

NX451 Phase 1 Geoenvironmental Desk Study & Ground Stability Risk Assessment at 51-53 Richmond Street, Manchester, M1 3WB

Project No: NX451



Client

Maantra UK Ltd

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EXECUTIVE SUMMARY

Site Location & Access	51-53, Richmond Street, Manchester, M1 3WB
Grid Reference	384318, 397801
Site Area	Approximately 0.01hectares.
Site description & Proposed Development	The site comprises a Grade II listed three-storey brick and glass clad building with a single storey basement and small associated parking area to the southwest. Three basement windows front the property and access to the basement is obtained via a doorway on the northern frontage. The car parking bay to the southwest currently comprises tarmacadam hardstanding. A narrow alleyway is present to the rear of the property. The existing building is currently occupied by Albert Jones Textiles Ltd and used as a textile warehouse and offices. It is understood that textiles are not manufactured at this property. To the surrounding area to the site is bounded by roads with commercial, office buildings and some residential apartments (currently under construction). The general surrounding area comprises bars, restaurants, commercial buildings, hotels and office buildings. The Rochdale Canal is present 25m to the southeast and south. A site walkover has been carried out by NX Consulting on the 8th June 2022 which has established that no significant potential sources of contamination are present associated with the current development. No obvious signs of chemical spillage and migration pathways for residual contamination was observed during the walkover. Groundwater was not observed to be emanating from the basement floor slab however, evidence of historic surface water ingress was observed to be possible migrating via windows and downspouts prior to discharge in the basement drains.
Development Proposals	It is understood that the property is to be redeveloped into a town house with associated parking space and apartments for a residential end use. It is understood that no gardens landscaped areas are planned for the proposed development.
Geological Mapping	Superficial deposits (Till, Devensian – Diamiction) are indicated to underlie the site and surrounding area in the Groundsure report. Till can be variable but generally consist of clays, sands and gravels. Alluvium deposits are also present of sand and gravel, located 477m SE.

	The solid geology on site and the surrounding area comprises Chester Pebble Beds Sandstone. The Manchester Marls Formation (mudstone) is also present 387m to the southwest. There are two bedrock faults recorded within 500m of the site. The closest being an inferred fault located 13m south-west of the site.
Mining Risk & Ground Stability	The site is located within a coal mining area as defined by the Coal Authority. However, NX Consulting consider that the risks associated with mining related activities beneath the site are very low, based upon the significant thickness of sandstone bedrock overlying the deeper coal measures bearing strata.
Flood Risk	The site is not located within an Environment Agency (EA) Flood Risk Zones 2 or 3. The site is stated to be at negligible risk from surface water flooding from rivers or the sea. The site does not benefit from Environment Agency defined flood defences. The site has been designated a moderate risk from groundwater flooding. The design team should consider whether or not a quantitative flood risk assessment is necessary for the property.
Site History	On-Site Historical mapping indicates that the property consisted of residential housing within a row of terraced houses on Richmond Street and No1 Parsonage. By 1861 the site appears to have been developed into the current configuration as a warehouse with an adjoining residential property. By 1948 the adjacent residential property and a number of surrounding buildings have been cleared (possibly as a result of WWII bombing). Offsite Potentially contaminative uses identified in the surrounding area have included a smithy, coal yards, mills, copper engraving works, warehouses, iron works and redevelopment of large warehouse buildings. The Rochdale Canal and various wharfs are shown within 25m to the southeast of the property.
BT Tunnels & Utility Locations	The nearest 'recorded' underground tunnel in the vicinity of the site is a Guardian Underground Telephone Exchange tunnel which is situated approximately 20m northeast which runs

	parallel to Sackville Street trending NW-SE. This service does not appear to cross the site. A further underground tunnel within proximity of the site is the Dukes Tunnel which is situated approximately 80m SE of site; trending away from the site in a NE-SW direction. On behalf of BT, Halcrow Group have developed restrictive guidelines that should be adhered to, consisting of limitations on construction around the tunnel, vertical and horizontal wayleaves, loading restrictions & limits on ground borne vibrations. The potential risk to site development is considered to be low to moderate from 'unrecorded' below ground tunnels, given the presence of a tunnel recorded in Richmond Street, at a depth circa 4.00m to 5.00m bgl. Photographs provided by the architect show a cart rail and tunnel routing along Richmond Street, approximately 3m to 4m from the site entrance. The photograph indicates that the tunnel is currently used for below ground services and further information may be able to be obtained from the utility supply companies. Alternatively, if access can be obtained then a CCTV survey may be possible to confirm that it does not impact the existing building and proposed foundations for any new development. Other underground services may impact the site and the design team should familiarise themselves with their presence and implications on the development.
Landfill Sites & Ground Gases	No current or historic landfill sites are recorded within 500m of the site. Given the developmental history of the site and surrounding area, the risk from hazardous ground gas is considered to be Low to Moderate due to the possible presence of made ground beneath the site and potential infilling within the canal wharfs to the south. The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
Unexploded Ordnance	The regional unexploded bomb risk map from Zetica indicates that the site is in an area at moderate risk from possible Unexploded Ordnance (UXO). Historical mapping also shows building clearance within the immediate vicinity circa 1948. A detailed UXO Phase 1 Desk Study is recommended.

Geotechnical Considerations

It is understood that redevelopment works are proposed for the site. Given the size, age and nature of this building we would expect the foundations are unlikely to be formed upon piles.

Made ground is likely to be present on site given the historical development/basement and smithy, engineering works, iron works in the surrounding area.

During future redevelopment work being undertaken, then historical and current features of possible geotechnical concern include footings and relict infrastructure associated with any former structures or land use which are likely to result in deepening of any new foundations and/or possible specialist foundations being required. Depending on the nature of the proposed development, the depth of the existing basement/adjacent foundations are likely to result in a piled foundation being required for new foundations to the existing and proposed new buildings.

Any site investigation should be carried in accordance with relevant guidance documents (including BS101751 and BS59301) and address the following:

- The presence, nature, thickness and distribution of any made ground;
- The presence, nature and distribution of any contaminants, including soil gas; and
- The engineering properties of the superficial deposits and bedrock and how these would influence the design of the proposed development.

Recommendations for future site investigation works should consist of the following:

- A single cable percussion boreholes to a maximum depth of 20.00m bgl;
- Installation of groundwater/gas monitoring standpipes in select boreholes to depths ranging from 3.00m to 5.00m bgl;
- Hand excavated trial pits (to expose existing foundations) & window sampler boreholes (in the basement) to an average depth of 3.00m bgl;
- Geotechnical and environmental testing of the soil and water.
- Undertaking 6 No. groundwater and gas monitoring visits.

The Site is not included on the list of sites designated as contaminated land.

Contaminated land
& intrusive site
investigation
works

We consider that the site can be considered for a residential end use in its proposed configuration.

The risks posed to identified receptors are sufficiently low to not warrant extensive contaminant remedial activities of the site. However, a source-pathway-receptor linkage cannot be determined without a Phase 2 ground investigation.

A site investigation is recommended if any redevelopment were to be carried out. Any site investigation should be carried in accordance with relevant guidance documents (including BS101751 and BS59301).

The intrusive works should include geotechnical considerations with regards to proposed buildings and infrastructure on site.

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1.0 INTRODUCTION

1.1 Instruction

NX Consulting Limited have been commissioned by Maantra UK Ltd (The Client) to conduct a pre-acquisition Phase 1 Geoenvironmental Desk Study at 51 to 53 Richmond Street, Manchester, M1 3WB.

It is understood that this report forms part of a pre-acquisition survey and the site is to be redeveloped into town house with associated parking space and apartments for a residential end use.

1.2 Scope of Work

Guidance set out in LCRM ¹, GPLC1-3² and the National Planning Policy Framework (NPPF)³ states that a Preliminary Risk Assessment with a site reconnaissance is required as a minimum to ascertain if there is a potential contamination risk. If contamination is a potential, then site investigation works are carried out to establish a viable pollutant linkage to assess the potential risks to human health and controlled water receptors.

¹ EA (2020). "Land contamination risk management (LCRM).

² EA (2016). "Guiding Principles for Land Contamination." GPLC1-3.

³ DCL (2021). "National Planning Policy Framework." Department of Communities and Local Government.

The aim of any Desk Top Study is to assess the potential ground related risks at the site. In order to achieve the above stated aims and objectives, the following scope of works has been determined:

- Present a discussion of the current site status and key environmental influences around the site.
- Undertake and present a historical site and area review, primarily referring to old Ordnance Survey Maps.
- Undertake preliminary data searches.
- Present a discussion of the ground and groundwater conditions within the topographical and area context.
- Present a preliminary ground contamination assessment discussing the results of the research above, not only concerning potential on-site conditions and contamination but also with an overview of the potential for migration on or off-site with respect to the surrounding neighbouring sites.
- The information gathered will be used to identify potential geotechnical constraints associated with the redevelopment of the site.
- Present a preliminary qualitative risk assessment and make recommendations for a characterisation stage of physical investigation and testing, if appropriate.

1.3 Report Layout

- Section 2 of this report provides a summary of the Phase 1 desk study findings; including the site history, as established from available public record information.
- Section 3 details the preliminary risk assessment
- Section 4 presents a summary of conclusions and recommendations.

1.4 Limitations

The accuracy of the data supplied by third parties should be considered in the context of any known site conditions for which NX Consulting Limited cannot be held liable.

The comments made in this report are based on the data available at the time of its completion. Any unusual or conflicting evidence discovered during any future site works must be presented to NX Consulting as soon as possible so that any implications may be considered.

This report is provided for the benefit only of the party to whom it is addressed. NX Consulting does not extend responsibility to any third party for the whole or any part of the contents. Nx Consulting owes no duty of care in relation to this report to any third party. The investigation and reportage has been undertaken with all reasonable skill, care and due diligence. NX Consulting disclaims any responsibility to the client or others in respect of any matter(s) outside this agreed scope of the above works.

In addition to the above it should be noted that when investigating or developing land, sub-surface conditions might vary both spatially and over time. Whilst this investigation and subsequent interpretation has been undertaken to reasonably characterise current sub-surface conditions at the site within the scope of works and agreed budget, the absence of certain ground, contamination or groundwater conditions at the individual locations is not a guarantee that these conditions do not exist elsewhere on the site. Additional information, changes in legislation or revised practices may necessitate re-interpretation of part or all of this report.

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2.0 PHASE 1 ASSESSMENT SUMMARY

This section summarises pertinent information gained from reviewing the Groundsure Geosight, Enviroinsight Reports and Historical Mapping. Full copies are presented in Appendix B and C respectively.

2.1 Site Location & Setting

Table 2.1 – Site location and Setting

Site Location & Access	51-53, Richmond Street, Manchester, M1 3WB		
	Access is obtained from Richmond Street.		
Site Description	The site comprises a Grade II listed three-storey brick and glass clad building with a single storey basement and small parking area to the southwest. Three basement windows front the property and access to the basement is obtained via a doorway on the northern frontage. The car parking bay to the southwest currently comprises tarmacadam hardstanding. A narrow alleyway is present to the rear of the property. The existing building is currently occupied by Albert Jones Textiles Ltd and used as a textile warehouse and offices. It is understood that textiles are not manufactured at this property. To the surrounding area to the site is bounded by roads with commercial, office buildings and some residential apartments (currently under construction). The general surrounding area comprises bars, restaurants, commercial buildings, hotels and office buildings. The Rochdale Canal is present 25m to the southeast and south. A site walkover has been carried out by NX Consulting on the 8th June 2022 which has established that no significant potential sources of contamination are present associated with the current development. No obvious signs of chemical spillage and migration pathways for residual contamination was observed during the walkover. Groundwater was not observed to be emanating from the basement floor slab however, evidence of historic surface water ingress was observed to be possible migrating via windows and downspouts prior to discharge in the basement drains.		
Grid Reference	384318, 397801		
Site Area	Approximately 0.01 hectares		
Site Setting	Surrounding area:	North-east:	Restaurants, bars and retail units.
		South-east:	Rochdale Canal.

		South-west: Restaurants, bars, office space and retail units.
		North-west: Retail units.

2.2 Geology, Hydrology and Hydrogeology

Table 2.2 – Summary of Geology Hydrology and Hydrogeology

Drift Geology	On site: Till, Devensian – Diamiction are indicated to underlie the site.
	Immediate surrounding area: Till, Devensian – Diamiction is recorded in the surrounding area of site. Till can be variable but generally consist of clays, sands and gravels. Alluvium – Clay, Silt, Sand and Gravel deposits are also present of sand and gravel, located 477m SE.
Solid Geology	On Site: Chester Pebble Beds Sandstone Formation which are generally made up of Sandstone.
	Immediate surrounding area: Chester Pebble Beds Sandstone Formation as on site. The Manchester Marls Formation (Mudstone) is also present overlying the surrounding area, 387 SW.
British Geological Survey (BGS) Boreholes	Borehole BGS Reference: SJ89NW3440 Canal Street, Manchester (situated offsite 16m SE) recorded tarmac and concrete over very stiff clay with gravel and occasional coal fragments. No groundwater was recorded within the borehole log.
	BGS Reference: SJ89NW3515, (situated 32m of the site) recorded ash and concrete over very stiff silty and sandy clay with occasional coal fragments and sandstone clasts towards the base. No groundwater was recorded within the borehole log.
Faults	There are two bedrock faults recorded within 500m of the site. The closest being an inferred fault located 13m south-west of the site.
Hydrology	There are 6no recorded surface water features within 250m of site. The nearest surface water feature recorded was the Rochdale Canal located 25m south-east of the site.
Hydrogeology	Superficial deposits – Secondary Undifferentiated Aquifer. Assigned where it is not possible to attribute either category A or B to a rock type. In general, these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.
	Bedrock deposits – Principal Aquifer. Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers.

Table 2.2 – Summary of Geology Hydrology and Hydrogeology

Water Abstractions	There are 4No. water abstraction sites recorded within 500m of the site. The nearest water abstraction is an historical borehole located 89m to the south-west associated with non-evaporated cooling.
Source Protection Zone	The site is not within a currently defined groundwater source protection zone. There is a source protection zone located 452m SW of site (total catchment). The site is classed as having low soil leaching potential.
Flood Risk	The site is not located within any Flood Risk Zones 2 or 3. The site is stated to be at negligible risk from surface water flooding from rivers or the sea. The site does not benefit from Environment Agency defined flood defences. Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event. The highest risk on site is deemed to be <u>negligible</u>. The site has been designated a moderate risk from groundwater flooding.
Shrink Swell Clays	Very low risk.
Landslides	Very low risk.
Ground Dissolution of soluble Rocks	Negligible risk.

Table 2.2 – Summary of Geology Hydrology and Hydrogeology

Compressible deposits	Very low risk.
Collapsible Deposits	Very low risk.
Running Sands	Very low risk.

2.3 Mining Extraction and Natural Cavities

Table 2.3 – Mining and Mineral Extraction

Coal Mining	The site is located within a coal mining area as defined by the Coal Authority. However, the site is not within a Coal Authority High Development risk Area. NX Consulting consider that the risks associated with coal mining related activities beneath the site are very low, based upon the significant thickness of sandstone bedrock overlying the underlying coal measures strata.
Johnson Poole and Bloomer	In addition to being located inside an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property which may supplement this information
Other mining	None identified.
Historic Ground Workings	12 historical surface ground workings are recorded within 250m of the site. The nearest is a canal 19m SE. A pond was identified within the Groundsure report located 142m to the north-east, this is likely to have been infilled.

2.4 Site History

Historical maps of the site area have been obtained from Groundsure. Pertinent information determined from review of these maps is set out in the following table; a full copy of the maps is presented in Appendix C.

Table 2.4 – Site History

Map Date	On Site and Surrounding Area Potentially Contaminative Past Uses	Related Historical Map
1851	The site comprises of residential housing within a row of terraced houses on Richmond Street and No1 Parsonage. The site is surrounded by roads, further housing and other buildings. Richmond Street, Canal Street, Sackville Street and Abingdon Street surround the site. The Rochdale Canal is situated 20m southwest of the site. The buildings within the surrounding area comprise public houses, unnamed buildings, a Smithy (10m east), a Coal Yard (80m north), Copper Engineering Works (100m NW), warehouses, an engine house (75m SE) Ironworks (100m SW). A cotton mill, a Plush Manufactory 2 reservoirs and a Button Manufactory are all located adjacent to each other 105m NW of site. London Road Train Station is 500m east.	

Table 2.4 – Site History

Map Date	On Site and Surrounding Area Potentially Contaminative Past Uses	Related Historical Map
1891	By 1861 the site appears to have been developed into the current configuration as a warehouse with an adjoining residential property. Manchester Technical School is developed 100m west. Oxford Road train station is developed 300m SW. Union house and St James School developed within 100m. The coal yard, smithy, engineering works, are no longer present and are replaced by unnamed buildings. London Road Iron Works is developed 300m SE.	
1908	There are no significant changes to the site. An electricity station is developed 180m SW. St Mary's Hospital is developed 300mm SW in the vicinity of Oxford Road Station. An oil works is now present 300m south adjacent to the Iron works. Tramways are developed in the surrounding area running along Whitworth Street, Portland Street and others. School of technology is developed 150m SE. A small park/green area is developed 80m east.	

Table 2.4 – Site History

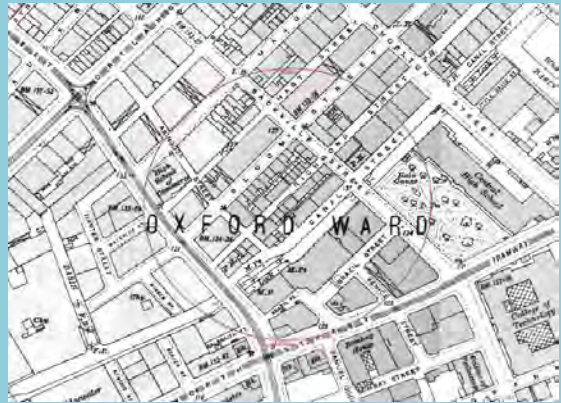
Map Date	On Site and Surrounding Area Potentially Contaminative Past Uses	Related Historical Map
1932	There are no significant changes to the site. The School of Technology is renamed to the College of Technology. Many buildings in the area are renamed to different Houses, such as India House, Bridgewater House, Lancaster House.	
1948	By 1948 the adjacent residential property and a number of surrounding buildings have been cleared (possibly as a result of WWII bombing). 2no electrical sub stations are located approximately 180m SW.	

Table 2.4 – Site History

Map Date	On Site and Surrounding Area Potentially Contaminative Past Uses	Related Historical Map
1954-55	There are no significant changes to the site. St Peters Ward and a car park now present 150m north of site.	
1960-64	The car park within St Peters Ward is redeveloped to an Omnibus Station upon former coal yard. A carpark is also developed 50m N of site off Bloom Street. 2no. Works replace the previously existing electrical sub stations west of site.	

Table 2.4 – Site History

Map Date	On Site and Surrounding Area Potentially Contaminative Past Uses	Related Historical Map
1984	There are no significant changes to the site. The Omnibus Station is renamed to Bus Station with Car Park.	
2003 to 2022	No significant changes to the site. The adjacent buildings to site appear to have been redeveloped. The buildings on Richmond Street and the surrounding streets now appear clearly numbered within the 2003 Historical Map.	

2.5 Environmental Information

Table 2.5 – Environmental Information

Environmental permits, incidents and registers	2no. pollution incidents have been recorded within 500m of the site and are detailed below: 367m SW, pollutant: Oils & Fuels, pollutant description: Diesel. No impact on land, air or water. 447m north, pollutant: n/a, pollutant description: n/a. Minor impact on land, no impact on air or water. No sites identified as contaminated under Section 78R of the Environmental protection Act 1990 are recorded within 250m of the site. 1No Part A(2) or Part B Activities have been identified within 500m of the site, located 395m west of the site.
Landfill Sites and Other Waste Disposal Facilities	No current landfill sites or waste treatment sites recorded within 250m of the site.
Potentially contaminative land uses	21no. current, potentially contaminative land uses have been identified by the GroundSure report, the most potentially significant are summarised as follows: 110m north, Coach Station. 155m SW, electricity substation listed. 227m south, Scrap Metal Merchants. 178no. historical, potentially contaminative land uses have been identified by the GroundSure report, the most potentially significant are summarised as follows: 67m north, Bus Station. 139m south, Mills. 345m SW, Railway Station.
Ecological Setting	There is 1no. recorded SSSI Impact Risk Zone within 1000m. The record is on site regarding air pollution. More information can be found within the Groundsure report.
Unexploded Ordnance	The regional unexploded bomb risk map from Zetica indicates that the site is in an area at moderate risk from possible Unexploded Ordnance (UXO). Historical mapping also shows building clearance within the immediate vicinity circa 1948. A detailed UXO Phase 1 Desk Study is recommended.
Radon	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

2.6 UNDERGROUND TUNNELS

Recorded Tunnels

The nearest 'recorded' underground tunnel in the vicinity of the site is a Guardian Underground Telephone Exchange tunnel which is situated approximately 20m northeast which runs parallel to Sackville Street trending NW-SE.

A further underground tunnel (Dukes Tunnel) is situated approximately 80m SE of site; trending away from the site in a NE-SW direction.

On behalf of BT, Halcrow Group have developed restrictive guidelines that should be adhered to, consisting of limitations on construction around the tunnel, vertical and horizontal wayleaves, loading restrictions & limits on ground borne vibrations. These include:

- A minimum clearance of 2m;
- New works and structures cannot cause variation in loading on the tunnel to vary by more than 10%;
- Piling and construction works cannot exceed vibrations of 20mm/sec;
- Tunnel condition surveys are to be carried out before and after the works are carried out;
- Piles proposed within 3m of the tunnel require detailed surveying of pile locations; and those within 2m additionally require continuous monitoring of the tunnel during piling.

An assessment by NX consulting on the area of land to the south of the Sackville Building (Northern Manchester University Campus) has established that the top of the BT tunnels are present at depths circa 6.5mOD and approximately 15.00m depth.

We consider that any construction or demolition activity will have to ensure that wayleaves or loading restrictions are not breached. Given the distance to the tunnels this is considered unlikely and the potential risk to site development is considered to be low from 'recorded' below ground tunnels.

Unrecorded Tunnels

The potential risk to site development is considered to be low to moderate from 'unrecorded' below ground tunnels, given the presence of a tunnel recorded in Richmond Street, at a depth circa 4.00m to 5.00m bgl. Photographs provided by the architect show a cart rail and tunnel routing along Richmond Street, approximately 3m to 4m from the site entrance. The photograph indicates that the tunnel is currently used for below ground services and further information may be able to be obtained from the utility supply companies. Alternatively, if access can be obtained then a CCTV survey may be possible to confirm that it does not impact the existing building and proposed foundations for any new development.

3.0 PRELIMINARY CONCEPTUAL MODEL

The site characterisation attempts to identify potential previous and existing site sources of contamination. The conceptual model links the identified sources likely to cause significant possibility of significant harm via pathways to identified critical receptors. The conceptual model is therefore based on a number of identified source-pathway-receptor scenarios. For land to be classified as contaminated a significant pollutant linkage will need to be identified which will include each component of the conceptual model. The absence or removal of a source or interception of a pathway will 'break' the pollutant linkage.

The conceptual model is characterised by identification of the following:

- On-site sources, which may impact on-site receptors via plausible pathways.
- On-site source, which may impact off-site receptors via plausible pathways.
- Off-site sources, which may impact on-site receptors via plausible pathways.

The change of land use will require assessment of the new site development layout within the context of introducing new exposure pathways. The planning regime will require assessment of the site to ensure the new development will not be classed as contaminated land as defined in the Contaminated Land (Scotland) Regulations 2000.

3.1 Risk Assessment

Section 6.3 of the CIRIA Report "Contaminated Land Risk Assessment: A Guide to Good Practice" (CIRIA Report C552) describes in detail the concepts underlying the risk-based approach to assessing potentially contaminated land, introduce the roles of key legislation and describe the qualitative methodology adopted for evaluating and characterising risk.

Current best practice in the UK promotes a risk-based approach to dealing with both soil and groundwater contamination. The principal aim of the approach is to ensure protection of human health and the environment in a thorough, transparent and cost-effective manner.

Fundamental to the risk-based approach is the concept that for 'Contaminated Land' to be designated, as a consequence of historic activities, a pathway for contamination must be shown to exist between a source of contamination and a receptor. The combined presence of a source, pathway and a receptor is described as a 'pollutant linkage'.

The concepts associated with a contaminant source, pathway and receptor are defined in DETR Circular 02/2000 'Contaminated Land Environmental Protection Act 1990: Part II A'. A source of contamination may be considered as a 'substance which is in, on or under land that has the potential to cause harm or to cause pollution of controlled waters'. A receptor can be considered as either 'a living organism, a group of living organisms, an ecological system or a piece of property which is being, or could be

harmed, by a contaminant or controlled waters which are being, or could be, polluted by a contaminant'. A pathway may be considered as one or more routes by, or through, which a receptor is being, or could be, exposed to or affected by a contaminant. Typical pathways may include migration in groundwater, surface water run-off or infiltration, inhalation, dermal contact and ingestion.

The risks posed by an identified pollutant linkage can often be mitigated by removing the source of contamination, treating the source of contamination, blocking the relevant pathway(s) or by protecting the receptor.

PRINCIPLES OF RISK EVALUATION

The risk evaluation methodology presented below is qualitative in nature, and is therefore a subjective method. It is based upon guidance presented in CIRIA publication referenced C552, 'Contaminated land risk assessment ~ A guide to good practice', 2001 and involves the classification of the following:

The magnitude of the potential consequence (severity) of risk occurring (Table C 1).

The magnitude of the probability (likelihood) of the risk occurring (Table C 2).

These are then considered in conjunction to give a risk matrix (Table C 3)

Classification	Definition	Examples
Severe	Short-term (acute) risk to human health likely to result in 'significant harm' as defined by the Environmental Protection Act 1990, Part II A. Short-term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem (note the definitions of ecological systems within the Draft Circular on Contaminated Land, DETR, 2000).	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Explosion, causing building collapse (can also equate to a short-term human health risk if buildings are occupied).
Medium	Chronic damage to Human Health ('significant harm' as defined in DETR, 2000). Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution). A significant change in a particular ecosystem, or organism forming part of such ecosystem. (Note: the definitions of ecological systems within Draft Circular on Contaminated Land, DETR, 2000).	Concentrations of a contaminant from site exceed the generic, or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer. Death of a species within a designated nature reserve.
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in the <i>Draft Circular on Contaminated Land</i> , DETR, 2000). Damage to sensitive buildings/structures/services or the environment.	Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	Harm although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discolouration of concrete.

