

Confidential

Wellington Road, Bury

Geoenvironmental
Preliminary Risk Assessment
(Desk Study)

For
Bury Council

Project No.
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EXECUTIVE SUMMARY

SITE LOCATION	The site is located on the south of Wellington Road, Bury, BL9 9AH at National Grid Reference 380800, 410010.
PROPOSED DEVELOPMENT	It is understood that Bury Council is considering the redevelopment of the land for a new educational facility, the full details of which are still in development.
ENVIRONMENTAL SETTING	<p>The geological sequence at the site is anticipated to be superficial deposits of Devensian Till (boulder clay) and Glaciofluvial Deposits comprising predominantly sand and gravel. The solid geology beneath the site is the Pennine Lower Coal Measures (PLCM) comprising mudstone, siltstone and sandstone, with a coal seam indicated to subcrop beneath the eastern area of the site.</p> <p>Deep Made Ground is anticipated on site associated with previous landfilling. The eastern area of the site is anticipated to comprise ash/brick fill, whereas the western area of the site is expected to include domestic refuse type materials. Peat deposits are anticipated at the base of the landfill materials.</p> <p>The site is considered to have a <u>Low – Medium</u> sensitivity with respect to hydrogeology associated with the presence of a bedrock Secondary A Aquifer / Undifferentiated Aquifer, and a Very <u>Low</u> sensitivity with respect to hydrology due to the absence of any nearby surface water features.</p>
CURRENT USE AND HISTORY	<p>In summary, the historical mapping records from 1850 show the site was originally agricultural land with a road intersecting the centre and buildings associated with Park Hill cottage. Over time, several slopes developed on the northern, southern and western boundaries which indicates potential worked ground. In the 1950s, several unspecified pits were excavated across the site and the buildings were demolished. An allotment gardens also developed in the western area of the site.</p> <p>Potential infilling of the ground was evident in maps from the 1970s, with the Grundy Centre developing in the eastern area of the site. Potential infilling of the land later occurred on the western area of the site as the slopes disappeared. More recent aerial imagery indicated a storage area with shipping containers was present on the north of the site, this has now been removed. Stockpiles on the east of the field were also used to construct a bund.</p> <p>This report has revealed a LOW risk of UXO at the site.</p>
GEOTECHNICAL HAZARDS	<p>The following potential geotechnical hazards have been identified:</p> <ul style="list-style-type: none"> ▪ Presence of Made Ground and landfilled materials ▪ Presence of compressible material and associated differential settlement ▪ Potential presence of shallow groundwater ▪ Ground conditions aggressive to buried concrete ▪ Potential presence of soils with volume change potential (shrink/swell) ▪ Mineral Workings (Coal – Development High Risk Area) ▪ Potential presence of buried obstructions, substructures and buried services
CONTAMINATION ISSUES	Given the site's environmental setting and known history, contamination is considered to present a MODERATE risk to end users and a LOW – MODERATE risk to controlled water receptors. The risk

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associated with ground gas is MODERATE. Potential sources of contamination comprise:

- Landfill materials present on site, which includes domestic refuse type material, ash, brick and concrete
- General Made Ground with the potential for asbestos associated with previous onsite development and demolition activities, the bund and former storage area
- Generation of leachate from infiltration through the waste mass
- Peat and potential shallow coal mine workings present a potential source of hazardous ground gas

Invasive plant species, such as Japanese Knotweed, have not been considered.

Prior to any development a ground investigation should be designed by a competent person, implemented in accordance with current versions of BS10175:2011, BS5930:2015, BS EN 1997-1:2004 and BS EN 1997-2:2007 and reported in accordance with current technical guidance. It should provide information on the general ground conditions and target the identified pollutant linkages and potential geotechnical risks. Where appropriate, consideration should be given to soils reuse and waste classification.

Prior to any intrusive ground investigation, a Coal Mining Risk Assessment should be prepared for the site as the site is within a Mining Remediation Authority Development High Risk Area and there is potential for shallow coal mine workings beneath the east of the site. This should also include a mine gas specific risk assessment.

Environmental Permitting requirements associated with the development of a historical landfill site will need to be confirmed via pre-application consultation with the Environment Agency, which is currently ongoing.

It is probable that asbestos containing material and asbestos in soils are present. Appropriate information should be collected to allow assessment of risk during construction in line with guidance provided by the Join Industry Working Group.

An invasive species survey should be undertaken.

The condition and effectiveness of the existing gas ventilation system are currently unknown. As a minimum, its functionality should be assessed as far as practicable to ensure operational reliability.

Land quality assessment is an iterative process and likely to be a condition of planning consent for the redevelopment. It is recommended that this report is submitted to the Local Authority as part of the planning process.

1.0 INTRODUCTION

1.1 Appointment

1.1.1 This report has been produced by Campbell Reith Hill LLP (CampbellReith) on behalf of Bury Metropolitan Borough Council (the Client) to summarise environmental and geotechnical information relating to the land to the north of Wellington Road (hereafter referred to as the site). The limitations associated with this report follow the main text.

1.1.1 The site location, layout and intended development is presented in Appendix 1.

1.2 Objectives

1.1.2 The objective of the report is to collate and interpret Phase 1 Desk Study information in order to provide:

- a) an overview of the site area including a description of the site's environmental setting;
- b) a review of the site's historical and industrial development;
- c) a preliminary qualitative environmental risk assessment and conceptual site model;
- d) a discussion of potential geotechnical risks and development considerations; and,
- e) recommendations for further surveys and reporting.

1.1.3 The contamination appraisal is intended to identify the likely presence of potential source-pathway-receptor contaminant linkages and provides a qualitative indication of the level of risk posed by potential ground contamination at the site. As such, this report has been prepared in accordance with the requirements laid down in the Environment Agency's Land Contamination Risk Assessment for a Tier 1 Preliminary Risk Assessment.

1.1.4 Further to this assessment, actions considered necessary to permit the redevelopment of the site are recommended.

1.3 Basis of Assessment

1.1.5 The standards upon which this report is based are summarised in the Environmental Risk Assessment Standards and Supporting Information section, which follows the main text.

1.1.6 This report is based on a site walkover, regulatory consultations and a review of readily available site specific reports/information as detailed in Table 1.1. Technical references are included as footnotes throughout the report. The desk study information is presented in Appendix 2.

Table 1.1 Information Reviewed

Reference Details	Author	Reference
Groundsure Insight, Ref: CAR1-KAY-UYA-BLB-OYM, dated April 2025	Groundsure	[1]
Report on Soil Investigation at Site of A Day Care Centre for the Elderly and Handicapped at Wellington Road, Bury. Ref: 70/133, dated Jan 1971	Sub Soil Surveys Limited	[2]

Reference Details	Author	Reference
Landfill Gas Site Investigation, Wellington Road, Bury. Dated 1993	Greater Manchester Geological Unit	[3]
Assessment of Data and Remedial Design Recommendations. Former Landfill Site off Wellington Road Bury. Ref: 15156, dated 1994	Robinson Fletcher Consultants Limited	[4]
Site Investigation Wellington Road, Bury Factual and Interpretative Report. Ref: 3604, dated Nov 2002	Greater Manchester Geological Unit	[5]
Wellington Road Landfill Site, Site Investigation and Risk Assessment. Ref: ES/EM/BUR/W/01, dated Nov 2004	Cleanaway	[6]
Bury MBC Landfill Audit, Wellington Road Landfill Site. Ref: C085, dated Aug 2007	Bury MBC	[7]
Wellington Road Landfill, Bury – Interpretative Report. Ref: 3511179A-ZEV, dated Sept 2011	Parsons Brinckerhoff (PB)	[8]
UXO Risk Map, Ref: 380790-410000_28042025, dated April 2025	Zetica	[9]

2.0 SITE DESCRIPTION AND ENVIRONMENTAL SETTING

2.1 Site Location

- 2.1.1 The site location is presented in Figure 1, Appendix 1. The site is located approximately 500m to the southeast of Bury Town Centre, to the south of Wellington Road and east of Market Street, Bury, BL9 9AH, at the approximate National Grid Reference 380800, 410010. The site can be accessed from the northern boundary along Wellington Road via three different metal gates.

2.2 Site Layout

- 2.2.1 An annotated site layout plan is presented in Figure 2, Appendix 1. A reconnaissance site visit was carried out by CampbellReith on 11th April 2025. The area of the site comprising the Grundy Centre and other associated buildings was not accessed during the walkover, as requested by the Client.
- 2.2.2 The site covers an area of approximately 1.4ha and comprises a roughly rectangular shaped parcel of land. The western section of the site comprises a grassed field, which is slightly undulating and hummocky in areas. An area of rough vegetation is present in the north of the field which was a former storage area. Trees, bushes and rough grass is present to the northern, southern and western boundaries of the western section of the site. During the site walkover, several gas ventilation stacks with cowls, some of which were noted to be in a poor state of repair (posts leading, cowls missing, vegetation present etc.) were also noted to the boundaries. An earth bund is located on the eastern boundary of the field adjacent to an area of hardstanding used as a carpark.
- 2.2.3 The eastern area of the site is occupied by the Grundy Day Care Centre. The buildings were noted to be single storey and were surrounded by hardstanding for vehicle parking to the west and east of the buildings and areas of soft landscaping.
- 2.2.4 The site is generally demarcated by metal wire fencing and concrete posts. Several mature trees are also present along the site boundaries. Gated entrances are present along the northern site boundary. A topographical map included in a previous report [8] indicates the site elevation ranges from 84.4m AOD in the southwest to 87.2m AOD in the northeast.

2.3 Surrounding Land-Use

- 2.3.1 Wellington Road forms the northern site boundary, beyond which is Bury Athletics club which comprises a running track and sports field. Residential properties are present to the east along Parkhills Road, the south on Parkhills Close and Shortland Avenue and to the west off Market Street.

2.4 Invasive Plant Species

- 2.4.1 The potential presence of invasive plant species, such as Japanese Knotweed, has not been assessed as part of this report.

2.5 Redevelopment Proposal

- 2.5.1 It is understood that Bury Council is considering the redevelopment of the land for a new education facility. The facility will be for secondary school education (11 to 16 year olds) and will primarily function as a Public Referred Unit (PRU) while incorporating a Special Education Needs (SEN) unit and an Alternative Vocational Unit. However, the full details of the scheme are still in development.
- 2.5.2 For the purposes of contamination assessment, the development is considered to have a High sensitivity end use.

2.6 Geology

- 2.6.1 The Groundsure Report [1] the British Geological Survey (BGS) 1:50,000 geological sheet for the area¹ and the BGS GeoIndex Website² indicate the majority of the site is underlain by superficial deposits of Devensian Till comprising Diamicton (Boulder Clay), with the southeast and southwest corners of the site underlain by Glaciofluvial Deposits comprising sand and gravel. The solid geology beneath the site is the Pennine Lower Coal Measures (PLCM). The BGS Memoir for the site describes the PLCM as interbedded mudstone, siltstone and sandstone with subordinate coal and seatearth³.
- 2.6.2 The site geology as recorded by the BGS is presented as Figure 3, 4 and 5, Appendix 1.
- 2.6.3 The 1:10,000 scale mapping within the Groundsure Report [1], show Artificial Deposits of Made Ground are mapped on the northern boundary of the site. In addition, a void is mapped on the western section of the site which is associated with worked ground. Environment Agency historical landfill records show most of the site was a landfill in the 1970s and therefore the void has now been infilled with waste materials, including domestic waste.
- 2.6.4 There are no readily available BGS records within 250m of the site. Therefore, the anticipated site geology presented in Table 2 is summarised from historical Ground Investigation reports as referenced above in Table 1.1.

Table 2.1 Summary of Anticipated Geology

Strata	Thickness (m)	Typical Description
Made Ground	Typically, 4 – 5m, Maximum 7m	Grass and topsoil over a sandy gravelly silt with inclusions of ash, brick, concrete, metal, glass, domestic refuse, paper, cloth, wood, polythene etc (western area) Ashy/brick fill (eastern area).
<i>Superficial Deposits</i>		
Peat	Typically, 1m Maximum 4.5m in southeast corner	Described as a dark brown amorphous PEAT, or a spongy fibrous PEAT.

¹ BGS 1:50,000 Geological Map, Sheet 85, <https://largeimages.bgs.ac.uk/iip/mapsportal.html?id=1009338> [accessed April 2025]

² BGS Interactive Map Viewer, <https://mapapps2.bgs.ac.uk/geoindex/home.html> [accessed April 2025]

³ BGS Memoir for Geological Map, Sheet 85, <https://webapps.bgs.ac.uk/memoirs/docs/B06906.html> [accessed April 2025]

Strata	Thickness (m)	Typical Description
Glaciofluvial Deposits	Typically, 4 – 5m	Generally described as SAND and GRAVEL with clayey zones. However, a silty SAND and GRAVEL and silty SAND were also noted.
Devensian Till	Typically, 1 – 1.5m	Brown sandy boulder CLAY.
<i>Bedrock Geology</i>		
Pennine Lower Coal Measures Formation	Not proven Encountered at depth between 7 and 13.7m bgl.	COAL with bands of shaley clay and/or stiff grey shaley clay, changing to a soft to firm grey SHALE or a grey/red weathered MARL.

- 2.6.5 The previously recorded depth of fill from review of exploratory holes in the reports listed in Table 1.1 is presented as Figure 6, Appendix 1. The distribution of domestic refuse type material encountered during previous ground investigation works is included as Figure 7 and the distribution of peat as previously encountered in presented as Figure 8.

2.7 Ground Stability Hazards

- 2.7.1 Based on the geology underlying the site, the Groundsure Report [1] has identified the following potential geotechnical hazards associated with natural ground subsidence.

