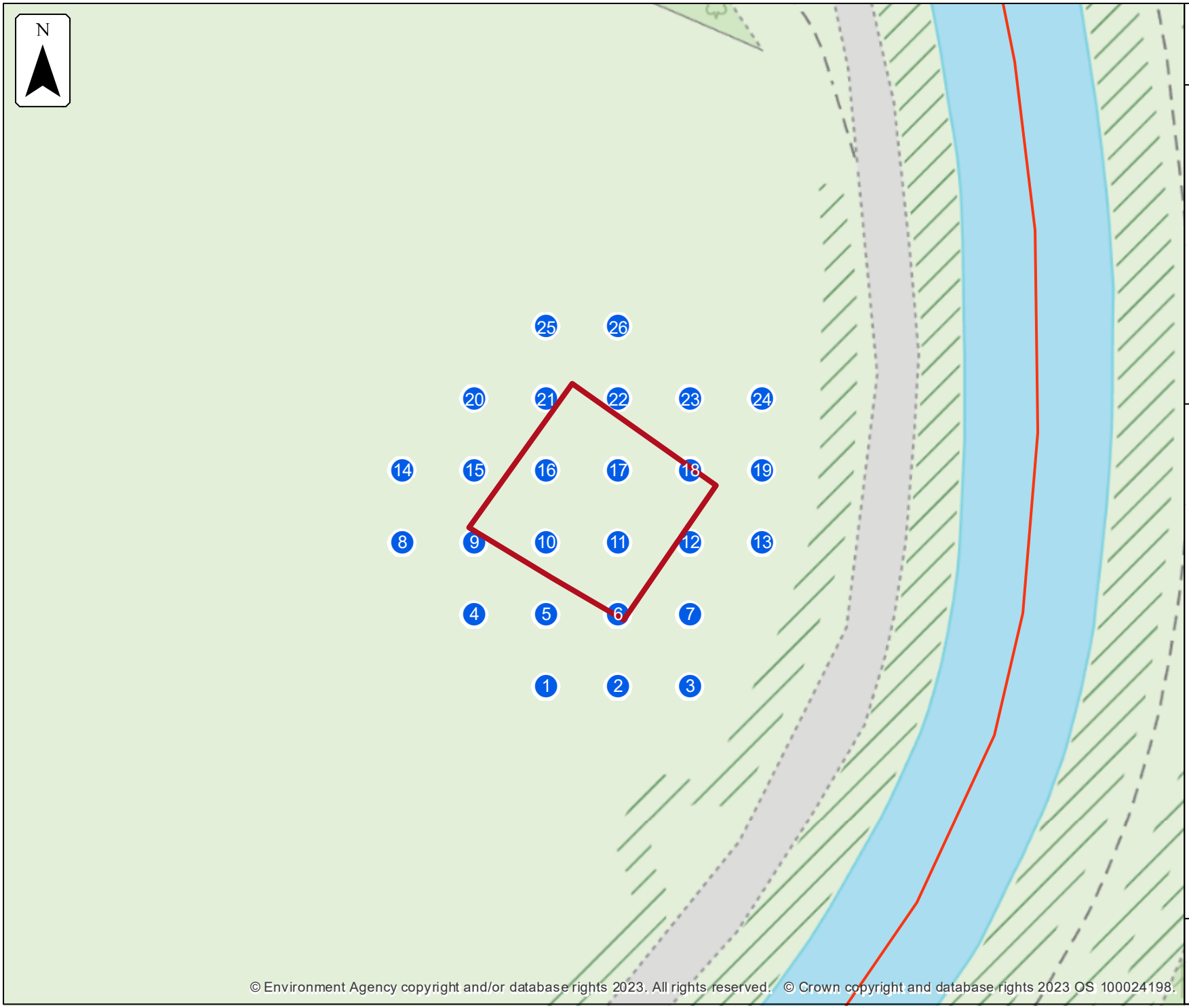
Sample point data

Defended climate change

Label	Easting	Northing	1% AEP (+30%)		1% AEP (+35%)		1% AEP (+70%)		0.1% AEP (+30%)	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	383254	391394	NoData	NoData	NoData	NoData	0.66	29.40	1.19	29.93
2	383261	391394	NoData	NoData	NoData	NoData	0.60	29.40	1.13	29.93
3	383268	391394	0.32	28.49	0.56	28.73	1.24	29.41	1.76	29.93
4	383247	391401	NoData	NoData	NoData	NoData	0.67	29.40	1.20	29.93
5	383254	391401	NoData	NoData	NoData	NoData	0.68	29.40	1.21	29.93
6	383261	391401	NoData	NoData	NoData	NoData	0.61	29.40	1.14	29.93
7	383268	391401	NoData	NoData	0.02	28.74	0.47	29.41	0.82	29.93
8	383240	391408	NoData	NoData	NoData	NoData	0.65	29.40	1.18	29.93
9	383247	391408	NoData	NoData	NoData	NoData	0.65	29.40	1.18	29.93
10	383254	391408	NoData	NoData	NoData	NoData	0.70	29.40	1.23	29.93
11	383261	391408	NoData	NoData	NoData	NoData	0.65	29.40	1.18	29.93
12	383268	391408	0.02	28.50	0.05	28.74	0.12	29.41	0.18	29.93
13	383275	391408	0.13	28.50	0.30	28.74	0.98	29.41	1.50	29.93
14	383240	391415	NoData	NoData	NoData	NoData	0.63	29.40	1.16	29.93
15	383247	391415	NoData	NoData	NoData	NoData	0.64	29.40	1.17	29.93
16	383254	391415	NoData	NoData	NoData	NoData	0.66	29.41	1.19	29.93