Table C 1: Classification of Consequence

Classification	Definition
High likelihood	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.
Likely	There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low Likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.
Unlikely	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

Table C 2: Classification of Probability

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate/Low Risk
	Likely	High Risk	Moderate Risk	Moderate/Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate/Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate/Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table C3: Comparison of Consequence Against Probability

Very High Risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High Risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate Risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

Table C 4: Description of the classified risks and likely action required

Table 1.0. Phase 1 Conceptual Site Model (CSM) and Preliminary Risk Assessment (Proposed End Use)

SOURCE -PATHWAY -RECEPTOR LINKAGE				QUALITATIVE RISK ASSESSMENT		
Potential Contaminant Source	Location	Receptors	Pathways to Receptors	Associated Hazard (Potential Severity)	Likelihood of Occurrence	Risk*
Potential contaminants may be present within Made Ground beneath the site - Heavy metals, sulphates and PAHs. - Hydrocarbons - Asbestos Containing Material (ACM), - PCBs from electrical substations. - Made Ground from infilling works in surrounding area - Asbestos Containing Materials may also present within existing structures.	Possibly within sub surface strata & Groundwater.	Ground water (Principal & Superficial Aquifer)	Vertical percolation to groundwater	Groundwater (Medium – pollution of sensitive water resource)	Unlikely. Majority hardstanding & building cover will restrict infiltration and percolation. Low likelihood of significant contaminant sources being present.	Low to moderate Site Investigation Required
		Surface Water – Rochdale Canal (20mSE)	Lateral percolation & Surface Run-off to surface water	Groundwater (Medium – pollution of sensitive water resource)	Unlikely. Majority hardstanding & building cover will restrict infiltration and percolation. Low likelihood of significant contaminant sources being present. The cohesive nature of the superficial deposits are considered likely to restrict contaminant flow and the associated dilution.	Low to moderate Site Investigation Required
	Possibly within existing structures	End user of site.	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Severe).	Unlikely. Majority hardstanding & building cover will restrict migration pathways. Low likelihood if made ground disturbed during development.	Low to moderate Site Investigation Required
		Site workers, demolition staff, construction staff,	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Minor – providing suitable PPE equipment is worn)	Low Likelihood – There is the potential for asbestos and contaminants to be present within the near sub-surface site deposits.	Low risk (if PPE equipment worn and potential asbestos suppressed)

* Risk refers to the potential risk that the Source, Pathway, Receptor linkage is complete and is used to determine if any further investigation/measures are required. It does not indicate immediate emergency risk to any individual or feature present on the site unless specifically noted.

Table and Summary of Potential Risks, Sheet 2

SOURCE -PATHWAY -RECEPTOR LINKAGE				QUALITATIVE RISK ASSESSMENT		
Contaminant	Location	Receptors	Pathways to Receptors	Associated Hazard (Potential Severity)	Likelihood of Occurrence	Risk*
Mobile/volatile contaminants from off site sources.	Possibly within sub surface strata & Groundwater.	End user of site	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Medium)	Low Likelihood, dependent upon presence of historic contaminants.	Low to moderate Site Investigation Required
		Construction workers if applicable	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Medium – to workers in direct contact with any PCBs identified)	Low Likelihood – There is the potential for asbestos and contaminants to be present within the near sub-surface site deposits.	Low risk (if PPE equipment worn and potential asbestos suppressed)
Hazardous Ground Gas associated with potential Made Ground.	Possibly within strata beneath the site/surrounding area	End user of site	Migration through strata and accumulation under buildings of explosive and asphyxiating gases.	Human Health (Severe)	Unlikely, no recorded landfills within 250m of the site boundary. Unlikely, dependent upon presence of historic contaminants. Gas monitoring recommended prior to future development.	Low to moderate Site Investigation Required
		Buildings & Infrastructure	Migration through strata and accumulation under buildings of explosive and asphyxiating gases.	Buildings & Infrastructure (Severe)	Unlikely, no recorded landfills within 250m of the site boundary. Unlikely, dependent upon presence of historic contaminants. Gas monitoring recommended prior to future development.	Low to moderate Site Investigation Required

* Risk refers to the potential risk that the Source, Pathway, Receptor linkage is complete and is used to determine if any further investigation/measures are required. It does not indicate immediate emergency risk to any individual or feature present on the site unless specifically noted.

4.0 CONCLUSIONS & RECOMMENDATIONS

NX Consulting Limited have been commissioned by Maantra UK Ltd (The Client) to conduct a pre-acquisition Phase 1 Geoenvironmental Desk Study on 51-53, Richmond Street, Manchester, M1 3WB.

It is understood that this report forms part of a pre-acquisition survey and the site is to be redeveloped into town house with associated parking space and apartments for a residential end use.

Unexploded Ordnance

The regional unexploded bomb risk map from Zetica indicates that the site is in an area at moderate risk from possible Unexploded Ordnance (UXO). Historical mapping also shows building clearance within the immediate vicinity circa 1948. A detailed UXO Phase 1 Desk Study is recommended.

Contamination

The site comprises a Grade II listed three-storey brick and glass clad building with a single storey basement and small associated parking area to the southwest. The existing building is currently occupied by Albert Jones Textiles Ltd and used as a textile warehouse and offices. It is understood that textiles are not manufactured at this property. The Site is not included on the list of sites designated as contaminated land by the Local Authority.

Potential contamination sources affecting the site were identified as heavy metals, PAHs, sulphate, asbestos, petroleum hydrocarbons PCBs, solvents and gas (carbon dioxide, methane and depleted oxygen).

Migration pathways from potential contamination associated with previous site activities are likely to be restricted by full building cover at present however if future development is to take place migration pathways may be exposed.

Further investigation, risk assessment and remediation will be necessary throughout any future development process, to discharge outlying planning conditions; relating to contamination.

Where potential issues have been identified within the Phase I report, it is considered that appropriate remedial mitigation measures can be implemented during construction.

A site investigation would be recommended if any redevelopment were to be carried out. Any site investigation should be carried in accordance with relevant guidance documents (including BS101751 and BS59301).

Geotechnical Considerations

The risk to existing buildings from ground related issues is considered to be low to moderate.

During future redevelopment work being undertaken, then historical and current features of possible geotechnical concern include footings and relict infrastructure associated with any former structures or land use which are likely to result in deepening of any new foundations and/or possible specialist foundations being required. In addition, depending on the nature of the proposed development, the depth of the existing basement/adjacent foundations are likely to result in a piled foundation being required for new foundations to the existing and proposed new buildings.

Waterproof tanking measures are likely to be required for the existing and any new basements.

The risks to the property from historical mining related activities are deemed to be low.

Further investigation is recommended into the line of the 'unrecorded' tunnel feature in Richmond Street.

Flood Risk

The site has a very low risk of flooding from rivers and the sea (RoFRaS rating).

The site is not located within an Environment Agency (EA) Flood Risk Zones 2 or 3.

The site is stated to be at negligible risk from surface water flooding from rivers or the sea.

The site does not benefit from Environment Agency defined flood defences.

The site has been designated a moderate risk from groundwater flooding.

The design team should consider whether or not a quantitative flood risk assessment is necessary for the property.

Planning

This report should be sufficient for the Local Planning Authority to consider any application in line with the National Planning Policy Framework. However, outline planning conditions relating to contamination may need to be addressed prior to occupation and/or pre-commencement of development works.

This report should be issued to the regulatory authorities to prevent delays in the project.

During any future development, the design team may be required to carry out a quantitative flood risk assessment to satisfy planning conditions.

APPENDICES

Appendix A – Drawings & Photographs

Appendix B – Groundsure Report

Appendix C – Historical Mapping

Appendix A – Drawings & Photographs



Next Generation Engineering Consultancy Services

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Web: www.nxconsulting.org.uk

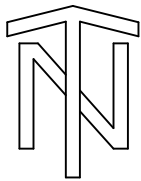
Ref: NX451 Figure

Project:

51-53 Richmond Street, Manchester, M1 3WB

Title:

Site Location Plan



KEY

Grid & Datum - Local Plane Grid related to OS National Grid & Datum
By GNSS RTK Observations

STANDARD ABBREVIATIONS

[illegible]

SYMBOLS

	HEDGE		GATE		BUILDING
	TREE CANOPY		CONTROL STATION		TACTILE PAVING
	TREE				

Rev	Date	Drawn	Description	Ch'kd	App'd



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Client

NICK MOSS ARCHITECTS
29 BOW LANE
MANCHESTER
M2 4FW

Title

ALBERT JONES TEXTILES LTD
51-53 RICHMOND STREET
MANCHESTER M1

TOPOGRAPHICAL SURVEY
SHEET 1 OF 1

Surveyed	PK	Drawn	PK	Drawn Date:
Checked	AM	Approved	NDO	18/03/2022
scale	Project 116643			Status
1:100 @ A1	CAD File \\NDO-585\Projects\11643\DRAWING\11643_001.DWG			ORIG
Drawing No	116643 / 001			Rev
				0



Next Generation Engineering Consultancy Services

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Ref: NX451 Figure 3

Project:

51-53 Richmond Street, Manchester, M1 3BW

Title:

Conceptual Plan



Plate 1 – 51-53 Richmond Street, Manchester, M1 3WB.



Plate 2 – Carparking space adjacent to former textiles building.



Plate 3 – Basement windows from Richmond Street.



Plate 4 – Ground floor within 51-53 Richmond Street.



Plate 5 – Ground floor within 51-53 Richmond Street.



Plate 6 – Alleyway at the rear of 51-53 Richmond Street.



Plate 7 – Basement within 51-53 Richmond Street.



Plate 8 - Basement within 51-53 Richmond Street.



Plate 9 – Richmond Street, looking northeast.



Plate 10 – Canal Street, looking northeast.



Plate 11 – The Rochdale Canal, south of site.



Plate 12 – Tunnel present upon Richmond Street.

Appendix B – Groundsure

51-53, RICHMOND STREET, MANCHESTER, M1 3WB

Order Details

Date: 06/06/2022

Your ref: NX451

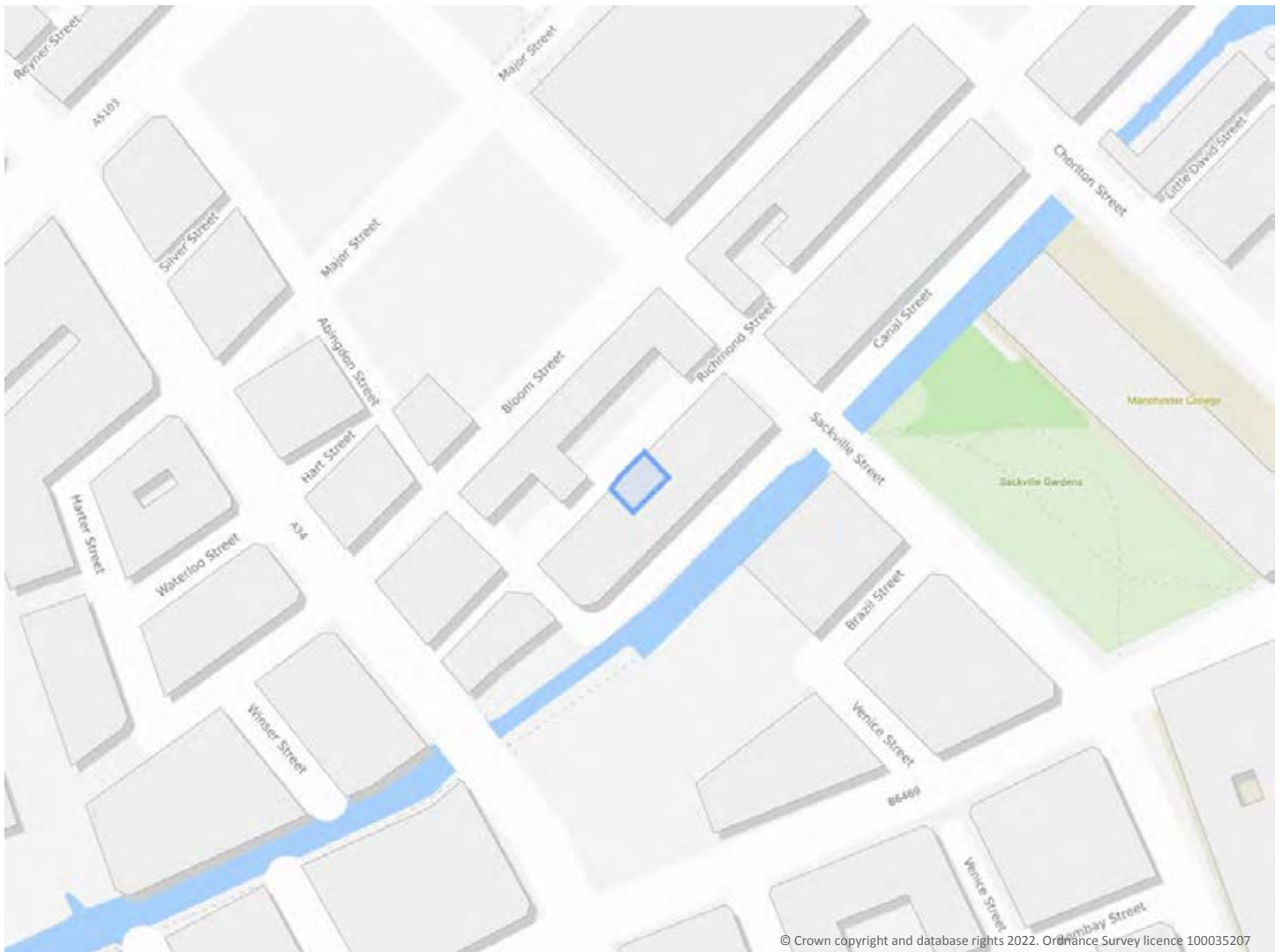
Our Ref: GS-8796522

Site Details

Location: 384318 397801

Area: 0.01 ha

Authority: [Manchester City Council](#)



Summary of findings

p. 2 **Aerial image**

p. 8

OS MasterMap site plan

p.12 groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
<u>13</u>	<u>1.1</u>	<u>Historical industrial land uses</u>	0	0	14	97	-
<u>18</u>	<u>1.2</u>	<u>Historical tanks</u>	0	0	18	44	-
<u>20</u>	<u>1.3</u>	<u>Historical energy features</u>	0	0	5	9	-
21	1.4	Historical petrol stations	0	0	0	0	-
<u>21</u>	<u>1.5</u>	<u>Historical garages</u>	0	0	2	16	-
22	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
<u>23</u>	<u>2.1</u>	<u>Historical industrial land uses</u>	0	0	19	159	-
<u>30</u>	<u>2.2</u>	<u>Historical tanks</u>	0	0	19	61	-
<u>33</u>	<u>2.3</u>	<u>Historical energy features</u>	0	0	7	27	-
35	2.4	Historical petrol stations	0	0	0	0	-
<u>35</u>	<u>2.5</u>	<u>Historical garages</u>	0	0	10	39	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
38	3.1	Active or recent landfill	0	0	0	0	-
38	3.2	Historical landfill (BGS records)	0	0	0	0	-
39	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
39	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
39	3.5	Historical waste sites	0	0	0	0	-
39	3.6	Licensed waste sites	0	0	0	0	-
<u>39</u>	<u>3.7</u>	<u>Waste exemptions</u>	0	0	2	9	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
<u>41</u>	<u>4.1</u>	<u>Recent industrial land uses</u>	0	1	20	-	-
43	4.2	Current or recent petrol stations	0	0	0	0	-
43	4.3	Electricity cables	0	0	0	0	-
43	4.4	Gas pipelines	0	0	0	0	-
43	4.5	Sites determined as Contaminated Land	0	0	0	0	-



44	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
44	4.7	Regulated explosive sites	0	0	0	0	-
44	4.8	Hazardous substance storage/usage	0	0	0	0	-
44	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
44	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
45	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	0	1	-
45	4.12	<u>Radioactive Substance Authorisations</u>	0	0	0	8	-
46	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	10	36	-
53	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
53	4.15	Pollutant release to public sewer	0	0	0	0	-
53	4.16	List 1 Dangerous Substances	0	0	0	0	-
53	4.17	List 2 Dangerous Substances	0	0	0	0	-
54	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	0	2	-
54	4.19	Pollution inventory substances	0	0	0	0	-
54	4.20	Pollution inventory waste transfers	0	0	0	0	-
55	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
56	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
58	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
60	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
61	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
61	5.5	Groundwater vulnerability- local information	None (within 0m)				
62	5.6	<u>Groundwater abstractions</u>	0	0	2	2	53
77	5.7	<u>Surface water abstractions</u>	0	0	0	0	2
78	5.8	<u>Potable abstractions</u>	0	0	0	0	9
80	5.9	<u>Source Protection Zones</u>	0	0	0	1	-
80	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
81	6.1	<u>Water Network (OS MasterMap)</u>	0	3	2	-	-



82	6.2	<u>Surface water features</u>	0	2	4	-	-
82	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
83	6.4	<u>WFD Surface water bodies</u>	0	1	1	-	-
83	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
84	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
84	7.2	Historical Flood Events	0	0	0	-	-
84	7.3	Flood Defences	0	0	0	-	-
85	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
85	7.5	Flood Storage Areas	0	0	0	-	-
86	7.6	Flood Zone 2	None (within 50m)				
86	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
87	8.1	<u>Surface water flooding</u>	1 in 100 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
89	9.1	<u>Groundwater flooding</u>	Moderate-High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
90	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
90	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
90	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
90	10.4	Special Protection Areas (SPA)	0	0	0	0	0
91	10.5	National Nature Reserves (NNR)	0	0	0	0	0
91	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
91	10.7	Designated Ancient Woodland	0	0	0	0	0
91	10.8	Biosphere Reserves	0	0	0	0	0
92	10.9	Forest Parks	0	0	0	0	0
92	10.10	Marine Conservation Zones	0	0	0	0	0
92	10.11	Green Belt	0	0	0	0	0
92	10.12	Proposed Ramsar sites	0	0	0	0	0



92	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
93	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
93	10.15	Nitrate Sensitive Areas	0	0	0	0	0
93	10.16	<u>Nitrate Vulnerable Zones</u>	0	0	0	0	4
94	10.17	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
95	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
96	11.1	World Heritage Sites	0	0	0	-	-
97	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
97	11.3	National Parks	0	0	0	-	-
97	11.4	<u>Listed Buildings</u>	1	4	63	-	-
100	11.5	<u>Conservation Areas</u>	1	0	1	-	-
101	11.6	Scheduled Ancient Monuments	0	0	0	-	-
101	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
102	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
103	12.2	Open Access Land	0	0	0	-	-
103	12.3	Tree Felling Licences	0	0	0	-	-
103	12.4	Environmental Stewardship Schemes	0	0	0	-	-
103	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
104	13.1	Priority Habitat Inventory	0	0	0	-	-
104	13.2	Habitat Networks	0	0	0	-	-
104	13.3	Open Mosaic Habitat	0	0	0	-	-
104	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
105	14.1	<u>10k Availability</u>	Identified (within 500m)				
106	14.2	<u>Artificial and made ground (10k)</u>	0	1	0	1	-
107	14.3	<u>Superficial geology (10k)</u>	1	0	0	1	-

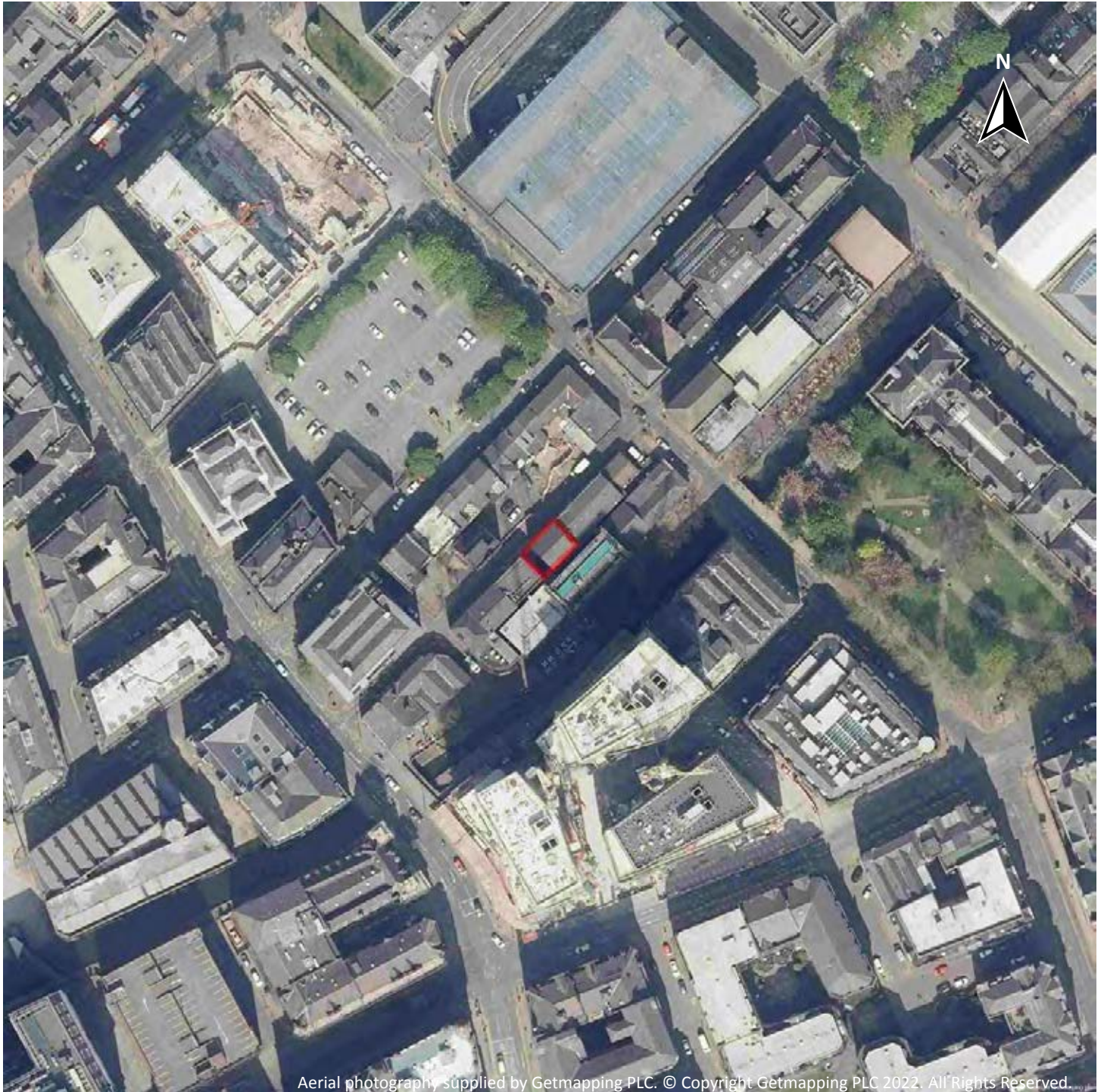


108	14.4	Landslip (10k)	0	0	0	0	-
109	14.5	<u>Bedrock geology (10k)</u>	1	0	0	1	-
110	14.6	<u>Bedrock faults and other linear features (10k)</u>	0	1	0	1	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
111	15.1	<u>50k Availability</u>	Identified (within 500m)				
112	15.2	<u>Artificial and made ground (50k)</u>	0	1	0	0	-
113	15.3	<u>Artificial ground permeability (50k)</u>	0	1	-	-	-
114	15.4	<u>Superficial geology (50k)</u>	1	0	0	1	-
115	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
115	15.6	Landslip (50k)	0	0	0	0	-
115	15.7	Landslip permeability (50k)	None (within 50m)				
116	15.8	<u>Bedrock geology (50k)</u>	1	0	0	1	-
117	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
117	15.10	<u>Bedrock faults and other linear features (50k)</u>	0	1	0	1	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
118	16.1	<u>BGS Boreholes</u>	0	12	89	-	-
Page	Section	Natural ground subsidence					
123	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
124	17.2	<u>Running sands</u>	Very low (within 50m)				
125	17.3	<u>Compressible deposits</u>	Very low (within 50m)				
127	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
128	17.5	<u>Landslides</u>	Very low (within 50m)				
129	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
131	18.1	Natural cavities	0	0	0	0	-
132	18.2	BritPits	0	0	0	0	-
132	18.3	<u>Surface ground workings</u>	0	8	4	-	-
133	18.4	Underground workings	0	0	0	0	0
133	18.5	Historical Mineral Planning Areas	0	0	0	0	-



133	18.6	Non-coal mining	0	0	0	0	0
<u>133</u>	<u>18.7</u>	<u>Mining cavities</u>	0	0	0	0	1
<u>134</u>	<u>18.8</u>	<u>JPB mining areas</u>	Identified (within 0m)				
<u>134</u>	<u>18.9</u>	<u>Coal mining</u>	Identified (within 0m)				
135	18.10	Brine areas	None (within 0m)				
135	18.11	Gypsum areas	None (within 0m)				
135	18.12	Tin mining	None (within 0m)				
135	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<u>136</u>	<u>19.1</u>	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<u>137</u>	<u>20.1</u>	<u>BGS Estimated Background Soil Chemistry</u>	1	1	-	-	-
<u>137</u>	<u>20.2</u>	<u>BGS Estimated Urban Soil Chemistry</u>	2	2	-	-	-
138	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
139	21.1	Underground railways (London)	0	0	0	-	-
139	21.2	Underground railways (Non-London)	0	0	0	-	-
140	21.3	Railway tunnels	0	0	0	-	-
<u>140</u>	<u>21.4</u>	<u>Historical railway and tunnel features</u>	0	0	4	-	-
140	21.5	Royal Mail tunnels	0	0	0	-	-
141	21.6	Historical railways	0	0	0	-	-
<u>141</u>	<u>21.7</u>	<u>Railways</u>	0	0	3	-	-
141	21.8	Crossrail 1	0	0	0	0	-
141	21.9	Crossrail 2	0	0	0	0	-
142	21.10	HS2	0	0	0	0	-