Table 2.2 Summary of Ground Stability Hazards

Hazard	Groundsure [1] risk rating	Geological unit	Comments
Shrink swell clays	Very Low	Devensian Till	CampbellReith anticipates a low risk of shrink swell clays on site. The clays within the Devensian Till have the potential to exhibit some shrink swell action. In addition, the Made Ground materials may contain variable amounts of clay.
	Negligible	Glaciofluvial Deposits	
Running Sands	Very Low	Mapped for all Geological units underlying the site.	CampbellReith agrees with the very low risk of running sands for most of the site. However, sands are likely present within the Glaciofluvial Deposits, and running sands could develop where the ground is saturated. Therefore, a moderate risk is anticipated on the southeast and southwest corners of the site.
Compressible deposits	Negligible	Mapped for all Geological units underlying the site.	CampbellReith anticipates a high risk of compressible deposits associated with Made Ground and landfill materials which have potentially been placed without compaction in areas of previously worked ground. A moderate risk is anticipated in other areas of the site associated with peat deposits.

Hazard	Groundsure [1] risk rating	Geological unit	Comments
Collapsible deposits	Very Low	Mapped for all Geological units underlying the site.	CampbellReith anticipates a moderate risk of collapsible deposits associated with Made Ground and landfill materials which have potentially been placed without compaction in areas of previously worked ground.
Landslides	Very Low	Mapped for all Geological units underlying the site.	CampbellReith anticipates a low risk of landslides as there are no steep slopes present on site. However, historical maps indicate several pits have been excavated across most of the site which may be unstable.
Ground dissolution of soluble rocks	Negligible	Mapped for all Geological units underlying the site.	CampbellReith agrees with the negligible risk from ground dissolution of soluble rocks based on the underlying geology.

2.8 Cavities and Sinkholes

- 2.8.1 The Groundsure Report [1] does not include any records of cavities or sinkholes within 500m of site. There is however 1no. record of an unspecified hole located 475m to the northeast of the site, dated 1983.

2.9 Mining and Ground Workings

- 2.9.1 The Groundsure report [1] indicates the site is located within a coal mining area as defined by the Mining Remediation Authority and a Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. An inferred coal seam is located on the east of the site, parallel to the eastern site boundary.
- 2.9.2 The Mining Remediation Authority Map Viewer⁴ confirms that the site is within a coal mining reporting area. The eastern section of the site is also within a Development High Risk Area, associated with probable shallow coal mine workings due to the subcropping seam. A mine entry (reference: 380410-004) is also located in close proximity to the northern site boundary.
- 2.9.3 Based on the mining information above, a Coal Mining Risk Assessment is required for the site.

2.10 Seismicity

- 2.10.1 The national foreword to BS EN 1998-1:2004+A1:2013⁵ states there are no requirements in the UK to consider seismic loading, and the whole of the UK may be considered an area of very low seismicity in which the provisions of EN 1998 need not apply.

⁴ The Mining Remediation Authority Map Viewer. <https://datamine-cauk.hub.arcgis.com/> [accessed August 2024]

⁵ BS EN 1998-1:2004+A1:2013 'Eurocode 8: Design of Structures for Earthquake Resistance – Part1'

2.11 Hydrogeology

2.11.1 The site hydrogeology is summarised in Table 2.3

Table 2.3 Summary of Hydrogeology

Type	Description
Superficial Deposits – Devensian Till Glaciofluvial 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’ Secondary A Aquifer – ‘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’.
Bedrock Geology – Pennine Lower Coal Measures Formation	Secondary A Aquifer – ‘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’.
Source Protection Zone (SPZ)	There are no records of a SPZ, or a SPZ within a confined aquifer, within 500m of the site.
Groundwater Abstractions	There are no active or historical licenses recorded within 500m of the site.
Groundwater Vulnerability	Combined superficial and bedrock aquifer classification ranges from low to medium vulnerability
Groundwater Flooding	The majority of the site is indicated to have a low risk of groundwater flooding. However, a moderate risk is indicated in the southeast and southwest corners of the site.

2.11.2 The Water Framework Directive (WFD) records show the groundwater body on-site is the Northern Manchester Carboniferous Aquifers which had a poor chemical and overall rating in 2019 [1].

2.11.3 The site is considered to have a Low to Medium sensitivity with respect to hydrogeology. The sensitivities are based upon the definitions provided in NHBC R&D66⁶, as amended to include the requirements of the Water Framework Directive⁷ and the EA’s River Basin Management Plans⁸

2.11.4 According to the previous report by PB in 2011 [8], the approximate groundwater flow direction is from the northeast to the south, towards the River Roch.

⁶ Guidance for the Safe Development of Housing on Land Affected by Contamination, R&D66: 2008 Volume 1, Environment Agency, NHBC and CIEH

⁷ The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

⁸ <https://www.gov.uk/guidance/river-basin-management-plans-updated-2022#view-river-basin-management-plans>

2.12 Hydrology

2.12.1 The site hydrology is summarised in Table 2.4

Table 2.4 Summary of Hydrology

Type	Distance	Description
Surface Waters	<250m	There are no features within 250m of the site.
Surface Water Abstractions	<500m	There are no active or historical licenses recorded within 500m of the site.
Flooding	On site	Surface water – 1 in 30 year rainfall event, greater than 1.0m.
	<250m	There are no records of a Flood Zone 2 (fluvial/tidal models), Flood Zone 3 (fluvial models), or risk of flooding from rivers and sea.

2.12.2 At its closest point, the River Roch is located approximately 480m to the east of the site. The report by PB [8] indicates that groundwater flow direction is towards the south, heading to the river which is situated approximately 850m from site.

2.12.3 The Water Framework Directive (WFD) record shows the site is located within the River Roch and River Irwell water body catchments. Both rivers had a fail chemical rating and overall moderate rating in 2019.

2.12.4 The site is considered to have a Very Low sensitivity with respect to hydrology. The sensitivities are based upon the guidance detailed for the hydrogeological assessment above.

2.13 Radon

2.13.1 The Groundsure Report shows that the estimated properties affected by radon on site is less than 1%, therefore radon protection measures are not required in any buildings.

2.13.2 BRE Report BR 211⁹: notes that all basements are at increased risk of elevated levels of radon regardless of geographic location, because more walls are in contact with the ground as well as the floor, and reduced natural ventilation below ground level increases the risk of elevated radon levels. In addition, the Management of Health and Safety at Work Regulations (1999)¹⁰ require the assessment of health and safety risks. Both the Health and Safety Executive (HSE) and UK Health Security Agency (UKHSA) state that this should include the measurement of radon for occupied below ground workplaces (occupied for more than 1 hour per week / 52 hours of the year), irrespective of whether a site is situated in a radon affected area. This is the responsibility of the Employer. For residential developments, UKHSA advise that consideration should be given to testing for radon if the basement includes a room that is used regularly.

⁹ BRE Report BR 211 Radon: Guidance on Protective Measures for New Buildings. 2023

¹⁰ The Management of Health and Safety at Work Regulations 1999. Legislation.gov.uk

2.13.3 It is unclear at this stage whether the proposed education facility will include the construction of basements. If the future development includes construction of a basement, consideration should be given to the incorporation of radon protection measures or site-specific assessment to determine whether protective measures are actually required. The form of assessment should be agreed in advance with Building Control and/or the Contaminated Land Department of the Local Planning Authority but may include passive radon monitoring during ground investigation together with a more detailed assessment of the site geology to determine the likelihood for radon-emitting strata to be present at the site.

2.14 Sensitive Land Uses

2.14.1 A review has been made of designated ecological and heritage sites using desk study information provided by Groundsure [1] and the MAGIC website¹¹ and is summarised in Table 2.5. The main purpose of this is to identify receptors that may be at risk due to potential contamination at the site and to highlight sensitive land uses identified by the sources consulted. It should be noted that this review does not constitute a formal environmental / ecological assessment and further works may be required in this regard.

Table 2.5 Summary of Designated Sites

Type	Description
Ecological	There are no environmental designations within 500m of the site. The agricultural land classification is urban.
Heritage	There are no listed buildings, scheduled ancient monuments of conservation areas within 250m of the site.
Archaeological	No records within 250m of the site.

¹¹ Multi Agency Geographic Information for the Countryside (MAGIC Map). Department for Environment, Food & Rural Affairs.
<https://magic.defra.gov.uk/magicmap.aspx>

3.0 SITE HISTORY AND INDUSTRIAL SETTING

3.1 Site History

- 3.1.1 Information relating to the site history has been obtained by reference to historical Ordnance Survey maps and aerial imagery and is summarised for the site and its surroundings in Tables 3.1 and 3.2.

Table 3.1 Site History

Date	Development	Location
1850 - 1851	<ul style="list-style-type: none"> Road Buildings associated with Park Hill cottage Agricultural land 	<ul style="list-style-type: none"> Centre of site E area Entire site
1891	<ul style="list-style-type: none"> Slopes 	<ul style="list-style-type: none"> W and N boundary
1910	<ul style="list-style-type: none"> Slope (potential worked ground) Several field boundaries 	<ul style="list-style-type: none"> SW Corner S
1930	<ul style="list-style-type: none"> Slope (potential worked ground) Small glasshouse 	<ul style="list-style-type: none"> SW S
1937	<ul style="list-style-type: none"> No significant change 	<ul style="list-style-type: none"> Entire site
1955	<ul style="list-style-type: none"> Unspecified pit 	<ul style="list-style-type: none"> SW corner
1957	<ul style="list-style-type: none"> Park Hill cottages demolished Allotment Gardens and two glasshouses Small outbuilding/structure Unspecified pits (potentially gravel) Potential spoil heaps 	<ul style="list-style-type: none"> E area W area N boundary Centre and E areas SE corner
1958 - 1959	<ul style="list-style-type: none"> No significant change 	<ul style="list-style-type: none"> Entire site
1965 - 1969	<ul style="list-style-type: none"> No significant change 	<ul style="list-style-type: none"> Entire site
1976	<ul style="list-style-type: none"> Potentially infilled pits The Grundy Centre and car park Two access routes constructed Allotment gardens and glasshouses no longer present 	<ul style="list-style-type: none"> E area E area N boundary W area
1981 - 1984	<ul style="list-style-type: none"> Potentially infilled land 	<ul style="list-style-type: none"> W and N boundary
1992	<ul style="list-style-type: none"> Potentially infilled land Extension to the Grundy centre 	<ul style="list-style-type: none"> W area E area
1999	<ul style="list-style-type: none"> New access route Storage area with shipping containers Addition car park adjacent the Grundy Centre 	<ul style="list-style-type: none"> N boundary N area Centre of site
2019	<ul style="list-style-type: none"> Storage area reduced in size Hardstanding surface Bare ground adjacent the Grundy Centre 	<ul style="list-style-type: none"> N area N area SE area

Date	Development	Location
2023	<ul style="list-style-type: none"> Storage area no longer present and is soft landscaped 	<ul style="list-style-type: none"> N area

Table 3.2 Adjacent Land History

Date	Development	Distance and Orientation
1850 - 1851	<ul style="list-style-type: none"> Railway line and sidings Cuttings 	<ul style="list-style-type: none"> 100m NE 105m NE
1891	<ul style="list-style-type: none"> Gravel pit Saw mill Timber yard 	<ul style="list-style-type: none"> 50m SW 170m N 175m N
1908 - 1909	<ul style="list-style-type: none"> Refuse heap Unspecified ground workings Unspecified pit Gravel pit potentially infilled 	<ul style="list-style-type: none"> 30m N 20m NE 60m W 50m SW
1910	<ul style="list-style-type: none"> Bury loop junction 	<ul style="list-style-type: none"> 200m NE
1930	<ul style="list-style-type: none"> Unspecified ground workings adjacent refuse heap 	<ul style="list-style-type: none"> 50m N
1937	<ul style="list-style-type: none"> Refuse heap has extended in size 	<ul style="list-style-type: none"> 25m N
1955	<ul style="list-style-type: none"> Allotment gardens 	<ul style="list-style-type: none"> 120m SE
1957	<ul style="list-style-type: none"> Refuse heap is now a college playing field Tennis court Tank present adjacent Bury loop junction 	<ul style="list-style-type: none"> 20m N 120m N 200m NE
1965 - 1969	<ul style="list-style-type: none"> Residential development on former gravel pit 	<ul style="list-style-type: none"> 50m SW
1976	<ul style="list-style-type: none"> Electricity substation Saw mill is now a works which has extended Timber yard no longer present Running track present on the playing fields Railway and railway sidings dismantled 	<ul style="list-style-type: none"> 175m NE 170m N 175m N 30m N 100m NE
1981 - 1984	<ul style="list-style-type: none"> Unspecified ground workings 	<ul style="list-style-type: none"> 230m NW
1992	<ul style="list-style-type: none"> No significant change 	<ul style="list-style-type: none"> <250m
1999	<ul style="list-style-type: none"> Bury college Ground workings 	<ul style="list-style-type: none"> 160m NW 90m NW, 130m N
2019	<ul style="list-style-type: none"> Bury Sports Centre and pitches established Bury Athletics Club buildings and parking 	<ul style="list-style-type: none"> 90m NW 135m N
2023	<ul style="list-style-type: none"> No significant change 	<ul style="list-style-type: none"> <250m

3.1.2 The earliest historical mapping from 1850 indicates the site was originally agricultural land, with a road intersecting the centre of the site, and buildings associated with Park Hill cottage in the east. By 1891, the site appears to be at a lower elevation to the surrounding areas, with

slopes present on the western and northern boundaries. By 1910, a slope was evident in the southwest corner of the site which indicates potential worked ground, the slope extended towards the centre of the site by 1930. An unspecified pit was mapped in the southwest corner by 1955. The buildings associated with Park Hill cottage were demolished by 1957, and unspecified pits, which are likely to be gravel, developed in the central and eastern areas of the site. An allotment garden and two glasshouses also developed on the western area of the site.