Label	Easting	Northing	1% AEP (+30%)		1% AEP (+35%)		1% AEP (+70%)		0.1% AEP (+30%)	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	383261	391415	NoData	NoData	NoData	NoData	0.64	29.40	1.17	29.93
18	383268	391415	NoData	NoData	NoData	NoData	0.57	29.41	1.09	29.93
19	383275	391415	0.13	28.50	0.30	28.74	0.97	29.42	1.49	29.93
20	383247	391422	NoData	NoData	NoData	NoData	0.60	29.40	1.13	29.93
21	383254	391422	NoData	NoData	NoData	NoData	0.56	29.41	1.09	29.93
22	383261	391422	NoData	NoData	NoData	NoData	0.54	29.41	1.07	29.93
23	383268	391422	NoData	NoData	NoData	NoData	0.48	29.41	1.00	29.93
24	383275	391422	0.11	28.50	0.29	28.74	0.97	29.42	1.49	29.94
25	383254	391429	NoData	NoData	NoData	NoData	0.54	29.41	1.07	29.93
26	383261	391429	NoData	NoData	NoData	NoData	0.49	29.41	1.02	29.94

Data in this table comes from the Upper Mersey 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.



© Environment Agency copyright and/or database rights 2023. All rights reserved. © Crown copyright and database rights 2023 OS 100024198.

Environment Agency

Defences removed climate change modelled fluvial extent and height

Location (easting/northing)
383259/391412

Scale
1:500

Created
20 Oct 2023

Model name
Upper Mersey 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 29.0
- 29.0 - 29.125
- 29.125 - 29.25
- 29.25 - 29.375
- 29.375 - 29.5
- 29.5 - 29.625
- 29.625 - 29.75
- 29.75 - 29.875
- 29.875 - 30.0

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

0 5 10 15 20
metres

Sample point data

Defences removed climate change

Label	Easting	Northing	1% AEP (+30%)		1% AEP (+35%)		1% AEP (+70%)		0.1% AEP (+30%)	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	383254	391394	NoData	NoData	0.08	28.82	0.55	29.29	1.10	29.84
2	383261	391394	NoData	NoData	NoData	NoData	0.49	29.29	1.04	29.85
3	383268	391394	0.54	28.72	0.64	28.82	1.13	29.31	1.67	29.85
4	383247	391401	NoData	NoData	0.09	28.82	0.56	29.29	1.11	29.85
5	383254	391401	NoData	NoData	0.09	28.82	0.57	29.29	1.12	29.85
6	383261	391401	NoData	NoData	NoData	NoData	0.50	29.29	1.06	29.85
7	383268	391401	0.01	28.71	0.08	28.81	0.41	29.31	0.77	29.85
8	383240	391408	NoData	NoData	0.07	28.82	0.54	29.29	1.10	29.85
9	383247	391408	NoData	NoData	0.07	28.82	0.54	29.29	1.09	29.85
10	383254	391408	NoData	NoData	0.12	28.82	0.59	29.29	1.15	29.85
11	383261	391408	NoData	NoData	0.07	28.82	0.54	29.30	1.09	29.85
12	383268	391408	0.04	28.71	0.05	28.81	0.11	29.32	0.17	29.85
13	383275	391408	0.27	28.71	0.37	28.81	0.88	29.32	1.41	29.85
14	383240	391415	NoData	NoData	0.05	28.82	0.52	29.29	1.08	29.85
15	383247	391415	NoData	NoData	0.05	28.82	0.53	29.29	1.08	29.85
16	383254	391415	NoData	NoData	0.07	28.82	0.55	29.29	1.10	29.85

Label	Easting	Northing	1% AEP (+30%)		1% AEP (+35%)		1% AEP (+70%)		0.1% AEP (+30%)	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	383261	391415	NoData	NoData	0.06	28.82	0.53	29.30	1.08	29.85
18	383268	391415	NoData	NoData	NoData	NoData	0.46	29.30	1.01	29.85
19	383275	391415	0.27	28.71	0.37	28.81	0.88	29.32	1.41	29.85
20	383247	391422	NoData	NoData	0.01	28.81	0.49	29.29	1.04	29.85
21	383254	391422	NoData	NoData	NoData	NoData	0.45	29.30	1.00	29.85
22	383261	391422	NoData	NoData	NoData	NoData	0.43	29.30	0.98	29.85
23	383268	391422	NoData	NoData	NoData	NoData	0.38	29.31	0.92	29.85
24	383275	391422	0.26	28.71	0.36	28.81	0.87	29.32	1.40	29.85
25	383254	391429	NoData	NoData	NoData	NoData	0.43	29.30	0.98	29.85
26	383261	391429	NoData	NoData	NoData	NoData	0.38	29.30	0.93	29.85

Data in this table comes from the Upper Mersey 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.