Recent aerial photograph



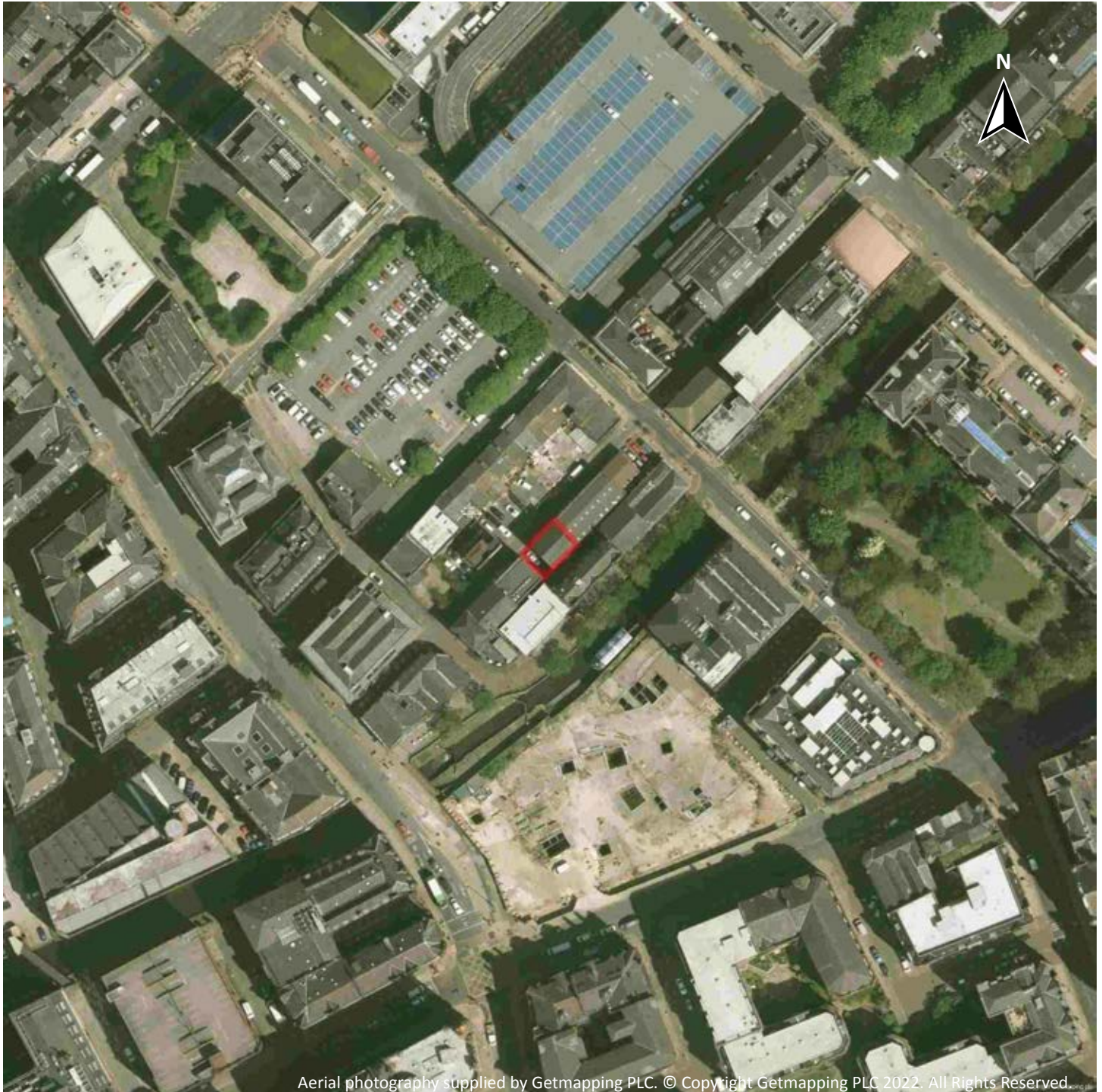
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Capture Date: 22/04/2019

Site Area: 0.01ha



Recent site history - 2015 aerial photograph

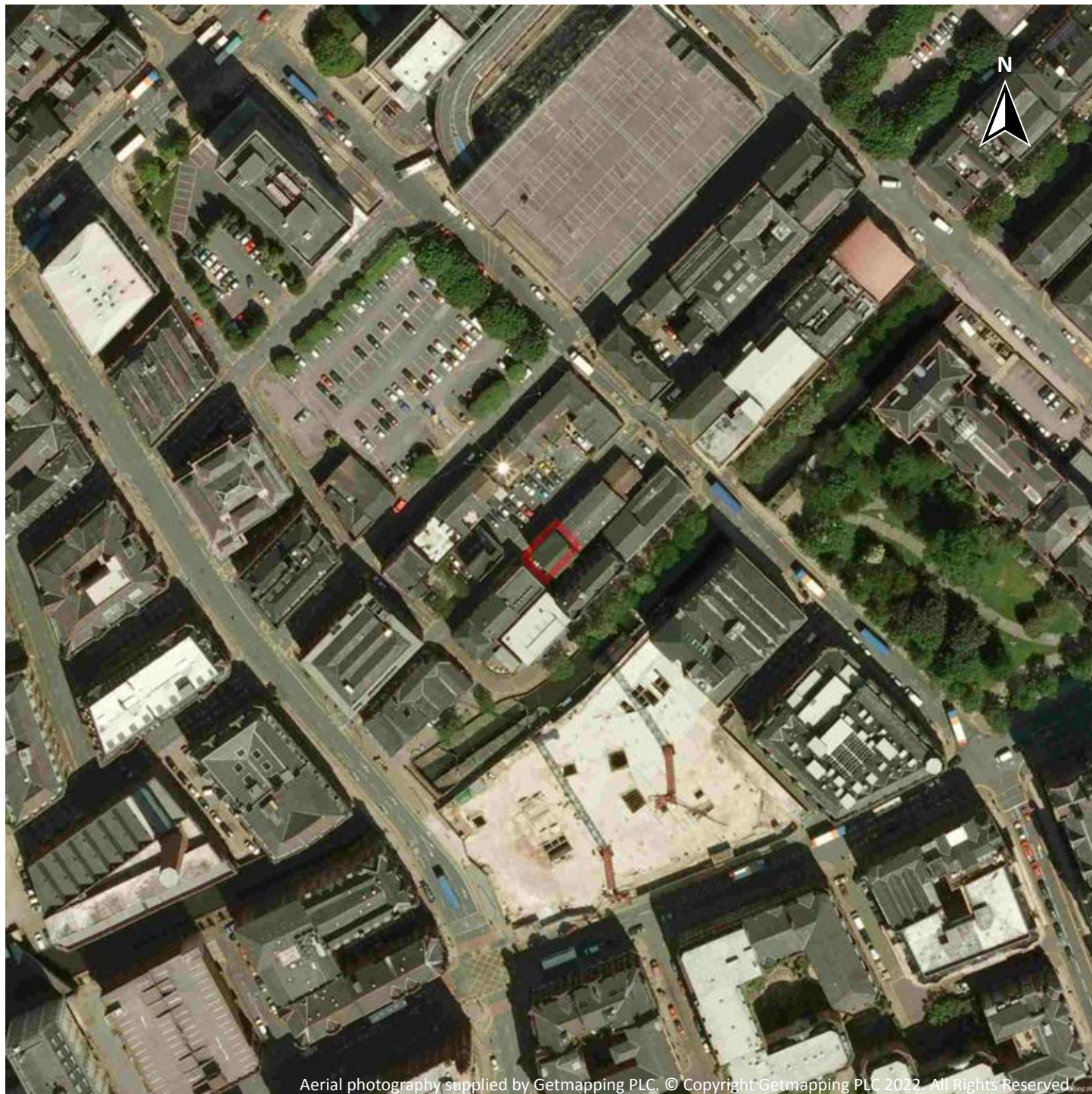


Capture Date: 11/06/2015

Site Area: 0.01ha



Recent site history - 2009 aerial photograph



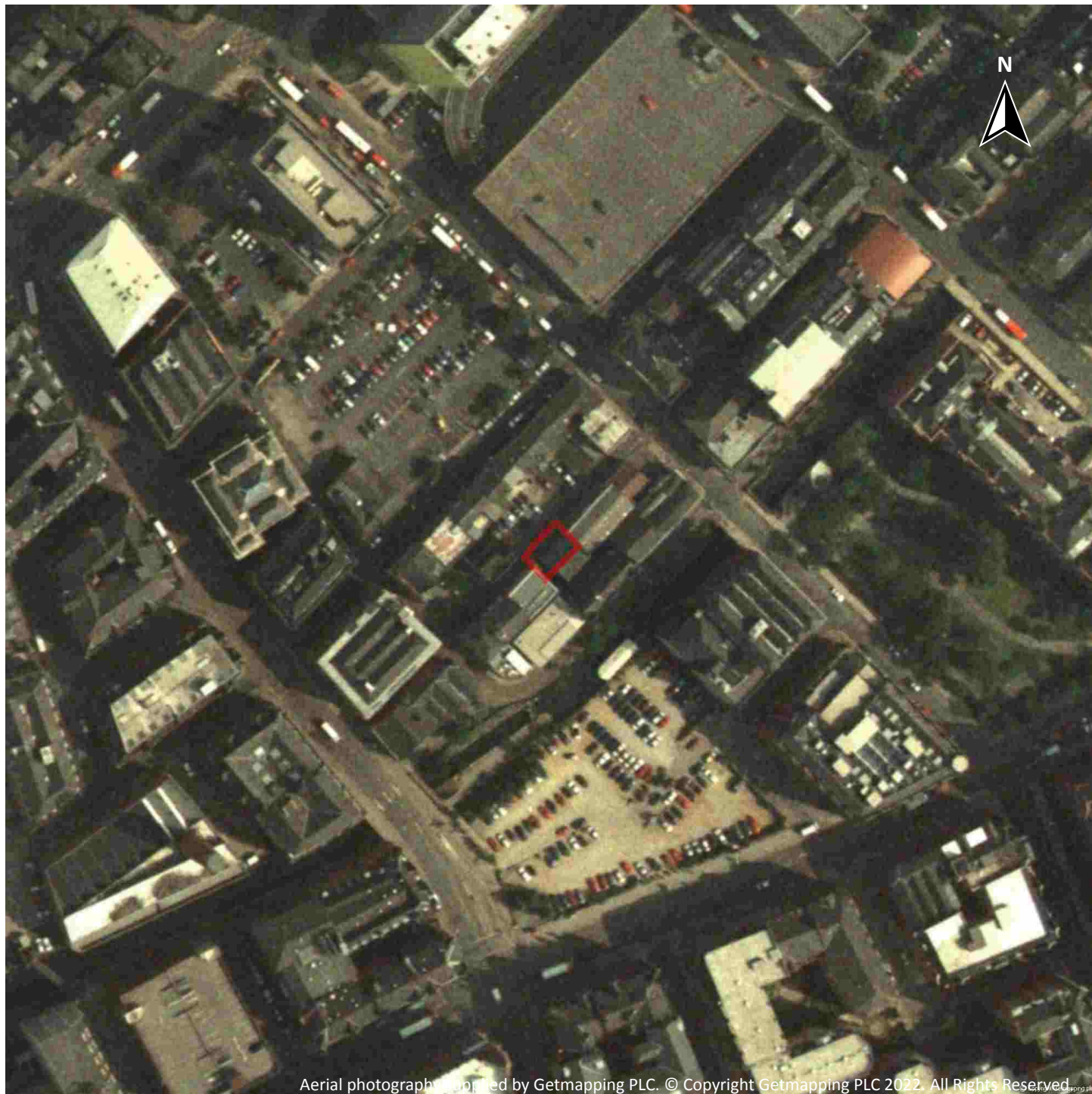
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2022. All Rights Reserved.

Capture Date: 02/06/2009

Site Area: 0.01ha



Recent site history - 2000 aerial photograph



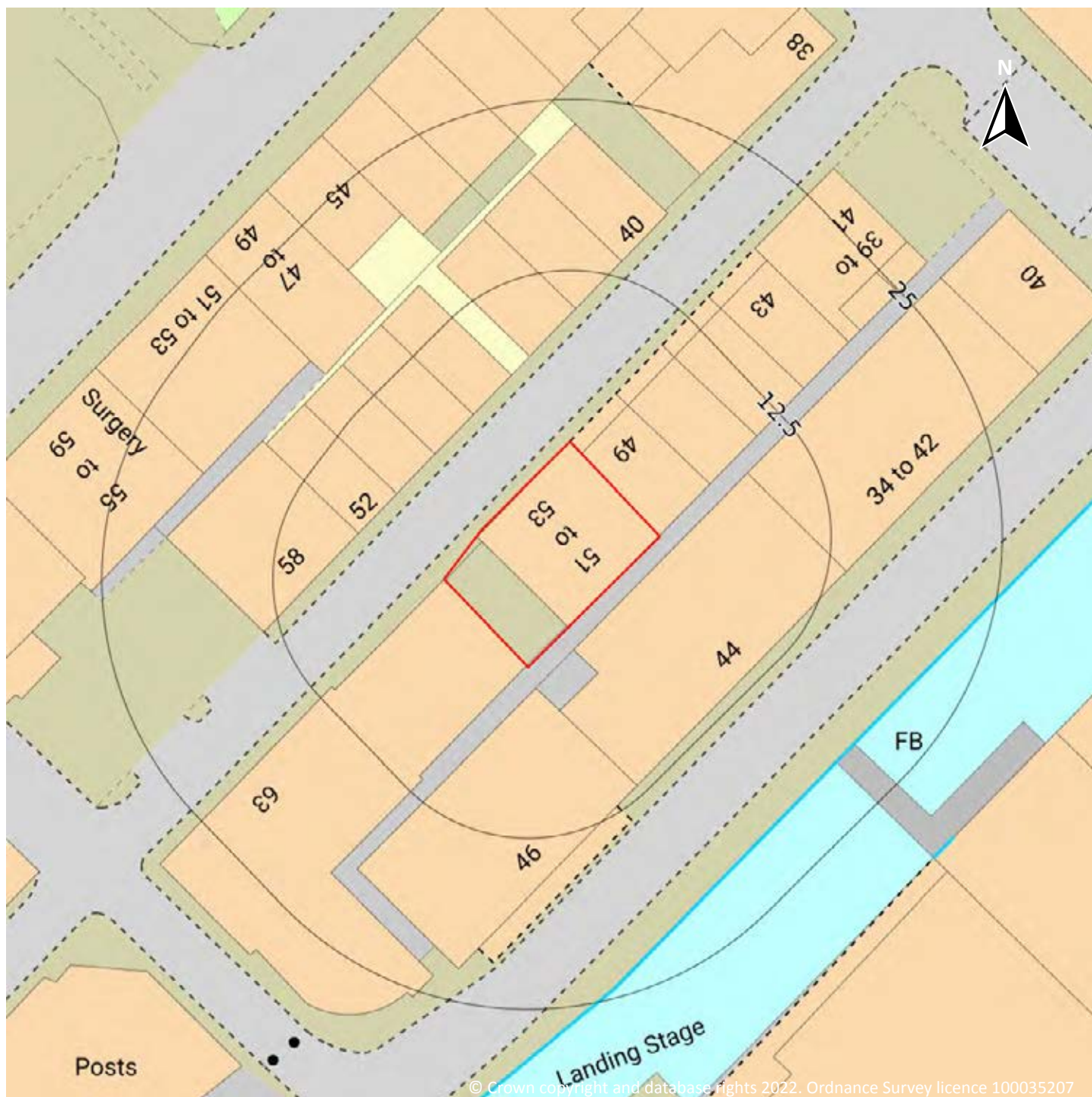
Aerial photograph supplied by Getmapping PLC. © Copyright Getmapping PLC 2022. All Rights Reserved.

Capture Date: 19/06/2000

Site Area: 0.01ha



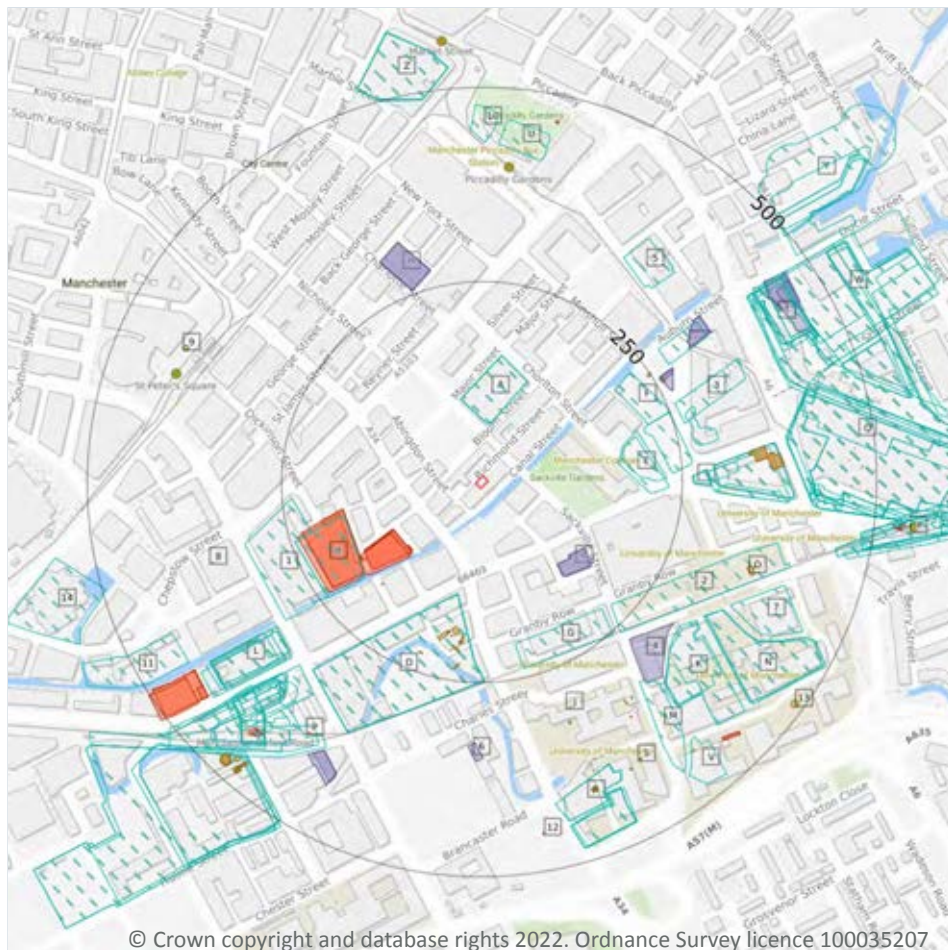
OS MasterMap site plan



Site Area: 0.01ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

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1.1 Historical industrial land uses

Records within 500m

111

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	67m N	Bus Station	1978	884077



ID	Location	Land use	Dates present	Group ID
A	67m N	Bus Station	1985 - 1994	952978
D	139m S	Unspecified Mills	1916	861845
D	139m S	Unspecified Commercial/Industrial	1923	874542
D	139m S	Unspecified Commercial/Industrial	1905	968335
D	139m S	Unspecified Mills	1932 - 1938	989884
E	168m E	Unspecified Wharf	1890	826601
E	173m E	Ice Works	1915	808540
B	174m W	Electricity Station	1916 - 1923	992043
F	201m NE	Unspecified Wharf	1915 - 1923	848098
G	203m S	Unspecified Commercial/Industrial	1923	796719
E	211m E	Unspecified Works	1923	830436
1	221m W	Unspecified Commercial/Industrial	1923	796724
2	224m SE	Unspecified Commercial/Industrial	1923	796723
3	260m NE	Unspecified Mill	1915 - 1923	946972
I	264m E	Police Station	1985 - 1994	879174
I	264m E	Police Station	1971	907595
I	264m E	Police Station	1978	978804
E	267m E	Unspecified Ground Workings	1934 - 1938	906423
F	277m NE	Unspecified Works	1915 - 1923	898319
I	283m E	Fire Station	1934 - 1938	857211
I	284m E	Police Station	1915 - 1923	846961
I	291m E	Fire Station	1985 - 1994	864327
I	291m E	Fire Station	1978	872224
I	291m E	Fire Station	1956 - 1971	924791
I	294m E	Fire Engine Station	1915 - 1923	869627
K	309m SE	Unspecified Works	1915 - 1923	954702
K	313m SE	Iron Works	1890	822793
L	316m SW	Hospital	1956 - 1971	915521



ID	Location	Land use	Dates present	Group ID
L	316m SW	Hospital	1978	957282
L	319m SW	Hospital	1916	938342
5	320m NE	Infirmary	1915 - 1923	975872
M	322m SE	Unspecified Works	1915 - 1923	951103
L	325m SW	Gas Works	1851	802208
L	327m SW	Hospital	1923	848326
N	328m SE	Unspecified Mills	1934 - 1938	854159
N	328m SE	Unspecified Mills	1915	967472
L	330m SW	Hospital	1932 - 1938	949847
N	331m SE	Unspecified Mills	1923	914258
K	331m SE	Railway Sidings	1915 - 1923	959198
L	334m SW	Coal Wharf	1851	794097
I	340m E	Police Station	1934 - 1938	903287
L	345m SW	Railway Station	1988 - 1994	912150
L	348m SW	Tanks	1851	832185
L	350m SW	Railway Building	1956	820261
7	351m SE	Unspecified Works	1915 - 1923	934829
L	354m SW	Railway Station	1956	923967
L	356m SW	Railway Sidings	1985 - 1994	928139
L	357m SW	Railway Sidings	1905 - 1938	864885
L	357m SW	Railway Station	1905 - 1938	962635
L	358m SW	Railway Station	1896	887032
Q	387m E	Railway Sidings	1915	849007
Q	387m E	Railway Stations	1915	887476
Q	387m E	Railway Sidings	1934 - 1938	899923
Q	387m E	Railway Stations	1934 - 1938	900032
Q	388m E	Railway Station	1923	941202
Q	388m E	Railway Station	1890 - 1905	959335



ID	Location	Land use	Dates present	Group ID
L	391m SW	Railway Station	1971	960776
L	391m SW	Railway Station	1985	962611
L	391m SW	Railway Station	1978	981767
R	392m SE	Unspecified Works	1923	932223
R	392m SE	Unspecified Works	1915	929652
Q	393m E	Railway Station	1956	935665
Q	401m NE	Railway Sidings	1890 - 1905	979002
Q	406m NE	Railway Sidings	1923	879517
Q	410m E	Railway Station	1985 - 1994	890876
Q	410m E	Railway Station	1971	897274
Q	410m E	Railway Station	1978	897926
T	412m NE	Railway Building	1890	820433
U	413m N	Unspecified Pit	1956	840494
L	413m SW	Railway Sidings	1896	989778
Q	414m E	Railway Station	1851	942543
T	414m NE	Goods Shed	1915	885654
T	414m NE	Goods Shed	1934 - 1938	924820
Q	414m NE	Railway Sidings	1956	950162
T	417m NE	Goods Shed	1905	923774
T	417m NE	Goods Shed	1923	979300
V	422m SE	Unspecified Works	1915 - 1923	972915
Q	423m E	Railway Buildings	1923	833658
R	425m SE	Unspecified Mills	1890	858454
R	425m SE	Unspecified Mills	1915	960133
R	425m SE	Unspecified Mills	1934 - 1938	967294
R	427m SE	Unspecified Mills	1923	975952
W	427m NE	Unspecified Commercial/Industrial	1956	796797
10	429m N	Bus Station	1978	842917



ID	Location	Land use	Dates present	Group ID
11	435m SW	Corporation Yard	1905 - 1938	920120
Q	437m E	Railway Sidings	1851	923729
L	454m SW	Unspecified Works	1985 - 1994	862878
L	454m SW	Unspecified Works	1978	976366
W	454m NE	Goods Station	1890 - 1938	979048
L	458m SW	Unspecified Commercial/Industrial	1896	857423
L	458m SW	Rubber Works	1916	915281
L	463m SW	Rubber Works	1923 - 1938	926915
L	463m SW	Unspecified Commercial/Industrial	1905	944072
L	467m SW	Unspecified Tank	1896	825247
Q	480m E	Railway Building	1938	820435
Q	480m E	Grain Store	1915 - 1923	946860
Q	484m E	Railway Building	1905 - 1938	893315
X	484m E	Railway Sidings	1994	844263
X	484m E	Railway Sidings	1985 - 1988	878187
X	484m E	Railway Sidings	1971	884730
X	484m E	Railway Sidings	1978	900007
Y	490m NE	Unspecified Wharf	1956	971868
Z	490m N	Unspecified Commercial/Industrial	1938	873846
Z	491m N	Unspecified Commercial/Industrial	1931	885632
Z	491m N	Unspecified Commercial/Industrial	1916	924604
Y	492m NE	Unspecified Warehouse	1923	807197
14	495m W	Cotton Mills	1851	811452
Y	495m NE	Unspecified Warehouses	1915	933374
Y	495m NE	Unspecified Warehouses	1934 - 1938	964840
Y	499m NE	Unspecified Wharf	1890 - 1923	976213

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m

62

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
B	176m SW	Unspecified Tank	1891	115964
D	180m S	Unspecified Tank	1891	115962
B	184m SW	Unspecified Tank	1891	115965
D	187m S	Tanks	1891	106792
D	188m S	Unspecified Tank	1893	115963
D	190m S	Unspecified Tank	1891	115960
D	190m S	Unspecified Tank	1891	115949
D	191m S	Unspecified Tank	1891	115947
D	192m S	Unspecified Tank	1891	115961
D	193m S	Unspecified Tank	1891 - 1893	141146
D	197m S	Unspecified Tank	1891	115959
D	198m S	Unspecified Tank	1891	115948
D	205m S	Unspecified Tank	1891	115958
D	208m S	Tanks	1891	106786
G	222m S	Unspecified Tank	1891	115946
D	224m S	Tanks	1891	106782
D	227m S	Tanks	1891	106787
F	245m NE	Unspecified Tank	1891	115912
F	260m NE	Unspecified Tank	1891	115913
J	305m S	Unspecified Tank	1891	115941
J	321m S	Unspecified Tank	1891	115940

ID	Location	Land use	Dates present	Group ID
M	330m SE	Unspecified Tank	1891	115942
M	330m SE	Unspecified Tank	1891	115944
M	334m SE	Unspecified Tank	1891	115945
I	337m E	Gas Meter Testing Station	1948	120722
M	351m SE	Unspecified Tank	1891	115943
O	352m E	Unspecified Tank	1952 - 1955	134489
8	353m W	Unspecified Tank	1891	115956
O	358m E	Unspecified Tank	1891	115938
P	384m SW	Unspecified Tank	1955	136262
P	384m SW	Unspecified Tank	1953	136354
S	403m SE	Unspecified Tank	1891	115939
9	408m NW	Unspecified Tank	1994 - 1999	133983
S	408m SE	Tanks	1891	106779
R	411m S	Tanks	1962 - 1969	129099
R	412m S	Unspecified Tank	1950 - 1953	134156
R	414m S	Unspecified Tank	1948	137703
R	414m S	Unspecified Tank	1955	144222
Q	430m E	Unspecified Tank	1891	115916
Q	432m E	Unspecified Tank	1891	115915
V	434m SE	Unspecified Tank	1889 - 1908	134036
12	451m S	Unspecified Tank	1891	115782
L	464m SW	Unspecified Tank	1955	135180
L	464m SW	Tanks	1950	106780
L	464m SW	Unspecified Tank	1948 - 1953	141893
Q	465m E	Unspecified Tank	1891	115922
L	465m SW	Unspecified Tank	1922	115957
Q	468m E	Unspecified Tank	1891	115926
L	472m SW	Gasometer	1891 - 1908	131372



ID	Location	Land use	Dates present	Group ID
Q	473m E	Unspecified Tank	1891	115914
L	473m SW	Unspecified Tank	1893	115950
L	473m SW	Unspecified Tank	1955	135178
L	474m SW	Unspecified Tank	1948 - 1953	145471
L	475m SW	Unspecified Tank	1955	123253
L	475m SW	Unspecified Tank	1948 - 1953	135406
Q	476m E	Unspecified Tank	1891	115911
L	478m SW	Tanks	1953	106778
Q	481m E	Unspecified Tank	1891	115923
Q	482m E	Unspecified Tank	1891	115924
13	483m SE	Unspecified Tank	1952 - 1955	131015
Q	496m E	Unspecified Tank	1891	115925
Q	497m E	Unspecified Tank	1891	115921

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

14

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
B	118m SW	Electricity Station	1950	68267
B	118m SW	Electricity Station	1948	73425
B	119m SW	Electricity Station	1955	77896
B	125m SW	Electricity Station	1908 - 1922	81883
B	172m W	Electricity Station	1950 - 1955	66381



ID	Location	Land use	Dates present	Group ID
I	337m E	Gas Meter Testing Station	1948	63684
L	434m SW	Hydraulic Power Station	1948 - 1979	64692
L	435m SW	Hydraulic Power Station	1948 - 1973	64396
L	437m SW	Electricity Substation	1948 - 1999	65682
V	447m SE	Electricity Substation	1968 - 1998	81695
V	447m SE	Electricity Substation	1970 - 1984	85141
L	449m SW	Hydraulic Power Station	1932	78003
U	464m N	Electricity Substation	1986 - 1995	72406
L	472m SW	Gasometer	1891 - 1908	84082

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

18

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
C	138m SE	Garage	1985 - 1990	27728
C	139m SE	Garage	1948 - 1968	26993



ID	Location	Land use	Dates present	Group ID
H	255m N	Garage	1948 - 1953	24294
H	255m N	Garage	1953 - 1965	27406
F	256m NE	Garage	1948 - 1971	25857
F	258m NE	Garage	1955 - 1965	25421
F	258m NE	Garage	1968 - 1984	24849
4	273m SE	Garage	1952 - 1955	26338
F	310m NE	Garage	1948	24212
F	311m NE	Garage	1971	22467
F	324m NE	Garage	1971	23089
F	325m NE	Garage	1948 - 1971	25009
6	328m S	Garage	1948 - 1955	24945
P	393m SW	Garage	1955 - 1990	26377
P	393m SW	Garage	1948 - 1998	27861
T	430m NE	Garage	1990	23753
T	431m NE	Garage	1971	20840
T	443m NE	Garage	1971	21466

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

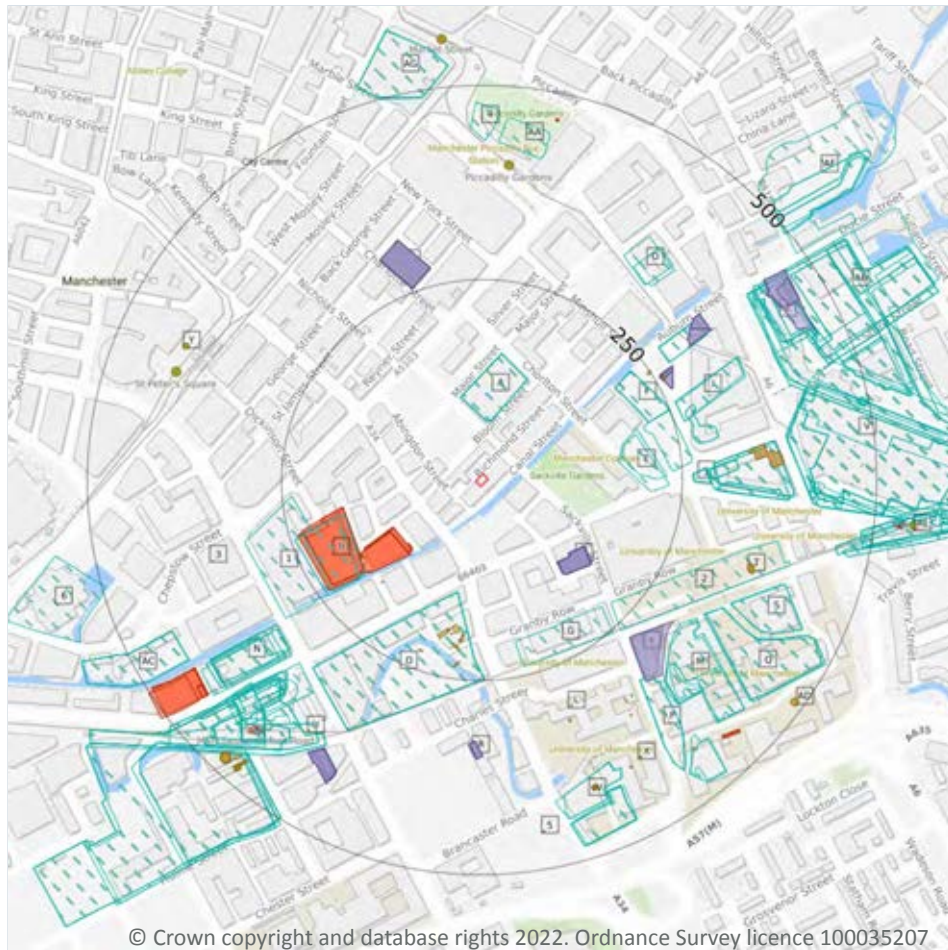
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



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- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

2.1 Historical industrial land uses

Records within 500m

178

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 23**

ID	Location	Land Use	Date	Group ID
A	67m N	Bus Station	1988	952978
A	67m N	Bus Station	1978	884077
A	67m N	Bus Station	1985	952978



ID	Location	Land Use	Date	Group ID
A	67m N	Bus Station	1994	952978
D	139m S	Unspecified Mills	1938	989884
D	139m S	Unspecified Mills	1932	989884
D	139m S	Unspecified Mills	1916	861845
D	139m S	Unspecified Commercial/Industrial	1905	968335
D	139m S	Unspecified Commercial/Industrial	1923	874542
E	168m E	Unspecified Wharf	1890	826601
E	173m E	Ice Works	1915	808540
B	174m W	Electricity Station	1916	992043
B	183m W	Electricity Station	1923	992043
F	201m NE	Unspecified Wharf	1923	848098
F	202m NE	Unspecified Wharf	1915	848098
G	203m S	Unspecified Commercial/Industrial	1923	796719
E	211m E	Unspecified Works	1923	830436
1	221m W	Unspecified Commercial/Industrial	1923	796724
2	224m SE	Unspecified Commercial/Industrial	1923	796723
I	260m NE	Unspecified Mill	1923	946972
I	261m E	Unspecified Mill	1915	946972
J	264m E	Police Station	1971	907595
J	264m E	Police Station	1988	879174
J	264m E	Police Station	1978	978804
J	264m E	Police Station	1985	879174
J	264m E	Police Station	1994	879174
E	267m E	Unspecified Ground Workings	1938	906423
E	267m E	Unspecified Ground Workings	1934	906423
F	277m NE	Unspecified Works	1923	898319
F	278m NE	Unspecified Works	1915	898319
J	283m E	Fire Station	1938	857211

ID	Location	Land Use	Date	Group ID
J	283m E	Fire Station	1934	857211
J	284m E	Police Station	1923	846961
J	286m E	Police Station	1915	846961
J	291m E	Fire Station	1971	924791
J	291m E	Fire Station	1956	924791
J	291m E	Fire Station	1988	864327
J	291m E	Fire Station	1978	872224
J	291m E	Fire Station	1985	864327
J	291m E	Fire Station	1994	864327
J	294m E	Fire Engine Station	1923	869627
J	296m E	Fire Engine Station	1915	869627
M	309m SE	Unspecified Works	1923	954702
M	313m SE	Iron Works	1890	822793
N	316m SW	Hospital	1971	915521
N	316m SW	Hospital	1956	915521
N	316m SW	Hospital	1978	957282
N	319m SW	Hospital	1916	938342
O	320m NE	Infirmery	1923	975872
O	322m NE	Infirmery	1915	975872
P	322m SE	Unspecified Works	1923	951103
P	323m SE	Unspecified Works	1915	951103
N	325m SW	Gas Works	1851	802208
N	327m SW	Hospital	1923	848326
Q	328m SE	Unspecified Mills	1938	854159
Q	328m SE	Unspecified Mills	1934	854159
Q	328m SE	Unspecified Mills	1915	967472
N	330m SW	Hospital	1938	949847
N	330m SW	Hospital	1932	949847



ID	Location	Land Use	Date	Group ID
Q	331m SE	Unspecified Mills	1923	914258
M	331m SE	Unspecified Works	1915	954702
M	331m SE	Railway Sidings	1923	959198
N	334m SW	Coal Wharf	1851	794097
M	334m SE	Railway Sidings	1915	959198
J	340m E	Police Station	1938	903287
J	340m E	Police Station	1934	903287
N	345m SW	Railway Station	1988	912150
N	345m SW	Railway Station	1994	912150
N	348m SW	Tanks	1851	832185
N	350m SW	Railway Building	1956	820261
S	351m SE	Unspecified Works	1915	934829
S	351m SE	Unspecified Works	1923	934829
N	354m SW	Railway Station	1956	923967
N	356m SW	Railway Sidings	1988	928139
N	356m SW	Railway Sidings	1985	928139
N	356m SW	Railway Sidings	1994	928139
N	357m SW	Railway Station	1938	962635
N	357m SW	Railway Sidings	1938	864885
N	357m SW	Railway Station	1932	962635
N	357m SW	Railway Sidings	1932	864885
N	357m SW	Railway Station	1916	962635
N	357m SW	Railway Sidings	1916	864885
N	357m SW	Railway Station	1905	962635
N	357m SW	Railway Sidings	1905	864885
N	357m SW	Railway Sidings	1923	864885
N	357m SW	Railway Station	1923	962635
N	358m SW	Railway Station	1896	887032



ID	Location	Land Use	Date	Group ID
V	387m E	Railway Sidings	1938	899923
V	387m E	Railway Stations	1938	900032
V	387m E	Railway Sidings	1934	899923
V	387m E	Railway Stations	1934	900032
V	387m E	Railway Sidings	1915	849007
V	387m E	Railway Stations	1915	887476
V	388m E	Railway Station	1905	959335
V	388m E	Railway Station	1890	959335
V	388m E	Railway Station	1923	941202
N	391m SW	Railway Station	1971	960776
N	391m SW	Railway Station	1978	981767
N	391m SW	Railway Station	1985	962611
W	392m SE	Unspecified Works	1923	932223
W	392m SE	Unspecified Works	1915	929652
V	393m E	Railway Station	1956	935665
V	401m NE	Railway Sidings	1905	979002
V	401m NE	Railway Sidings	1890	979002
V	406m NE	Railway Sidings	1923	879517
V	410m E	Railway Station	1971	897274
V	410m E	Railway Station	1988	890876
V	410m E	Railway Station	1978	897926
V	410m E	Railway Station	1985	890876
V	410m E	Railway Station	1994	890876
Z	412m NE	Railway Building	1890	820433
AA	413m N	Unspecified Pit	1956	840494
N	413m SW	Railway Sidings	1896	989778
V	414m E	Railway Station	1851	942543
Z	414m NE	Goods Shed	1938	924820



ID	Location	Land Use	Date	Group ID
Z	414m NE	Goods Shed	1934	924820
Z	414m NE	Goods Shed	1915	885654
V	414m NE	Railway Sidings	1956	950162
Z	417m NE	Goods Shed	1905	923774
Z	417m NE	Goods Shed	1923	979300
P	422m SE	Unspecified Works	1923	972915
V	423m E	Railway Buildings	1923	833658
W	425m SE	Unspecified Mills	1938	967294
W	425m SE	Unspecified Mills	1934	967294
W	425m SE	Unspecified Mills	1915	960133
W	425m SE	Unspecified Mills	1890	858454
W	427m SE	Unspecified Mills	1923	975952
AB	427m NE	Unspecified Commercial/Industrial	1956	796797
4	429m N	Bus Station	1978	842917
P	434m SE	Unspecified Works	1915	972915
AC	435m SW	Corporation Yard	1938	920120
AC	435m SW	Corporation Yard	1932	920120
AC	435m SW	Corporation Yard	1916	920120
AC	435m SW	Corporation Yard	1905	920120
AC	435m SW	Corporation Yard	1923	920120
V	437m E	Railway Sidings	1851	923729
N	454m SW	Unspecified Works	1988	862878
N	454m SW	Unspecified Works	1978	976366
N	454m SW	Unspecified Works	1985	862878
N	454m SW	Unspecified Works	1994	862878
AB	454m NE	Goods Station	1938	979048
AB	454m NE	Goods Station	1934	979048
AB	454m NE	Goods Station	1915	979048



ID	Location	Land Use	Date	Group ID
AB	455m E	Goods Station	1905	979048
AB	455m E	Goods Station	1890	979048
AB	455m E	Goods Station	1923	979048
N	458m SW	Unspecified Commercial/Industrial	1896	857423
N	458m SW	Rubber Works	1916	915281
N	463m SW	Rubber Works	1938	926915
N	463m SW	Rubber Works	1932	926915
N	463m SW	Unspecified Commercial/Industrial	1905	944072
N	463m SW	Rubber Works	1923	926915
N	467m SW	Unspecified Tank	1896	825247
V	480m E	Railway Building	1938	820435
V	480m E	Grain Store	1915	946860
V	480m E	Grain Store	1923	946860
V	484m E	Railway Building	1938	893315
V	484m E	Railway Building	1934	893315
AE	484m E	Railway Sidings	1971	884730
AE	484m E	Railway Sidings	1988	878187
AE	484m E	Railway Sidings	1978	900007
AE	484m E	Railway Sidings	1985	878187
AE	484m E	Railway Sidings	1994	844263
V	487m E	Railway Building	1915	893315
V	487m E	Railway Building	1905	893315
V	487m E	Railway Building	1923	893315
AF	490m NE	Unspecified Wharf	1956	971868
AG	490m N	Unspecified Commercial/Industrial	1938	873846
AG	491m N	Unspecified Commercial/Industrial	1931	885632
AG	491m N	Unspecified Commercial/Industrial	1916	924604
AF	492m NE	Unspecified Warehouse	1923	807197



ID	Location	Land Use	Date	Group ID
6	495m W	Cotton Mills	1851	811452
AF	495m NE	Unspecified Warehouses	1938	964840
AF	495m NE	Unspecified Warehouses	1934	964840
AF	495m NE	Unspecified Warehouses	1915	933374
AF	499m NE	Unspecified Wharf	1905	976213
AF	499m NE	Unspecified Wharf	1890	976213
AF	499m NE	Unspecified Wharf	1923	976213

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

80

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 23**

ID	Location	Land Use	Date	Group ID
B	176m SW	Unspecified Tank	1891	115964
D	180m S	Unspecified Tank	1891	115962
B	184m SW	Unspecified Tank	1891	115965
D	187m S	Tanks	1891	106792
D	188m S	Unspecified Tank	1893	115963
D	190m S	Unspecified Tank	1891	115960
D	190m S	Unspecified Tank	1891	115949
D	191m S	Unspecified Tank	1891	115947
D	192m S	Unspecified Tank	1891	115961
D	193m S	Unspecified Tank	1891	141146
D	194m S	Unspecified Tank	1893	141146
D	197m S	Unspecified Tank	1891	115959
D	198m S	Unspecified Tank	1891	115948



ID	Location	Land Use	Date	Group ID
D	205m S	Unspecified Tank	1891	115958
D	208m S	Tanks	1891	106786
G	222m S	Unspecified Tank	1891	115946
D	224m S	Tanks	1891	106782
D	227m S	Tanks	1891	106787
F	245m NE	Unspecified Tank	1891	115912
F	260m NE	Unspecified Tank	1891	115913
L	305m S	Unspecified Tank	1891	115941
L	321m S	Unspecified Tank	1891	115940
P	330m SE	Unspecified Tank	1891	115942
P	330m SE	Unspecified Tank	1891	115944
P	334m SE	Unspecified Tank	1891	115945
J	337m E	Gas Meter Testing Station	1948	120722
P	351m SE	Unspecified Tank	1891	115943
T	352m E	Unspecified Tank	1955	134489
T	352m E	Unspecified Tank	1952	134489
T	352m E	Unspecified Tank	1955	134489
3	353m W	Unspecified Tank	1891	115956
T	358m E	Unspecified Tank	1891	115938
U	384m SW	Unspecified Tank	1955	136262
U	384m SW	Unspecified Tank	1953	136354
X	403m SE	Unspecified Tank	1891	115939
Y	408m NW	Unspecified Tank	1996	133983
Y	408m NW	Unspecified Tank	1995	133983
Y	408m NW	Unspecified Tank	1994	133983
Y	408m NW	Unspecified Tank	1999	133983
X	408m SE	Tanks	1891	106779
W	411m S	Tanks	1968	129099



ID	Location	Land Use	Date	Group ID
W	412m S	Unspecified Tank	1950	134156
W	412m S	Tanks	1969	129099
W	412m S	Tanks	1962	129099
W	412m S	Unspecified Tank	1953	134156
W	414m S	Unspecified Tank	1948	137703
W	414m S	Unspecified Tank	1955	144222
W	414m S	Unspecified Tank	1955	144222
V	430m E	Unspecified Tank	1891	115916
V	432m E	Unspecified Tank	1891	115915
P	434m SE	Unspecified Tank	1889	134036
P	434m SE	Unspecified Tank	1908	134036
P	434m SE	Unspecified Tank	1889	134036
S	451m S	Unspecified Tank	1891	115782
N	464m SW	Unspecified Tank	1955	135180
N	464m SW	Tanks	1950	106780
N	464m SW	Unspecified Tank	1948	141893
N	464m SW	Unspecified Tank	1953	141893
V	465m E	Unspecified Tank	1891	115922
N	465m SW	Unspecified Tank	1922	115957
V	468m E	Unspecified Tank	1891	115926
N	472m SW	Gasometer	1891	131372
N	473m SW	Gasometer	1908	131372
V	473m E	Unspecified Tank	1891	115914
N	473m SW	Unspecified Tank	1893	115950
N	473m SW	Unspecified Tank	1955	135178
N	473m SW	Unspecified Tank	1955	135178
N	474m SW	Unspecified Tank	1948	145471
N	474m SW	Unspecified Tank	1953	145471



ID	Location	Land Use	Date	Group ID
N	475m SW	Unspecified Tank	1955	123253
N	475m SW	Unspecified Tank	1948	135406
N	475m SW	Unspecified Tank	1953	135406
V	476m E	Unspecified Tank	1891	115911
N	478m SW	Tanks	1953	106778
V	481m E	Unspecified Tank	1891	115923
V	482m E	Unspecified Tank	1891	115924
AD	483m SE	Unspecified Tank	1955	131015
AD	483m SE	Unspecified Tank	1952	131015
V	496m E	Unspecified Tank	1891	115925
V	497m E	Unspecified Tank	1891	115921

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

34

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 23**

ID	Location	Land Use	Date	Group ID
B	118m SW	Electricity Station	1950	68267
B	118m SW	Electricity Station	1948	73425
B	119m SW	Electricity Station	1955	77896
B	125m SW	Electricity Station	1908	81883
B	126m SW	Electricity Station	1922	81883
B	172m W	Electricity Station	1955	66381
B	173m W	Electricity Station	1950	66381
J	337m E	Gas Meter Testing Station	1948	63684
N	434m SW	Hydraulic Power Station	1979	64692



ID	Location	Land Use	Date	Group ID
N	434m SW	Hydraulic Power Station	1948	64692
N	435m SW	Hydraulic Power Station	1951	64396
N	435m SW	Hydraulic Power Station	1973	64396
N	435m SW	Hydraulic Power Station	1948	64396
N	437m SW	Electricity Substation	1979	65682
N	438m SW	Electricity Substation	1951	65682
N	438m SW	Electricity Substation	1988	65682
N	438m SW	Electricity Substation	1973	65682
N	438m SW	Electricity Substation	1948	65682
N	438m SW	Electricity Substation	1985	65682
N	439m SW	Electricity Substation	1996	65682
N	439m SW	Electricity Substation	1995	65682
N	439m SW	Electricity Substation	1994	65682
N	439m SW	Electricity Substation	1999	65682
P	447m SE	Electricity Substation	1968	81695
P	447m SE	Electricity Substation	1970	85141
P	447m SE	Electricity Substation	1970	85141
P	447m SE	Electricity Substation	1970	85141
P	447m SE	Electricity Substation	1998	81695
P	448m SE	Electricity Substation	1984	85141
N	449m SW	Hydraulic Power Station	1932	78003
AA	464m N	Electricity Substation	1995	72406
AA	465m N	Electricity Substation	1986	72406
N	472m SW	Gasometer	1891	84082
N	473m SW	Gasometer	1908	84082

This data is sourced from Ordnance Survey / Groundsure.



2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

49

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 23**

ID	Location	Land Use	Date	Group ID
C	138m SE	Garage	1990	27728
C	138m SE	Garage	1990	27728
C	138m SE	Garage	1985	27728
C	139m SE	Garage	1964	26993
C	139m SE	Garage	1948	26993
C	140m SE	Garage	1955	26993
C	140m SE	Garage	1968	26993
C	140m SE	Garage	1950	26993
C	140m SE	Garage	1965	26993
C	140m SE	Garage	1965	26993
H	255m N	Garage	1948	24294
H	255m N	Garage	1953	24294
H	255m N	Garage	1953	27406
H	255m N	Garage	1953	27406
H	255m N	Garage	1965	27406
F	256m NE	Garage	1952	25857

ID	Location	Land Use	Date	Group ID
F	256m NE	Garage	1948	25857
F	258m NE	Garage	1965	25421
F	258m NE	Garage	1955	25421
F	258m NE	Garage	1968	24849
F	258m NE	Garage	1984	24849
F	258m NE	Garage	1964	25857
F	258m NE	Garage	1971	25857
K	273m SE	Garage	1952	26338
K	274m SE	Garage	1955	26338
F	310m NE	Garage	1948	24212
F	311m NE	Garage	1971	22467
F	324m NE	Garage	1971	23089
F	325m NE	Garage	1971	25009
F	325m NE	Garage	1948	25009
R	328m S	Garage	1948	24945
R	328m S	Garage	1953	24945
R	328m S	Garage	1955	24945
U	393m SW	Garage	1955	26377
U	393m SW	Garage	1987	27861
U	393m SW	Garage	1969	27861
U	393m SW	Garage	1948	27861
U	393m SW	Garage	1953	27861
U	393m SW	Garage	1962	27861
U	393m SW	Garage	1965	26377
U	393m SW	Garage	1965	26377
U	393m SW	Garage	1968	26377
U	393m SW	Garage	1990	26377
U	393m SW	Garage	1985	26377



ID	Location	Land Use	Date	Group ID
U	393m SW	Garage	1995	27861
U	393m SW	Garage	1998	27861
Z	430m NE	Garage	1990	23753
Z	431m NE	Garage	1971	20840
Z	443m NE	Garage	1971	21466

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



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- Site Outline
- Search buffers in metres (m)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m**0**

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m**0**

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m**0**

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m**0**

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m**11**

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

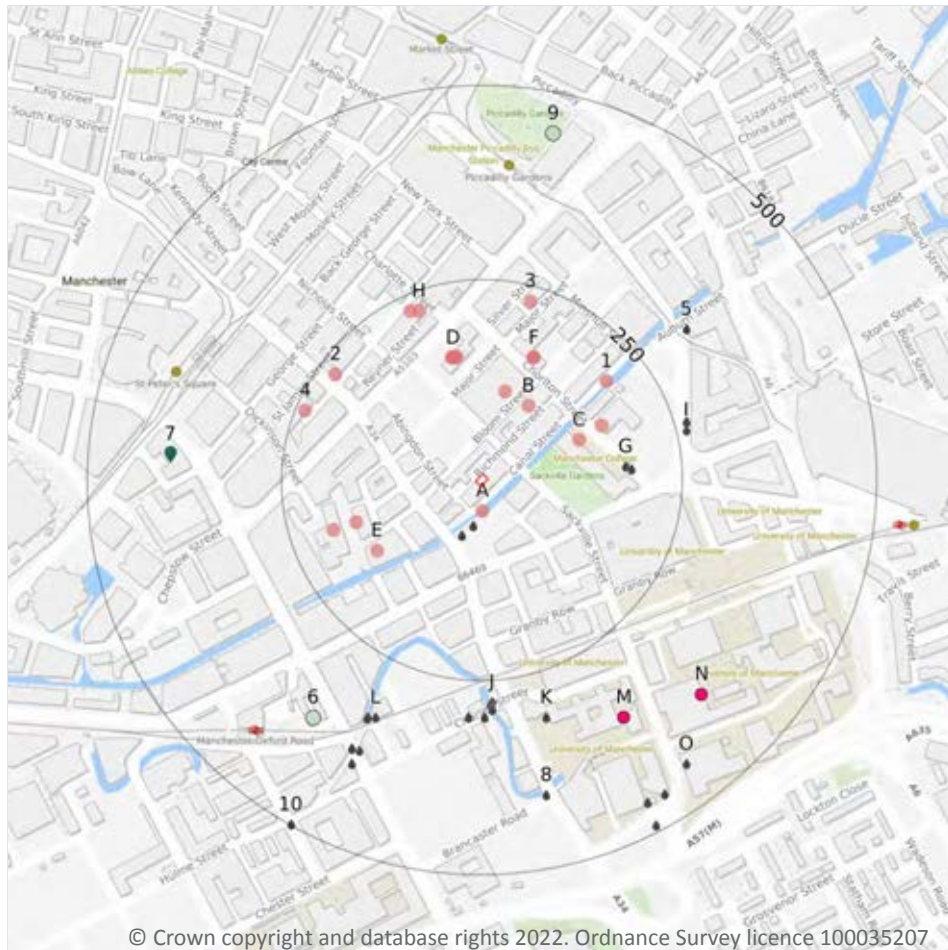
Features are displayed on the Waste and landfill map on **page 38**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	226m SW	LINEAR NETWORK: MAINLINE RAILWAY BETWEEN MANCHESTER AIRPORT AIRPORT AND BARROW-IN-FURNESS	EPR/BE5446FE /A001	Disposing of waste exemption	Non- Agricultural Waste Only	Deposit of waste from a railway sanitary convenience
A	228m SW	Bridgewater House 60 Whitworth Street MANCHESTER M1 6LT	EPR/NF0707M F/A001	Disposing of waste exemption	Non- Agricultural Waste Only	Deposit of waste from a railway sanitary convenience
B	352m W	New Build Construction Works by Russells, 3 St Peter Square, Manchester, M2 3DF	WEX118443	Treating waste exemption	Not on a farm	Screening and blending of waste
B	352m W	New Build Construction Works by Russells, 3 St Peter Square, Manchester, M2 3DF	WEX118443	Using waste exemption	Not on a farm	Use of waste in construction
1	369m E	Michael Smith Building, Dover Street, Manchester, M13 9PL	WEX086269	Treating waste exemption	Not on a farm	Treatment of kitchen waste in a wormery
2	420m S	-	WEX264013	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
C	497m S	Circle Square Plot 14 - (Russells Construction Site), Brancaster Road, Manchester, M1 7ED	WEX144388	Treating waste exemption	Not on a farm	Screening and blending of waste
C	497m S	Circle Square Plot 14 - (Russells Construction Site), Brancaster Road, Manchester, M1 7ED	WEX144388	Using waste exemption	Not on a farm	Use of waste in construction
3	497m S	John Dalton Building Chester Street MANCHESTER M1 5GD	EPR/VF0005U T/A001	Disposing of waste exemption	Non- Agricultural Waste Only	Depositing samples of waste for the purposes of testing or analysing them
D	500m NW	11 York Street, York Street, Manchester, M2 2BE	WEX111733	Treating waste exemption	Not on a farm	Screening and blending of waste
D	500m NW	11 York Street, York Street, Manchester, M2 2BE	WEX111733	Using waste exemption	Not on a farm	Use of waste in construction

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- Licensed pollutant release (Part A(2)/B)
- Radioactive Substance Authorisations
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

21

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 41**

ID	Location	Company	Address	Activity	Category
A	31m S	Landing Stage	Greater Manchester, M1	Moorings and Unloading Facilities	Water
B	105m NE	Sports Fashion Distribution UK Ltd	Richmond House 15, Bloom Street, Manchester, Greater Manchester, M1 3HZ	Distribution and Haulage	Transport, Storage and Delivery



ID	Location	Company	Address	Activity	Category
B	110m N	Coach Station	Greater Manchester, M1	Bus and Coach Stations, Depots and Companies	Public Transport, Stations and Infrastructure
C	127m NE	Electricity Sub Station	Greater Manchester, M1	Electrical Features	Infrastructure and Facilities
D	154m N	Leaflet Distribution Manchester	Portland Tower, Portland Street, Manchester, Greater Manchester, M1 3HU	Distribution and Haulage	Transport, Storage and Delivery
D	154m N	Cundall	Manchester, Greater Manchester, M1	Civil Engineers	Engineering Services
D	154m N	Scrap a Car Manchester	53, Portland Street, Manchester, Greater Manchester, M1 3LD	Scrap Metal Merchants	Recycling Services
D	154m N	Rina	53, Portland Street, Manchester, Greater Manchester, M1 3LD	Civil Engineers	Engineering Services
D	155m N	Medusa 19 Ltd	2nd Floor, Manchester, Greater Manchester, M1 1EZ	Colours, Chemicals and Water Softeners and Supplies	Industrial Products
E	155m SW	Electricity Sub Station	Greater Manchester, M1	Electrical Features	Infrastructure and Facilities
C	162m NE	United Global	Minshull House 47, Chorlton Street, Manchester, Greater Manchester, M1 3FY	Distribution and Haulage	Transport, Storage and Delivery
E	163m W	China House	Greater Manchester, M1	Sand, Gravel and Clay Extraction and Merchants	Extractive Industries
F	163m NE	Broome & Wellington	Boulton House 17-21, Chorlton Street, Manchester, Greater Manchester, M1 3HY	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
F	163m NE	Newsco Insider Ltd	Eighth Floor Boulton House 17-21, Chorlton Street, Manchester, Greater Manchester, M1 3HY	Published Goods	Industrial Products
E	194m W	Storebox	Linley House, Dickinson Street, Manchester, Greater Manchester, M1 4LF	Container and Storage	Transport, Storage and Delivery
1	198m NE	Landing Stage	Greater Manchester, M1	Moorings and Unloading Facilities	Water
H	225m N	Vina Karaoke Bar	34, Charlotte Street, Manchester, Greater Manchester, M1 4FD	Electronic Equipment	Industrial Products
2	227m NW	Scrap That Car	91, Princess Street, Manchester, Greater Manchester, M1 4HT	Scrap Metal Merchants	Recycling Services



ID	Location	Company	Address	Activity	Category
H	229m NW	Hong Kong Printing Co Ltd	41, Faulkner Street, Manchester, Greater Manchester, M1 4EE	Published Goods	Industrial Products
3	230m N	Print Chain	Barlow House 4, Minshull Street, Manchester, Greater Manchester, M1 3DZ	Published Goods	Industrial Products
4	238m W	Electricity Sub Station	Greater Manchester, M1	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0
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Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0
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High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0
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High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
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Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m**0**

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m**0**

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m**0**

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m**0**

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

1

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 41**

ID	Location	Address	Details	
7	395m W	The Laundry Shop, Unit 5, Peter House, Oxford Street, Manchester	Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

8

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

Features are displayed on the Current industrial land use map on **page 41**

ID	Location	Address	Details	
M	349m SE	Umist, Po Box 88, Sackville Street, Manchester, M60 1QD	Operator: Umist Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AC8878 Date of approval: 31/03/1991	Effective from: 31/03/1991 Last date of update: 01/01/2015 Status: Revoked/cancelled
M	349m SE	Umist, Po Box 88,sackville Street, Manchester, M60 1QD	Operator: Umist Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AC8886 Date of approval: 06/03/2001	Effective from: 06/03/2001 Last date of update: 01/01/2015 Status: Revoked/cancelled
M	349m SE	Umist, Po Box 88, Sackville Street, Manchester, M60 1QD	Operator: Umist Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG4009 Date of approval: 16/01/1995	Effective from: 16/02/1995 Last date of update: 01/01/2015 Status: Superseded By Variation
M	349m SE	Umist, Po Box 88, Sackville Street, Manchester, M60 1QD	Operator: Umist Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG4009 Date of approval: 30/01/1997	Effective from: 25/02/1997 Last date of update: 01/01/2015 Status: Superseded By Variation

ID	Location	Address	Details	
M	349m SE	Umist, Po Box 88, Sackville Street, Manchester, M60 1QD	Operator: Umist Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG4009 Date of approval: 13/11/1997	Effective from: 11/12/1997 Last date of update: 01/01/2015 Status: Superseded By Variation
M	349m SE	Umist, Po Box 88, Sackville Street, Manchester, M60 1QD	Operator: Umist Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG4009 Date of approval: 09/04/2002	Effective from: 06/05/2002 Last date of update: 01/01/2015 Status: Revoked/cancelled
N	390m SE	North Campus, Manchester, M1 3BU	Operator: The University of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BX8645 Date of approval: 02/09/2004	Effective from: 01/10/2004 Last date of update: 01/01/2020 Status: Issued
N	390m SE	North Campus, Manchester, M1 3BU	Operator: The University of Manchester Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: BX8661 Date of approval: 01/10/2004	Effective from: 01/10/2004 Last date of update: 01/01/2020 Status: Issued

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

46

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 41**

ID	Location	Address	Details	
A	52m S	GSHP SERVING ORIGIN DEVELOPMENT, 56 PRINCESS STREET, MANCHESTER, M1 6JA	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: NPSWQD004449 Permit Version: 1 Receiving Water: GROUNDWATER	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 05/03/2009 Effective Date: 01/04/2009 Revocation Date: 15/04/2009
A	52m S	GSHP SERVING ORIGIN DEVELOPMENT, 56 PRINCESS STREET, MANCHESTER, M1 6JA	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: NPSWQD004449 Permit Version: 2 Receiving Water: GROUNDWATER	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 16/04/2009 Effective Date: 16/04/2009 Revocation Date: 31/03/2013



ID	Location	Address	Details	
A	52m S	GSHP SERVING ORIGIN DEVELOPMENT, 56 PRINCESS STREET, MANCHESTER, M1 6JA	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: NPSWQD004449 Permit Version: 3 Receiving Water: GROUNDWATER	Status: SURRENDERED UNDER EPR 2010 Issue date: 28/10/2011 Effective Date: 01/04/2013 Revocation Date: 03/10/2014
A	67m S	GSHP SERVING ORIGIN DEVELOPMENT, 56 PRINCESS STREET, MANCHESTER, M1 6JA	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: NPSWQD004449 Permit Version: 1 Receiving Water: GROUNDWATER	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 05/03/2009 Effective Date: 01/04/2009 Revocation Date: 15/04/2009
A	67m S	GSHP SERVING ORIGIN DEVELOPMENT, 56 PRINCESS STREET, MANCHESTER, M1 6JA	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: NPSWQD004449 Permit Version: 2 Receiving Water: GROUNDWATER	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 16/04/2009 Effective Date: 16/04/2009 Revocation Date: 31/03/2013
A	67m S	GSHP SERVING ORIGIN DEVELOPMENT, 56 PRINCESS STREET, MANCHESTER, M1 6JA	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: NPSWQD004449 Permit Version: 3 Receiving Water: GROUNDWATER	Status: SURRENDERED UNDER EPR 2010 Issue date: 28/10/2011 Effective Date: 01/04/2013 Revocation Date: 03/10/2014
G	177m E	CHORLTON STREET CSO 281J2, CHORLTON STREET, MANCHESTER, GREATER MANCHESTER, M1 3HW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0162 Permit Version: 3 Receiving Water: DUKES TUNNEL	Status: VARIED UNDER EPR 2010 Issue date: 05/02/2016 Effective Date: 05/02/2016 Revocation Date: 10/04/2018
G	177m E	CHORLTON STREET CSO 281J2, CHORLTON STREET, MANCHESTER, GREATER MANCHESTER, M1 3HW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0162 Permit Version: 4 Receiving Water: SHOOTERS BROOK TRIB RVR MEDLOC	Status: VARIED UNDER EPR 2010 Issue date: 11/04/2018 Effective Date: 11/04/2018 Revocation Date: -
G	185m E	CHORLTON STREET CSO 281J2, CHORLTON STREET, MANCHESTER, GREATER MANCHESTER, M1 3HW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0162 Permit Version: 1 Receiving Water: DUKES TUNNEL	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010



ID	Location	Address	Details	
G	185m E	CHORLTON STREET CSO 281J2, CHORLTON STREET, MANCHESTER, GREATER MANCHESTER, M1 3HW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0162 Permit Version: 2 Receiving Water: DUKES TUNNEL	Status: VARIED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 04/02/2016
I	262m E	MINSHULL ST/WHITWORTH ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0355 Permit Version: 1 Receiving Water: -	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 01/01/1995 Revocation Date: 18/07/2014
I	265m E	AYTOUN ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982630 Permit Version: 1 Receiving Water: SHOOTERS BROOK	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 30/09/1994 Revocation Date: 30/10/2018
I	265m E	AYTOUN ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0318 Permit Version: 1 Receiving Water: SHOOTERS BROOK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 01/01/1995
J	277m S	PRINCESS ST/GRANBY ROW CS, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982956 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: CONSENT REVOKED - DISCHARGE CEASED (WRA 91, SCHED 10 & 6) Issue date: - Effective Date: 23/06/1995 Revocation Date: 31/03/1998
J	277m S	PRINCESS ST/WHITWORTH ST CSO 282MN, 67 WHITWORTH ST, MANCHESTER, GREATER MANCHESTER, M1 6LQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982950 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 23/06/1995 Revocation Date: 19/10/2020
J	281m S	PRINCESS ST/WHITWORTH ST CSO 282MN, 67 WHITWORTH ST, MANCHESTER, GREATER MANCHESTER, M1 6LQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982950 Permit Version: 2 Receiving Water: RIVER MEDLOCK VIA SWS	Status: VARIED UNDER EPR 2010 Issue date: 20/10/2020 Effective Date: 20/10/2020 Revocation Date: -



ID	Location	Address	Details	
J	284m S	CHARLES ST PRINCESS ST CSO 28116, 106 PRINCESS STREET, MANCHESTER, M1 6NG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0166 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 21/03/2018 Effective Date: 01/04/2018 Revocation Date: -
J	287m S	CHARLES ST PRINCESS ST CSO 28116, 106 PRINCESS STREET, MANCHESTER, M1 6NG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0166 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010
J	287m S	CHARLES ST PRINCESS ST CSO 28116, 106 PRINCESS STREET, MANCHESTER, M1 6NG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0166 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 31/03/2018
J	287m S	WHITWORTH ST/SACKVILLE ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0253 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/01/1995 Revocation Date: 01/01/2017
J	297m S	CHARLES STREET CSO, 7 CHARLES STREET, MANCHESTER, M1 7EN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0183 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010
J	297m S	CHARLES STREET CSO, 7 CHARLES STREET, MANCHESTER, M1 7EN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0183 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 31/03/2018
J	297m S	CHARLES STREET CSO, 7 CHARLES STREET, MANCHESTER, M1 7EN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0183 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 19/03/2018 Effective Date: 01/04/2018 Revocation Date: -



ID	Location	Address	Details	
J	297m S	112-116 PRINCESS STREET, MANCHESTER, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991403 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 24/04/1989 Revocation Date: 31/03/1992
J	297m S	112-116 PRINCESS STREET, MANCHESTER, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991403 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1992 Revocation Date: 10/02/1993
J	297m S	112-116 PRINCESS STREET, MANCHESTER, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991403 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 11/02/1993 Revocation Date: 01/11/1994
K	309m S	112-116 PRINCESS STREET, MANCHESTER, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991403 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 24/04/1989 Revocation Date: 31/03/1992
K	309m S	112-116 PRINCESS STREET, MANCHESTER, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991403 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1992 Revocation Date: 10/02/1993
5	319m NE	AYTOUN ST/AUBURN ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0370 Permit Version: 1 Receiving Water: -	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 01/01/1995 Revocation Date: 27/03/2015
L	326m SW	YORK ST/CHARLES ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0281 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 09/08/2019
L	331m SW	MALLARD STREET/CHARLES STREET CSO, MALLARD STREET, MANCHESTER, GREATER MANCHESTER, M1 6EY	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982736 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 30/09/1994 Revocation Date: 09/07/2020



ID	Location	Address	Details	
L	331m SW	MEDLOCK ST(OFF CHARLES ST), MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0343 Permit Version: 1 Receiving Water: -	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 01/01/1995
L	332m SW	MALLARD STREET/CHARLES STREET CSO, MALLARD STREET, MANCHESTER, GREATER MANCHESTER, M1 6EY	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982736 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 10/07/2020 Effective Date: 10/07/2020 Revocation Date: -
L	374m SW	OXFORD ROAD/GROSVENOR STREET CSO, 137 OXFORD ROAD, MANCHESTER, GREATER MANCHESTER, M1 7DZ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0189 Permit Version: 4 Receiving Water: RIVER MEDLOCK VIA SWS	Status: VARIED UNDER EPR 2010 Issue date: 29/03/2021 Effective Date: 29/03/2021 Revocation Date: -
L	375m SW	OXFORD ROAD/GROSVENOR STREET CSO, 137 OXFORD ROAD, MANCHESTER, GREATER MANCHESTER, M1 7DZ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0189 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010
L	375m SW	OXFORD ROAD/GROSVENOR STREET CSO, 137 OXFORD ROAD, MANCHESTER, GREATER MANCHESTER, M1 7DZ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0189 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 04/02/2016
L	375m SW	OXFORD ROAD/GROSVENOR STREET CSO, 137 OXFORD ROAD, MANCHESTER, GREATER MANCHESTER, M1 7DZ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0189 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 05/02/2016 Effective Date: 05/02/2016 Revocation Date: 28/03/2021
L	375m SW	OXFORD/NEW WAKEFIELD ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0165 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/01/1995 Revocation Date: 31/03/1998

ID	Location	Address	Details	
L	393m SW	OXFORD RD, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0342 Permit Version: 1 Receiving Water: -	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 19/12/1999
8	406m S	BBC VEHICLE MAINTENANCE BASE SWO, PRITCHARD STREET, MANCHESTER, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991346 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 22/09/1994 Revocation Date: 22/09/1994
O	444m SE	MOUNT ST/RUTLAND ST, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0287 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: -
O	460m SE	MOUNT STREET/GREEK STREET CSO, MANCUNIAN WAY, (OPP TO GEORGE BEGG BUILDING), MANCHESTER, GREATER MANCHESTER, M1 7DN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0187 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010
O	460m SE	MOUNT STREET/GREEK STREET CSO, MANCUNIAN WAY, (OPP TO GEORGE BEGG BUILDING), MANCHESTER, GREATER MANCHESTER, M1 7DN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0187 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 04/02/2016
O	461m SE	MOUNT STREET/GREEK STREET CSO, MANCUNIAN WAY, (OPP TO GEORGE BEGG BUILDING), MANCHESTER, GREATER MANCHESTER, M1 7DN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0187 Permit Version: 4 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 10/07/2020 Effective Date: 10/07/2020 Revocation Date: -
O	491m SE	MOUNT STREET/GREEK STREET CSO, MANCUNIAN WAY, (OPP TO GEORGE BEGG BUILDING), MANCHESTER, GREATER MANCHESTER, M1 7DN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0187 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 05/02/2016 Effective Date: 05/02/2016 Revocation Date: 09/07/2020



ID	Location	Address	Details	
10	499m SW	CHESTER STREET CSO, JUNCTION OF CHESTER STREET/, LOWER OSMOND STREET, MANCHESTER, M1 5QF	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016983278 Permit Version: 2 Receiving Water: THE RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 09/07/2018 Effective Date: 09/07/2018 Revocation Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0
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Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	0
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Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m	0
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Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m	0
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Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

2

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 41**

ID	Location	Details	
6	367m SW	Incident Date: 12/07/2001 Incident Identification: 15886 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
9	447m N	Incident Date: 12/02/2002 Incident Identification: 57989 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



4.21 Pollution inventory radioactive waste

Records within 500m

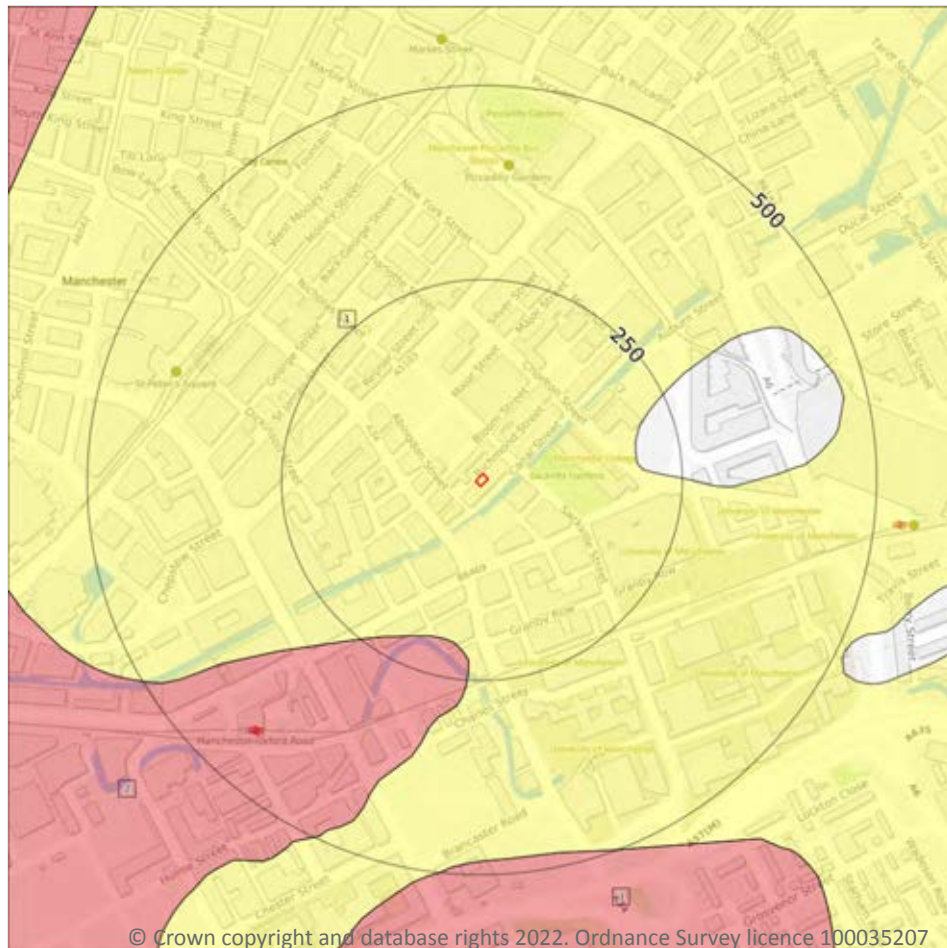
0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

3

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 56**

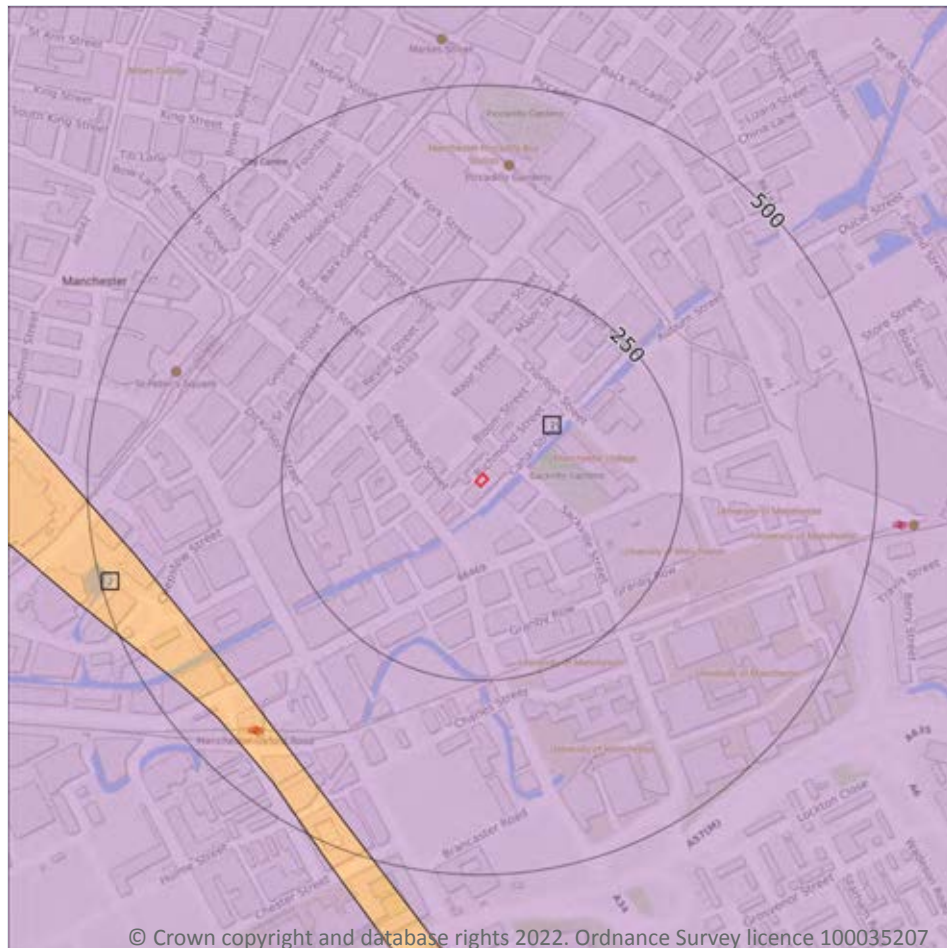
ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	202m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	480m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

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5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 58**

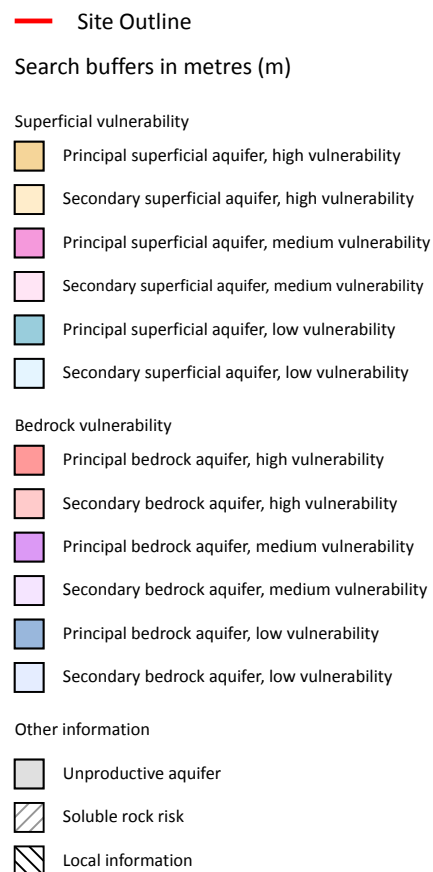
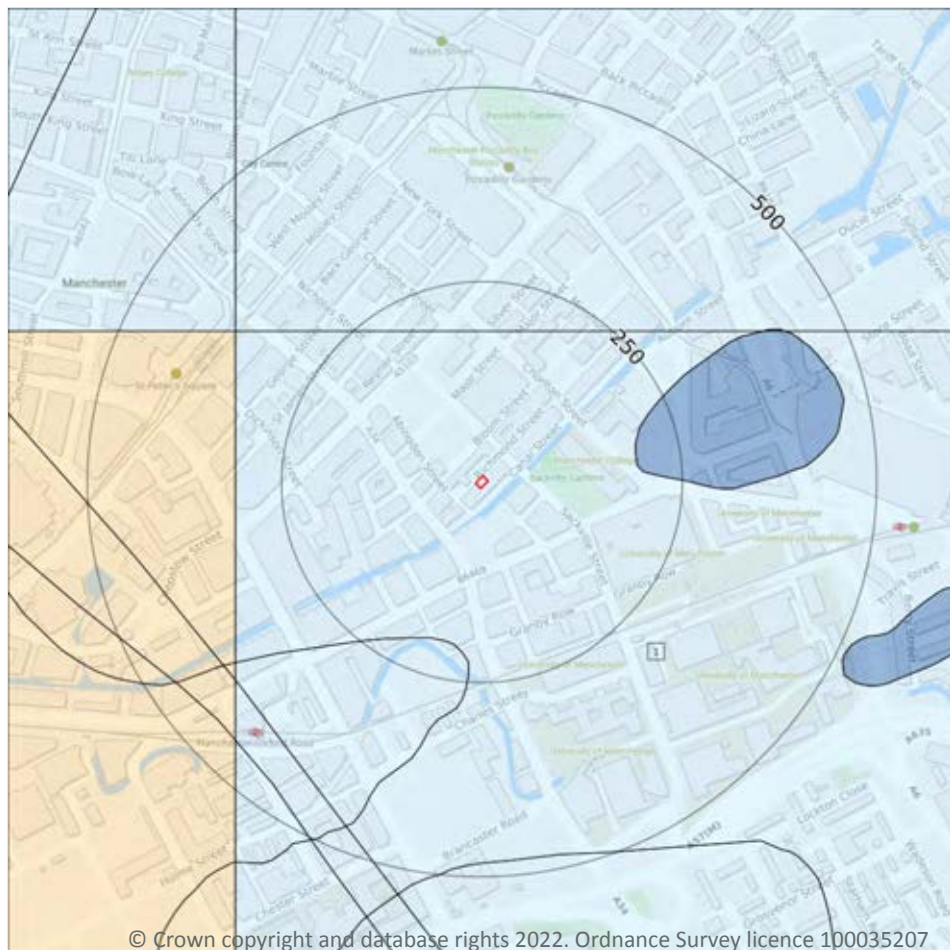
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	400m SW	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers



This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 60**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0
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This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

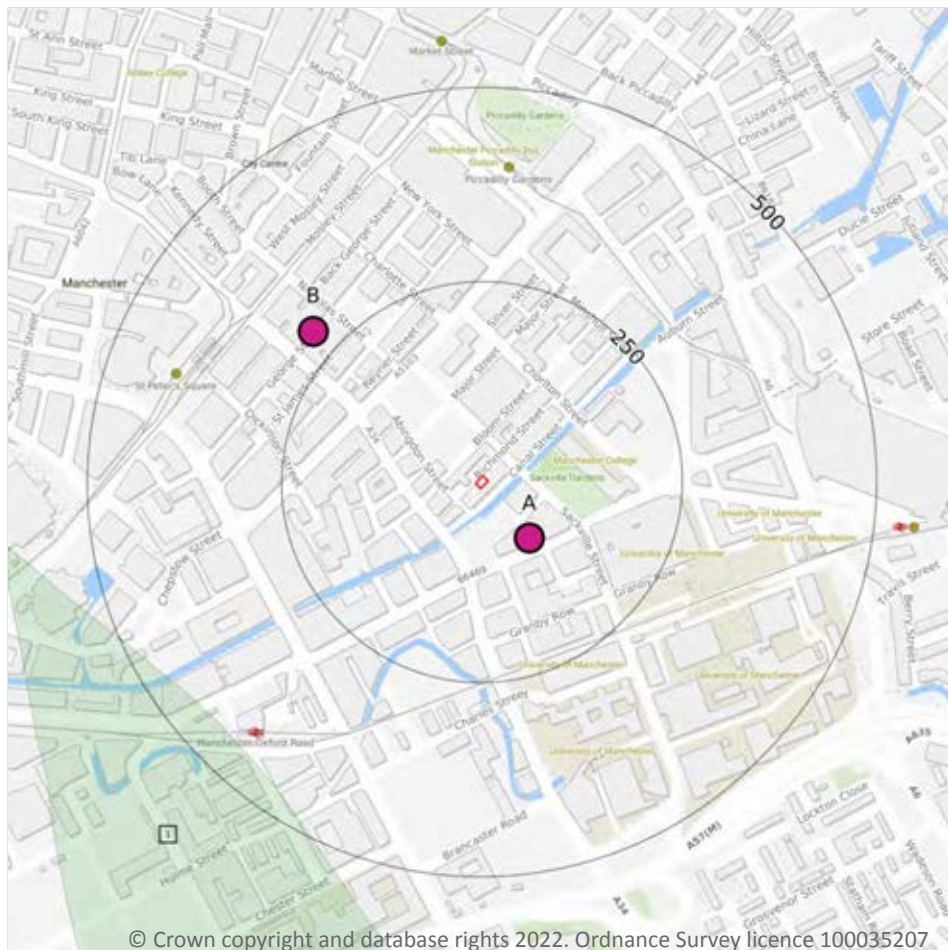
5.5 Groundwater vulnerability- local information

Records on site	0
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This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

57

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 62**

ID	Location	Details	
A	89m SE	Status: Historical Licence No: NW0690006001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m ³): 139128 Max Daily Volume (m ³): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -
A	89m SE	Status: Historical Licence No: NW/069/0006/001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m ³): 139128 Max Daily Volume (m ³): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -
B	286m NW	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT GEORGE ST, MANCHESTER" Data Type: Point Name: BRITISH TELECOM Easting: 384100 Northing: 398000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -
B	286m NW	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT GEORGE ST, MANCHESTER Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 384100 Northing: 398000	Annual Volume (m ³): 1100 Max Daily Volume (m ³): 860 Original Application No: - Original Start Date: 01/04/1984 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -



ID	Location	Details	
-	719m S	Status: Active Licence No: NW/069/0006/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m ³): 283,240 Max Daily Volume (m ³): 1,532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
-	719m S	Status: Active Licence No: NW/069/0006/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m ³): 283,240 Max Daily Volume (m ³): 1,532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
-	952m E	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER" Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	952m E	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m ³): 331858 Max Daily Volume (m ³): 909.2 Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -

ID	Location	Details	
-	1080m NW	Status: Historical Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DIAL HOUSE, CHAPEL ST, SALFORD" Data Type: Point Name: BRITISH TELECOM Easting: 383700 Northing: 398700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -
-	1080m NW	Status: Historical Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIAL HOUSE, CHAPEL ST, SALFORD Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 383700 Northing: 398700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/1984 Version End Date: -
-	1080m NW	Status: Active Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIAL HOUSE CHAPEL STREET SALFORD Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 383700 Northing: 398700	Annual Volume (m ³): 45 Max Daily Volume (m ³): 30 Original Application No: 2333 Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2007 Version End Date: -
-	1085m W	Status: Historical Licence No: 2569007089 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: 2 BOREHOLES AT GARTSIDE STREET MANCHESTER Data Type: Line Name: HER MAJESTY'S COURT SERVICE Easting: 383335 Northing: 398310	Annual Volume (m ³): 200000 Max Daily Volume (m ³): 1179 Original Application No: - Original Start Date: 26/01/2005 Expiry Date: 31/03/2011 Issue No: 2 Version Start Date: 10/07/2008 Version End Date: -

ID	Location	Details	
-	1189m W	Status: Historical Licence No: NW/069/0004/019 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Ground Water - North West Region Point: ST JOHNS MANCHESTER Data Type: Poly4 Name: Manchester Quays Development (MGY) Ltd Easting: 383094 Northing: 398099	Annual Volume (m ³): 543,120 Max Daily Volume (m ³): 1,488 Original Application No: - Original Start Date: 13/09/2019 Expiry Date: 31/12/2020 Issue No: 1 Version Start Date: 13/09/2019 Version End Date: -
-	1210m SW	Status: Active Licence No: NW/069/0004/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT MANCHESTER METROPOLITAN UNIVERSITY Data Type: Point Name: Manchester Metropolitan University Easting: 383715 Northing: 396746	Annual Volume (m ³): 274,115 Max Daily Volume (m ³): 751 Original Application No: NPS/WR/008077 Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	1210m SW	Status: Active Licence No: NW/069/0004/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE AT MANCHESTER METROPOLITAN UNIVERSITY Data Type: Point Name: Manchester Metropolitan University Easting: 383715 Northing: 396746	Annual Volume (m ³): 274,115 Max Daily Volume (m ³): 751 Original Application No: NPS/WR/008077 Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	1215m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW11 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383204 Northing: 397298	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -



ID	Location	Details	
-	1218m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW9 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383223 Northing: 397253	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1218m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW10 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383211 Northing: 397276	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1230m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW8 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383224 Northing: 397225	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1255m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW6 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383171 Northing: 397275	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -

ID	Location	Details	
-	1255m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW5 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383193 Northing: 397230	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1275m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW7 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383184 Northing: 397203	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1294m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW4 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383159 Northing: 397210	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1308m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW3 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383140 Northing: 397217	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -



ID	Location	Details	
-	1326m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW2 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383113 Northing: 397230	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1344m SW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW1 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383085 Northing: 397249	Annual Volume (m ³): 260,172 Max Daily Volume (m ³): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1463m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1463m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -



ID	Location	Details	
-	1463m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1463m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1463m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1463m N	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1488m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1488m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1488m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1488m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1488m N	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1488m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1510m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1510m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -



ID	Location	Details	
-	1510m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1510m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1510m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1510m N	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1740m SE	Status: Historical Licence No: NW/069/0004/005 Details: Heat Pump Direct Source: Ground Water - North West Region Point: AREA OF ABSTRACTION - LOWER CARBONIFEROUS LIMESTONE Data Type: Poly4 Name: G T Energy UK Limited Easting: 385729 Northing: 396778	Annual Volume (m ³): 2,049,840 Max Daily Volume (m ³): 8640 Original Application No: - Original Start Date: 17/01/2013 Expiry Date: 16/01/2037 Issue No: 2 Version Start Date: 11/06/2013 Version End Date: -
-	1898m N	Status: Historical Licence No: 2569004011 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3" Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1898m N	Status: Historical Licence No: 2569004011 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3" Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1898m N	Status: Active Licence No: 2569004011 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3 Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m ³): 45,460 Max Daily Volume (m ³): 181.84 Original Application No: 0423 Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -

ID	Location	Details	
-	1898m N	Status: Active Licence No: 2569004011 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DERBY BREWERY, CHEETHAM, MANCHESTER 3 Data Type: Point Name: JOSEPH HOLT LTD Easting: 384100 Northing: 399700	Annual Volume (m ³): 45,460 Max Daily Volume (m ³): 181.84 Original Application No: 0423 Original Start Date: 17/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1966 Version End Date: -
-	1941m S	Status: Active Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383865 Northing: 395909	Annual Volume (m ³): 227,000 Max Daily Volume (m ³): 900 Original Application No: NPS/WR/015793 Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -
-	1941m S	Status: Active Licence No: 2569007007 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383865 Northing: 395909	Annual Volume (m ³): 227,000 Max Daily Volume (m ³): 900 Original Application No: NPS/WR/015793 Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -
-	1942m S	Status: Historical Licence No: 2569007007 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER" Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/08/1995 Version End Date: -

ID	Location	Details	
-	1942m S	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER" Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/08/1995 Version End Date: -
-	1942m S	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/2003 Version End Date: -
-	1942m S	Status: Historical Licence No: 2569007007 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/2003 Version End Date: -
-	1942m S	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383900 Northing: 395900	Annual Volume (m ³): 227000 Max Daily Volume (m ³): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/11/2009 Version End Date: -

ID	Location	Details	
-	1942m S	Status: Historical Licence No: 2569007007 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383900 Northing: 395900	Annual Volume (m ³): 227000 Max Daily Volume (m ³): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/11/2009 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m

2

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 62**

ID	Location	Details	
-	1853m W	Status: Historical Licence No: 2569007053 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "R IRWELL AT IRWELL WORKS, ORDSALL LANE, SALFORD" Data Type: Point Name: CDS COMPUTER DESIGN SYSTEMS LTD Easting: 382500 Northing: 397400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/11/1987 Version End Date: -
-	1853m W	Status: Historical Licence No: 2569007053 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: R IRWELL AT IRWELL WORKS, ORDSALL LANE, SALFORD Data Type: Point Name: CDS COMPUTER DESIGN SYSTEMS LTD Easting: 382500 Northing: 397400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/11/1987 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m

9

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 62**

ID	Location	Details	
-	1463m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1463m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1463m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1488m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1488m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1488m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1510m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -

ID	Location	Details	
-	1510m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1510m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	1
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on **page 62**

ID	Location	Type	Description
1	452m SW	3	Total catchment

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

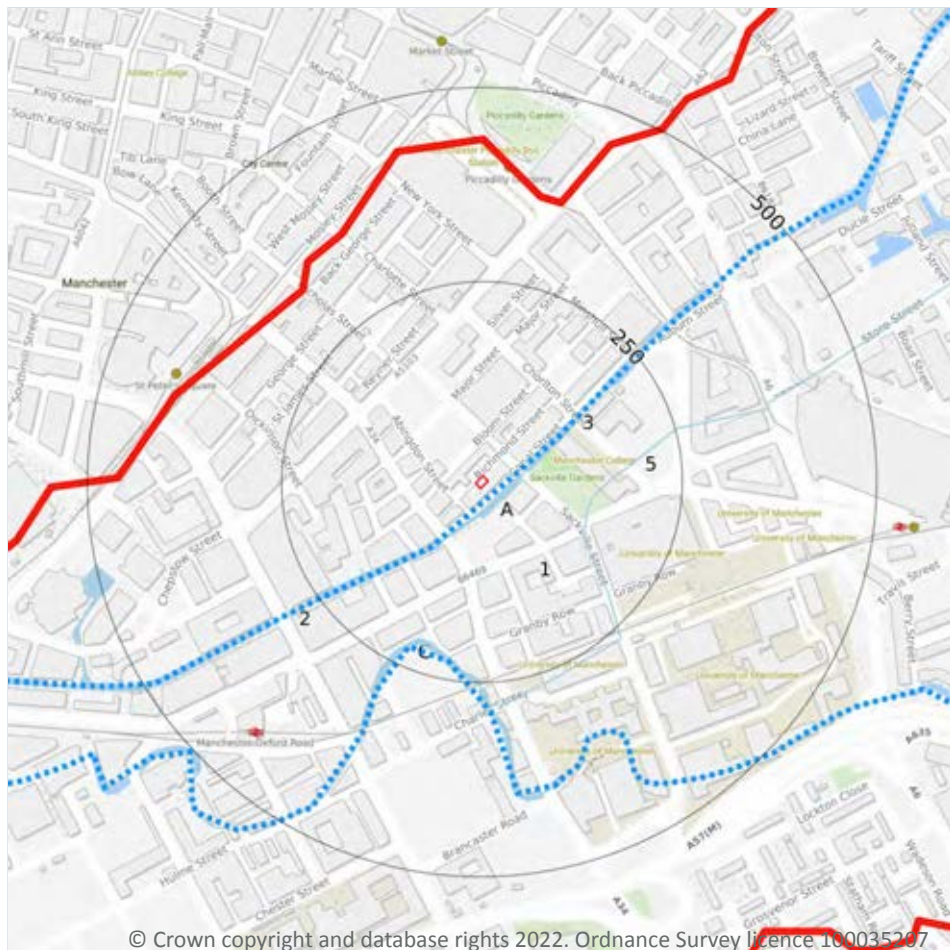
Records within 500m	0
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Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

5

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 81**

ID	Location	Type of water feature	Ground level	Permanence	Name
2	25m SE	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal



ID	Location	Type of water feature	Ground level	Permanence	Name
3	25m SE	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
A	25m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	132m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	212m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	6
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Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 81**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1
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The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 81**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Medlock (Lumb Brook to Irwell)	GB112069061152	Roch Irk Medlock	Irwell

This data is sourced from the Environment Agency and Natural Resources Wales.



6.4 WFD Surface water bodies

Records identified

2

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 81**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
B	15m SE	Canal	Rochdale Canal, western section	GB71210517	Moderate	Fail	Moderate	2019
7	223m S	River	Medlock (Lumb Brook to Irwell)	GB112069061152	Moderate	Fail	Moderate	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site

1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 81**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Manchester and East Cheshire Permo-Triassic Sandstone Aquifers	GB41201G101100	Poor	Poor	Poor	2019

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m**0**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m**0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

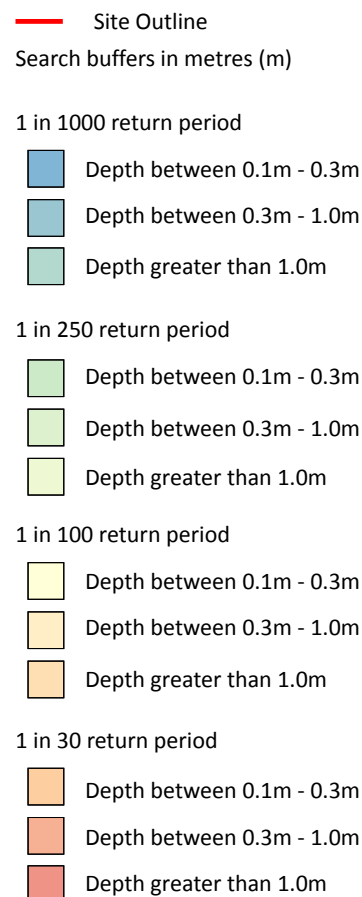
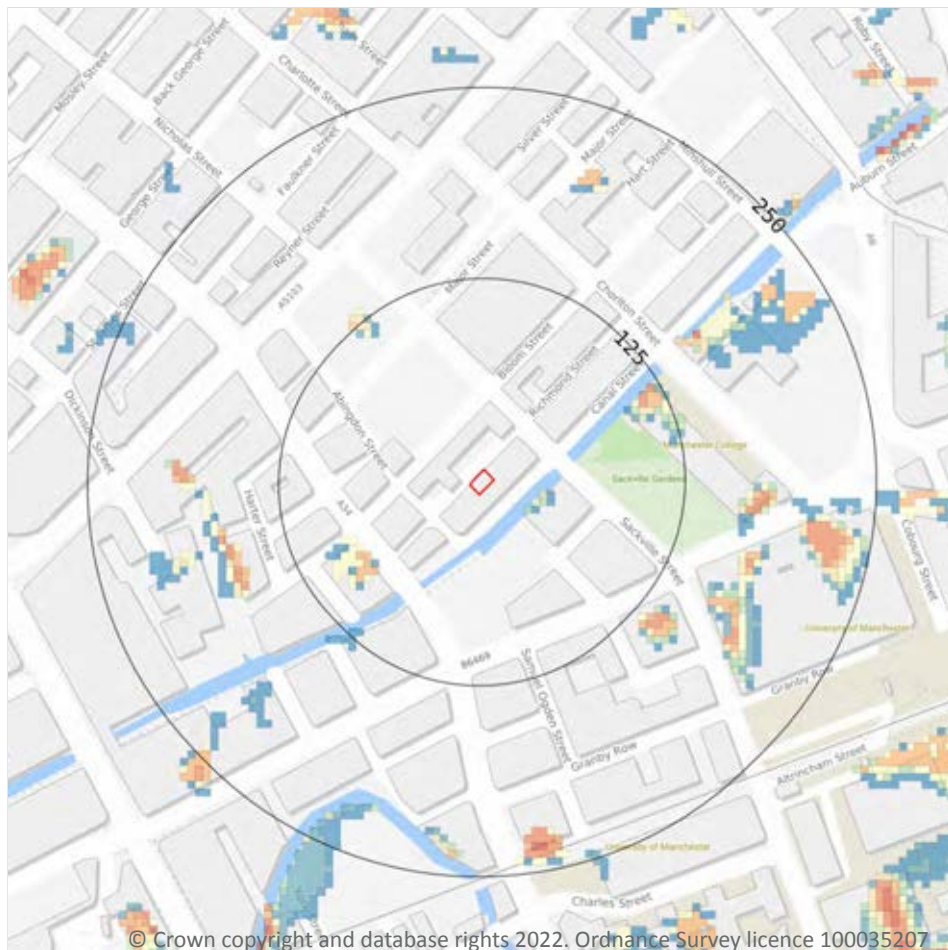
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

1 in 100 year, 0.3m - 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 87**

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

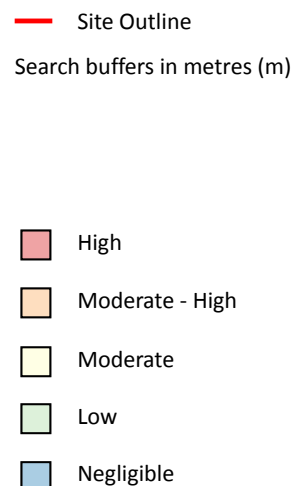
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

Moderate-High

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 89**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.5 National Nature Reserves (NNR)

Records within 2000m**0**

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m**0**

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m**0**

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m**0**

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m**0**

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m**0**

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m**0**

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m**0**

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m**0**

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

4

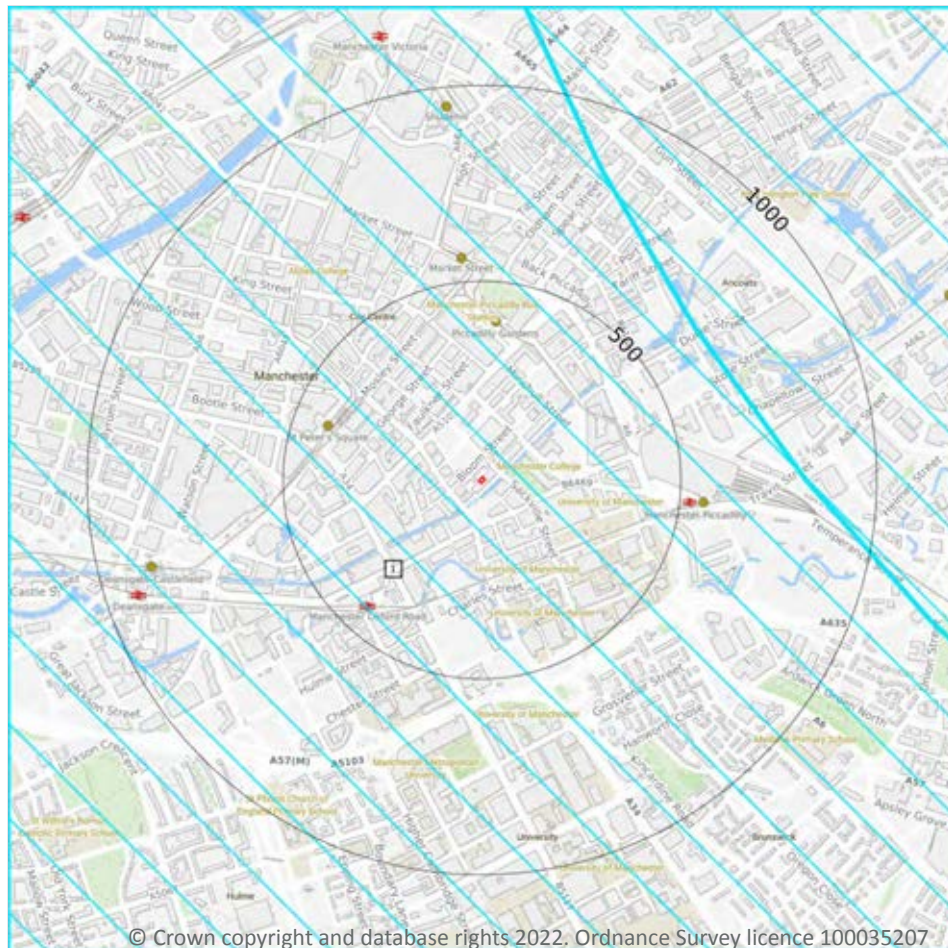
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
586m NE	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing
818m N	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing
1204m NW	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	643	Existing
1800m N	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	643	Existing

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 94**

ID	Location	Type of developments requiring consultation
1	On site	Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 4000m². Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

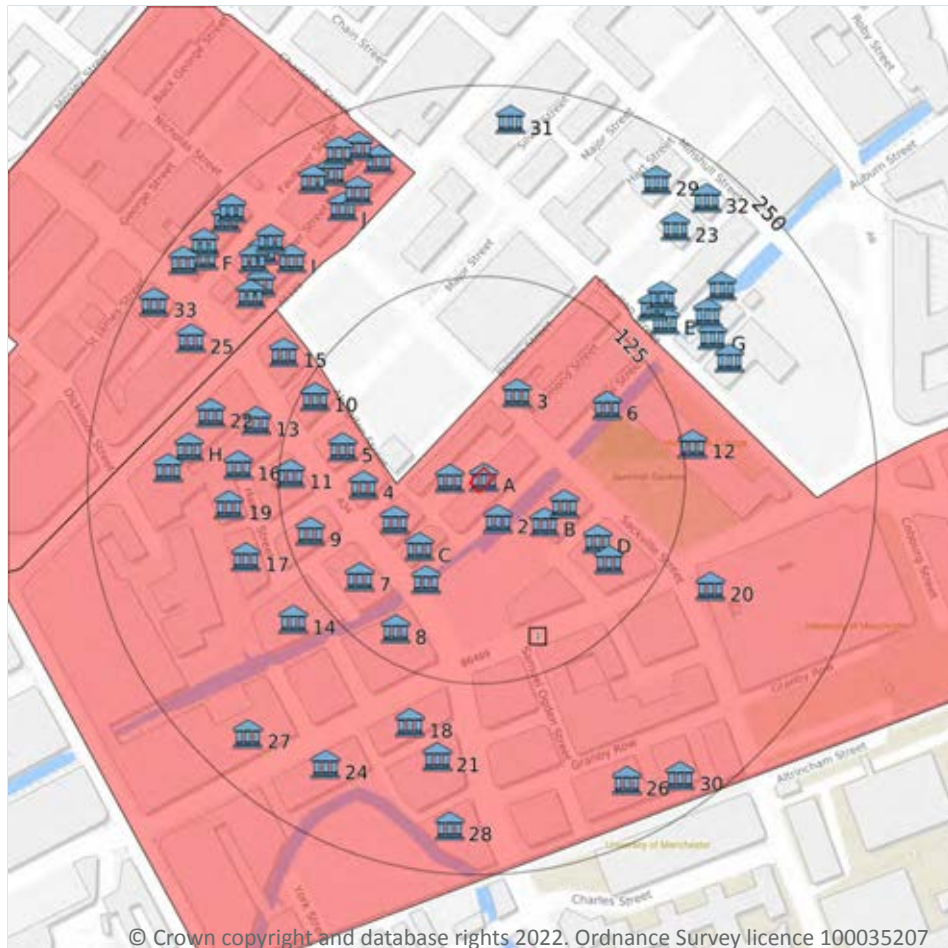
0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

68

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 96**

ID	Location	Name	Grade	Reference Number	Listed date
A	On site	51 and 53, Richmond Street, Piccadilly, Manchester, M1	II	1270835	06/06/1994
A	14m W	Former Warehouse, Piccadilly, Manchester, M1	II	1431770	19/01/2016
2	21m SE	Boundary Wall To Rochdale Canal Between Princess Street and Sackville Street Rochdale Canal Boundary Wall To Canal Street Between Princess Street and Sackville Street, Piccadilly, Manchester, M1	II	1247555	06/06/1994

ID	Location	Name	Grade	Reference Number	Listed date
B	43m SE	3, Brazil Street, Piccadilly, Manchester, M1	II	1283077	06/06/1994
B	49m E	42 and 44, Sackville Street, Piccadilly, Manchester, M1	II	1270791	03/10/1974
C	53m SW	New Union Public House, Piccadilly, Manchester, M1	II	1247444	03/10/1974
3	53m NE	27, Sackville Street, Piccadilly, Manchester, M1	II	1247607	06/06/1994
C	55m SW	109, Princess Street, Piccadilly, Manchester, M1	II	1270914	03/10/1974
C	67m SW	Rochdale Canal Lock Number 87, To East of Princess Street, With Cast Iron Footbridge Beside Street, Piccadilly, Manchester, M1	II	1247580	06/06/1994
4	70m W	Brazil House, Piccadilly, Manchester, M1	II	1270871	03/10/1974
D	79m SE	46, Sackville Street, Piccadilly, Manchester, M1	II	1247608	06/06/1994
5	87m W	103, Princess Street, Piccadilly, Manchester, M1	II*	1247391	11/05/1972
6	88m NE	Rochdale Canal Boundary Wall To Canal Between Sackville Street and Chorlton Street, Piccadilly, Manchester, M1	II	1270837	06/06/1994
D	92m SE	Regency House With Barclays Bank, Piccadilly, Manchester, M1	II	1254835	06/06/1994
7	95m SW	Lionesse House, Piccadilly, Manchester, M1	II	1247387	06/06/1994
8	104m SW	Central House, Piccadilly, Manchester, M1	II	1247389	03/10/1974
9	109m W	Rhodesia House, Piccadilly, Manchester, M1	II	1270911	06/06/1994
10	116m NW	101, Princess Street, Piccadilly, Manchester, M1	II	1270899	03/10/1974
11	118m W	Transact House, Piccadilly, Manchester, M1	II	1247386	06/06/1994
12	132m E	The Shena Simon Sixth-Form College, Piccadilly, Manchester, M1	II	1270607	06/06/1994
13	145m W	Eastern House Portland House, Piccadilly, Manchester, M1	II	1247058	06/06/1994
14	146m SW	Former Electricity Power Station, Piccadilly, Manchester, M1	II	1255031	06/06/1994
15	149m NW	Former Pickles Building, Piccadilly, Manchester, M1	II	1246955	03/10/1974
16	152m W	Langley Buildings, Piccadilly, Manchester, M1	II	1247385	06/06/1994
E	152m NE	39, Chorlton Street, Piccadilly, Manchester, M1	II	1283091	06/06/1994
E	153m NE	The Churchill Public House, Piccadilly, Manchester, M1	II	1197758	06/06/1994
17	154m W	104, Bloom Street (See Details For Further Address information), Piccadilly, Manchester, M1	II	1218476	06/06/1994
18	157m S	Lancaster House, Deansgate, Manchester, M1	II*	1254887	03/10/1974



ID	Location	Name	Grade	Reference Number	Listed date
19	158m W	2, Harter Street, Piccadilly, Manchester, M1	II	1200841	06/06/1994
20	158m SE	institute of Science and Technology (University of Manchester), Piccadilly, Manchester, M1	II	1247609	03/10/1974
E	162m NE	9, Richmond Street, Piccadilly, Manchester, M1	II	1247476	06/06/1994
G	171m NE	Mintierna House, Piccadilly, Manchester, M1	II	1197759	06/06/1994
G	173m NE	Minshull House, Piccadilly, Manchester, M1	II	1283092	08/05/1990
21	175m S	Asia House, Deansgate, Manchester, M1	II*	1247432	03/10/1974
22	176m W	Basil House, Piccadilly, Manchester, M1	II	1246956	06/06/1994
G	177m NE	Rochdale Canal Lock Number 86, To East of Chorlton Street, Piccadilly, Manchester, M1	II	1247481	06/06/1994
H	185m W	109 and 111, Portland Street, Piccadilly, Manchester, M1	II	1271095	06/06/1994
I	186m NW	70 and 72, Portland Street (See Details For Further Address information), Deansgate, Manchester, M1	II	1271071	06/06/1994
I	189m NW	Nos 74-78, and No 80 (The Grey Horse Public House) and Attached Railings, Portland Street, Deansgate, Manchester, M1	II	1246954	06/06/1994
I	189m NW	Circus Tavern and Attached Railings, Deansgate, Manchester, M1	II	1247057	06/06/1994
J	194m NW	52 and 54, Portland Street, Deansgate, Manchester, M1	II	1246953	06/06/1994
G	195m NE	Rochdale Canal Boundary Wall To Canal Between Chorlton Street and Minshull Street, Piccadilly, Manchester, M1	II	1247478	06/06/1994
H	198m W	113-119, Portland Street, Piccadilly, Manchester, M1	II	1246957	28/02/1989
J	200m NW	44-50, Portland Street, Deansgate, Manchester, M1	II	1247041	06/06/1994
23	201m NE	11, Bloom Street, Piccadilly, Manchester, M1	II	1208005	06/06/1994
I	203m NW	57, Faulkner Street, Deansgate, Manchester, M1	II	1218005	06/06/1994
I	203m NW	59 and 61, Faulkner Street, Deansgate, Manchester, M1	II	1282964	06/06/1994
24	204m SW	india House (including Attached Wrought Iron Gateway Linked To Lancaster House), Deansgate, Manchester, M1	II*	1254836	03/10/1974
I	205m NW	55, Faulkner Street (See Details For Further Address information), Deansgate, Manchester, M1	II	1217991	06/06/1994
25	206m NW	No. 36, Princess Street, No. 94, Portland Street, and No. 75, Faulkner Street, Deansgate, Manchester, M1	II	1247384	06/06/1994
26	211m SE	orient House, Piccadilly, Manchester, M1	II	1200838	20/06/1988



ID	Location	Name	Grade	Reference Number	Listed date
J	213m N	Fraser House, Deansgate, Manchester, M1	II	1283064	03/10/1974
J	218m NW	45 and 47, Faulkner Street, Deansgate, Manchester, M1	II	1200830	20/06/1988
27	218m SW	Bridgewater House, Piccadilly, Manchester, M1	II	1270606	06/06/1994
28	219m S	Manchester House, Deansgate, Manchester, M1	II	1270897	06/06/1994
29	219m NE	8, Minshull Street (See Details For Further Address information), Piccadilly, Manchester, M1	II	1219858	06/06/1994
J	219m NW	No. 49, Faulkner Street, Deansgate, Manchester, M1	II	1200831	06/06/1994
J	226m N	Lindencourt House, Deansgate, Manchester, M1	II	1208396	03/10/1974
30	227m SE	Granby House, Piccadilly, Manchester, M1	II	1218253	03/10/1974
J	228m NW	Nos. 41 and 43, Faulkner Street, Deansgate, Manchester, M1	II	1200829	03/10/1974
31	228m N	Britannia Hotel, Piccadilly, Manchester, M1	II*	1246952	25/02/1952
32	229m NE	Minshull House, Piccadilly, Manchester, M1	II	1197926	06/06/1994
F	229m NW	No. 56, Faulkner Street, Deansgate, Manchester, M1	II	1200832	06/06/1994
F	234m NW	52 and 54, Faulkner Street, Deansgate, Manchester, M1	II	1282963	06/06/1994
F	235m NW	46, 48 and 50, Faulkner Street, Deansgate, Manchester, M1	II	1282962	06/06/1994
F	236m NW	16, Nicholas Street, Deansgate, Manchester, M1	II	1271453	06/06/1994
F	237m NW	87-91, Princess Street, Deansgate, Manchester, M1	II	1247390	06/06/1994
33	238m NW	34, Princess Street, Deansgate, Manchester, M1	II	1247383	06/06/1994

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

2

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

Features are displayed on the Visual and cultural designations map on **page 96**



ID	Location	Name	District	Date of designation
1	On site	Whitworth Street and Princess Street	Manchester	01/09/1974
F	169m NW	George Street	Manchester	01/06/1985

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m	0
----------------------------	----------

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

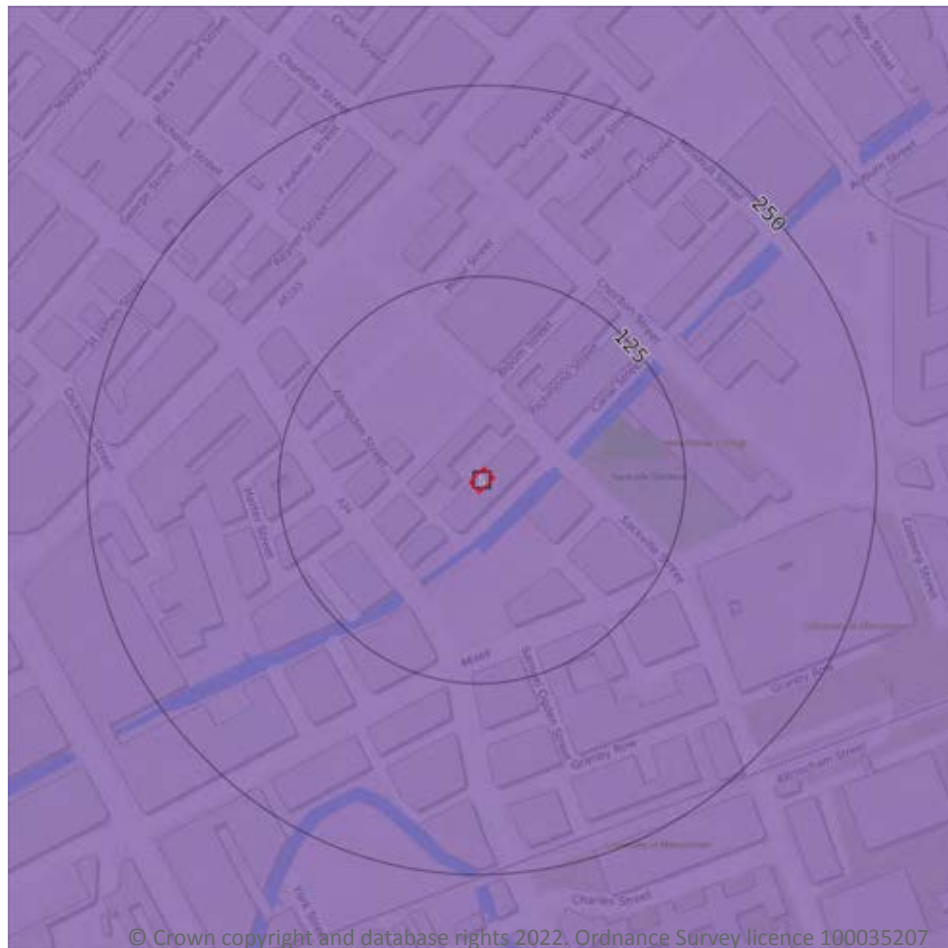
11.7 Registered Parks and Gardens

Records within 250m	0
----------------------------	----------

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 102**

ID	Location	Classification	Description
1	On site	Urban	-

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m**0**

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m**0**

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m**0**

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m**0**

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m**0**

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m**0**

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m**0**

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

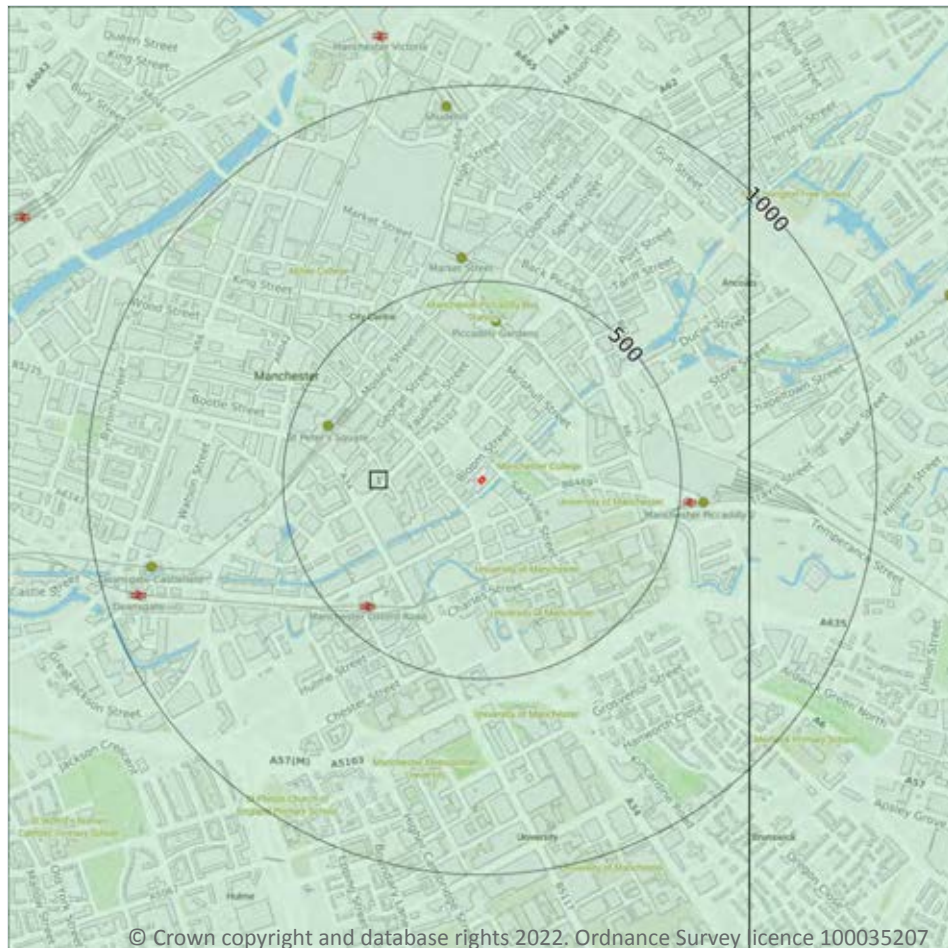
Records within 250m**0**

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

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14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

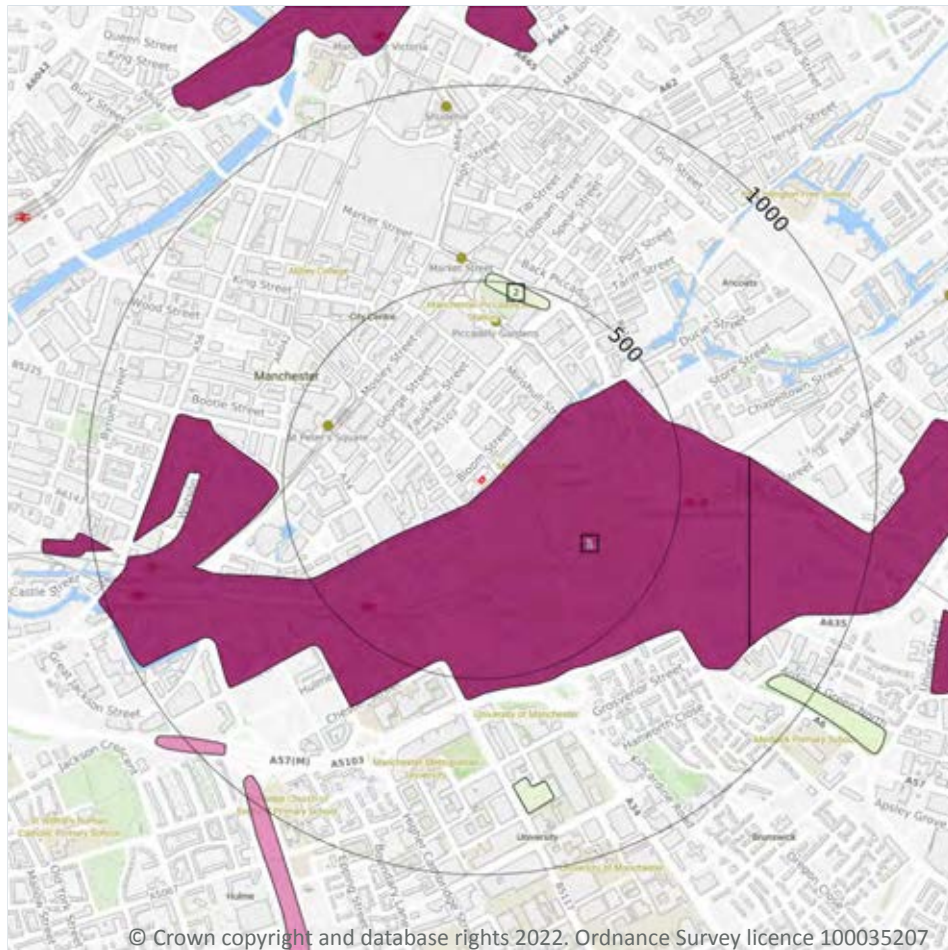
Features are displayed on the Geology 1:10,000 scale - Availability map on **page 105**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SJ89NW

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



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- Site Outline**
- Search buffers in metres (m)**
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

2

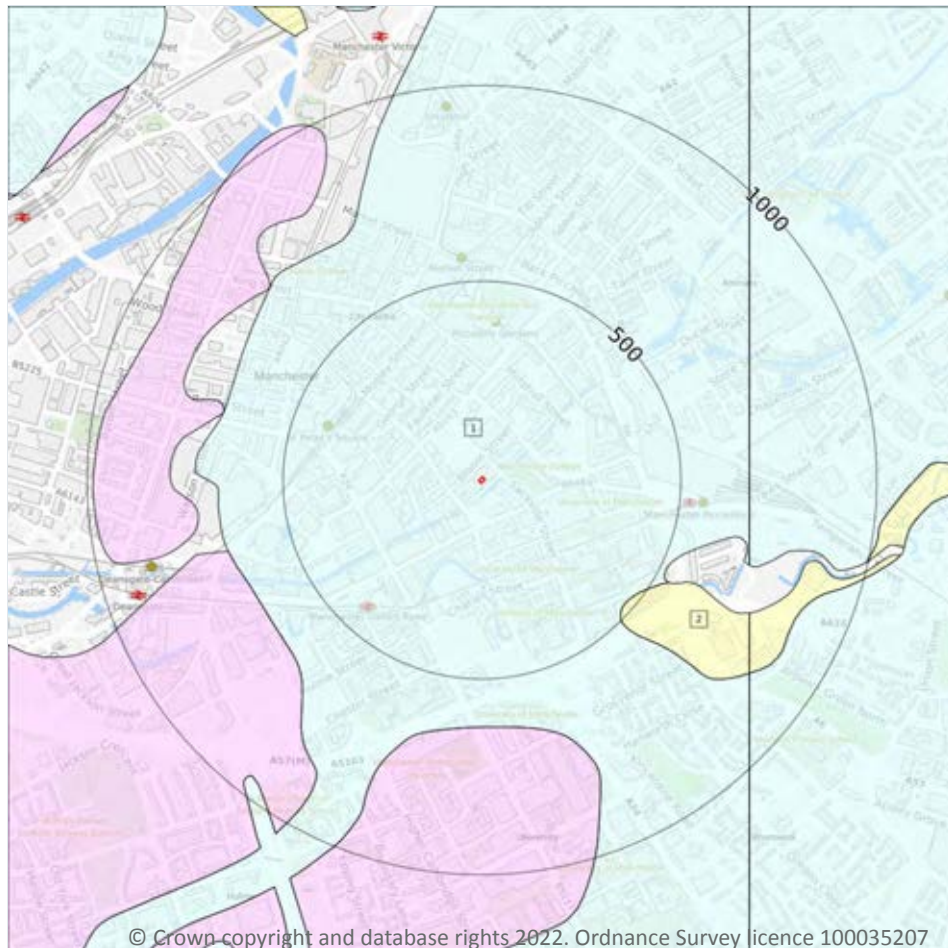
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 106**

ID	Location	LEX Code	Description	Rock description
1	17m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	454m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



— Site Outline
Search buffers in metres (m)

 Landslip (10k)
 Superficial geology (10k)
 Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

2

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 107**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
2	477m SE	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

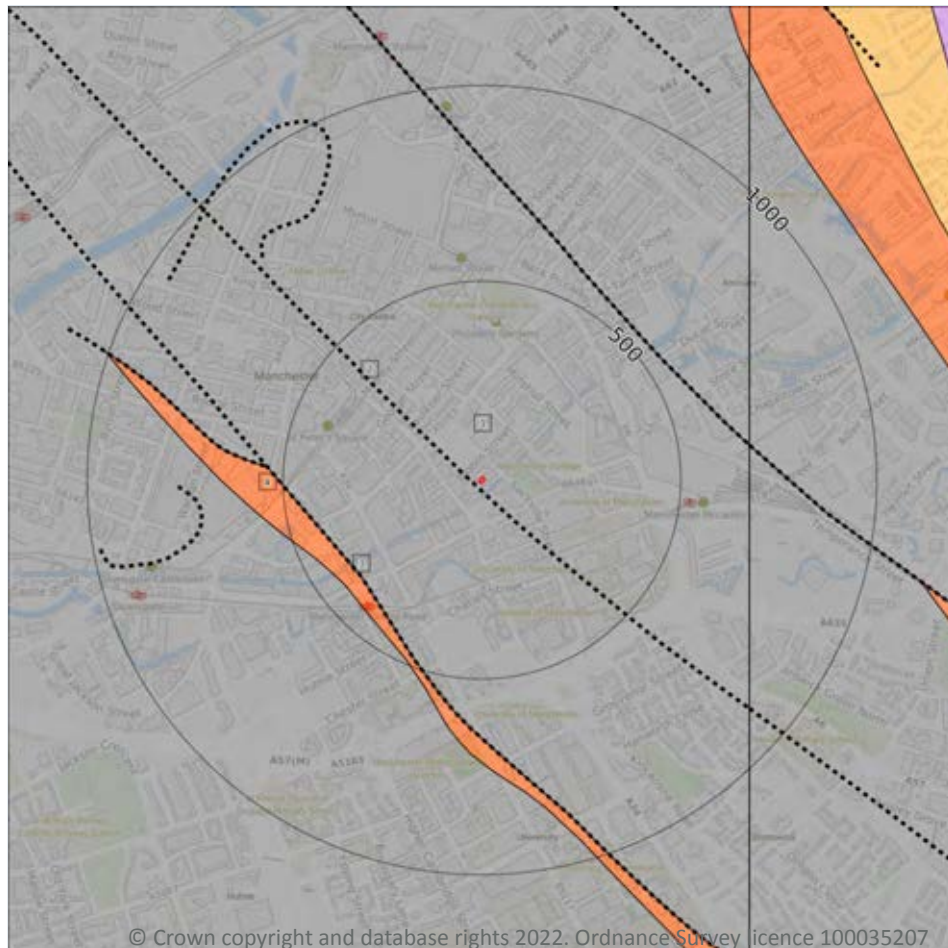
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

..... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

2

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 109**

ID	Location	LEX Code	Description	Rock age
1	On site	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch
4	387m SW	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

2

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

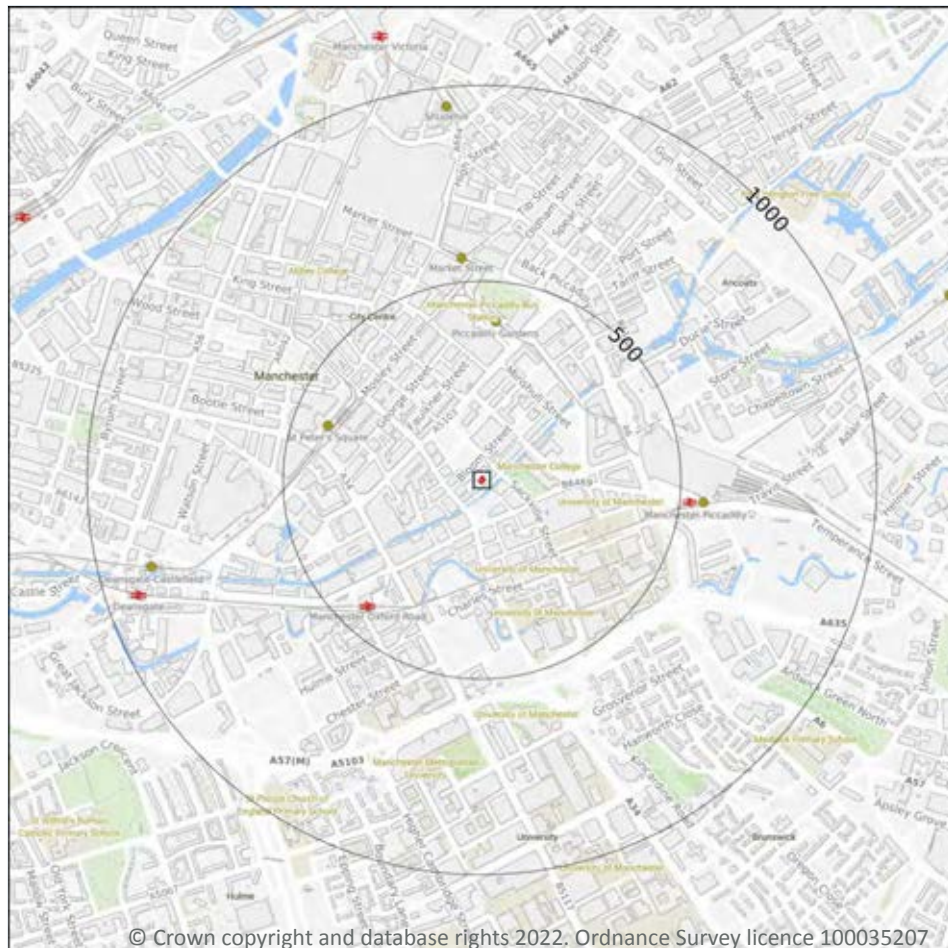
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 109**

ID	Location	Category	Description
2	14m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
3	387m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

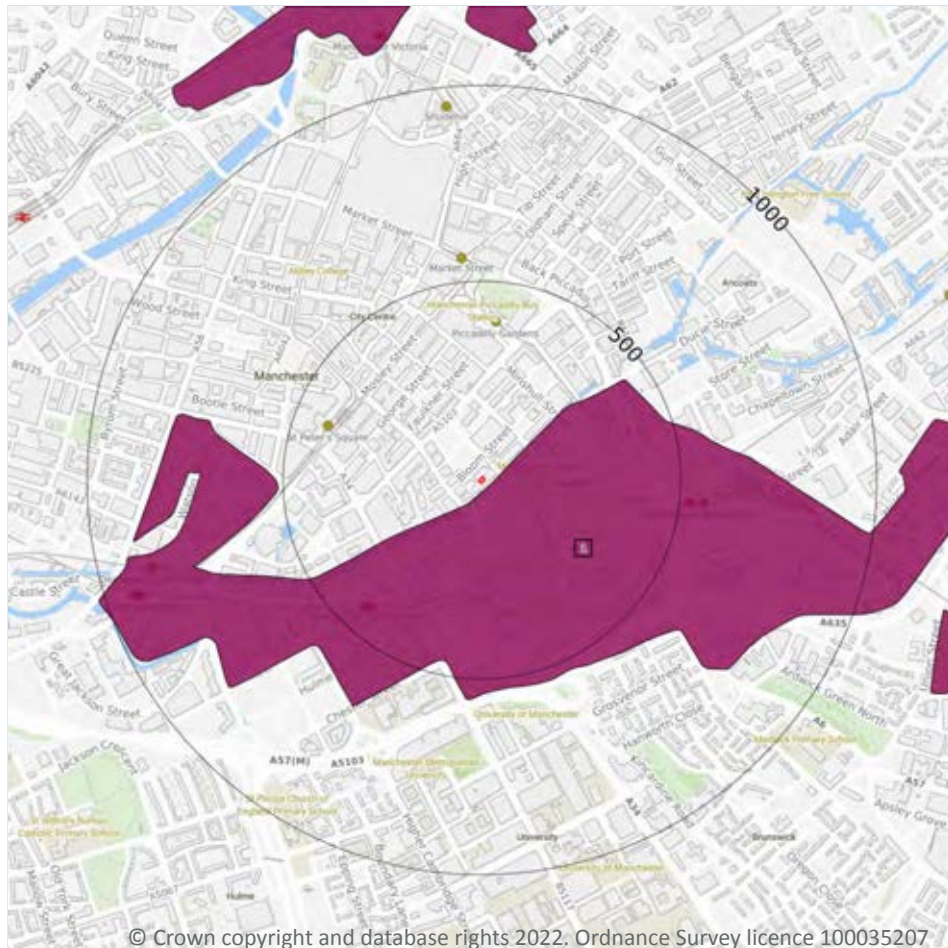
Features are displayed on the Geology 1:50,000 scale - Availability map on **page 111**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW085_manchester_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground



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- Site Outline
- Search buffers in metres (m)
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

1

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 112**

ID	Location	LEX Code	Description	Rock description
1	18m SE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

1

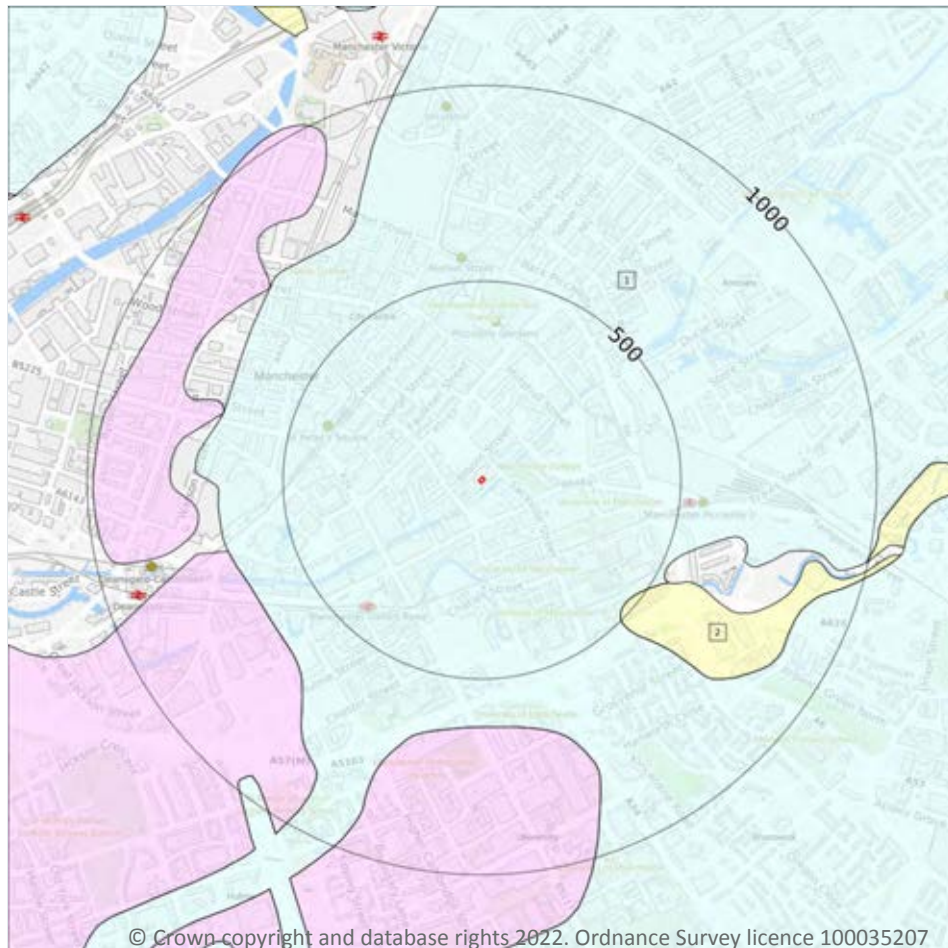
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
18m S	Mixed	Very High	Low

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

2

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 114**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	478m SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m**1**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m**0**

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

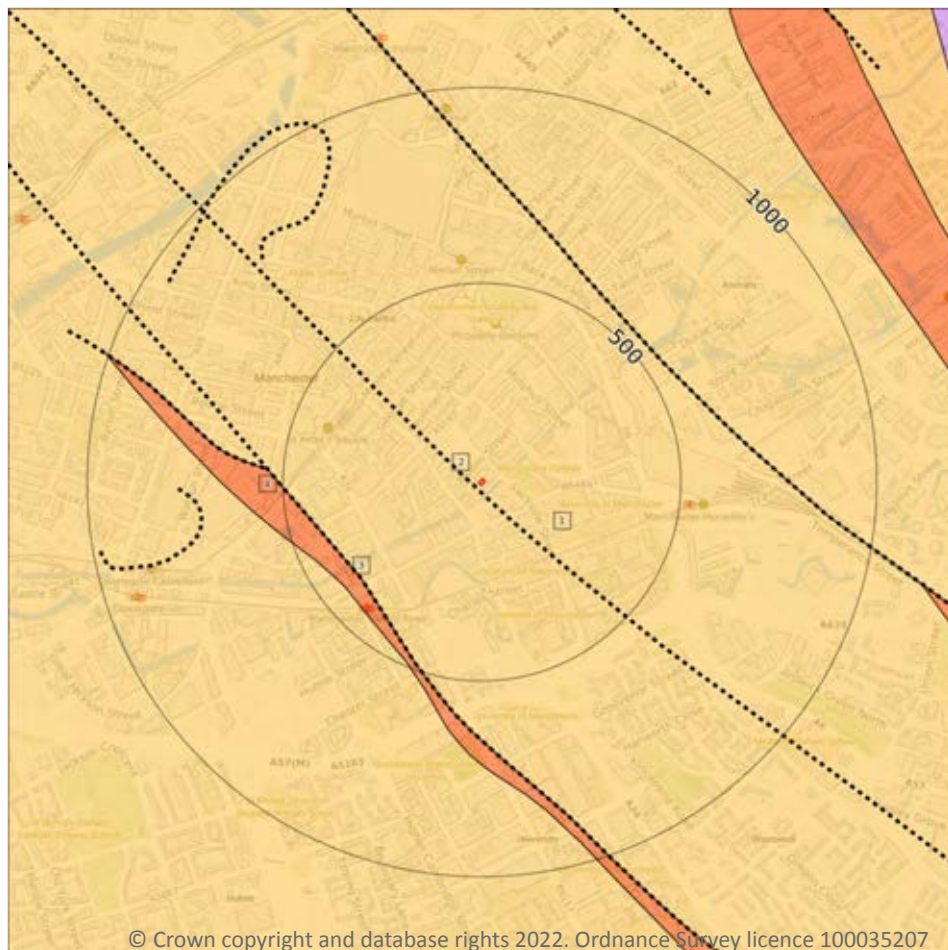
15.7 Landslip permeability (50k)

Records within 50m**0**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

2

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 116**

ID	Location	LEX Code	Description	Rock age
1	On site	CHES-SDST	CHESTER FORMATION - SANDSTONE	OLENEKIAN
4	387m SW	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-

This data is sourced from the British Geological Survey.



15.9 Bedrock permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

2

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

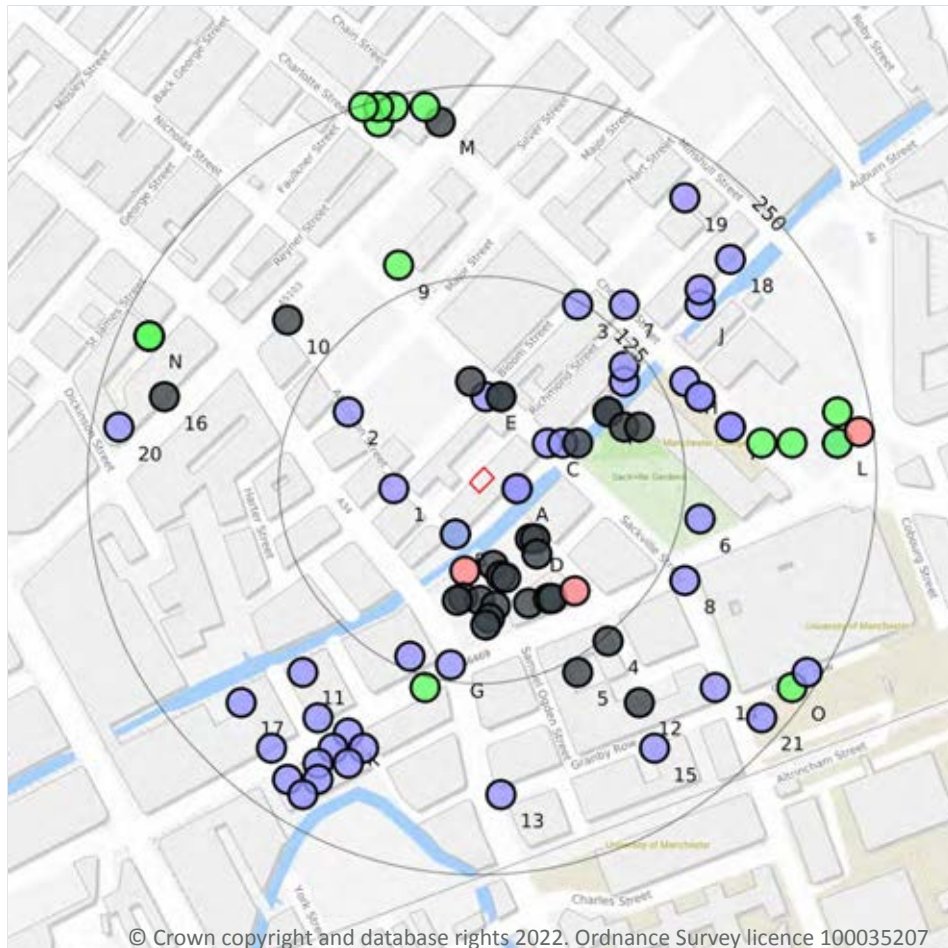
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 116**

ID	Location	Category	Description
2	13m SW	FAULT	Fault, inferred
3	387m SW	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m

101

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 118**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	16m SE	384340 397800	CANAL STREET SEWER RENEWAL SCHEME 2	5.8	N	1045634
A	16m SE	384340 397800	CANAL STREET SEWER RENEWAL SCHEME 1	5.8	N	1045633
B	32m SW	384300 397770	BLOOM STREET/ABINGDON STREET 7	10.5	N	1045709



ID	Location	Grid reference	Name	Length	Confidential	Web link
B	32m SW	384300 397770	NO DETAILS	-2.0	N	1042456
C	42m NE	384360 397830	CANAL STREET SEWER RENEWAL SCHEME 3	7.1	N	1045629
D	45m SE	384349 397767	PRINCESS STREET, MANCHESTER BH101	-	Y	N/A
E	46m N	384320 397860	BLOOM STREET/ABINGDON STREET 4	8.7	N	1045706
D	47m SE	384352 397767	PRINCESS STREET, MANCHESTER TP101	-	Y	N/A
E	48m N	384330 397860	SACKVILLE STREET / BLOOM STREET 2	-	Y	N/A
E	48m N	384330 397860	SACKVILLE STREET / BLOOM STREET 1	-	Y	N/A
B	48m S	384325 397750	PRINCESS STREET, MANCHESTER TP107	-	Y	N/A
1	50m W	384260 397800	BLOOM STREET/ABINGDON STREET 6	1.2	N	1045708
C	50m NE	384370 397830	CANAL STREET SEWER RENEWAL SCHEME 3	6.0	N	1045635
B	52m S	384306 397746	ORIGIN DEVELOPMENT, BH 1 (RECHARGE)	90.0	N	18108076
D	55m SE	384353 397757	PRINCESS STREET, MANCHESTER TP106	-	Y	N/A
B	56m S	384330 397743	PRINCESS STREET, MANCHESTER TP102	-	Y	N/A
E	57m N	384310 397870	SACKVILLE STREET / BLOOM STREET 3	-	Y	N/A
B	58m S	384333 397742	PRINCESS STREET, MANCHESTER BH102	-	Y	N/A
C	60m NE	384380 397830	SACKVILLE GARDENS 3	-	Y	N/A
B	69m S	384305 397729	PRINCESS STREET, MANCHESTER TP103	-	Y	N/A
B	70m S	384316 397727	PRINCESS STREET, MANCHESTER TP108	-	Y	N/A
B	72m S	384301 397727	PRINCESS STREET, MANCHESTER BH103	-	Y	N/A
B	75m S	384326 397723	PRINCESS STREET, MANCHESTER TP109	-	Y	N/A
B	79m SE	384348 397725	PRINCESS STREET, MANCHESTER TP110	-	Y	N/A
B	83m S	384322 397715	PRINCESS STREET, MANCHESTER TP104	-	Y	N/A
B	83m SE	384361 397728	PRINCESS STREET, MANCHESTER TP105	-	Y	N/A
B	84m SE	384363 397728	PRINCESS STREET, MANCHESTER BH105	-	Y	N/A
F	86m NE	384400 397850	SACKVILLE GARDENS T1	-	Y	N/A
F	86m NE	384400 397850	SACKVILLE GARDENS 2	-	Y	N/A
B	87m S	384320 397711	PRINCESS STREET, MANCHESTER BH104	-	Y	N/A
B	90m SE	384378 397733	ORIGIN DEVELOPMENT, BH 2 (ABH)	90.0	N	18108077



ID	Location	Grid reference	Name	Length	Confidential	Web link
F	91m E	384410 397840	SACKVILLE GARDENS 1	-	Y	N/A
2	92m NW	384230 397850	BLOOM STREET/ABINGDON STREET 5	9.05	N	1045707
F	100m E	384420 397840	SACKVILLE GARDENS T2	-	Y	N/A
F	106m NE	384410 397870	CANAL STREET SEWER RENEWAL SCHEME 4	4.7	N	1045636
F	112m NE	384410 397880	CANAL STREET SEWER RENEWAL SCHEME 2	6.7	N	1045628
G	114m S	384297 397685	MANCHESTER CORP. SHOOTERS BROOK RELIEF SEWER	7.62	N	1042252
G	117m SW	384270 397690	GALBRAITH STREET MANCHESTER OB	-2.0	N	1045470
3	123m NE	384380 397920	BLOOM STREET/ABINGDON STREET 3	8.95	N	1045705
4	129m SE	384400 397700	GRANBY VILLAGE MANCHESTER 2	-	Y	N/A
G	132m S	384280 397670	GRANBY ROW / WHITWORTH STREET 5A	15.0	N	1045816
5	134m SE	384380 397680	GRANBY VILLAGE MANCHESTER 1	-	Y	N/A
6	137m E	384460 397780	HIGH SCHOOL MANCHESTER OB	-2.0	N	1045473
H	140m NE	384450 397870	CANAL STREET SEWER RENEWAL SCHEME 7	4.6	N	1045639
7	140m NE	384410 397920	CANAL STREET SEWER RENEWAL SCHEME 4A	5.5	N	1045630
8	142m SE	384450 397740	SACKVILLE STREET 1	7.5	N	1043691
9	143m NW	384263 397946	PORTLAND STREET & CAR PARK. BH'S 6	12.19	N	1042483
H	145m E	384460 397860	CANAL STREET SEWER RENEWAL SCHEME 8	6.6	N	1045640
H	145m E	384460 397860	CANAL STREET SEWER RENEWAL SCHEME 5	6.3	N	1045631
I	158m E	384480 397840	CANAL STREET SEWER RENEWAL SCHEME 10	5.2	N	1045642
I	158m E	384480 397840	CANAL STREET SEWER RENEWAL SCHEME 9	7.2	N	1045641
10	160m NW	384190 397910	PORTLAND STREET 4/4A	-	Y	N/A
11	165m SW	384200 397680	WHITWORTH ST MANCHESTER 2	7.3	N	1042855
12	173m SE	384420 397660	GRANBY VILLAGE MANCHESTER 3	-	Y	N/A
J	176m NE	384460 397920	CANAL STREET SEWER RENEWAL SCHEME 5	4.2	N	1045637
I	176m E	384500 397830	CANAL STREET SEWER RENEWAL SCHEME 6	11.0	N	1045632
K	179m SW	384230 397640	INDIA HOUSE WHITWORTH STREET 5	4.3	N	1045679
K	181m SW	384210 397650	WHITWORTH ST MANCHESTER 4	7.1	N	1042857
J	183m NE	384460 397930	CANAL STREET SEWER RENEWAL SCHEME 6	4.0	N	1045638



ID	Location	Grid reference	Name	Length	Confidential	Web link
K	184m SW	384240 397630	INDIA HOUSE WHITWORTH STREET 4	4.5	N	1045678
K	193m SW	384220 397630	INDIA HOUSE WHITWORTH STREET 6	4.6	N	1045680
I	196m E	384520 397830	MANCHESTER METROPOLITAN UNIVERSITY 3	14.6	N	1043371
K	197m SW	384230 397620	INDIA HOUSE WHITWORTH STREET 1	5.5	N	1045675
13	198m S	384330 397600	GRANBY ROW / WHITWORTH STREET 4	10.0	N	1045815
14	199m SE	384470 397670	SACKVILLE STREET 2	8.6	N	1043692
15	203m SE	384430 397630	GRANBY ROW / WHITWORTH STREET 3	9.43	N	1045814
K	206m SW	384210 397620	INDIA HOUSE WHITWORTH STREET 7	6.5	N	1045681
16	207m W	384110 397860	PORTLAND STREET 3	-	Y	N/A
17	207m SW	384160 397660	WHITWORTH ST MANCHESTER 1	7.3	N	1042854
18	211m NE	384480 397950	CANAL STREET SEWER RENEWAL SCHEME 1	5.5	N	1045627
K	215m SW	384210 397610	INDIA HOUSE WHITWORTH STREET 2	6.5	N	1045676
K	215m SW	384180 397630	WHITWORTH ST MANCHESTER 3	7.5	N	1042856
19	220m NE	384450 397990	BLOOM STREET/ABINGDON STREET 2	8.0	N	1045704
K	226m SW	384190 397610	INDIA HOUSE WHITWORTH STREET 8	7.5	N	1045682
L	226m E	384550 397830	MANCHESTER METROPOLITAN UNIVERSITY TP1	4.1	N	1043372
L	226m E	384550 397830	MANCHESTER METROPOLITAN UNIVERSITY 2	11.4	N	1043370
M	228m N	384290 398040	PORTLAND STREET 5/5A	-	Y	N/A
K	229m SW	384200 397600	INDIA HOUSE WHITWORTH STREET 3	6.7	N	1045677
L	229m E	384550 397850	MANCHESTER METROPOLITAN UNIVERSITY 1	10.6	N	1043369
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 10	11.0	N	1045859
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 7	10.3	N	1045856
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 1	11.0	N	1045850
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 12	10.8	N	1045861
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 3	11.5	N	1045852
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 5	11.5	N	1045854
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 2	10.5	N	1045851



ID	Location	Grid reference	Name	Length	Confidential	Web link
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 6	10.2	N	1045855
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 9	9.8	N	1045858
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 11	11.0	N	1045860
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 4	10.2	N	1045853
N	231m NW	384100 397900	PORTLANDS STREET NW TELECOMS BOARD HQ 8	10.5	N	1045857
20	232m W	384080 397840	NO DETAILS	-2.0	N	1042455
21	235m SE	384500 397650	GRANBY ROW UMIST CAMPUS 1	8.9	N	1043355
M	236m N	384250 398040	PORTLAND STREET MANCHESTER 10	18.89	N	1043780
O	238m SE	384520 397670	GRANBY ROW UMIST CAMPUS 2	13.3	N	1043356
M	239m N	384280 398050	PORTLAND STREET MANCHESTER 12	13.71	N	1043782
L	241m E	384564 397837	MANCHESTER PURE ICE WORKS, WHITWORTH STREET	108.05	N	1042397
O	241m SE	384530 397680	GRANBY ROW / WHITWORTH STREET 2	8.0	N	1045813
M	243m N	384260 398050	PORTLAND STREET MANCHESTER 11	12.64	N	1043781
M	246m N	384250 398050	PORTLAND STREET MANCHESTER 6	12.19	N	1043776
M	249m N	384240 398050	PORTLAND STREET MANCHESTER 1	18.25	N	1043771

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

1

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

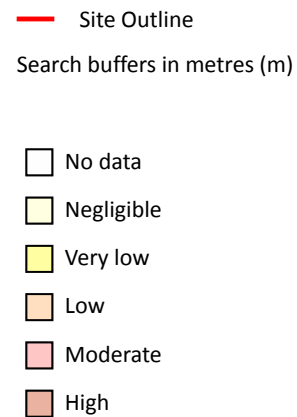
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 123**

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

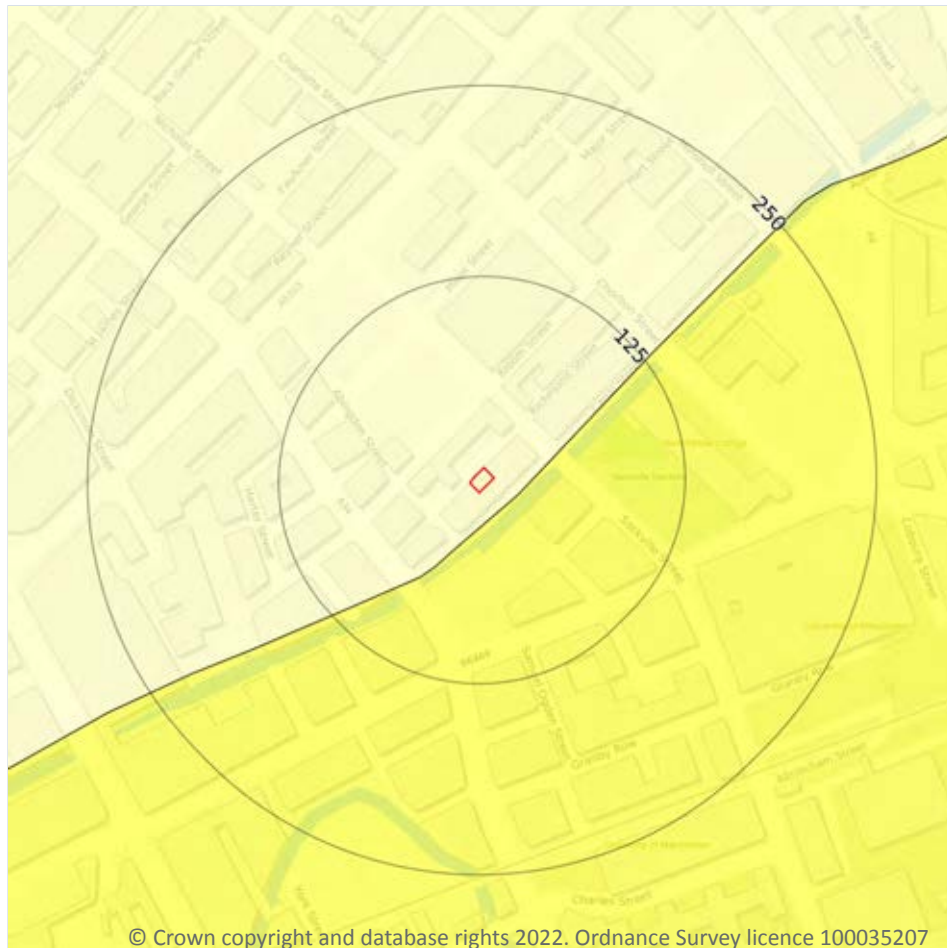
Features are displayed on the Natural ground subsidence - Running sands map on **page 124**

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.3 Compressible deposits

Records within 50m

2

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 125**

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
18m SE	Very low	Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.



This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

1

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 127**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 128**

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 129**

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m

0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

12

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 131**

ID	Location	Land Use	Year of mapping	Mapping scale
1	19m SE	Canal	1956	1:10560
A	20m SE	Canal	1896	1:10560
A	21m SE	Canal	1988	1:10000
B	23m SE	Canal	1938	1:10560
B	23m SE	Canal	1932	1:10560
B	23m SE	Canal	1916	1:10560
B	23m SE	Canal	1905	1:10560
B	23m SE	Canal	1923	1:10560
C	142m NE	Ponds	1890	1:10560
2	168m E	Unspecified Wharf	1890	1:10560
C	201m NE	Unspecified Wharf	1923	1:10560
C	202m NE	Unspecified Wharf	1915	1:10560

This is data is sourced from Ordnance Survey/Groundsure.



18.4 Underground workings

Records within 1000m

0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m

1

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

Features are displayed on the Mining, ground workings and natural cavities map on **page 131**

ID	Location	Mine Address	Mineral	Data source	Publisher
-	910m SE	Manchester, Greater Manchester	Firestone, Freestone, Hearthstone , Honestone, Ragstone, Sandstone, Scythestone , Silver Sand, Whetstone	'Underground Manchester - Secrets of the city revealed'	Willow Publishing

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	1
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Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

Location	Details
On site	In addition to being located inside an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property which may supplement this information. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk .

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	1
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Areas which could be affected by past, current or future coal mining.

Location	Details
On site	The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.

This data is sourced from the Coal Authority.



18.10 Brine areas

Records on site	0
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The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

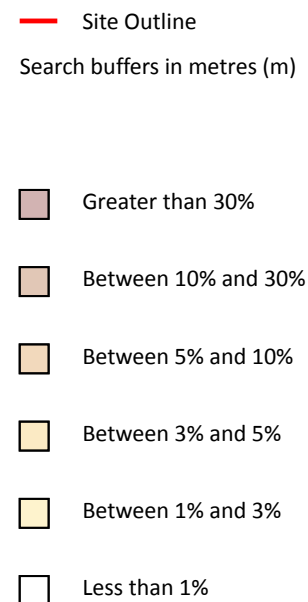
18.13 Clay mining

Records on site	0
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Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon



19.1 Radon

Records on site

1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 136**

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None**

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
26m SW	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

4

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	30	5.3	112	77	0.5	74	35	29	7
On site	32	5.6	114	78	0.6	77	37	30	7
9m NW	21	3.7	114	78	0.6	66	39	23	7
10m SW	21	3.7	118	81	0.6	66	40	24	8

This data is sourced from the British Geological Survey.



20.3 BGS Measured Urban Soil Chemistry

Records within 50m

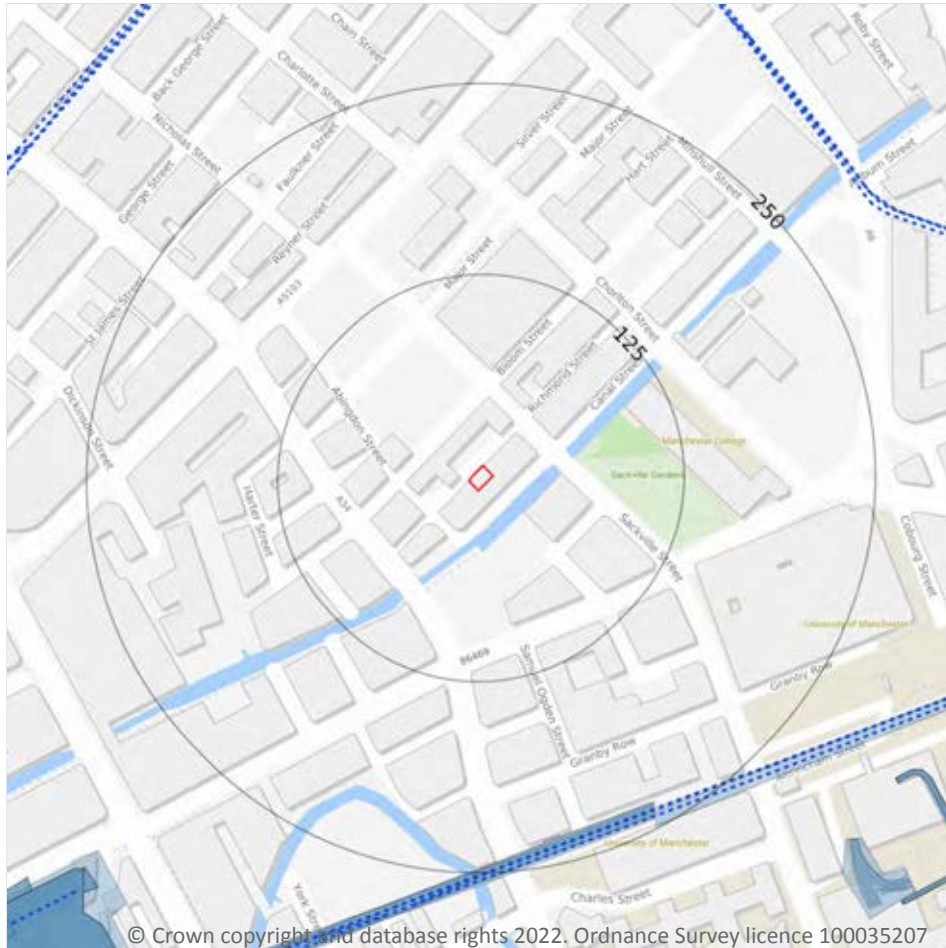
0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C1 Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 1 Worksites
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

21.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.



This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m

4

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on **page 139**

Location	Land Use	Year of mapping	Mapping scale
231m S	Railway	1922	-
231m S	Railway	1932	-
233m S	Railways	1893	-
240m SE	Railway	1889	-

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.



21.6 Historical railways

Records within 250m**0**

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m**3**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways. Features are displayed on the Railway infrastructure and projects map on **page 139**

Location	Name	Type
236m S	Not given	Multi Track
236m S		rail
240m S		rail

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m**0**

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m**0**

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.



21.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference>.

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Appendix C – Historical Mapping