- 3.1.3 The 1976 map indicates potential infilling of the pits on the eastern area of the site as the Grundy Centre and car park was established with access routes from Wellington Road. The allotment gardens were also no longer present in the western area of the site. Potential infilling of the land on the western area of the site was evident by 1992 as the slopes were no longer visible. The buildings in the east of the site were also extended.
- 3.1.4 More recent aerial imagery shows that a storage area developed on the northern area of the site with shipping containers and a new access route off Wellington Road. An additional car park was also developed adjacent to the Grundy Centre. By 2019, the storage area reduced in size and potential Made Ground/hardstanding was visible adjacent the containers. By 2023, the storage area was no longer present, and the area became soft landscaped. Stockpiles were also visible on the east of the field which were likely used to construct the bund.

3.2 Previous Reports

- 3.2.1 Previous ground investigation reports [2, 3, 4, 5, 6 and 8] dating from 1971 to 2011, and a Landfill Audit [6] from 2007 have been provided by Bury Metropolitan Borough Council for review. The reports have been reviewed in a separate Technical Note (14378-CRH-XX-XX-RP-LQ-0002 Tech Review) by CampbellReith which has been provided under separate cover. The relevant contaminated land information within these historical reports has been used to help inform the Conceptual Site Model (CSM) for the site
- 3.2.2 The report undertaken by Cleanaway [6] provides a useful timeline of the site history and development associated with the landfill site, up to the time of the report (2004). This is summarised below:
- 1954 – planning permission granted to raise site levels of the adjacent road. Photographic evidence indicates that filling didn't commence until after 1961
 - 1960s – filling commences in the eastern part of the site (location of Grundy Centre)
 - 1970s – filling of western area of site
 - 1971 – ground investigation undertaken in eastern area of site for proposed Grundy Centre [2]
 - 1911 – planning permission granted for Hurdles Nursery on eastern section of the site, adjacent to Grundy Centre
 - 1993 – ground investigation by GMGU [3]

- 1995 – vent-based gas control system installed in July 1995, comprising 88 6.5m deep boreholes connected by sotted HDPE pipe, trenched into the cap. Cowled risers installed at 25m centres offset along the route of the trench
- 2022 – Further ground investigation by GMGU [5] and data review following installation of the above mitigation measures
- 2004 Cleanaway report [6]

3.3 Regulatory Consultation

- 3.3.1 Given the site is a former landfill, initial pre-application consultation has commenced to confirm if Environmental Permitting is required in relation to redevelopment of the site, and if so, what permitting is likely to be appropriate.
- 3.3.2 An initial response received from the Environment Agency PreApplication Service has confirmed that the initial screening result indicates that the developer is eligible to apply for a Standard Rule Permit 2015 No. 39. Further consultation in the form of enhanced pre-application consultation has been requested in order to provide further reassurance to the permitting strategy, given the potential delays associated with permit applications etc. The initial response from the Environment Agency, dated 6th May 2025 is included in Appendix B.

3.4 Unexploded Ordnance (UXO)

- 3.4.1 A preliminary review has been made of the UXO risk presented by the site based upon the assessment matrices in Tables 5.1 - 5.3 of CIRIA C681¹².
- 3.4.2 The Zetica UXO Map [9] indicates the site is located within a 'low bomb risk' area. The nearest strategic target was for utilities located 400m north of the site. Post-war development on site has included land raising as part of the landfill, the Grundy Centre was also constructed, therefore a low risk of UXO is anticipated.
- 3.4.3 Notwithstanding the above information, UXO hazards should be included as part of the health and safety briefing and as toolbox talks during any future intrusive works, such that if any suspicious articles are found they can be quickly identified and treated appropriately by specialist inspection.

3.5 Tunnels and Infrastructure

- 3.5.1 CampbellReith's in house database GISSMO has been viewed to determine the presence of any tunnels, historical basements and bomb shelters however no features were listed.
- 3.5.2 Underground utilities will be present beneath the eastern area of the site associated with the Grundy Centre building. Obstructions are anticipated beneath the site associated with historical landfilling and development.
- 3.5.3 It should be noted that the above review does not constitute a formal review of all buried utilities that may be present at the site.

¹² CIRIA C681 'Unexploded Ordnance (UXO) – A guide for the construction industry'. 2009

3.6 Current Industrial Setting

- 3.6.1 Table 3.3 summarises identified industrial features, which may present a potential source of contamination to the site based upon the Groundsure Report [1] and this should be consulted for further details. Unless otherwise stated, only those features that are within the stated review distances have been included.

Table 3.3 Industrial Setting

Type	Distance Reviewed	Distance from Site	Description
Contaminated land register entries and notices	<500m		None present within the search boundaries.
Landfills	<250m	On site	Environment Agency historical landfill record (Reference: C085). The landfill accepted industrial, commercial, household, and liquid sludge waste between the June and October 1971.
Waste Transfer / Treatment Stations	<100m	-	None present within the search boundaries.
Potentially Infilled Land	<250m	On site	Potentially infilled pits.
Pollution Incidents	<50m	-	None present within the search boundaries.
Environmental Permits	<150m	-	None present within the search boundaries.
Discharge Consents	<100m	-	
Abstractions	<250m	-	
Fuel Stations	<200m	-	
Recent Industrial Land Uses	<100m	1 – 100m	Include: Industrial cleaning equipment suppliers, pharmacy, and electricity substation.
Historical Industrial Land Uses	<100m	On site	Include: Unspecified pits present in 1955 and 1974 – 1981 historical maps.
		0 – 100m	Include: unspecified pits, unspecified ground workings, sand pit, refuse heap, and railway sidings.
Control of Major Accident Hazards (COMAH) Sites	<500m	-	None present within the search boundaries.

- 3.6.2 The records above show historical land uses on site which present potential sources of contamination and require further consideration from a risk perspective. The most significant is the landfill which is mapped across the central and western areas of the site. In addition, there were several pits on site, therefore there is potential for infilled land across most of the site.
- 3.6.3 According to the previous ground investigation information [5], filling commenced in the eastern area of the site, which is now occupied by the Grundy Day Care Centre, in the 1960s.

Whereas filling commenced in the western area of the site in the early 1970s. It was estimated that approximately 27,200 tonnes of waste was deposited in the landfill. Anecdotal evidence [6] suggests that the eastern area of the site accepted ashy/brick fill, and the western area of the site accepted mixed waste including domestic type waste. Borehole logs indicate there is no basal liner or formal capping, with as little as 10-20cm of cover soils present.

- 3.6.4 Passive gas protection measures were installed on site in 1995 following a gas risk assessment [4]. This included a gas ventilation system comprising a series of gas wells which are approximately 6.5m deep. The wells are connected in a shallow gravel filled trench lined with Terram 1000. It was recommended that an impermeable membrane should be installed on the development side, however this was not installed [7].
- 3.6.5 As mentioned above, the vent stacks from the gas ventilation system were observed during the site walkover. The stacks are approximately 4m high with aspirating cowls. During the walkover, it was noted that several cowls were damaged or missing, and one of the vent stacks was leaning.

4.0 PRELIMINARY CONCEPTUAL SITE MODEL & QUALITATIVE RISK ASSESSMENT

4.1 Introduction

- 4.1.1 Current practice for land contamination evaluation involves classification of risk for each of the identified contaminant source-pathway-receptor linkages. These are summarised below, considering the desk study information obtained.

4.2 Classification of Risk

- 4.2.1 Risk is defined by the combination of two factors: i) the probability of an occurrence (expressed as a likelihood); and ii) the consequence of it happening (expressed as a severity). The definitions of these categories are defined in the Environmental Risk Assessment Standards and Supporting Information section to the rear of this report, together with definitions of the classifications of probability and consequence. The procedure for classifying risk is summarised in Table 4.1.

Table 4.1 Classification of Risk

Probability (Likelihood)	Consequence				
		Severe	Medium	Mild	Minor
	High likelihood	Very high risk	High risk	Moderate risk	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

4.3 Potential Sources of Contamination

- 4.3.1 Table 4.2 summarises the potential contamination sources that have been identified on or near the site. The potential contaminant types associated with these is then given based upon a review of industry profiles and anecdotal information.

Table 4.2 Potential Sources of Contamination

Feature on or near site	Potential Contaminant
Made Ground with the potential for asbestos associated with previous site development and demolition, the bund and former storage area	TPH, PAH, ACM, M, IC
Landfill on-site containing mixed waste, with domestic type refuse recorded in the west and ashy/brick fill beneath the Grundy Day Care Centre	GG, VOCs, TPH, PAH, ACM, M, IC
Potential shallow coal mine workings	GG

Feature on or near site	Potential Contaminant
Notes: M – Metals. TPH – Total Petroleum Hydrocarbons. VOC – Volatile Organic Compounds. ACM – Asbestos Containing Materials. PAH – Polycyclic Aromatic Hydrocarbons – Polychlorinated biphenyls. GG – Ground Gases.	

4.4 Receptors and Exposure Pathways

- 4.4.1 Potential risks have been identified based on the proposed site use, the receptors and potential pathways by which the receptor/s may be exposed to the contaminant source/s. These are presented in Table 4.3.

Table 4.3 Receptors and Exposure Pathways Following Site Redevelopment

Receptor	Pathway	Risk
End Users	Ingestion of soil / dust	Moderate
Neighbours		Low – Moderate
Construction Workers		Moderate – High
End Users	Inhalation of soil / dust	Moderate
Neighbours		Low – Moderate
Construction Workers		Moderate – High
End Users	Dermal contact with soil / dust / water	Moderate
Neighbours		Low - Moderate
Construction Workers		Moderate – High
End Users	Inhalation of vapour from soil / dust	Moderate
Neighbours		Low – Moderate
Construction Workers		Moderate – High
End Users	Consumption of vegetables / plants	Low
End Users	Migration of soil gases to confined spaces / structures	Moderate
Construction Workers		Low – Moderate
Buildings		Moderate
End Users	Inhalation of vapour from groundwater	Moderate
Neighbours		Low – Moderate
Construction Workers		Moderate
Surface Waters	Migration of water borne contaminants from on site	Low

Receptor	Pathway	Risk
Groundwater Aquifer	Migration of contamination from surface and/or subsurface to groundwater	Low – Moderate
Groundwater Aquifer	Migration of water borne contamination from off-site	Low
End Users	Movement of contaminants to engineered structures (water pipes)	Moderate
Sensitive Land Use (SSSI etc.)	Uptake by flora / fauna associated with sensitive land use	Low

- 4.4.2 It is understood that consideration is being given to the redevelopment of the site for use as an educational facility. Therefore, the receptors at risk within the development area will be construction workers, and end users comprising teaching and support staff, secondary-aged children (typically aged 11-16) and maintenance workers. Site neighbours are primarily residents of the adjacent housing development and users of Bury Athletics club.
- 4.4.3 Based on the preliminary conceptual site model, an overall MODERATE RISK to end users is considered to be appropriate with respect to ingestion / inhalation / and direct contact with the underlying soils. Previous ground investigation has focused on ground gas risk and only limited soil testing data is available. However, the presence of elevated concentrations of potentially carcinogenic and volatile PAH compounds were recorded within the landfill deposits by PB [8]. It should be noted that the human health risk assessment undertaken by PB was based on a less sensitive proposed end use (car park) and utilised less stringent assessment criteria. With regards to vapour risk, previous investigation by PB did not detect significant concentrations of VOCs from screening of samples and downhole monitoring using a Photo Ionisation detector (PID). However, PID results during gas monitoring of wells indicated concentrations of up to 162ppm. No VOC analysis of soil samples has been completed during previous ground investigation works.
- 4.4.4 The associated risk to groundworkers in this regard is considered to be MODERATE given the potential for direct exposure and contact with landfill materials during construction works. Practical Health and safety measures and provision of hygiene facilities should be implemented; however, enhanced measures may also be required to reduce associated risks to acceptable levels.
- 4.4.5 The site is located on a Secondary Undifferentiated (superficial) and a Secondary A Aquifer (bedrock), therefore a LOW – MODERATE RISK is anticipated with respect to the potential migration of contamination from surface and/or subsurface to groundwater. Previous ground investigation [8] indicated ammonium is elevated in the groundwater perched within the landfill materials, with localised exceedances of benzene, ethylbenzene, xylenes, and light end aromatic hydrocarbons in the centre of the landfill. The superficial deposits beneath the landfill were shown to be predominantly granular and the potential exists for downward migration of dissolved and free phase contamination into the underlying Secondary A Aquifer. There are no SPZs or active abstraction licences in close proximity to the site and previous risk

assessment undertaken by PB [8] considered groundwater within the underlying Lower Pennine Coal Measures formation as a potential pathway rather than a receptor as abstraction of water from this aquifer is unlikely to occur.

- 4.4.6 There are no surface water features identified within 250m of the site. The nearest receptor is the River Roch located approximately 850m from the site in the anticipated direction of groundwater flow [8]. Therefore, given the distance, a LOW RISK is considered to exist with respect to the potential migration of dissolved phase and mobile contamination to surface waters. Detailed Quantitative Risk Assessment by PB [8] demonstrated that recorded contaminant concentrations do not pose a risk to the River Roch downgradient of the site. Again, it should be recognised that PB's risk assessment model assumed a different proposed end use of the site and therefore further assessment may be required to confirm findings.
- 4.4.7 There is a potential MODERATE RISK to end users from the inhalation of vapor from groundwater based on the proposed development. This is due to the localised elevated concentrations of volatile hydrocarbons encountered in the centre of the domestic waste landfill in the previous investigation [8] (benzene, ethylbenzene, xylenes, and light end aromatic hydrocarbons).
- 4.4.8 Given the age of the landfill (>50 years) gas emissions are likely to have peaked and gas generation will have reduced significantly. Gas generation potential still remains highest in the western area of the site where domestic type refuse has been deposited. Other sources of ground gas on site include peat, which is thickest in the southeast of the site, and shallow coal mine workings, if present. The Peat is unlikely to be generating significant volumes of hazardous ground gas and given the anticipated groundwater depths, any mine workings, if present, are likely to be flooded reducing the risk of mine gas emissions, however investigation is required to confirm. High concentrations of methane and carbon dioxide have been recorded during monitoring from previous ground investigations. Flow rate data is limited however and will need to be confirmed through monitoring. The landfill is not capped with an engineered cover system, therefore any gas generated within the landfill can potentially disperse to atmosphere.
- 4.4.9 It should be recognised that development of the site has the potential to significantly alter the existing landfill/ ground gas regime, for example, by restricting surface emissions to atmosphere and promoting build-up of gas in subsurface or within confined spaces within buildings and this will need to be considered as part of any future works. Foundations constructed within/ through waste deposits may also present preferential pathways for migration. Overall, a MODERATE RISK to the proposed development is considered appropriate associated with the presence of landfill/ ground gas on site.
- 4.4.10 In terms of offsite migration of landfill gas, previous reports have raised concerns due to nearby sensitive residential receptors. Gas risk assessment completed by PB [8] considered the site for use as a car park and how this would potentially impact migration. The PB gas risk assessment [8] concluded that "*the estimated risk posed by the migration of ground gas to the surrounding area is similar or lower than that posed by carbon dioxide being exhaled by the occupants of a building*" and noted that "the volume of gas being generated at the present

time in negligible. PB noted (as did Cleanaway [6]) that due to limited data available on the types of material placed in the landfill, uncertainty remains in the calculations from the modelling. The condition and effectiveness of the existing gas ventilation system are currently unknown. As a minimum, its functionality should be assessed as far as practicable to ensure operational reliability.

- 4.4.11 It is unclear at this stage whether development proposals will include areas for growing vegetables or fruits. However, given the sensitivity of the end users (SEN unit) associated risk should still be considered if this is an option. If growing of produce is to be considered as an activity on site by future site users, consideration should be given to the use of raised beds with suitable growing medium imported to site.
- 4.4.12 The general requirements of the intrusive investigation required to target the identified contaminant linkages is provided as Table 5.2.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Proposed Development and Site History

- 5.1.1 It is understood that Bury Council is considering the redevelopment of the site at Wellington Road for a new educational facility, the full details of which are still in development.
- 5.1.2 In summary, the historical mapping records from 1850 show the site was originally agricultural land with a road intersecting the centre and buildings associated with Park Hill cottage. Over time, several slopes were shown on the northern, southern and western boundaries which indicates potential worked ground/ excavations. In the 1950s, several unspecified pits were present across the site and the buildings were demolished. An allotment gardens was also shown in the western area of the site.
- 5.1.3 Potential infilling of the ground was evident in maps from the 1970s, with the Grundy Centre present in the eastern area of the site. Potential infilling of the land later occurred on the western area of the site as the slopes disappeared. More recent aerial imagery indicated a storage area with shipping containers was present on the north of the site, this has now been removed. Stockpiles on the east of the field were also used to construct a bund.

5.2 Geotechnical Conclusions and Recommendations

- 5.2.1 The geological sequence at the site is anticipated to be superficial deposits of Devensian Till (Boulder Clay) and Glaciofluvial Deposits comprising predominantly sand and gravel. Previous ground investigation indicates that much of the natural strata encountered was predominantly granular and peat deposits have also been encountered. The solid geology beneath the site is the Pennine Lower Coal Measures (PLCM) comprising mudstone, siltstone and sandstone with a coal seam present in the east.
- 5.2.2 Deep Made Ground is anticipated associated with previous landfilling. The eastern area of the site is anticipated to comprise ashy/brick fill, whereas the western area of the site is expected to comprise domestic refuse type materials intermixed with other landfill deposits and inclusions.
- 5.2.3 The anticipated geotechnical hazards are summarised in Table 5.1 and discussed below.

Table 5.1 Summary of Geotechnical Hazards

Hazard	Description
Made Ground and Landfilled Materials	<p>Previous investigation has identified the presence of landfilled materials across the site, typically to 5-6m depth with maximum depth recorded to approximately 7.0m in the north of the site.</p> <p>There is potential for compressible and collapsible ground from any voids or areas of fill materials which have placed without compaction. The deep Made Ground present within the landfill is unlikely to be a suitable bearing stratum and therefore an alternative foundation solution such as piling will likely be required for the proposed development.</p>

Hazard	Description
Shallow Groundwater	Waterlogged ground was noted in previous ground investigations. Although dry during the site walkover, undulating and hummocky ground was noted. Shallow groundwater poses a risk of flooding and instability of excavations.
Aggressive ground conditions to buried concrete	There is a potential for shallow soils on site to present an aggressive chemical environment to buried concrete. Made Ground and landfill materials and leachate may also pose a risk to buried concrete.
Shrink/Swell soils	There is potential for shrink/swell behaviour of cohesive soils associated with seasonal changes in moisture content which may impact the foundations of the proposed development.
Mineral Workings	Potential shallow coal mine workings are mapped beneath the eastern area of the site. Therefore, a Coal Mining Risk Assessment and further investigation is likely required to understand the potential ground stability risks to the proposed development. Worked ground was mapped on the southwest corner of the site and several unspecified pits were present across the entire site.
Compressible Natural Deposits	Peat and Glaciofluvial deposits have been encountered across the site.
Obstructions	Obstructions and relic substructures may be encountered within the fill materials in the western areas of the site and beneath the footprint of previously developed areas (eastern site area including Grundy Centre). These may present drivability and excavation issues for traditional plant. Hard break out equipment and/or pre-rotary drilling and/or Made Ground treatment may be required in some areas.
Buried services	Underground utilities are likely to be present within the vicinity of the Grundy Day Care Centre which may pose a risk to intrusive investigations. As the development proposals are not final, it is unclear at this stage if the buried services conflict with areas of the proposed development.

5.2.4 This report has revealed a LOW risk of UXO at the site.

5.3 Environmental Conclusions and Recommendations

5.3.1 The site has a Low-Medium hydrogeological sensitivity associated with the presence of Secondary A / Secondary Undifferentiated Aquifers and a Very Low hydrological sensitivity due to the absence of any surface water features within 250m of the site.

5.3.2 Given the proposed development of the site as an educational facility, the site is adjudged a High sensitivity with regards to human health.

5.3.3 Based on a review of historical information and the findings of a walkover survey the following potential contamination sources have been identified:

- Landfill on-site containing domestic waste in the west and ashy/brick fill beneath the eastern section of the site (Grundy Day Care Centre);

- General Made Ground with the potential for asbestos associated with demolished buildings, the bund and former storage area;
 - Peat and potential shallow coal mine workings present a potential source of hazardous ground gas.
- 5.3.4 In relation to potential contamination issues and given the proposed sensitive end user, the site is considered to present a:
- MODERATE risk to future users from soil / groundwater sources;
 - MODERATE risk due to ground gas; and,
 - LOW – MODERATE risk to controlled water receptors.
- 5.3.5 The risks to other receptors (groundworkers etc.) are listed in Section 4.0.
- 5.3.6 In accordance with the phased process of assessment recommended in BS 10175:2011 (+A2:2017)¹³ and BS 5930:2015 (+A1:2020)¹⁴, intrusive investigation(s) should be undertaken to appraise potential land contamination, as well as geotechnical matters which would necessitate the design to be based on the requirements of Eurocode 7 part 2¹⁵ (and the associated national annex) and NHBC standards¹⁶. The investigation should include an investigation of the general ground conditions and target the most likely potential pollutant linkages as discussed in Table 5.2.

Table 5.2 Targeted Contaminant Linkages

Issue	Exploration
Human exposure to shallow Made Ground soils	General/Targeted. Shallow soil samples in all holes within 1.0m of ground level. Targeted sampling within the landfill materials and other areas of Made Ground (bund, footprint of demolished buildings and former storage area).
Leachate generation from Made Ground Soils	General. Leachate preparations of soils and/or analysis of both perched and deeper groundwater / leachate
Ground gas generation from former landfill and potential coal mine workings.	Targeted within the proposed building footprint (if known) / general site coverage and coal seams. Ground gas monitoring installations in the Made Ground and along the perimeter of the landfill materials.
Risk to groundwater and surface water	Targeted. Groundwater installations in the Secondary A Aquifer.
Vapour risk from impacted soils and/or groundwater	Targeted within the proposed building footprint (if known) / general site coverage. Ground gas monitoring installations in the Made Ground.

- 5.3.7 Considering the past uses of the site, a contamination analysis suite should be applied that considers metals, semi-metals, inorganic chemicals, polyaromatic hydrocarbons and speciated petroleum hydrocarbons with the specific analytical suite informed by site location / CSM. Due to vapour risk, the samples should be tested for volatile organic carbon or BTEX compounds.

¹³ BS 10175:2011 (+A2:2017) Investigation of potentially contaminated sites. Code of Practice

¹⁴ BS 5930:2015 (+A1:2020) The Code of Practice for Ground Investigations

¹⁵ EN 1997-2:2007 Eurocode 7 Geotechnical design – Part 2 Ground Investigation and Testing

¹⁶ NHBC Standards 2023 <https://nhbc-standards.co.uk/>

In addition, the presence of asbestos in soils should be appraised by testing. Such testing should be completed in accordance with UKAS and MCERTs standards.

- 5.3.8 Given that disposal of waste soils can potentially lead to elevated development costs the investigation could also include sampling and analysis to enable classification of waste soil arisings.
- 5.3.9 It should be noted that any materials excavated from the landfill cannot be reused on site without and will require handling as waste and removed off-site. Any reuse of material classified as waste would need to be agreed with the Environment Agency and/ or in accordance with associated Environmental Permitting Regulations. The source of the stockpiled materials used to construct the bund on the east of the field is currently unknown. Therefore, clarification is required from the existing landowners and soil sampling required.
- 5.3.10 The results of any intrusive investigation should be reported within a Land Quality Statement (LQS) for the site considering the requirements of current technical guidance (as summarised in the Environmental Risk Assessment Standards and Supporting Information to the rear of the text) and / or associated planning conditions. This report should include: a Generic Quantitative (Tier 2) Environmental Risk Assessment; a revised Conceptual Site Model; recommendations for further assessments (if required); and, outline remedial and geotechnical recommendations. Land quality assessment is a phased process and it should be noted that further investigation, assessment and reporting might be required, dependent on the findings of the LQS.
- 5.3.11 This Desk Study is considered sufficient to satisfy planning conditions relating to former site uses and provision of a preliminary risk assessment. It is likely that site investigation and reporting will be required in order to satisfy further planning condition(s) relating to land contamination.
- 5.3.12 The potential presence of invasive plant species, such as Japanese Knotweed, has not been assessed and it is recommended that a survey be carried out by an appropriately qualified specialist if this is of concern to the client.

5.4 Recommendations for Intrusive Investigation

- 5.4.1 An intrusive ground investigation with geotechnical and contamination monitoring and testing is required to confirm the findings of this desk study. Prior to any intrusive ground investigation, a Coal Mining Risk Assessment should be prepared for the site as the site is within a Mining Remediation Authority Development High Risk Area and there is potential for shallow coal mine workings beneath the east of the site.
- 5.4.2 The ground investigation should be designed based on the requirements of Eurocode 7 part 2 (and the associated national annex)¹⁵ and NHBC standards¹⁶. As noted in Section 5.3.8, which also lists the industry design requirements, the investigation should be tailored so as to ensure the geotechnical hazards and land contamination risks identified above are addressed.
- 5.4.3 The ground investigation should be designed by a suitably qualified and experienced engineering geologist based on Eurocode 7 (EC7)¹⁵, BS5930:2015 (=A1:2020)¹⁴ and CIRIA

C758D¹⁷. It is noted that EC7 identifies three geotechnical categories relevant to project complexity. Sites affected or potentially affected by mining should be regarded as being in the highest category (Category 3).

- 5.4.4 The investigation should be undertaken by a specialist drilling contractor with experience in drilling in areas of anticipated coal workings. Probe drilling by the formation of rotary open-hole boreholes is recommended to investigate the mineral seams underneath the site. Depending on the findings of the open-hole rotary drilling, rotary cored boreholes may be required at a later stage to accurately define the depths and thickness of seams. A preliminary geophysical survey could be helpful to confirm the presence/absence of any mine entries or shafts on site and aid the rationalisation of the physical investigation.
- 5.4.5 The ground investigation should be undertaken with due regard to the Mining Remediation Authority's guidance¹⁸ and a Mining Remediation Authority Permit is likely to be required in advance of any site investigation that is to investigation potential for coal seams and workings.

¹⁷ CIRIA C758D Abandoned Mine Working Manual. 2019

¹⁸ Coal Authority 'Guidance on Managing the Risk of Hazardous Gases when Drilling or Piling Near Coal V1'. 2015

ENVIRONMENTAL RISK ASSESSMENT STANDARDS AND SUPPORTING INFORMATION

Normative Standards

Contamination

The report has been produced in general accordance with the procedures for ground investigation, interpretation and reporting set out in Environment Agency guidance Land Contamination Risk Management (LCRM) (England), BS 5930:2015 (+A1:2020), BS 10175:2011 (+A2:2017) and BS EN 1997 (Eurocode 7).

This assessment considers the objectives of the National Planning Policy Framework which requires information to demonstrate that a site is suitable for its new use (taking account of ground conditions and land instability) and not capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990 (after remediation). The NPPF requires adequate site investigation information, prepared by a competent person.

Definitions of Consequence, Probability and Risk

The following classification has been taken from Guidance for the Safe Development of Housing on Land Affected by Contamination R&D66: 2008 Volume 1 (Environment Agency, NHBC and CIEH).

The key to the classification is that the designation of risk is based upon the consideration of both:

- a) the magnitude of the potential consequence (i.e. severity).
[takes into account both the potential severity of the hazard and the sensitivity of the receptor]
- b) the magnitude of probability (i.e. likelihood).
[takes into account both the presence of the hazard and receptor and the integrity of the pathway]

Classification of Consequence

Classification	Definition	Examples
Severe	Highly elevated concentrations likely to result in "significant harm" to human health as defined by the EPA 1990, Part 2A, if exposure occurs. Equivalent to EA Category 1 pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning	Significant harm to humans is defined in circular 01.2006 as death, disease*, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. Major fish kill in surface water from large spillage of contaminants from site. Highly elevated concentrations of List I and II substances present in groundwater close to small potable abstraction (high sensitivity).

Classification	Definition	Examples
	<p>or harm to a species of special interest that endangers the long-term maintenance of the population.</p> <p>Catastrophic damage to crops, buildings or property.</p>	<p>Explosion, causing building collapse (can also equate to immediate human health risk if buildings are occupied).</p>
Medium	<p>Elevated concentrations which could result in "significant harm" to human health as defined by the EPA 1990, Part 2A if exposure occurs.</p> <p>Equivalent to EA Category 2 pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce.</p> <p>Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population.</p> <p>Significant damage to crops, buildings or property.</p>	<p>Significant harm to humans is defined in circular 01/2006 as death, disease*, serious injury, genetic mutation, birth defects or the impairment of reproductive functions.</p> <p>Damage to building rendering it unsafe to occupy e.g. foundation damage resulting in instability.</p> <p>Ingress of contaminants through plastic potable water pipes.</p>
Mild	<p>Exposure to human health unlikely to lead to "significant harm".</p> <p>Equivalent to EA Category 3 pollution incident including minimal or short lived effect on water quality; marginal effect on amenity value, agriculture or commerce.</p> <p>Minor or short lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population.</p> <p>Minor damage to crops, buildings or property.</p>	<p>Exposure could lead to slight short-term effects (e.g. mild skin rash).</p> <p>Surface spalling of concrete.</p>
Minor	<p>No measurable effect on humans.</p> <p>Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems.</p>	<p>The loss of plants in a landscaping scheme.</p> <p>Discoloration of concrete.</p>

Classification	Definition	Examples
	Repairable effects of damage to buildings, structures and services.	

Classification of Probability

Classification	Definition	Examples
High likelihood	There is pollutant linkage and an event would appear very likely in the short-term and almost inevitable over the long-term, or there is evidence at the receptor of harm or pollution.	<p>a) <i>Elevated concentrations of toxic contaminants are present in soils in the top 0.5m in a residential garden.</i></p> <p>b) <i>Ground/groundwater contamination could be present from chemical works, containing a number of USTs, having been in operation on the same site for over 50 years.</i></p>
Likely	There is pollutant 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.	<p>a) <i>Elevated concentrations of toxic contaminants are present in soils at depths of 0.5-1.0m in a residential garden, or the top 0.5m in public open space.</i></p> <p>b) <i>Ground/groundwater contamination could be present from an industrial site containing a UST present between 1970 and 1990. The tank is known to be single skin. There is no evidence of leakage although there are no records of integrity tests.</i></p>
Low likelihood	There is pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a long period such an event would take place, and is less likely in the shorter term.	<p>a) <i>Elevated concentrations of toxic contaminants are present in soils at depths >1m in a residential garden, or 0.5-1.0m in public open space.</i></p> <p>b) <i>Ground/groundwater contamination could be present on a light industrial unit constructed in the 1990s containing a UST in operation over the last 10 years – the tank is double skinned but there is no integrity testing or evidence of leakage.</i></p>
Unlikely	There is pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long-term.	<p>a) <i>Elevated concentrations of toxic contaminants are present below hardstanding.</i></p> <p>b) <i>Light industrial units <10 yrs old containing a double-skinned UST with annual integrity testing results available.</i></p>

- Note: A pollution linkage must first be established before probability is classified. If there is no pollution linkage then there is no potential risk. If there is no pollution linkage then there is no need to apply tests for probability and consequence.
- For example, if there is surface contamination and a principal aquifer is present at depth, but this principal aquifer is overlain by an aquiclude of significant thickness then there is no pollution linkage and the risks to the principal aquifer are not assessed. The report should identify both the source and the receptor but state that because there is no linkage there are no potential risks.

Description of the Classified Risks

Very high risk

- There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without remediation action OR there is evidence that severe harm to a designated receptor is already occurring. Realisation of that risk is likely to present a substantial liability to be site owner/or occupier. Investigation is required as a matter of urgency and remediation works likely to follow in the short-term.

High risk

- Harm is likely to arise to a designated receptor from an identified hazard at the site without remediation action. Realisation of the risk is likely to present a substantial liability to the site owner/or occupier. Investigation is required as a matter of urgency to clarify the risk. Remediation 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 either relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely, that the harm would be relatively mild. Further investigative work is normally required to clarify the risk and to determine the potential liability to site owner/occupier. Some remediation works may be required in the longer term.

Low risk

- It is possible that harm could arise to a designated receptor from identified hazard, but it is likely at worst, that this harm if realised would normally be mild. It is unlikely that the site owner/or occupier would face substantial liabilities from such a risk. Further investigative work (which is likely to be limited) to clarify the risk may be required. Any subsequent remediation works are likely to be relatively limited.

Very low risk

- It is a low possibility that harm could arise to a designated receptor, but it is likely at worst, that the harm if realised would normally be mild or minor.

No potential risk

- There is no potential risk if no pollution linkage has been established.

LIMITATIONS

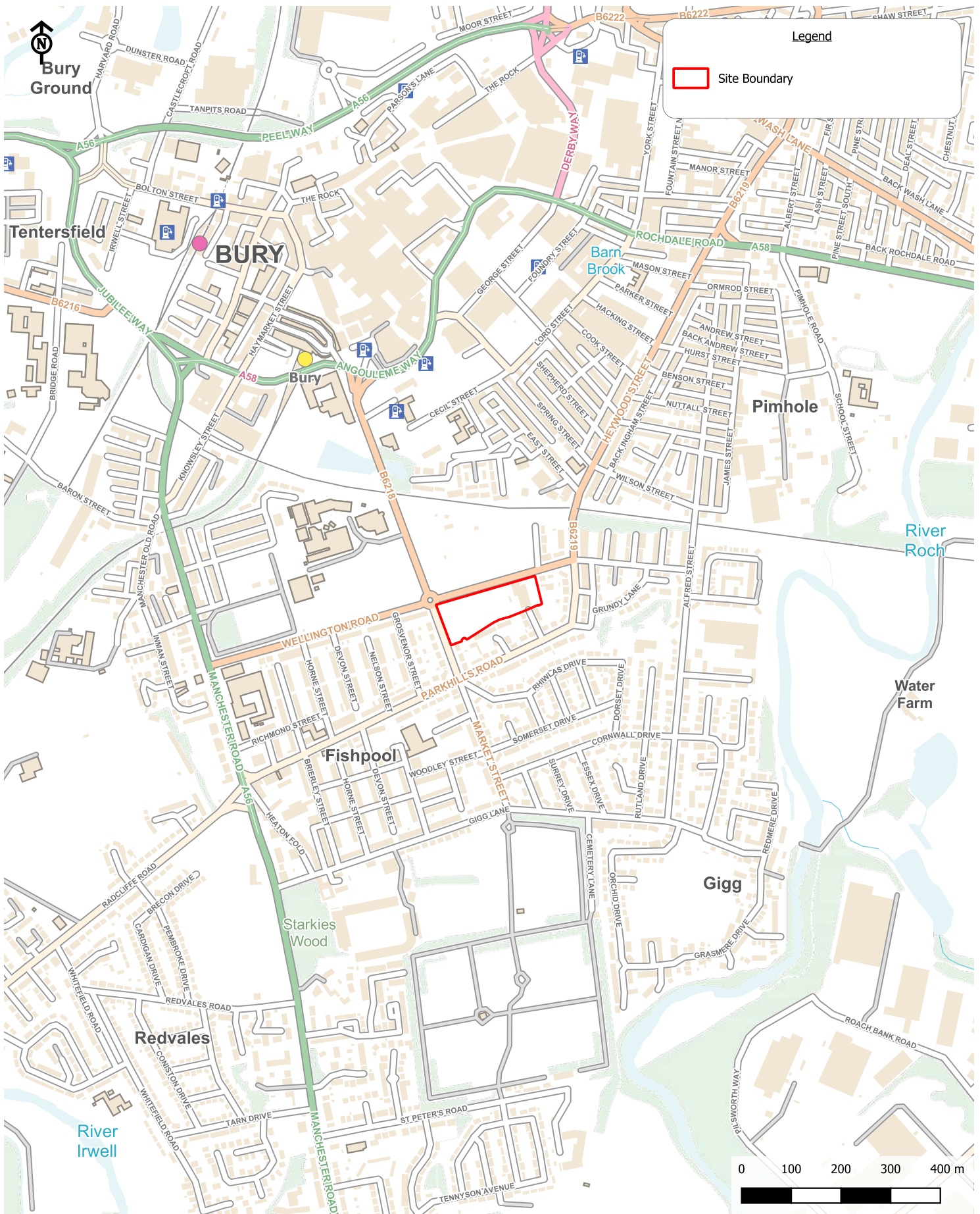
Environmental & Geotechnical Interpretative Reports

1. This report provides available factual data for the site obtained only from the sources described in the text and related to the site on the basis of the location information provided by the client.
2. Where any data or information supplied by the client or other external source, including that from previous studies, has been used, it has been assumed that the information is correct. No responsibility can be accepted by CampbellReith for inaccuracies within this data or information. In relation to historic maps, the accuracy of maps cannot be guaranteed and it should be recognized that different conditions on site may have existed between and subsequent to the various map surveys.
3. This report is limited to those aspects of historical land use and enquiries related to environmental matters reported on and no liability is accepted for any other aspects. The opinions expressed cannot be absolute due to the limit of time and resources implicit within the agreed brief and the possibility of unrecorded previous uses of the site and adjacent land.
4. The material encountered and samples obtained during on-site investigations represent only a small proportion of the materials present on the site. There may be other conditions prevailing at the site which have not been revealed and which have therefore not been taken into account in this report. These risks can be minimised and reduced by additional investigations. If significant variations become evident, additional specialist advice should be sought to assess the implications of these few findings.
5. The generalised soil conditions described in the text are intended to convey trends in subsurface conditions. The boundaries between strata are approximate and have been developed on interpretations of the exploration locations and samples collected.
6. Water level and gas readings have been taken at times and under conditions stated on the exploration logs. It must be noted that fluctuations in the level of groundwater or gas may occur due to a variety of factors, which may differ from those prevailing at the time the measurements were taken.
7. Please note that CampbellReith cannot accept any liability for observations or opinions expressed regarding the absence or presence of asbestos or on any product or waste that may contain asbestos. We recommend that an asbestos specialist, with appropriate professional indemnity insurance, is employed directly by the client in every case where asbestos may be present on the site or within the buildings or installations. Any comments made in this report with respect to asbestos, or asbestos containing materials, are only included to assist the client with the initial appraisal of the project and should not be relied upon in any way.
8. The findings and opinions expressed are relevant to those dates of the reported site work and should not be relied upon to represent conditions at substantially later dates.
9. This report is produced solely for the benefit of the client, and no liability is accepted for any reliance placed upon it by any other party unless specifically agreed in writing.

Appendix 1

Figures

- Figure 1: Site Location
- Figure 2: Annotated Site Layout Plan
- Figure 3: Artificial and Made Ground
- Figure 4: BGS Superficial Geology
- Figure 5: BGS Bedrock Geology
- Figure 6: Depth of Fill Encountered
- Figure 7: Location of Domestic Type Fill
- Figure 8: Location of Peat Encountered



Wellington Road, Bury
Client: Bury Council

Figure 1:
Site Location

Scale: 1:10000@A4
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Job Number: 14378
Drawn by - Checked by: RLF - SM
Drg No - Status/Revision: 14378-CR-X-XX-FG-G-7000 - P1
File location: N:\14250 - 14499\14378 M - Wellington Road\Project_Workspaces\DTs (pdf in Outputs)
Date (Revision History): 30/04/2025 (P1, First Issue, 30/04/25, RLF)

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Wellington Road, Bury

Client: Bury Council

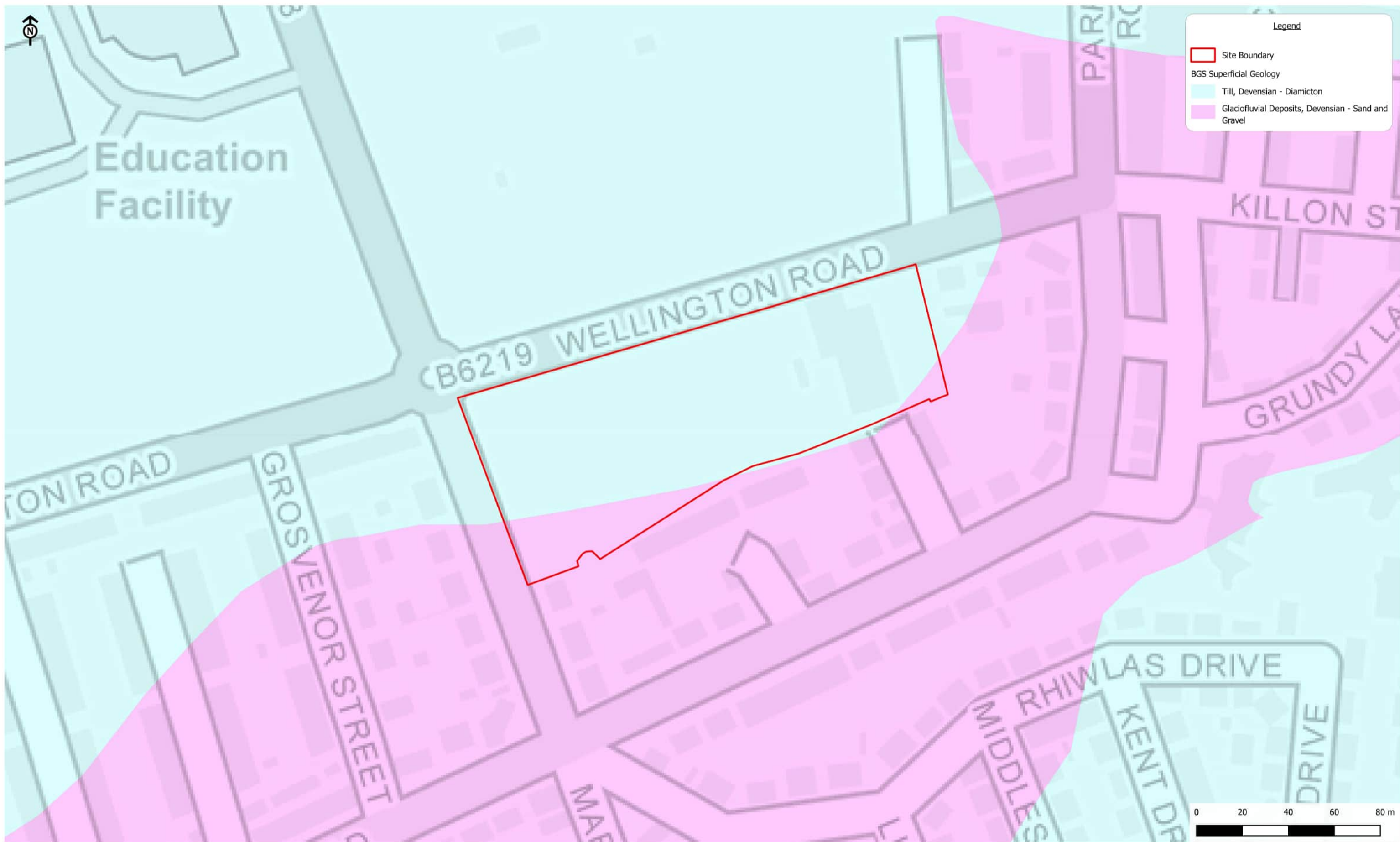
Figure 2:
Annotated Site Layout Plan



Wellington Road, Bury

Client: Bury Council

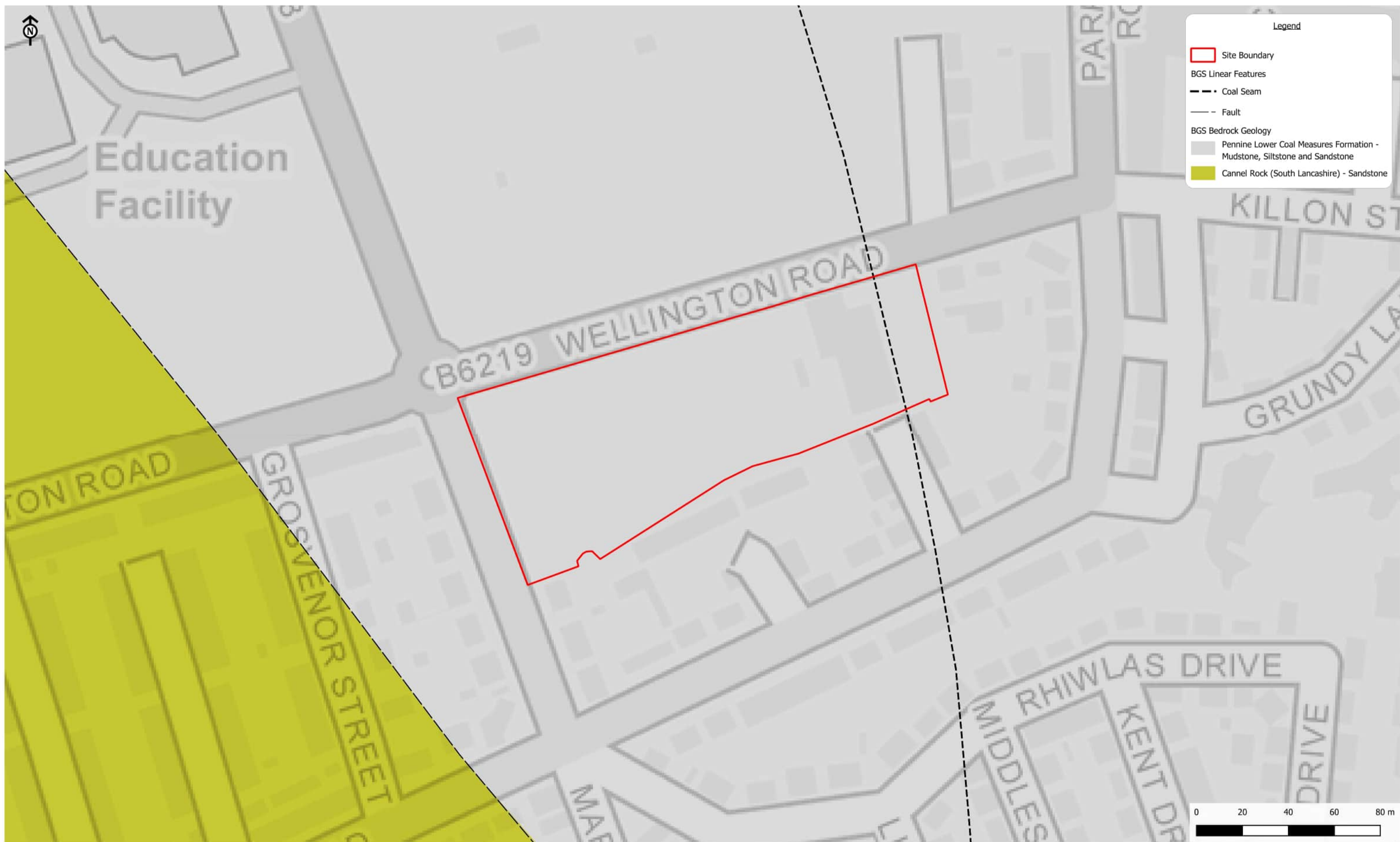
Figure 3:
Artificial and Made Ground



Wellington Road, Bury

Client: Bury Council

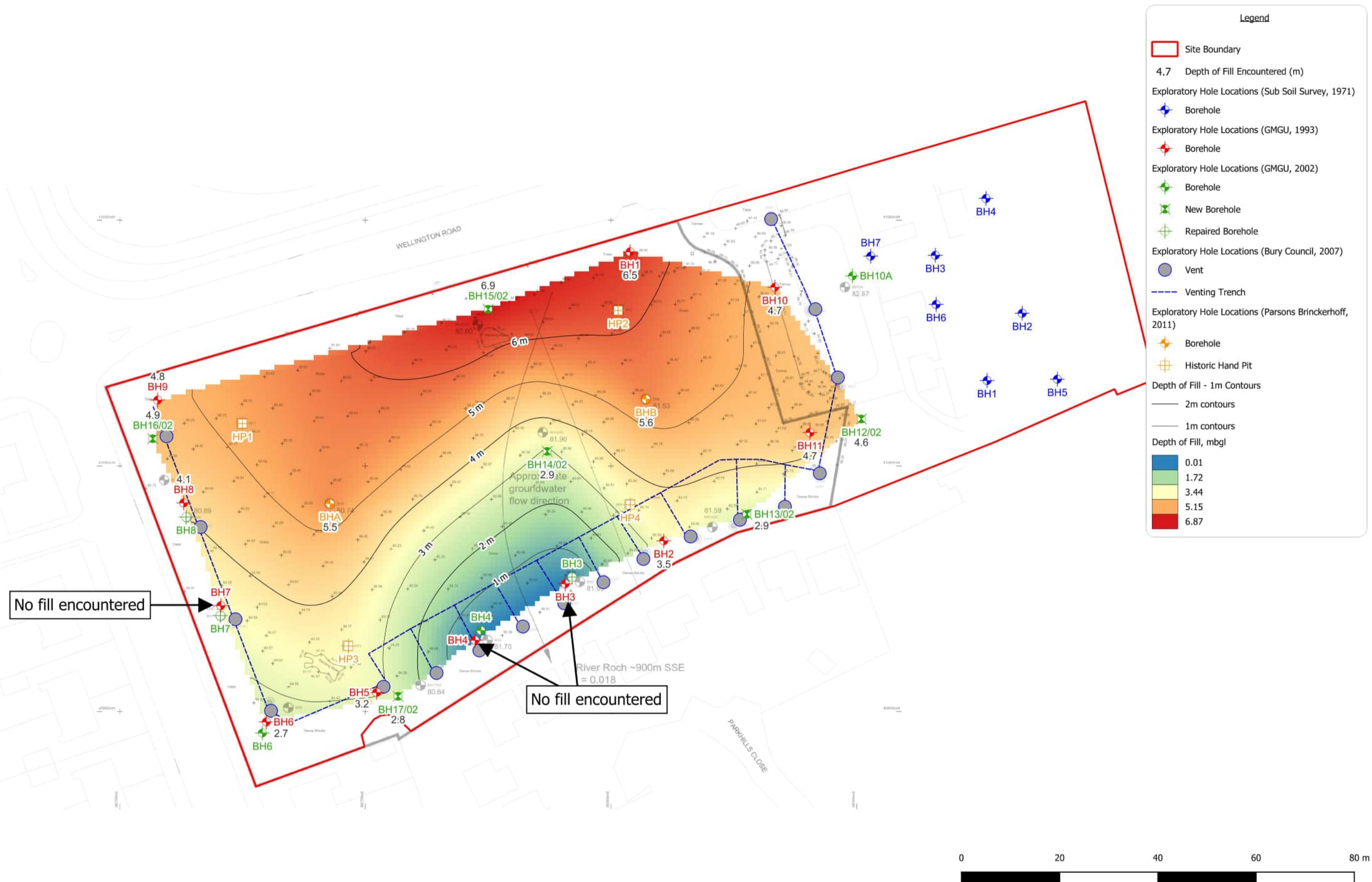
Figure 4:
BGS Superficial Geology



Wellington Road, Bury

Client: Bury Council

Figure 5:
BGS Bedrock Geology



Wellington Road, Bury

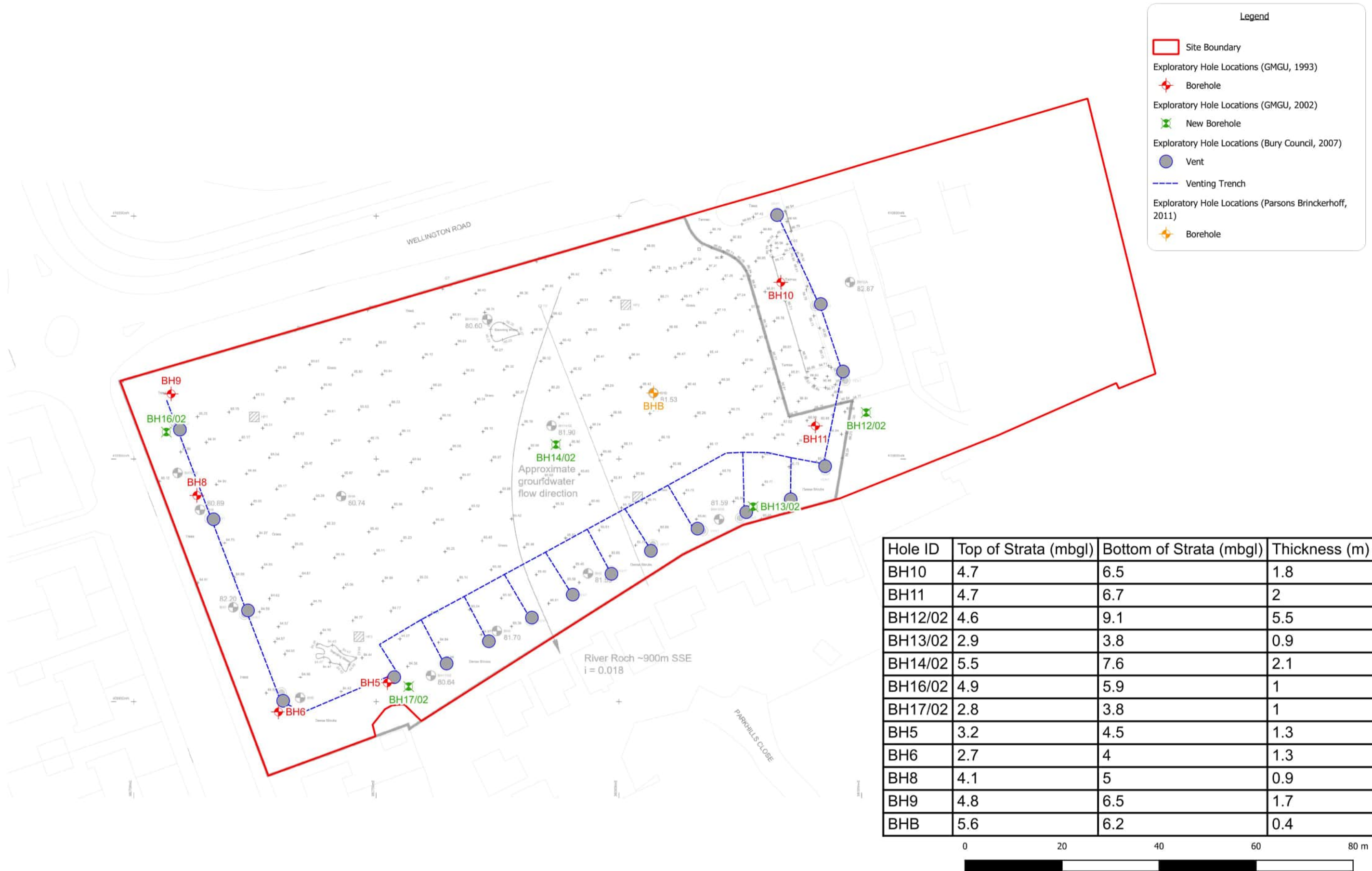
Client: Bury Council

Figure 6:
Depth of Fill Encountered



Wellington Road, Bury
Client: Bury Council

Figure 7:
Location of Domestic Type Fill



Wellington Road, Bury
Client: Bury Council

Figure 8:
Location of Peat Encountered

Appendix 2

Desk Study Information

Groundsure Report
Zetica UXO Risk Map
Initial EA Enquiry Reponse

LAND AT WELLINGTON ROAD, BURY, BL9 9AH

Order Details

Date: 17/04/2025
Your ref: 14378/A
Our Ref: CAR1-KAY-UYA-BLB-OYM

Site Details

Location: 380800 410008
Area: 1.43 ha
Authority: [Bury Metropolitan Borough Council](#) ↗



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Summary of findings

[p. 2 >](#) **Aerial image**

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#) **Insight User Guide** ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	2	10	19	66	-
19 >	1.2 >	Historical tanks >	0	0	3	8	-
20 >	1.3 >	Historical energy features >	0	0	1	8	-
21	1.4	Historical petrol stations	0	0	0	0	-
21 >	1.5 >	Historical garages >	0	0	0	4	-
21	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
22 >	2.1 >	Historical industrial land uses >	3	12	26	84	-
27 >	2.2 >	Historical tanks >	0	0	4	18	-
28 >	2.3 >	Historical energy features >	0	0	4	20	-
29	2.4	Historical petrol stations	0	0	0	0	-
29 >	2.5 >	Historical garages >	0	0	0	8	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
31	3.1	Active or recent landfill	0	0	0	0	-
31	3.2	Historical landfill (BGS records)	0	0	0	0	-
32 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	3	-
32 >	3.4 >	Historical landfill (EA/NRW records) >	1	0	1	0	-
33	3.5	Historical waste sites	0	0	0	0	-
33 >	3.6 >	Licensed waste sites >	0	0	0	1	-
33 >	3.7 >	Waste exemptions >	0	0	0	1	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
34 >	4.1 >	Recent industrial land uses >	0	2	4	-	-
35	4.2	Current or recent petrol stations	0	0	0	0	-
35	4.3	Electricity cables	0	0	0	0	-
35	4.4	Gas pipelines	0	0	0	0	-
35	4.5	Sites determined as Contaminated Land	0	0	0	0	-



36	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
36	4.7	Regulated explosive sites	0	0	0	0	-
36	4.8	Hazardous substance storage/usage	0	0	0	0	-
36	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
36	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
37 >	4.11 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	0	2	-
37	4.12	Radioactive Substance Authorisations	0	0	0	0	-
37 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	0	3	-
38	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
38	4.15	Pollutant release to public sewer	0	0	0	0	-
38	4.16	List 1 Dangerous Substances	0	0	0	0	-
38	4.17	List 2 Dangerous Substances	0	0	0	0	-
39 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	0	6	-
39	4.19	Pollution inventory substances	0	0	0	0	-
40	4.20	Pollution inventory waste transfers	0	0	0	0	-
40	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
41 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
43 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
45 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
46	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
46	5.5	Groundwater vulnerability- local information	None (within 0m)				
48 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	14
52 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	23
58 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	2
58	5.9	Source Protection Zones	0	0	0	0	-
59	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
60	6.1	Water Network (OS MasterMap)	0	0	0	-	-



60	6.2	Surface water features	0	0	0	-	-
61 >	6.3 >	WFD Surface water body catchments >	2	-	-	-	-
61 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
62 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
63	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
63	7.2	Historical Flood Events	0	0	0	-	-
63	7.3	Flood Defences	0	0	0	-	-
64	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
64	7.5	Flood Storage Areas	0	0	0	-	-
65	7.6	Flood Zone 2	None (within 50m)				
65	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
66 >	8.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
68 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
69	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
70	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
70	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
70	10.4	Special Protection Areas (SPA)	0	0	0	0	0
70	10.5	National Nature Reserves (NNR)	0	0	0	0	0
71 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	2
71	10.7	Designated Ancient Woodland	0	0	0	0	0
71	10.8	Biosphere Reserves	0	0	0	0	0
71	10.9	Forest Parks	0	0	0	0	0
72	10.10	Marine Conservation Zones	0	0	0	0	0
72 >	10.11 >	Green Belt >	0	0	0	0	6
72	10.12	Proposed Ramsar sites	0	0	0	0	0



72	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
73	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
73	10.15	Nitrate Sensitive Areas	0	0	0	0	0
73	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
74 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
75	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
76	11.1	World Heritage Sites	0	0	0	-	-
77	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
77	11.3	National Parks	0	0	0	-	-
77 >	11.4 >	Listed Buildings >	0	0	1	-	-
78	11.5	Conservation Areas	0	0	0	-	-
78	11.6	Scheduled Ancient Monuments	0	0	0	-	-
78	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
79 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
80	12.2	Open Access Land	0	0	0	-	-
80	12.3	Tree Felling Licences	0	0	0	-	-
80	12.4	Environmental Stewardship Schemes	0	0	0	-	-
80	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
81	13.1	Priority Habitat Inventory	0	0	0	-	-
81	13.2	Habitat Networks	0	0	0	-	-
82 >	13.3 >	Open Mosaic Habitat >	0	0	1	-	-
82	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
83 >	14.1 >	10k Availability >	Identified (within 500m)				
84 >	14.2 >	Artificial and made ground (10k) >	3	2	3	7	-
86 >	14.3 >	Superficial geology (10k) >	4	0	3	6	-



87	14.4	Landslip (10k)	0	0	0	0	-
88 >	14.5 >	Bedrock geology (10k) >	2	0	8	10	-
89 >	14.6 >	Bedrock faults and other linear features (10k) >	1	1	6	4	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
91 >	15.1 >	50k Availability >	Identified (within 500m)				
92 >	15.2 >	Artificial and made ground (50k) >	0	1	0	0	-
93	15.3	Artificial ground permeability (50k)	0	0	-	-	-
94 >	15.4 >	Superficial geology (50k) >	2	0	2	4	-
95 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
95	15.6	Landslip (50k)	0	0	0	0	-
96	15.7	Landslip permeability (50k)	None (within 50m)				
97 >	15.8 >	Bedrock geology (50k) >	1	0	4	1	-
98 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
98 >	15.10 >	Bedrock faults and other linear features (50k) >	1	0	3	2	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
99 >	16.1 >	BGS Boreholes >	0	0	3	-	-
Page	Section	Natural ground subsidence >					
101 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
102 >	17.2 >	Running sands >	Very low (within 50m)				
103 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
104 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
105 >	17.5 >	Landslides >	Very low (within 50m)				
106 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
108	18.1	BritPits	0	0	0	0	-
109 >	18.2 >	Surface ground workings >	3	12	17	-	-
110	18.3	Underground workings	0	0	0	0	0
110	18.4	Underground mining extents	0	0	0	0	-
110	18.5	Historical Mineral Planning Areas	0	0	0	0	-



111	18.6	Non-coal mining	0	0	0	0	0
111	18.7	JPB mining areas	None (within 0m)				
111	18.8	The Coal Authority non-coal mining	0	0	0	0	-
111	18.9	Researched mining	0	0	0	0	-
112	18.10	Mining record office plans	0	0	0	0	-
112	18.11	BGS mine plans	0	0	0	0	-
112 >	18.12 >	Coal mining >	Identified (within 0m)				
112	18.13	Brine areas	None (within 0m)				
113	18.14	Gypsum areas	None (within 0m)				
113	18.15	Tin mining	None (within 0m)				
113	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes >	On site	0-50m	50-250m	250-500m	500-2000m
114	19.1	Natural cavities	0	0	0	0	-
115 >	19.2 >	Mining cavities >	0	0	0	0	1
115	19.3	Reported recent incidents	0	0	0	0	-
115 >	19.4 >	Historical incidents >	0	0	0	1	-
Page	Section	Radon >					
117 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
119 >	21.1 >	BGS Estimated Background Soil Chemistry >	4	2	-	-	-
119	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
120	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
121	22.1	Underground railways (London)	0	0	0	-	-
121	22.2	Underground railways (Non-London)	0	0	0	-	-
122	22.3	Railway tunnels	0	0	0	-	-
122 >	22.4 >	Historical railway and tunnel features >	0	0	14	-	-
123	22.5	Royal Mail tunnels	0	0	0	-	-
123 >	22.6 >	Historical railways >	0	0	2	-	-

123 >	22.7 >	Railways >	0	0	5	-	-
124	22.8	Crossrail 2	0	0	0	0	-
124	22.9	HS2	0	0	0	0	-

Recent aerial photograph



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Capture Date: 07/04/2023

Site Area: 1.43ha



Recent site history - 2019 aerial photograph



Capture Date: 23/05/2019

Site Area: 1.43ha



Recent site history - 2001 aerial photograph



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Capture Date: 07/05/2001

Site Area: 1.43ha



Recent site history - 2000 aerial photograph



Capture Date: 27/06/2000

Site Area: 1.43ha



Recent site history - 1999 aerial photograph



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Capture Date: 10/09/1999

Site Area: 1.43ha



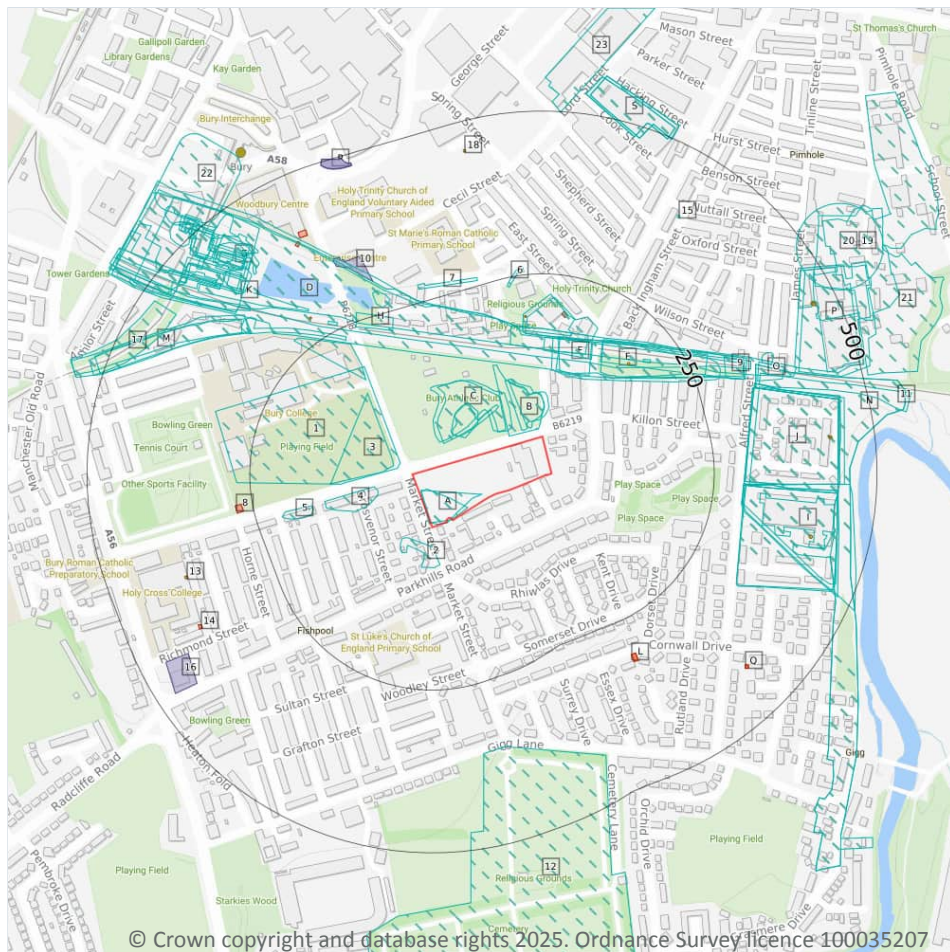
OS MasterMap site plan



Site Area: 1.43ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

97

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 15](#) >

ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Pit	1955	727986



ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Pit	1974 - 1981	796059
B	13m NE	Unspecified Pit	1908	720146
B	17m NE	Unspecified Pit	1928 - 1938	709406
B	17m NE	Unspecified Ground Workings	1956	662678
C	24m NE	Sand Pit	1956	674410
1	25m W	Unspecified Pit	1956 - 1967	713634
C	26m NE	Refuse Heap	1938	789116
2	28m SW	Unspecified Ground Workings	1891	662679
C	31m N	Refuse Heap	1908	800000
3	32m W	Unspecified Pit	1983	746753
C	36m NW	Unspecified Ground Workings	1928	662680
4	58m W	Unspecified Pit	1908	677522
D	100m NE	Railway Sidings	1908 - 1938	778756
E	103m NE	Cuttings	1908 - 1938	804507
E	104m NE	Cuttings	1983	777090
F	105m NE	Cuttings	1956 - 1967	731891
D	121m NE	Railway Sidings	1956 - 1967	784878
F	131m NE	Cuttings	1851	788573
E	133m NE	Cuttings	1891	743607
G	133m NE	Railway Sidings	1891	754148
E	133m NE	Cuttings	1956 - 1967	777864
E	146m NE	Cuttings	1851	715574
F	154m NE	Unspecified Commercial/Industrial	1956	670472
F	159m NE	Unspecified Mill	1967	673479
5	162m W	Unspecified Pit	1908	677523
D	162m NW	Unspecified Pit	1983	717145
E	193m NE	Railway Building	1908	703030
H	220m NW	Cuttings	1851	653517