Strategic flood risk assessments

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

This should give you information about:

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

About this data

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

Flood risk activity permits

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

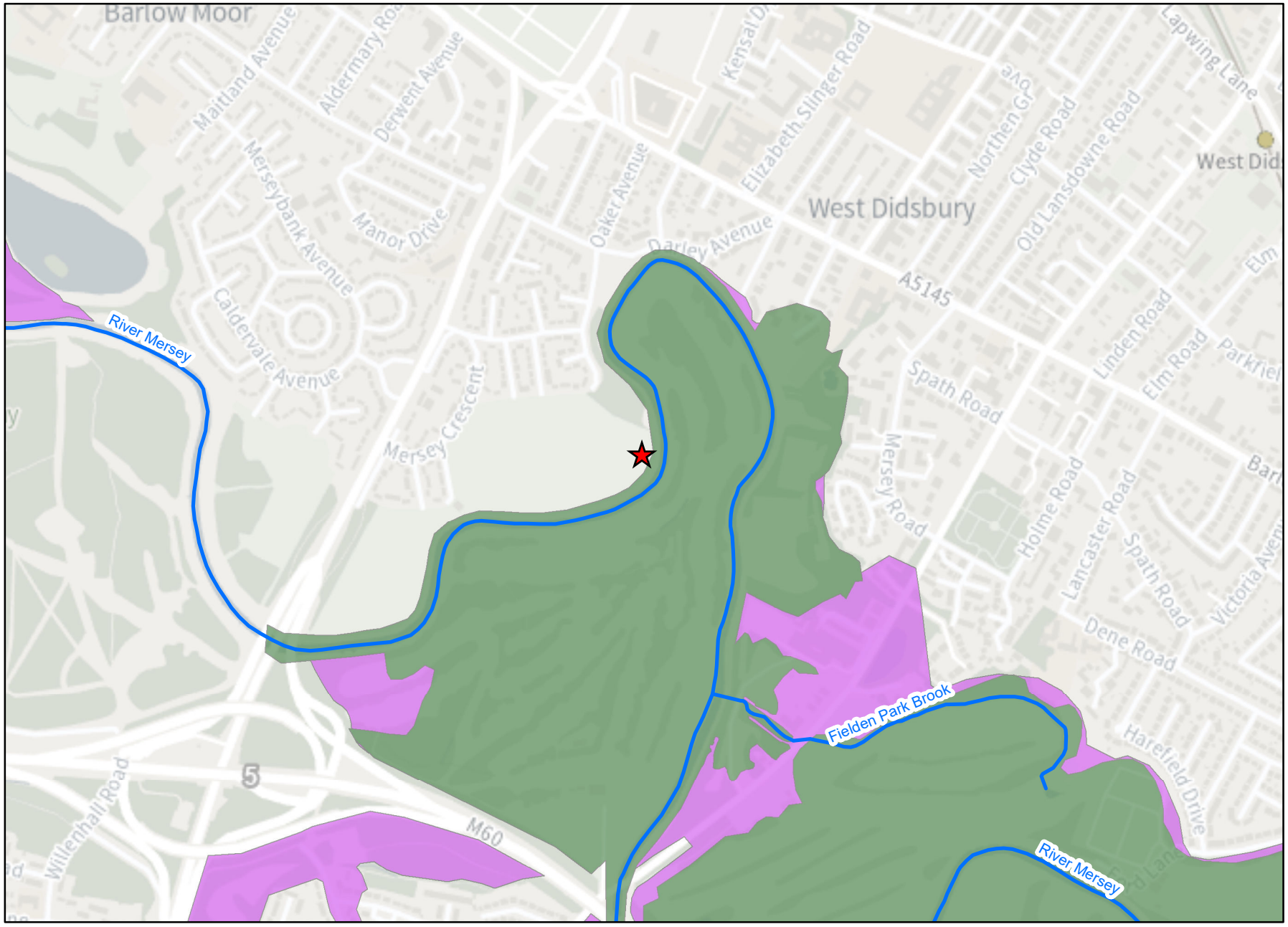
Find out more about flood risk activity permits

Help and advice

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

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

Recorded Flood Outline Map Centred on Riverbank Walk, Manchester, M20 2XY.
Created 23/10/2023 [GMMC330928AB]



Environment Agency

1:10,001

N

Legend

Site Location

Main River

Recorded Flood Outline

START DATE

01/01/1964

20/01/2021

© Environment Agency copyright and database rights 2023. All rights reserved. © Crown Copyright and database rights 2023. Ordnance Survey licence number 100024198.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk