



# **Environmental Risk Assessment**

# **Unit J Prestwich Industrial Estate**

# **KAS Metal Trading Limited**

Unit J Prestwich Industrial Estate Coal Pit Lane Atherton M46 0RY

Prepared by:

**Wardell Armstrong LLP** 

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#### **Revision Record**

Revision	Date	Prepared By	Checked By	Authorised By	
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# **Basis of Report**

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# **Drawings**

KMTL.01.02-01 Permit Boundary Plan

KMTL.01.02-03 Receptor Plan



#### 1.0 Introduction

#### 1.1 General

KAS Metal Trading Limited have commissioned Wardell Armstrong LLP to prepare a Site Condition Report for their Metal Trading Facility, Unit J, Prestwich Industrial Estate, Coal Pit Lane, Atherton, M46 0RY.

The facility currently operates under:

- T9 waste exemption: recovering scrap metal;
- S2 waste exemption: storing waste in a secure place; and
- RPS 276 Storing and treating hazardous waste cable.

There are no changes to the activities that take place on site, other than some limited additional waste types, but there are anticipated changes to the exemptions and regulatory position statement (RPS) over the next few months which mean that the operator is seeking a permit in order to remain fully compliant with the legislation in the future.

The site is essentially a metal waste recycling facility that accepts, sorts and bulks scrap metals for onwards transport and trading. It is proposed that the site will also accept large WEEE, excluding fridges and freezers, for bulking and onward transportation. WEEE will not be treated onsite.

The regulated activities at the site will fall under a Section 5.6 Part A (1) (a)(ii) Activity to store more than 50tonnes of hazardous waste at one time and a waste activity for hand shearing, sorting and storing of non hazardous waste.

The following activities are undertaken on the site:

- R4 (Recycling/reclamation of metals and metal compounds) (storing, manual sorting and hand cutting of metal scrap);
- R5 (Recycling/reclamation of other inorganic materials) (manual sorting and storage of plastic etc. only that incidental to managing the scrap metal);
- R12 (Exchange of wastes for submission to any of the operations numbered R1 to R11) (manual sorting of waste on site);
- R13 (Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced));
- D15 (Storage pending any of the operations numbered D1 to D14) incidental to the recycling activity only.

This Environmental Risk Assessment identifies the potential environmental hazards that may arise through site activities and the mitigation measures that will be implemented. The risk assessment follows the source-pathway-receptor model, as outlined in the Environment Agency guidance on 'Risk Assessments for your Environmental Permit'<sup>1</sup>.

The site is situated on Prestwich Industrial Estate in a predominantly urban area (Figure 1). Section 2 of this document provides details of the site location and provides a description of sensitive receptors within 2km of the site.

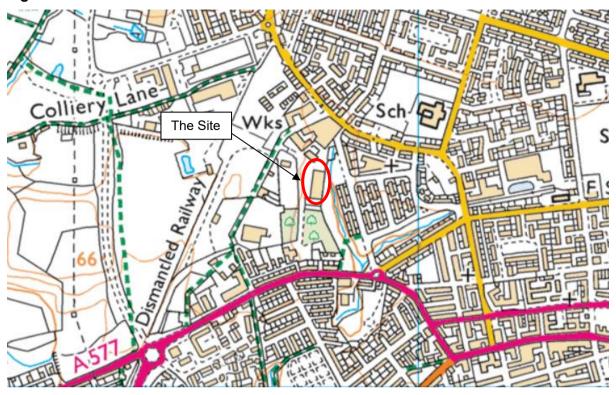
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<sup>&</sup>lt;sup>1</sup> Risk assessments for your environmental permit - GOV.UK (www.gov.uk)

Figure 1 - Site Location



The Accident and Amenity Risk Assessment is provided in Section 4. This provides the potential risks from the activities on site, who may be affected and how, the mitigation measures that will be implemented and an assessment of the overall risk.

Sensitive habitats have been identified in proximity to the site and a Habitats Risk Assessment has been prepared as part of the permit application, to assess the potential risk to sensitive habitats and the mitigation measures for the proposed activities. This is included in Section 3 of this report.

The site will be operated in accordance with KAS Metal Trading Limited's Environmental Management System (EMS), a summary of which has been provided as part of the permit application. The company is accredited to ISO 14001. Waste operations will be managed by a Technically Competent Manager (TCM) who will hold the relevant qualifications.

# 2.0 Site Setting and Environmental Risk

The site is located in Atherton, Greater Manchester on an industrial estate that homes other similar operations, including a scrap yard and mechanic directly to the south, a sheet metal contractor to the northwest and a distribution centre to the west.

The area to the east of the facility is mixed residential and commercial. The nearest residential receptors are located 45m east of the site, off Prestwich Street (Figure 1).

A review using DEFRA's Magic Map Tool found there are no statutory designated sites within 1km of the facility boundary. At greater distance from the site (>1km) is the Pretoria Pit Local Nature Reserve (LNR).



Potentially sensitive receptors have been categorised by type, distance from the site boundary and location relative to the prevailing wind direction in Table 1. These receptors have been ascribed a number and this location is shown on the receptor map (Figure 2).

Table 1: Sensitive Receptors within 1km of the Site

No.	Receptor	Receptor Type	Distance from Proposed Permit Boundary	Direction from Site	Location Relative to Prevailing Wind
1	Prestwich Industrial Estate	Industrial/Commercial	0m	N, W & S	Upwind
2	Surface water Drain	Ecological	15m	Е	Downwind
3	Properties off Prestwich Street	Residential	45m	E	Crosswind
4	St Georges Church	Public	170m	E	Crosswind
5	St Georges Primary School	Public	250m	NE	Crosswind
6	Fairview Caravan Park	Residential	120m	NW	Upwind
7	Atherleigh Business Park	Commercial	270m	NW	Upwind
8	Arondale	Residential	650m	W	Upwind
9	Properties off Wigan Lane	Residential	135m	S	Downwind
10	Petrol Station	Public	200m	S	Downwind
11	Atherton Cemetery	Public	340m	S	Crosswind
12	Collier Brook	Ecological	180m	SE	Downwind
13	Allotment Gardens	Public/Ecological	600m	S	Crosswind
14	St Michaels School	Public	810m	S	Crosswind
15	Atherton High school	Public	840m	SE	Downwind
16	Meadowbank Playing Fields	Public	620m	Е	Crosswind
17	Meadowbank & St Richards Schools	Public	720m	E	Crosswind
18	Hagfold Allotment	Public/Ecological	560m	N	Upwind
19	Community Centre and Recreation Ground	Public	670m	N	Crosswind

<sup>\*</sup>Distance to the residential receptor at its closest point has been used as a proxy for the wider residential area at increased distance from the site.



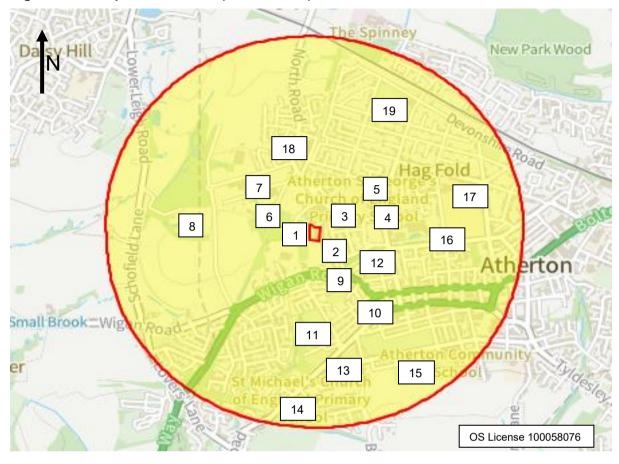


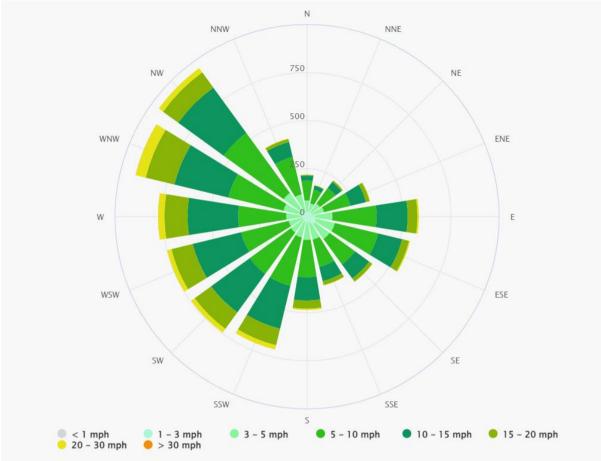
Figure 2- Receptor Locations (1km Radius)

Wind statistics have been obtained for the site from Meteoblue<sup>2</sup> which show the prevailing wind to be predominantly from the northwest with a secondary component from the west, northwest and west.

 $<sup>{}^2</sup>https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/manchester\_united-kingdom\_2643123$ 



Figure 3– Wind Rose<sup>2</sup>



The nearest watercourse is an unnamed tributary of the Atherton Brook. The Collier Brook joins the unnamed stream ~200m southeast of the site creating the Atherton Brook.

The site is not within a Source Protection Zone.

The site is predominantly in Flood Zone 1, low risk, with the very edge of the building on the eastern side within Flood Zone 2<sup>3</sup>, having a medium probability of flooding from rivers and the sea, and is not at risk from flooding from pluvial flooding or reservoirs<sup>4</sup>.

<sup>&</sup>lt;sup>4</sup>https://check-long-term-flood.risk.service.gov.uk/map?easting=366755&northing=403494&map=SurfaceWater



<sup>&</sup>lt;sup>3</sup> https://flood-map-for-planning.service.gov.uk/flood-zone-results

Figure 4- Flood Risk Map



Flood Risk Assessment data requested from the Environment Agency was used in conjunction with a site topographical survey to compare the predicted flood level to the actual site levels.

The topographical survey (November 2024) showed the building floor level to be 55.02mAOD at its lowest point which is above the Defended modelled fluvial extent and height model created by the Agency which shows the building will flood at 54-54.125mAOD. This is considered the worst-case modelled scenario as the site is upstream of the flood defences in this model meaning that the extent of flooding is worse in this situation as water is held further upstream.

As the building elevations are higher than the predicted worst case scenario it is not considered necessary to do further flood risk assessment and it has been demonstrated that the building is not likely to flood due to the elevation of the site.

The flood risk data is available in Appendix 2 and the topographical survey in Appendix 1.

#### 3.0 Habitats Assessment

A Habitats Risk Assessment has been prepared as part of the permit application to assess the potential impact from the site operations on nearby protected habitats and ecological receptors.

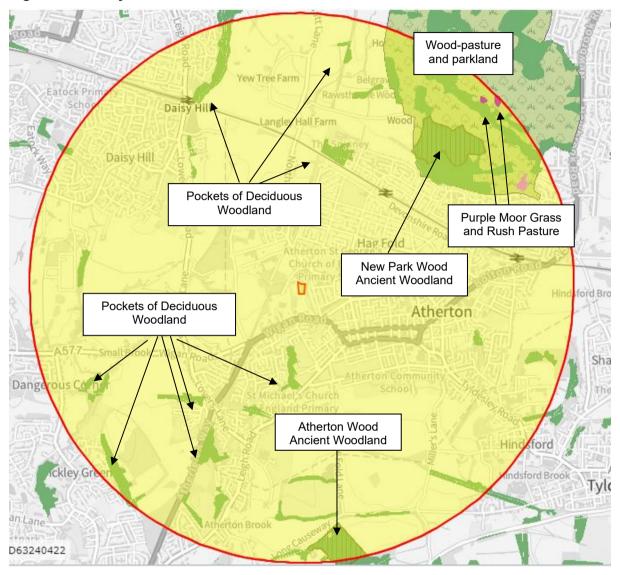
There are three Local Nature Reserves (LNRs) and an ancient woodland within 2km of the site. The Pretoria Pit LNR is located ~1.2km to the northeast of the site, adjacent to New Park Wood Ancient Woodland. Eatock Lodge LNR is located over 1.9km to the northwest of the site in the town of Daisy Hill. Hall Lee Bank LNR is located north of the Daisy Hill railway station approximately 1.5km north of the site.

An assessment using DEFRA's Magic Map tool has been carried out to identify protected habitats and species near to the site. There are multiple small pockets of deciduous woodland which have been classified as Priority Habitat within a 2km radius of the site, the closest being located ~400m south of the site adjacent to Atherton Cemetery.



Two small areas of Purple Moor Grass/Rush Pasture are located to the northeast, all priority habitats are shown on Figure 5.

Figure 5- Priority Habitats



The Environment Agency have advised a 10km screening distance is needed for European Designated Sites. Manchester Mosses SAC is located 5.85km away from the site. The Flashes of Wigan and Leigh National Nature Reserve (NNR) and Risley, Holcroft and Chat Moss NNR are both located within 10km of the site.

There are multiple Sites of Special Scientific Interest (SSSI) within 10km of the site, the closest of which is over 5km from the site boundary. The closest SSSI has been used as a proxy for those at further distance as the likelihood of the site impacting these diminish with increased distance.



Table 2- SSSI 10km screening

Site of Special Scientific Interest	Location Relative to Site
Ashclough SSSI	9.2km east
Nob End SSSI	8.4km east northeast
Highfield Moss SSSI	9.3km southwest
Red Moss SSSI	6.9km north
Astley & Bedford Mosses SSSI	5.9km south
West Pennine Moors SSSI	8.7km north
Tonge River Section SSSI	8.2km northeast
Bryn Marsh & Ince Moss SSSI	5.7km west
Abram Flashes SSSI	6.6km west southwest

These designated sites are unlikely to be at risk from the operations and activities undertaken at the site as there is a limited pathway by which that pollution can reach the receptor. Waste activities are primarily undertaken in an enclosed building that will contain any fugitive emissions.

There are no point source emissions to air. The only emission to water is clean water from roofs and outdoor areas, where no waste is stored on the ground.

Some wastes are unloaded outside of the building but if the wastes are in small particle sizes or may give rise to dust then they are contained in appropriate drums, bags or sacks and these are only opened inside the building.

The building has impermeable flooring and sealed drainage. The outdoor area comprises an impermeable concrete hardstanding. Any leaks/spills or escape of potentially contaminated water will be contained within the site building. No waste is stored outside unless it is in containers.

Due to the very specific nature of wastes accepted at the facility (scrap metal and WEEE) there will be little or no risk of litter generation from incoming waste.

Any materials such as cardboard, paper and plastic packaging used for packaging of materials arriving at the site will be stored securely awaiting recycling or disposal off site, in a manner which will not present a risk of wastes becoming blown beyond the boundary of the site.

Any waste generated by staff working at the Site will be placed in an appropriate receptacle, waiting suitable disposal, and the site will be kept clean and tidy at all times.

As the site is used only for the manual sorting, sizing, bulking and transfer of scrap metal materials, no significant dust will be generated. The majority of operations take place inside a building which will provide containment should any dust arise.



The only waste treatment on site is the sizing of materials, this entails cutting metals into smaller pieces for onward transport. This is done with an electric handsaw and a portable shear and is unlikely to generate any emissions as is undertaken within the building.

Given the dense commercial and industrial receptors in close proximity to the site, the facility is not expected to generate any significant disturbance above that already present. This is an existing activity which is moving from operating under exemptions to operating under a permit.

## 4.0 Risk Assessment

Table 3 below identifies the potential environmental risks that may arise from the operations and considers the possible receptors and pathways. The risk assessment shows how these risks are minimised by preventing the hazard at source or providing measures to break the pathway and prevent pollution migrating toward receptors.

The risk assessment demonstrates how all identified hazards that could cause harm will be subject to strict preventative control measures. The scheme has been designed to ensure that potential emissions of particulates, noise and odour are minimised so as to be contained within the site boundary as far as possible and not cause harm to local sensitive human and ecological receptors.

The site will be subject to frequent monitoring and inspection to ensure mitigation measures are keeping fugitive emissions to a minimum. Records will be kept of inspections and any actions taken to resolve any identified emissions.

Staff will be trained to understand the potential environmental risks associated with the site and their role in managing those risks.



Table 3 - Risk Assessment

Hazard	Receptor	Pathway	Consequence	Probability of exposure	What is the overall risk	Mitigation Measures	Residual Risk
Fugitive emissions of dust to air	Local residence and workplaces, local wildlife	Through the air	Nuisance, Respiratory irritation, smothering of foliage	Medium	Medium	<ul> <li>Waste storage and treatment will be undertaken within a building.</li> <li>No inherently dusty wastes will be accepted on site</li> <li>All vehicles carrying waste that can generate dust to be enclosed or sheeted.</li> <li>Any litter to be collected daily and placed in the appropriate bay inside the building.</li> <li>Waste treatment limited to manual size reduction of large items and manual sorting</li> <li>Dust damped down if required in dry weather.</li> <li>Plant properly maintained and serviced to minimise emissions.</li> <li>Site roads properly maintained and swept as necessary.</li> </ul>	Low
Noise	Local residents, local businesses	Through the air	Disturbance	Medium	Medium	<ul> <li>All loading operations will be carried out inside an enclosed building which will provide a degree of noise attenuation to nearby receptors.</li> <li>The site is already operational and there are no proposed changes to day to day operations meaning the noise level is expected to remain the same.</li> <li>There will be a no idling policy for vehicles on site.</li> <li>Machinery properly maintained and serviced and turned off when not in use.</li> <li>Any vehicle plant requiring reversing alarms will be fitted with white noise.</li> </ul>	Low
Odour	Local residents and workplaces, Site staff	Through the air	Nuisance, exposure to strong odours for a prolonged period may cause people to feel unwell	Low	Low	<ul> <li>Metal scrap and WEEE unlikely to generate odorous emissions.</li> <li>No putrescible waste to be accepted on site.</li> <li>Odour will be assessed as part of daily housekeeping checks.</li> </ul>	Very Low



Hazard	Receptor	Pathway	Consequence	Probability of exposure	What is the overall risk	Mitigation Measures	Residual Risk
Pests/Vermin	Local residents, local wildlife, local amenity	Across the ground	Nuisance, spread of disease	Low	Low	<ul> <li>The site will only be permitted to accept metal scrap and WEEE, non-putrescible waste streams which will arrive in suitable containment and not attract pests/vermin.</li> <li>The site will operate to strict waste acceptance procedures.</li> <li>The site will be subject to a routine cleaning schedule and operate a good housekeeping policy.</li> <li>In the event that pests or vermin are apparent, a suitable pest control contractor will be contacted.</li> </ul>	Very Low
Litter	Local residents, local wildlife, local amenity	Windblown	Nuisance, potential harm to health	Low	Low	<ul> <li>Due to the very specific nature of the facility (metal scrap and WEEE), there will be little to no risk of litter generation from incoming waste.</li> <li>Any used containers, cardboard, paper and plastic packaging will be stored securely in a manner which will not present a risk to wastes becoming swept beyond the boundary of the site.</li> </ul>	Low
Fugitive emissions to water	Pollution of nearby watercourses	Across the ground (run off), infiltration through the ground	Pollution to surface waters	Low	Low	<ul> <li>The site comprises a contained building with impermeable flooring.</li> <li>Waste is stored and treated inside the building minimising rainwater infiltration or sealed containers outside.</li> <li>Liquids (e.g oil for plant maintenance) stored in appropriate containers with secondary containment.</li> </ul>	Low
Fugitive emissions to ground	Ground, groundwater	Seepage through the ground	Ground contamination, pollution to ground water	Low	Low	<ul> <li>The operations will take place within an enclosed building, with impermeable flooring which is impervious to leaks and spills, and a sealed drainage system.</li> <li>Waste stored outside will be in sealed containers on the impermeable concrete surface.</li> <li>Any leaks and spills will be cleaned/contained using a chemical spill kit.</li> <li>All oils and fuels and will be unloaded inside the building, and will arrive in secure, appropriate packaging.</li> </ul>	Low



Hazard	Receptor	Pathway	Consequence	Probability of exposure	What is the overall risk	Mitigation Measures	Residual Risk
Leaks and Spills	Site staff, local environment	Through the ground (liquid, solids), through the air (vapour, gasses)	Inhalation, injury, damage to infrastructure	Medium	Medium	<ul> <li>Materials will be always stored in appropriate containment in accordance with the chemical safety data sheet.</li> <li>Spill kits will be available for the containment of spills on site. There are no liquid wastes accepted onsite the only spills could be fuel or lubricating oils for the mobile plant onsite</li> <li>The site is within an enclosed unit, with impermeable flooring impervious to leaks and spills</li> </ul>	Low
Equipment break down/failure	Site staff, local environment	Air and across the ground	Escape of uncontrolled emissions, leaks and spills	Low	Low	<ul> <li>During operations, if an equipment/plant failure is identified, operations will cease immediately to identify the fault.</li> <li>Any repairs will be carried out by a suitably qualified person.</li> <li>A Defects Log will be maintained to record and register any issues encountered, and detail repairs made. The log will be held on site and electronic copies made.</li> <li>Preventative maintenance programme in place to ensure all plant and infrastructure is inspected, serviced and maintained.</li> <li>Staff training. Only competent staff to operate machinery.</li> </ul>	Low
Fire	Site staff, Local population, local wildlife	Through the air	Smoke inhalation	Low	Low	<ul> <li>The site will not accept readily combustible waste streams.</li> <li>Plant and equipment will be maintained in accordance with the manufacturer's recommendations. Repairs will only be carried out by a suitably qualified engineer.</li> <li>Smoking will be strictly prohibited on site.</li> </ul>	Low
Failure to contain firewater	Groundwater beneath the site and local water courses	Infiltration through soil or surface water run-off	Pollution of groundwater and surface waters	Low	Low	<ul> <li>The site is provided with impermeable surfacing and sealed drainage booms and flood mats will be deployed to cover drains if required.</li> <li>The site will operate on relatively low volumes of materials. If a fire breaks out the materials can be easily removed from the building and extinguished.</li> </ul>	Low
Vandalism	Site infrastructure and equipment	Unauthorised access to the site	Damage to equipment, fugitive releases of substances	Low	Low	<ul> <li>External CCTV is in operation.</li> <li>The unit itself comprises of a secure commercial building with lockable doors to the entrance, which is the only access point.</li> <li>All plant and machinery are moved inside at the end of the day.</li> <li>Waste outside is stored in sealed containers that are lockable.</li> </ul>	Low



Hazard	Receptor	Pathway	Consequence	Probability of exposure	What is the overall risk	Mitigation Measures	Residual Risk
Extreme weather conditions e.g. flooding or very high winds	Local population, local wildlife, surrounding environment from the site	Through the air, across ground	Damage to equipment, fugitive releases of substances	Low	Low	<ul> <li>Operations will be carried out primarily inside a building, all entrances/exits can be prepared for flooding via placement of sandbags.</li> <li>Extreme climatic heating or cooling events will not impact the facility or waste operation as all waste is shielded from the sun inside a building. Cooling will have no effect on the metals stored on site.</li> <li>The effects of high wind are unlikely to have an impact as the operation is inside a building which will be maintained to a high standard to prevent any deterioration to the external structure.</li> </ul>	



# 5.0 Summary

Measures are in place to minimise the risk of emissions from the site with the majority of operations contained inside a building. All staff will be trained to the appropriate standard for their roles. The site will operate in accordance with the Environmental Management System and ISO 14001.

Given the nature of wastes accepted at the site it is unlikely that any significant fugitive emissions will be released that could affect the priority habitats or Local Nature Reserves nearby or impact human health.

The site is currently operational under a series of Exemptions and a Regulatory Position Statement, there have been no recorded pollution incidents in this time and no evidence of any negative effects on the surrounding environment. As the operations proposed for this environmental permit are just a continuation of current site activities it is deemed there is no increased environmental risk presented by the site. The site is also accredited to ISO 14001.

Furthermore, the permitting requirements are more stringent and require a higher level of detail on environmental controls and management systems compared to Exemptions. Therefore, it could be considered that the site will be managed to a more rigorous standard further diminishing environmental risk.

Wardell Armstrong LLP

Arabella Sharrock
Principal Waste Permitting Consultant

Charles Ridell
Technical Director





# **Appendix 1** Topographic Survey

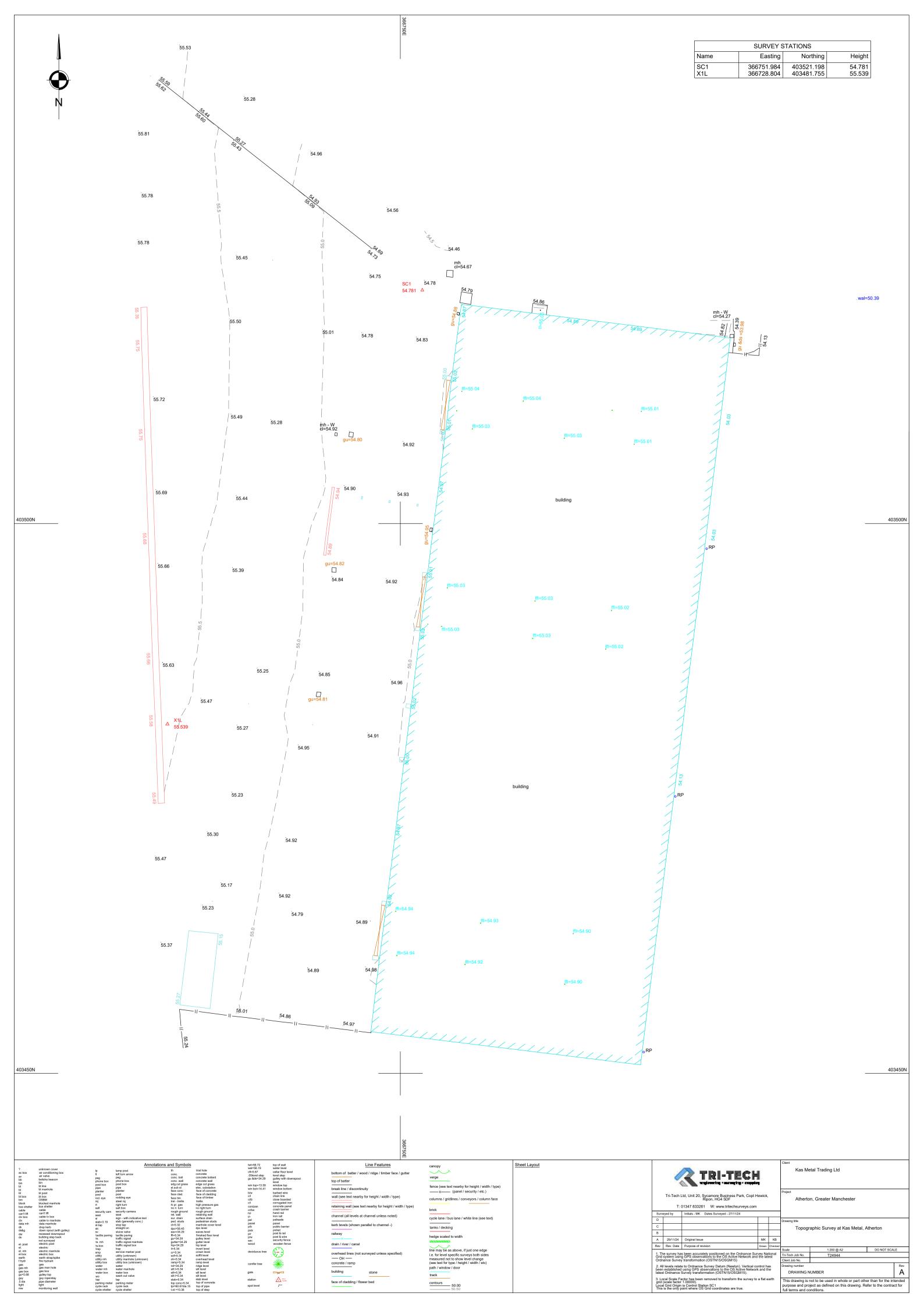
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11 August 2025







# Appendix 2 Environment Agency Flood Modelling Data

# **Environmental Risk Assessment**

**Unit J Prestwich Industrial Estate** 

**KAS Metal Trading Limited** 

11 August 2025



# Flood risk assessment data



Location of site: 366748 / 403489 (shown as easting and northing coordinates)

Document created on: 25 October 2024

This information was previously known as a product 4.

Customer reference number: NKHVP41YU9CW

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

#### Information that's unavailable

This document does not contain:

past floods

We do not have past flooding data for this location.

Please note that:

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

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

# Surface water and other sources of flooding

Use the <u>long term flood risk service</u> to find out about the risk of flooding from:

- surface water
- ordinary watercourses
- reservoirs

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

Your Lead Local Flood Authority is Wigan District.

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

#### About the models used

Model name: Leigh East 2016

Scenario(s): Defended fluvial, defences removed fluvial, defended climate change fluvial,

defences removed climate change fluvial

Date: 30 March 2016

These models contain the most relevant data for your area of interest.

# Terminology used

#### Annual exceedance probability (AEP)

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

#### Metres above ordnance datum (mAOD)

All flood levels are given in metres above ordnance datum which is defined as the mean sea level at Newlyn, Cornwall.

# Flood map for planning (rivers and the sea)

Your selected location is in flood zone 2.

Flood zone 3 shows the area at risk of flooding for an undefended flood event with a:

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

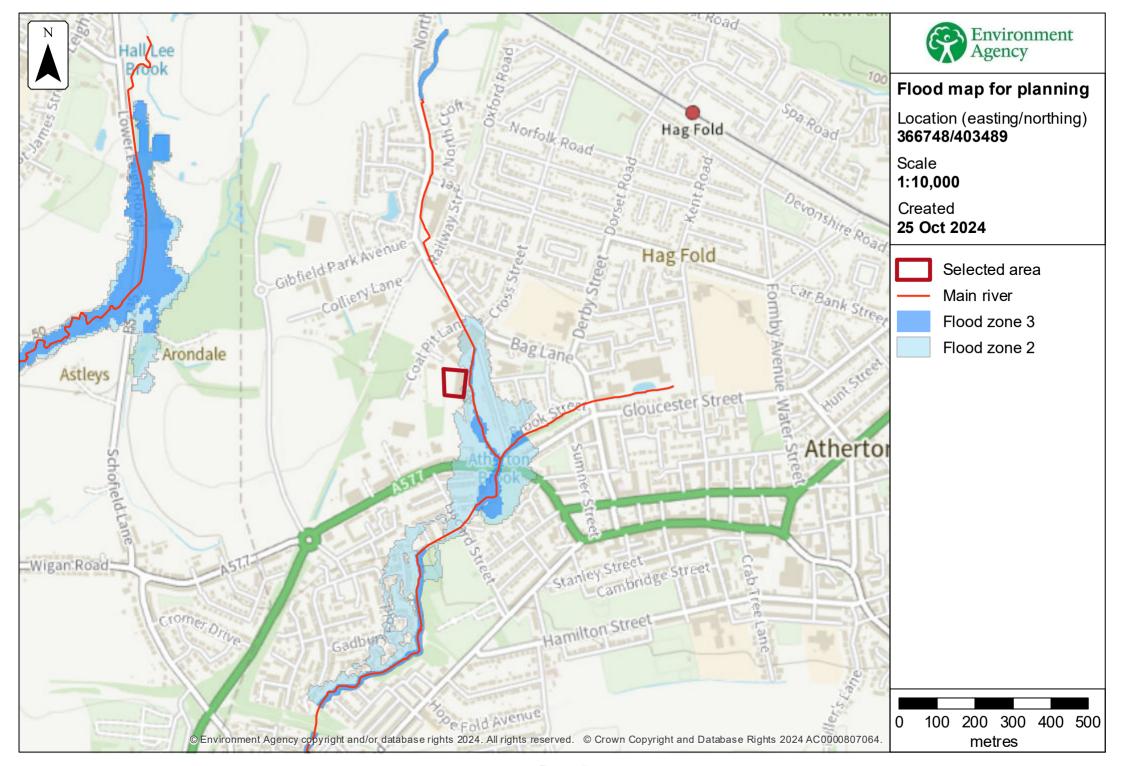
Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

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

It's important to remember that the flood zones on this map:

- refer to the land at risk of flooding and do not refer to individual properties
- refer to the probability of river and sea flooding, ignoring the presence of defences
- · do not take into account potential impacts of climate change

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



Page 5

#### 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

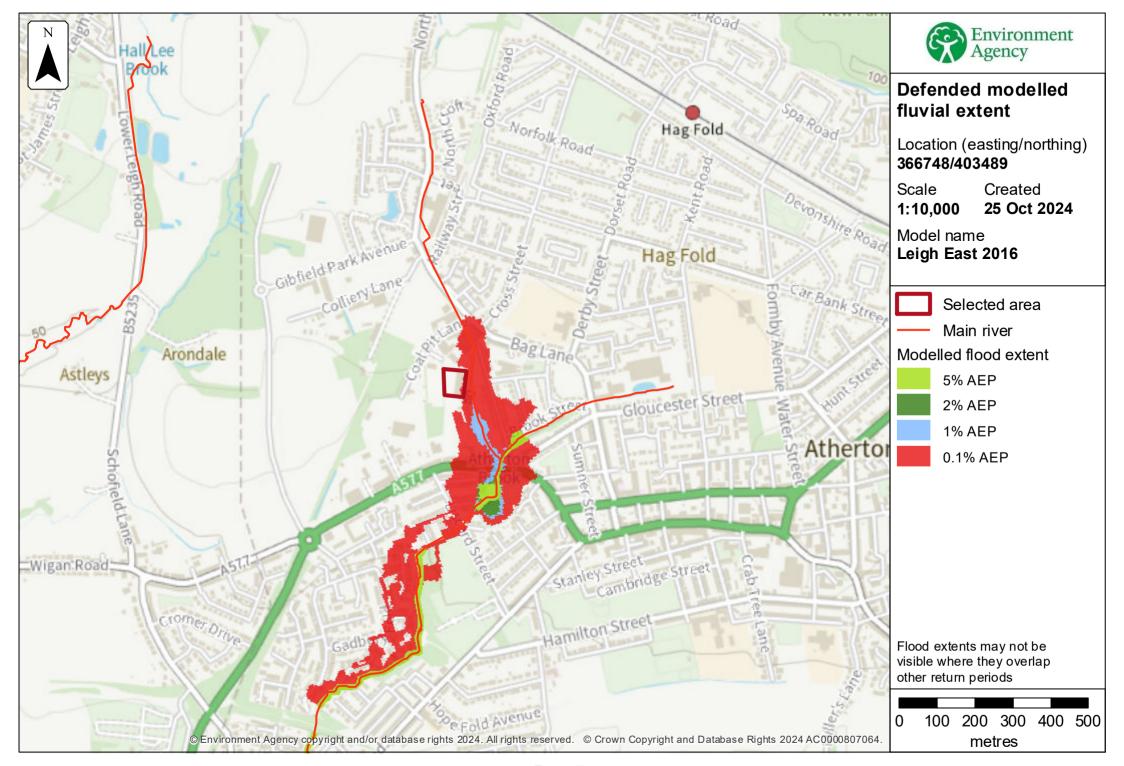
The climate change data included in the models may not include the latest <u>flood risk</u> <u>assessment climate change allowances</u>. Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

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

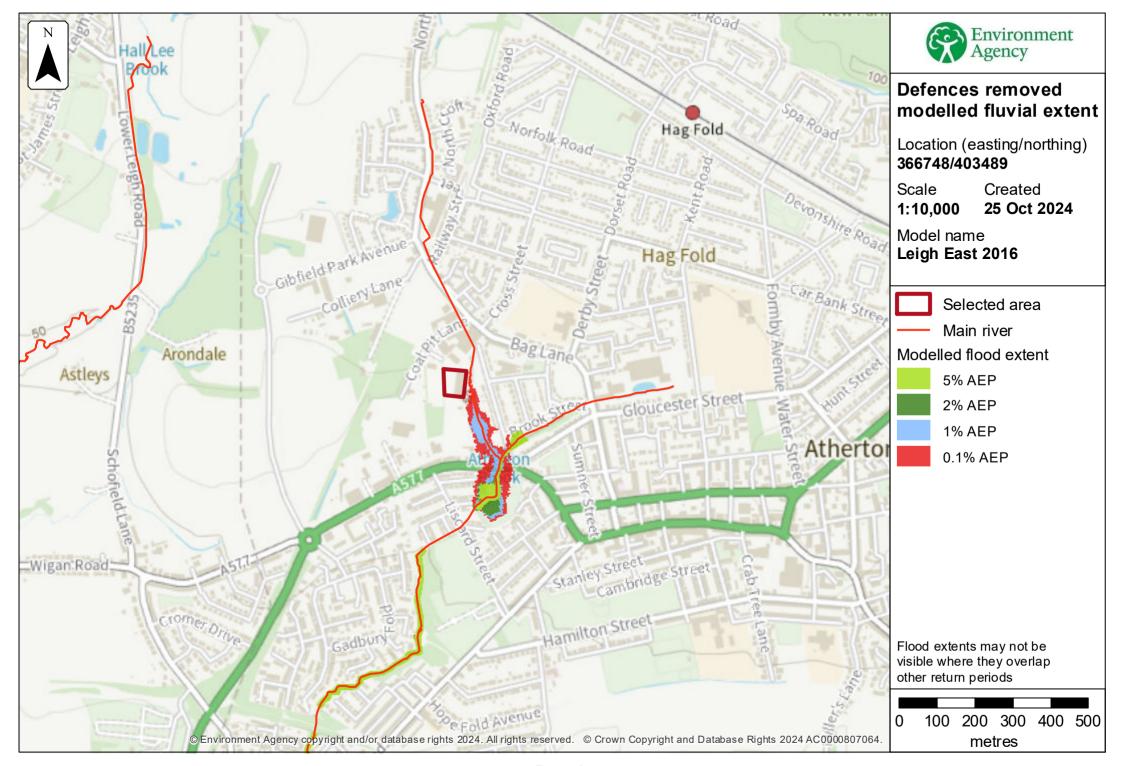
#### **Modelled scenarios**

The following scenarios are included:

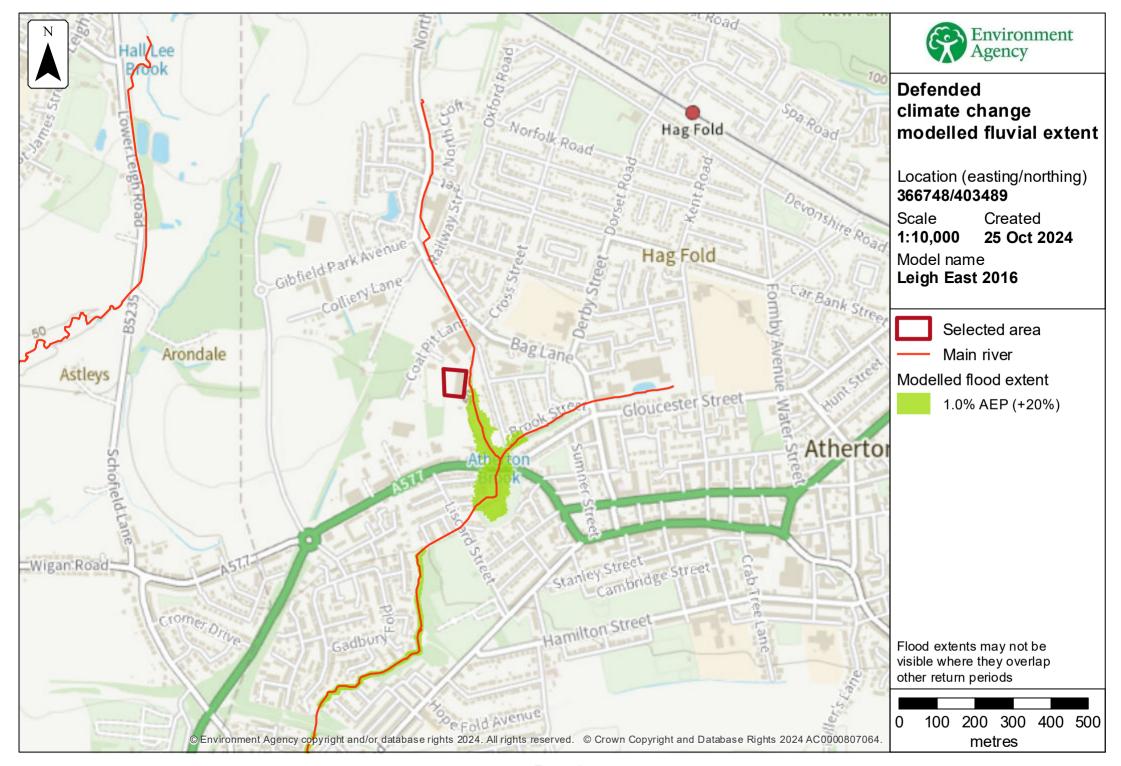
- Defended modelled fluvial: risk of flooding from rivers where there are flood defences
- Defences removed modelled fluvial: risk of flooding from rivers where flood defences have been removed
- No defences exist modelled fluvial: risk of flooding from rivers where there are no flood defences
- Defended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



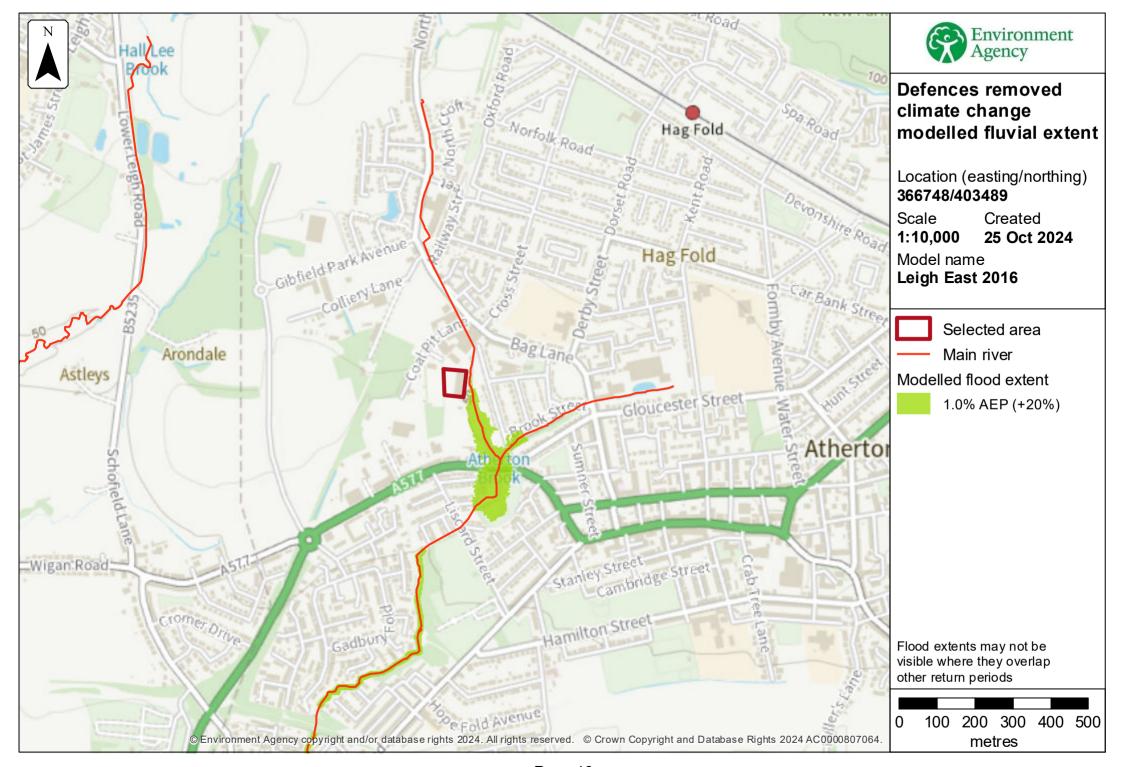
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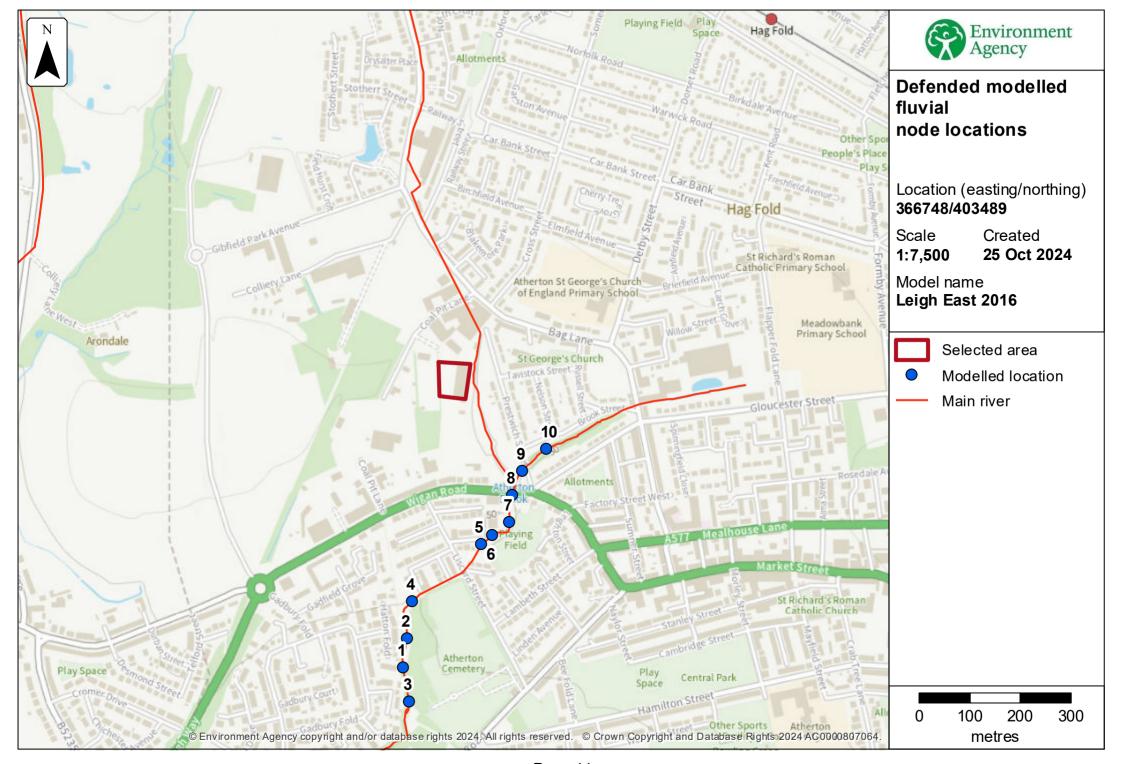
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# Modelled node locations data

#### **Defended**

Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.1% AEP
	location ib			Level	Level	Level	Level	Level	Level	Level
1	1500410	366649	402919	42.53	42.67	42.74	42.78	42.85	42.87	43.03
2	1500275	366658	402975	43.51	43.65	43.73	43.77	43.83	43.86	44.02
3	1500370	366662	402851	41.09	41.25	41.33	41.38	41.44	41.47	41.68
4	1500334	366667	403049	44.78	44.89	44.95	44.99	45.03	45.05	45.17
5	1500362	366803	403161	46.43	47.44	48.48	49.13	50.22	50.70	54.13
6	1500349	366825	403180	46.52	47.47	48.49	49.13	50.23	50.70	54.13
7	1500401	366859	403205	46.88	47.48	48.49	49.14	50.23	50.70	54.13
8	1500382	366866	403258	47.41	47.64	48.47	49.12	50.21	50.69	54.13
9	1500355	366885	403307	48.40	48.57	48.95	49.70	50.80	51.03	54.13
10	1500381	366934	403350	49.41	50.0	50.55	51.10	51.62	51.69	54.13

Data in this table comes from the Leigh East 2016 model.

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

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

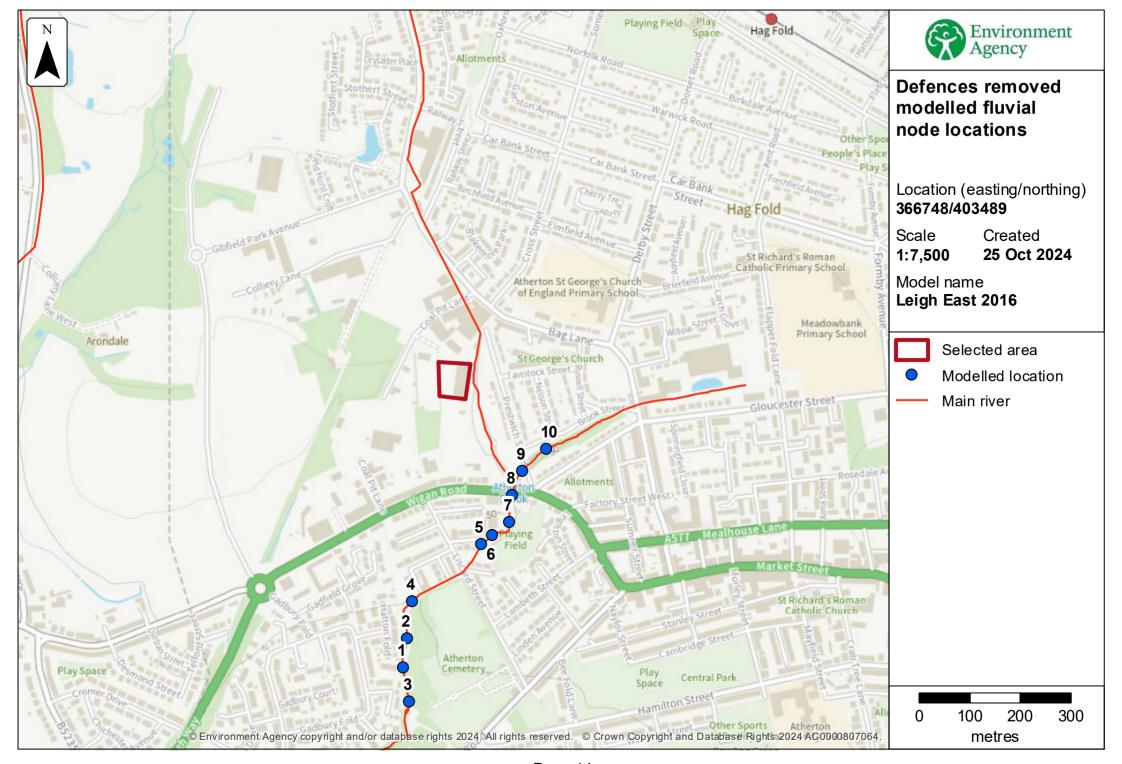
#### **Defended**

Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.1% AEP
	location iD			Flow	Flow	Flow	Flow	Flow	Flow	Flow
1	1500410	366649	402919	3.98	5.33	6.11	6.58	7.31	7.61	9.74
2	1500275	366658	402975	3.98	5.33	6.11	6.58	7.31	7.61	9.70
3	1500370	366662	402851	3.98	5.33	6.11	6.58	7.31	7.61	9.76
4	1500334	366667	403049	3.98	5.33	6.11	6.58	7.31	7.61	9.48
5	1500362	366803	403161	3.98	5.33	6.11	6.58	7.31	7.61	9.48
6	1500349	366825	403180	3.98	5.33	6.12	6.59	7.40	8.15	17.90
7	1500401	366859	403205	3.99	5.35	6.20	6.99	9.14	10.38	17.95
8	1500382	366866	403258	3.99	5.37	6.27	7.06	8.48	9.65	14.84
9	1500355	366885	403307	3.99	5.37	6.33	7.16	8.65	9.74	20.72
10	1500381	366934	403350	4.0	5.40	6.40	7.30	8.80	9.80	27.0

Data in this table comes from the Leigh East 2016 model.

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

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



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# Modelled node locations data

#### **Defences removed**

Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.1% AEP
	location ib			Level	Level	Level	Level	Level	Level	Level
1	1500410	366649	402919	42.53	42.67	42.74	42.78	42.85	42.87	43.03
2	1500275	366658	402975	43.51	43.65	43.73	43.77	43.83	43.86	44.02
3	1500370	366662	402851	41.09	41.24	41.33	41.38	41.44	41.47	41.68
4	1500334	366667	403049	44.78	44.89	44.95	44.99	45.03	45.05	45.17
5	1500362	366803	403161	46.43	47.44	48.47	49.12	50.21	50.70	54.12
6	1500349	366825	403180	46.52	47.47	48.48	49.12	50.21	50.70	54.12
7	1500401	366859	403205	46.88	47.48	48.48	49.12	50.21	50.70	54.12
8	1500382	366866	403258	47.41	47.64	48.46	49.10	50.20	50.69	54.12
9	1500355	366885	403307	48.40	48.57	48.94	49.69	50.79	51.02	54.12
10	1500381	366934	403350	49.41	50.0	50.55	51.10	51.62	51.69	54.12

Data in this table comes from the Leigh East 2016 model.

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

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

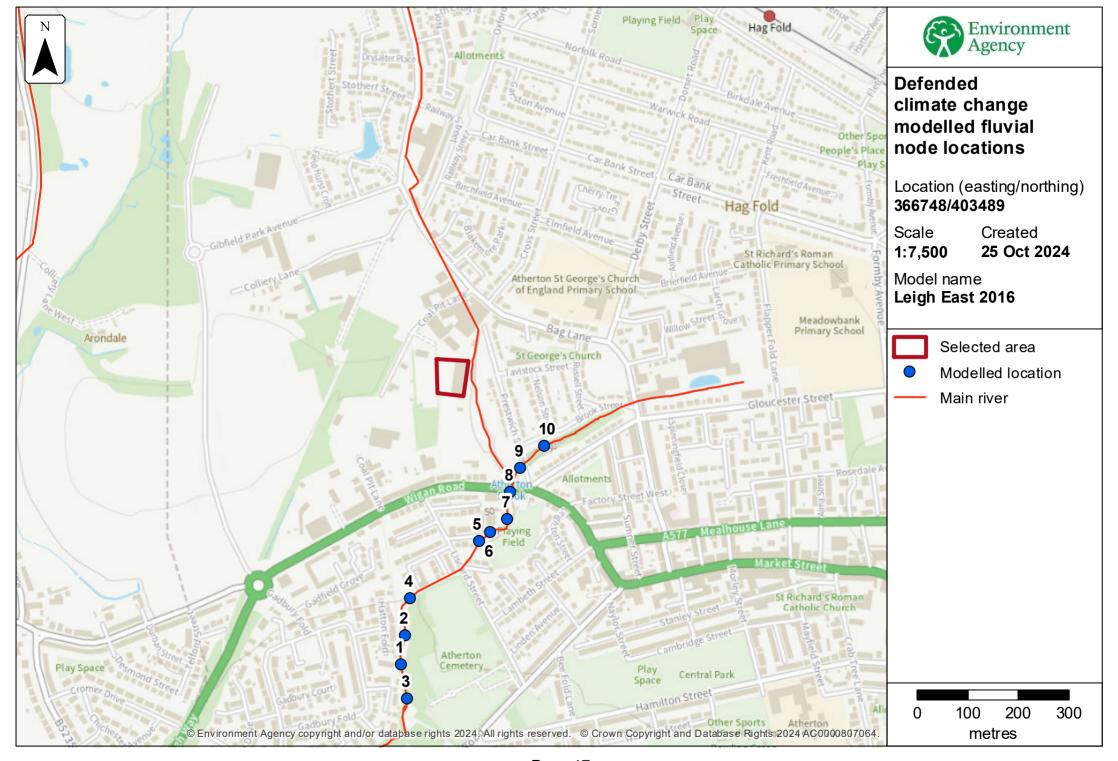
#### **Defences removed**

Label	Modelled location ID	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.1% AEP
				Flow	Flow	Flow	Flow	Flow	Flow	Flow
1	1500410	366649	402919	3.98	5.32	6.10	6.57	7.30	7.61	9.72
2	1500275	366658	402975	3.98	5.32	6.10	6.57	7.30	7.61	9.69
3	1500370	366662	402851	3.98	5.32	6.10	6.57	7.30	7.61	9.73
4	1500334	366667	403049	3.98	5.32	6.10	6.57	7.30	7.61	9.48
5	1500362	366803	403161	3.98	5.32	6.10	6.57	7.30	7.61	9.47
6	1500349	366825	403180	3.98	5.33	6.11	6.58	7.38	8.13	17.85
7	1500401	366859	403205	3.99	5.35	6.19	6.97	9.11	10.37	17.90
8	1500382	366866	403258	3.99	5.36	6.27	7.05	8.46	9.65	14.95
9	1500355	366885	403307	3.99	5.36	6.32	7.16	8.64	9.74	20.81
10	1500381	366934	403350	4.0	5.40	6.40	7.30	8.80	9.80	27.0

Data in this table comes from the Leigh East 2016 model.

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

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



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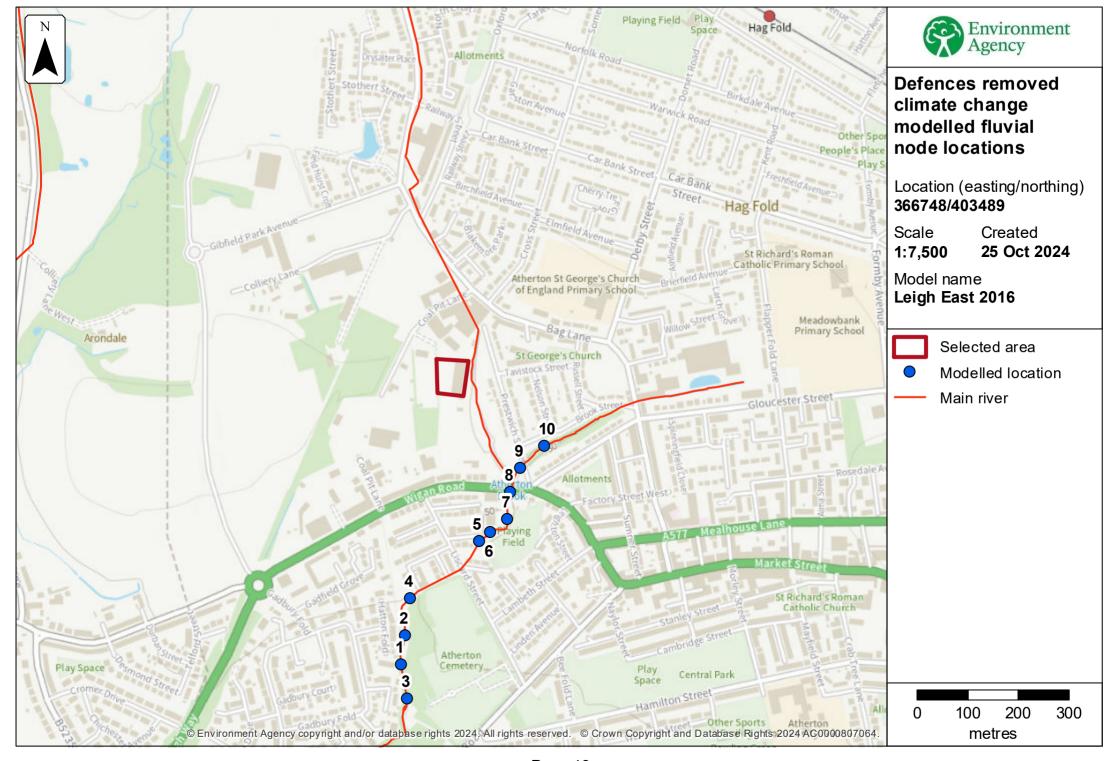
#### Modelled node locations data

#### **Defended climate change**

Label	Modelled location ID	Easting	Northing	1% AEP (+20%)	1% AEP (+20%)
				Level	Flow
1	1500410	366649	402919	42.90	7.95
2	1500275	366658	402975	43.89	7.95
3	1500370	366662	402851	41.51	7.95
4	1500334	366667	403049	45.07	7.95
5	1500362	366803	403161	51.27	7.95
6	1500349	366825	403180	51.27	9.12
7	1500401	366859	403205	51.27	11.91
8	1500382	366866	403258	51.27	11.26
9	1500355	366885	403307	51.30	11.71
10	1500381	366934	403350	51.77	11.70

Data in this table comes from the Leigh East 2016 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second. Any blank cells show where a particular scenario has not been modelled for this location. If no level or flow data is available for a scenario, no table will be shown.



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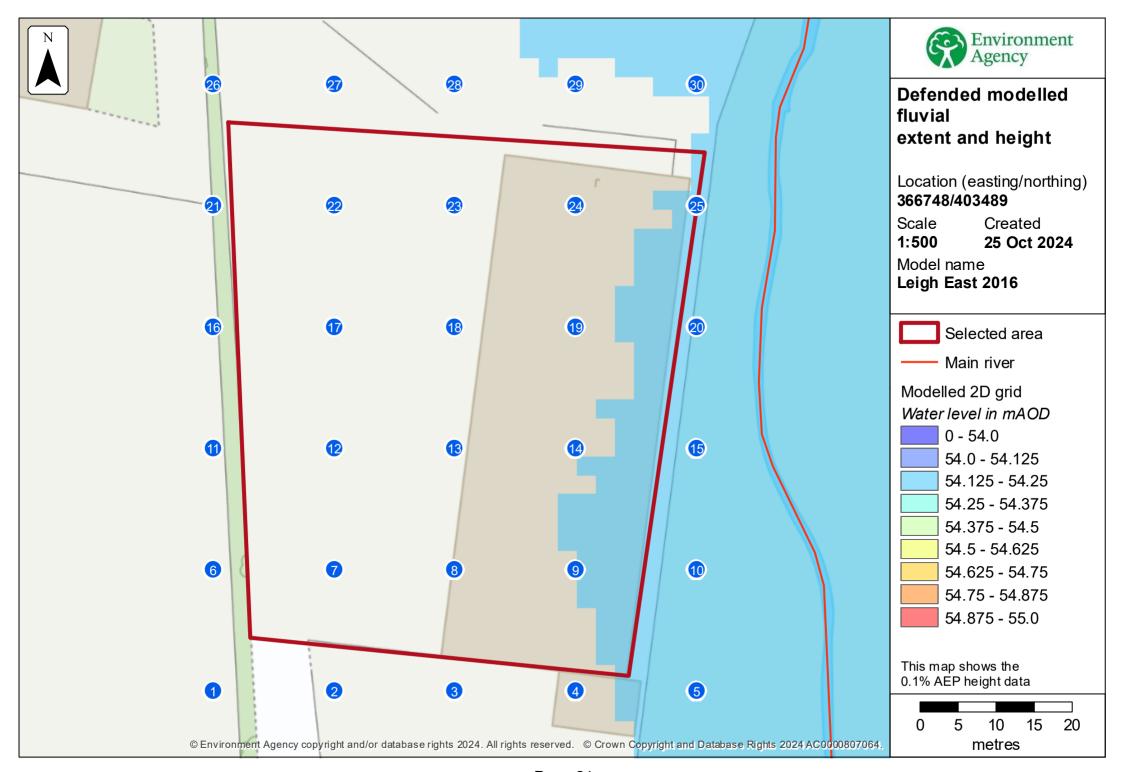
#### Modelled node locations data

#### **Defences removed climate change**

Label	Modelled location ID	Easting	Northing	1% AEP (+20%)	1% AEP (+20%)
				Level	Flow
1	1500410	366649	402919	42.90	7.95
2	1500275	366658	402975	43.89	7.95
3	1500370	366662	402851	41.50	7.95
4	1500334	366667	403049	45.07	7.95
5	1500362	366803	403161	51.27	7.95
6	1500349	366825	403180	51.27	9.11
7	1500401	366859	403205	51.27	11.95
8	1500382	366866	403258	51.26	11.28
9	1500355	366885	403307	51.29	11.70
10	1500381	366934	403350	51.77	11.70

Data in this table comes from the Leigh East 2016 model.

Level values are shown in mAOD, and flow values are shown in cubic metres per second. Any blank cells show where a particular scenario has not been modelled for this location. If no level or flow data is available for a scenario, no table will be shown.



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## Sample point data

## Defended

Label Easting	Label	Easting	asting Northing	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.1% AEP
			Depth	Depth	Depth	Depth	Depth	Depth	Depth	
1	366717	403449	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
2	366733	403449	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
3	366749	403449	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
4	366765	403449	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
5	366781	403449	NoData	NoData	NoData	NoData	NoData	NoData	1.03	
6	366717	403465	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
7	366733	403465	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
8	366749	403465	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
9	366765	403465	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
10	366781	403465	NoData	NoData	NoData	NoData	NoData	NoData	1.49	
11	366717	403481	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
12	366733	403481	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
13	366749	403481	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
14	366765	403481	NoData	NoData	NoData	NoData	NoData	NoData	NoData	
15	366781	403481	NoData	NoData	NoData	NoData	NoData	NoData	1.51	
16	366717	403497	NoData	NoData	NoData	NoData	NoData	NoData	NoData	

Label	Label Easting	ting Northing	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.1% AEP
			Depth	Depth	Depth	Depth	Depth	Depth	Depth
17	366733	403497	NoData	NoData	NoData	NoData	NoData	NoData	NoData
18	366749	403497	NoData	NoData	NoData	NoData	NoData	NoData	NoData
19	366765	403497	NoData	NoData	NoData	NoData	NoData	NoData	NoData
20	366781	403497	NoData	NoData	NoData	NoData	NoData	NoData	1.10
21	366717	403513	NoData	NoData	NoData	NoData	NoData	NoData	NoData
22	366733	403513	NoData	NoData	NoData	NoData	NoData	NoData	NoData
23	366749	403513	NoData	NoData	NoData	NoData	NoData	NoData	NoData
24	366765	403513	NoData	NoData	NoData	NoData	NoData	NoData	NoData
25	366781	403513	NoData	NoData	NoData	NoData	NoData	NoData	0.44
26	366717	403529	NoData	NoData	NoData	NoData	NoData	NoData	NoData
27	366733	403529	NoData	NoData	NoData	NoData	NoData	NoData	NoData
28	366749	403529	NoData	NoData	NoData	NoData	NoData	NoData	NoData
29	366765	403529	NoData	NoData	NoData	NoData	NoData	NoData	NoData
30	366781	403529	NoData	NoData	NoData	NoData	NoData	NoData	0.09
Max value in selected area:		Could not determine	0.42						

Data in this table comes from the Leigh East 2016 model.

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

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

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location. If no height or depth data is available for a scenario, no table will be shown.

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

## Defended

Label	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.1% AEP
			Height	Height	Height	Height	Height	Height	Height
1	366717	403449	NoData	NoData	NoData	NoData	NoData	NoData	NoData
2	366733	403449	NoData	NoData	NoData	NoData	NoData	NoData	NoData
3	366749	403449	NoData	NoData	NoData	NoData	NoData	NoData	NoData
4	366765	403449	NoData	NoData	NoData	NoData	NoData	NoData	NoData
5	366781	403449	NoData	NoData	NoData	NoData	NoData	NoData	54.13
6	366717	403465	NoData	NoData	NoData	NoData	NoData	NoData	NoData
7	366733	403465	NoData	NoData	NoData	NoData	NoData	NoData	NoData
8	366749	403465	NoData	NoData	NoData	NoData	NoData	NoData	NoData
9	366765	403465	NoData	NoData	NoData	NoData	NoData	NoData	NoData
10	366781	403465	NoData	NoData	NoData	NoData	NoData	NoData	54.13
11	366717	403481	NoData	NoData	NoData	NoData	NoData	NoData	NoData
12	366733	403481	NoData	NoData	NoData	NoData	NoData	NoData	NoData
13	366749	403481	NoData	NoData	NoData	NoData	NoData	NoData	NoData
14	366765	403481	NoData	NoData	NoData	NoData	NoData	NoData	NoData
15	366781	403481	NoData	NoData	NoData	NoData	NoData	NoData	54.13
16	366717	403497	NoData	NoData	NoData	NoData	NoData	NoData	NoData
17	366733	403497	NoData	NoData	NoData	NoData	NoData	NoData	NoData
18	366749	403497	NoData	NoData	NoData	NoData	NoData	NoData	NoData

Label	Easting	Northing	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP	0.1% AEP
			Height	Height	Height	Height	Height	Height	Height
19	366765	403497	NoData	NoData	NoData	NoData	NoData	NoData	NoData
20	366781	403497	NoData	NoData	NoData	NoData	NoData	NoData	54.13
21	366717	403513	NoData	NoData	NoData	NoData	NoData	NoData	NoData
22	366733	403513	NoData	NoData	NoData	NoData	NoData	NoData	NoData
23	366749	403513	NoData	NoData	NoData	NoData	NoData	NoData	NoData
24	366765	403513	NoData	NoData	NoData	NoData	NoData	NoData	NoData
25	366781	403513	NoData	NoData	NoData	NoData	NoData	NoData	54.13
26	366717	403529	NoData	NoData	NoData	NoData	NoData	NoData	NoData
27	366733	403529	NoData	NoData	NoData	NoData	NoData	NoData	NoData
28	366749	403529	NoData	NoData	NoData	NoData	NoData	NoData	NoData
29	366765	403529	NoData	NoData	NoData	NoData	NoData	NoData	NoData
30	366781	403529	NoData	NoData	NoData	NoData	NoData	NoData	54.13
	Max value in selected area:		Could not determine	54.13					

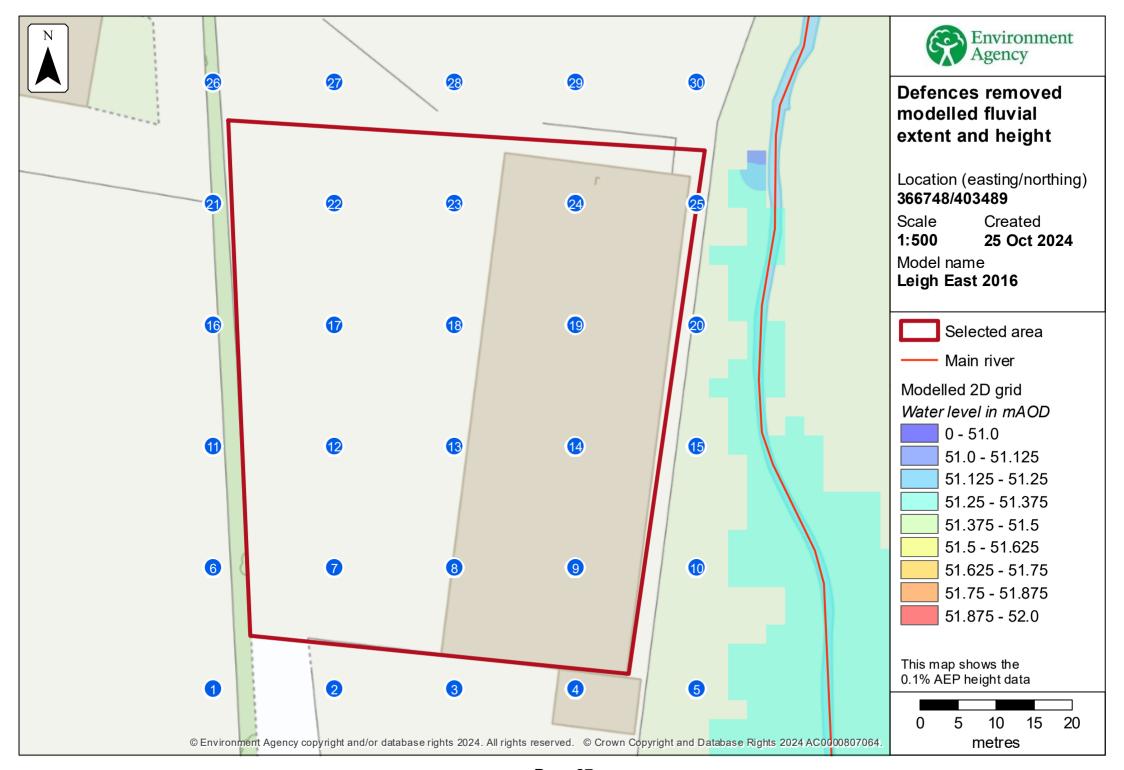
Data in this table comes from the Leigh East 2016 model.

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

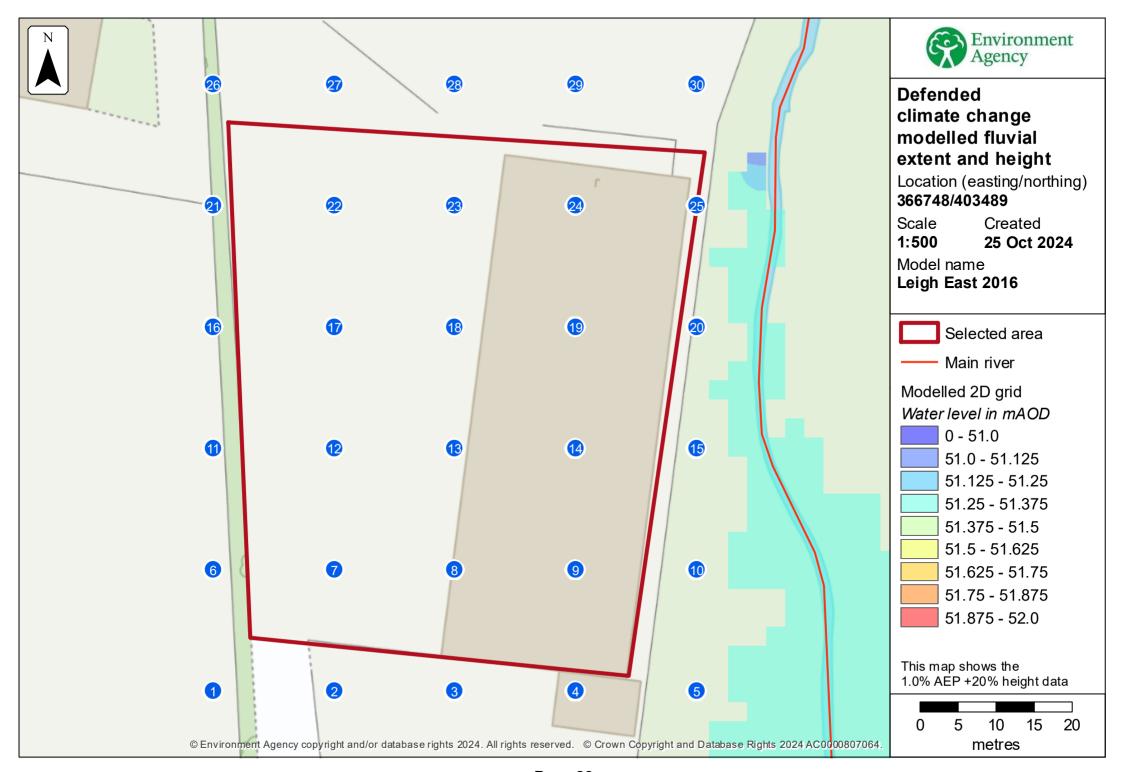
Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location. If no height or depth data is available for a scenario, no table will be shown.

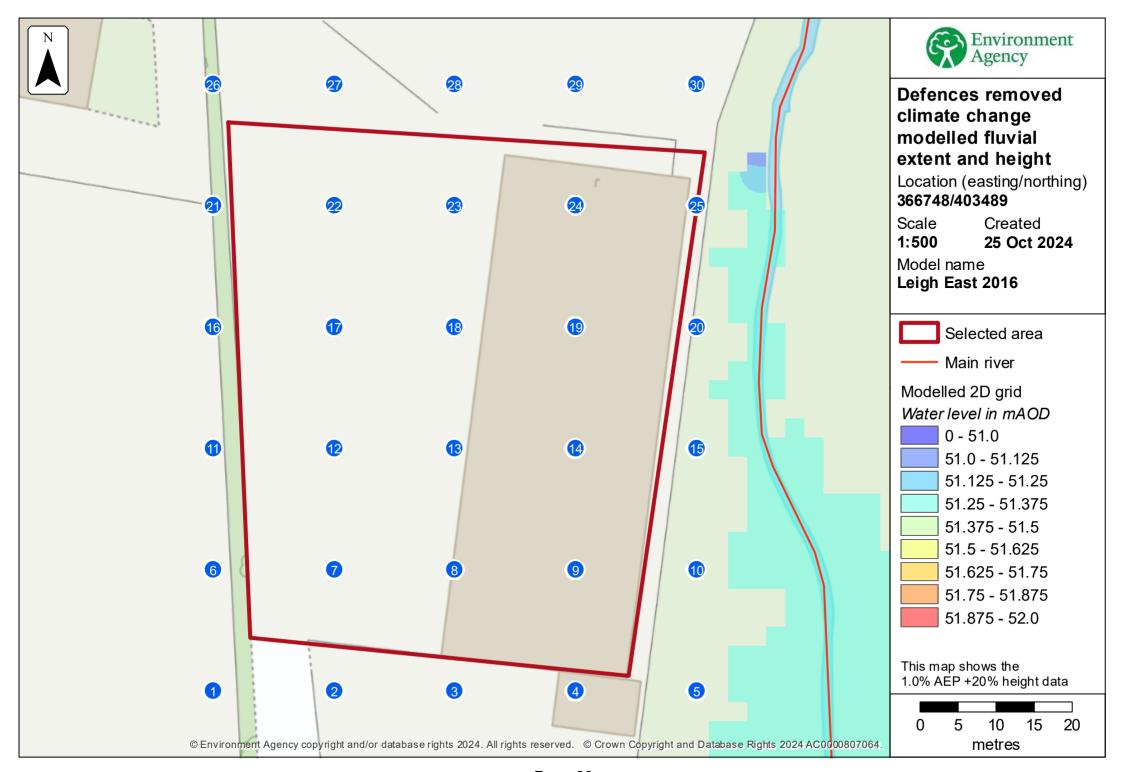
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.



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#### Strategic flood risk assessments

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

This should give you information about:

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

Your Lead Local Flood Authority is Wigan District.

#### About this data

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

#### Flood risk activity permits

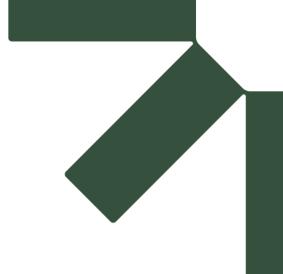
Under the Environmental Permitting (England and Wales) Regulations 2016 some developments may require an environmental permit for flood risk activities from the Environment Agency. This includes any permanent or temporary works that are in, over, under, or nearby a designated main river or flood defence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

Find out more about flood risk activity permits

### Help and advice

Contact the Greater Manchester Merseyside and Cheshire Environment Agency team at <a href="mailto:inforequests.gmmc@environment-agency.gov.uk">inforequests.gmmc@environment-agency.gov.uk</a> for:

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



# **Drawings**

### **Environmental Risk Assessment**

**Unit J Prestwich Industrial Estate** 

**KAS Metal Trading Limited** 

11 August 2025