ID	Location	Land use	Dates present	Group ID
D	230m NW	Unspecified Ground Workings	1983	662677
6	235m N	Unspecified Ground Workings	1956	660958
D	257m NW	Railway Building	1908	703029
7	258m N	Rope Walk	1851	691259
H	259m NW	Unspecified Heap	1983	688402
I	295m E	Unspecified Mill	1908	720320
I	295m E	Unspecified Mill	1955	797838
J	296m E	Weaving Shed	1908	685530
J	296m E	Cotton Weaving Mills	1928 - 1938	801240
9	297m NE	Cuttings	1983	737701
I	297m E	Unspecified Mill	1981	745441
I	297m E	Unspecified Mill	1965	788290
K	298m NW	Railway Sidings	1851	786289
J	298m E	Unspecified Warehouse	1983	692358
J	298m E	Unspecified Mill	1967	719508
I	299m E	Unspecified Mill	1974	747401
J	304m E	Cotton Weaving Mill	1956	680603
I	322m E	Unspecified Mill	1928 - 1938	711986
M	330m NW	Cuttings	1956	781310
M	333m NW	Cuttings	1967	710424
N	336m E	Railway Sidings	1908	719277
N	336m E	Railway Sidings	1928 - 1938	760114
M	340m NW	Cuttings	1908 - 1938	719786
O	341m E	Cuttings	1851	782281
11	342m E	Railway Sidings	1956	712599
K	354m NW	Railway Sidings	1851	708050
12	355m S	Cemetery	1965 - 1981	775803
O	356m E	Gravel Pit	1851	699648



ID	Location	Land use	Dates present	Group ID
K	368m NW	Cuttings	1967	653208
K	380m NW	Unspecified Ground Workings	1983	660957
K	382m NW	Railway Building	1956	751536
K	386m NW	Railway Building	1928 - 1938	762206
K	391m NW	Unspecified Ground Workings	1851	786882
K	391m NW	Railway Building	1967	739659
15	396m NE	Pump	1851	682539
K	400m NW	Railway Buildings	1851 - 1891	770243
P	402m E	Unspecified Mill	1967 - 1983	789985
K	404m NW	Railway Building	1956	790397
P	406m E	Unspecified Mill	1956	793071
K	409m NW	Railway Building	1908	801911
K	409m NW	Railway Building	1928 - 1938	789865
K	411m NW	Railway Building	1851	787359
K	413m NW	Railway Station	1967	666350
K	414m NW	Goods Station	1891	657699
K	415m NW	Railway Building	1908	703028
K	417m NW	Unspecified Ground Workings	1983	779095
K	420m NW	Railway Building	1908	789528
K	422m NW	Railway Building	1891	785284
17	438m NW	Cuttings	1983	757213
P	440m NE	Unspecified Mill	1928 - 1938	796720
K	452m NW	Railway Sidings	1851	722309
K	452m NW	Goods Station	1956	800889
K	456m NW	Railway Station	1956	778607
K	457m NW	Railway Station	1908 - 1938	715889
K	457m NW	Goods Station	1928 - 1938	798951
K	459m NW	Goods Station	1908	805625



ID	Location	Land use	Dates present	Group ID
19	463m NE	Unspecified Mills	1891	722316
K	463m NW	Railway Station	1851	727048
K	463m NW	Railway Station	1967	740912
20	475m NE	Unspecified Hole	1983	664298
21	479m NE	Woollen Mill	1851	657548
S	482m NE	Iron Works	1928 - 1938	715028
S	482m NE	Unspecified Commercial/Industrial	1891 - 1908	754108
S	482m NE	Iron Works	1956	770469
S	482m NE	Unspecified Works	1967 - 1983	800914
K	493m NW	Unspecified Pit	1983	675607
22	496m NW	Abattoirs	1908 - 1928	725983
23	499m N	Unspecified Mill	1956	753371

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

11

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 15 >](#)

ID	Location	Land use	Dates present	Group ID
E	171m NE	Unspecified Tank	1957 - 1959	101653
F	185m N	Unspecified Tank	1959	92597
F	185m N	Unspecified Tank	1957	107217
D	285m NW	Unspecified Tank	1957 - 1959	91501
13	378m W	Unspecified Tank	1982 - 1992	103582
I	407m E	Unspecified Tank	1957 - 1958	105570



ID	Location	Land use	Dates present	Group ID
J	429m E	Unspecified Tank	1984	104943
J	430m E	Unspecified Tank	1957 - 1970	104810
18	453m N	Unspecified Tank	1891	103002
P	460m NE	Unspecified Tank	1891	106310
P	461m NE	Unspecified Tank	1957 - 1984	107269

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

9

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 15 >](#)

ID	Location	Land use	Dates present	Group ID
F	186m NE	Electricity Substation	1976 - 1992	61555
8	266m W	Electricity Substation	1982 - 1992	53168
L	304m SE	Electricity Substation	1973	61371
L	304m SE	Electricity Substation	1992 - 1998	56296
14	385m SW	Electricity Substation	1982 - 1992	59549
G	391m NW	Electricity Substation	1992	58604
G	401m NW	Electricity Substation	1976 - 1981	51080
Q	418m SE	Electricity Substation	1973	56007
Q	419m SE	Electricity Substation	1992 - 1998	57757

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

4

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 15 >](#)

ID	Location	Land use	Dates present	Group ID
10	302m NW	Garage	1976 - 1981	22008
16	422m SW	Garage	1957 - 1958	20164
R	481m NW	Garage	1992	19493
R	482m N	Garage	1976 - 1981	21935

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

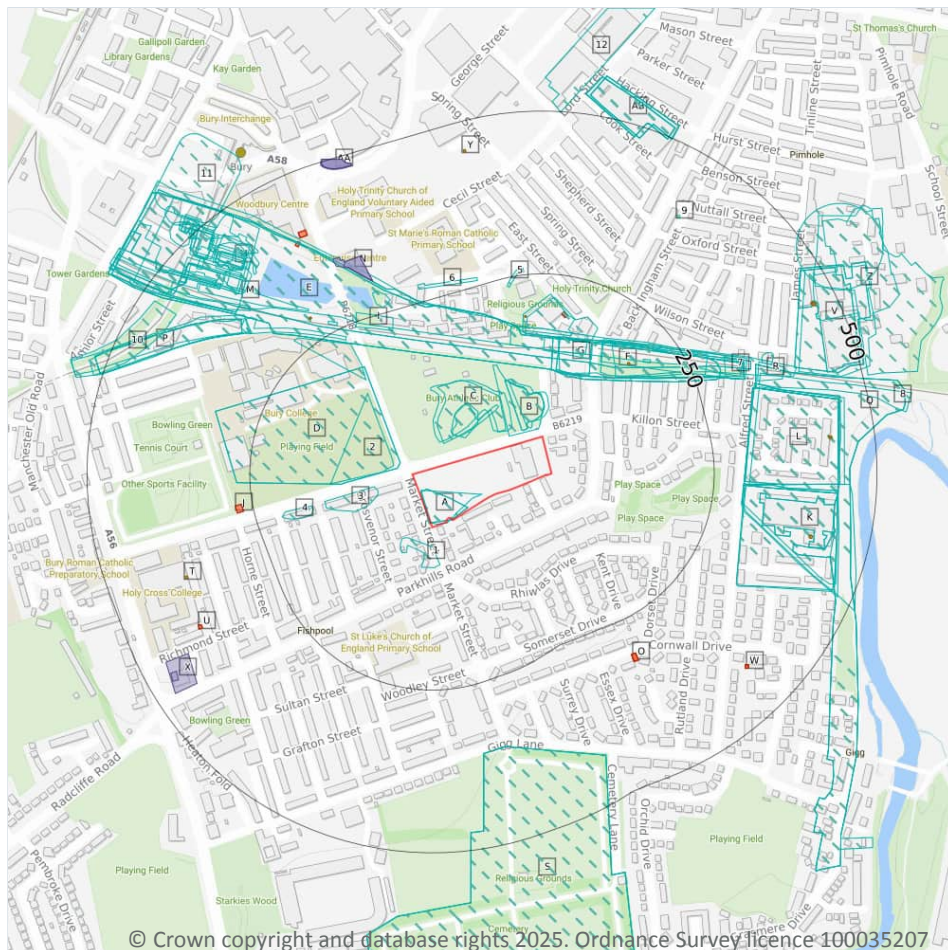
0

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



- 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

125

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 22](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Pit	1981	796059
A	On site	Unspecified Pit	1974	796059
A	On site	Unspecified Pit	1955	727986



ID	Location	Land Use	Date	Group ID
B	13m NE	Unspecified Pit	1908	720146
B	17m NE	Unspecified Pit	1938	709406
B	17m NE	Unspecified Pit	1928	709406
B	17m NE	Unspecified Ground Workings	1956	662678
C	24m NE	Sand Pit	1956	674410
D	25m W	Unspecified Pit	1956	713634
D	25m W	Unspecified Pit	1967	713634
C	26m NE	Refuse Heap	1938	789116
1	28m SW	Unspecified Ground Workings	1891	662679
C	31m N	Refuse Heap	1908	800000
2	32m W	Unspecified Pit	1983	746753
C	36m NW	Unspecified Ground Workings	1928	662680
3	58m W	Unspecified Pit	1908	677522
E	100m NE	Railway Sidings	1938	778756
E	100m NE	Railway Sidings	1928	778756
E	100m NE	Railway Sidings	1908	778756
F	103m NE	Cuttings	1938	804507
F	103m NE	Cuttings	1928	804507
F	103m NE	Cuttings	1908	804507
F	104m NE	Cuttings	1983	777090
G	105m NE	Cuttings	1956	731891
G	105m NE	Cuttings	1967	731891
E	121m NE	Railway Sidings	1956	784878
E	121m NE	Railway Sidings	1967	784878
G	131m NE	Cuttings	1851	788573
F	133m NE	Cuttings	1891	743607
H	133m NE	Railway Sidings	1891	754148
F	133m NE	Cuttings	1967	777864



ID	Location	Land Use	Date	Group ID
F	145m NE	Cuttings	1956	777864
F	146m NE	Cuttings	1851	715574
G	154m NE	Unspecified Commercial/Industrial	1956	670472
G	159m NE	Unspecified Mill	1967	673479
4	162m W	Unspecified Pit	1908	677523
E	162m NW	Unspecified Pit	1983	717145
F	193m NE	Railway Building	1908	703030
I	220m NW	Cuttings	1851	653517
E	230m NW	Unspecified Ground Workings	1983	662677
5	235m N	Unspecified Ground Workings	1956	660958
E	257m NW	Railway Building	1908	703029
6	258m N	Rope Walk	1851	691259
I	259m NW	Unspecified Heap	1983	688402
K	295m E	Unspecified Mill	1908	720320
K	295m E	Unspecified Mill	1955	797838
L	296m E	Cotton Weaving Mills	1938	801240
L	296m E	Cotton Weaving Mills	1928	801240
L	296m E	Weaving Shed	1908	685530
7	297m NE	Cuttings	1983	737701
K	297m E	Unspecified Mill	1981	745441
K	297m E	Unspecified Mill	1965	788290
M	298m NW	Railway Sidings	1851	786289
L	298m E	Unspecified Warehouse	1983	692358
L	298m E	Unspecified Mill	1967	719508
K	299m E	Unspecified Mill	1974	747401
L	304m E	Cotton Weaving Mill	1956	680603
K	322m E	Unspecified Mill	1938	711986
K	322m E	Unspecified Mill	1928	711986



ID	Location	Land Use	Date	Group ID
P	330m NW	Cuttings	1956	781310
P	333m NW	Cuttings	1967	710424
Q	336m E	Railway Sidings	1938	760114
Q	336m E	Railway Sidings	1928	760114
Q	336m E	Railway Sidings	1908	719277
P	340m NW	Cuttings	1938	719786
P	340m NW	Cuttings	1928	719786
P	340m NW	Cuttings	1908	719786
R	341m E	Cuttings	1851	782281
8	342m E	Railway Sidings	1956	712599
M	354m NW	Railway Sidings	1851	708050
S	355m S	Cemetery	1981	775803
S	355m S	Cemetery	1974	775803
S	355m S	Cemetery	1965	775803
R	356m E	Gravel Pit	1851	699648
M	368m NW	Cuttings	1967	653208
M	380m NW	Unspecified Ground Workings	1983	660957
M	382m NW	Railway Building	1956	751536
M	386m NW	Railway Building	1938	762206
M	386m NW	Railway Building	1928	762206
M	391m NW	Unspecified Ground Workings	1851	786882
M	391m NW	Railway Building	1967	739659
9	396m NE	Pump	1851	682539
M	400m NW	Railway Buildings	1851	770243
V	402m E	Unspecified Mill	1983	789985
V	402m E	Unspecified Mill	1967	789985
M	404m NW	Railway Building	1956	790397
V	406m E	Unspecified Mill	1956	793071



ID	Location	Land Use	Date	Group ID
M	409m NW	Railway Building	1908	801911
M	409m NW	Railway Building	1938	789865
M	409m NW	Railway Building	1928	789865
M	411m NW	Railway Building	1851	787359
M	413m NW	Railway Station	1967	666350
M	414m NW	Goods Station	1891	657699
M	415m NW	Railway Building	1908	703028
M	417m NW	Unspecified Ground Workings	1983	779095
M	420m NW	Railway Building	1908	789528
M	422m NW	Railway Building	1891	785284
10	438m NW	Cuttings	1983	757213
V	440m NE	Unspecified Mill	1938	796720
V	440m NE	Unspecified Mill	1928	796720
M	452m NW	Railway Sidings	1851	722309
M	452m NW	Goods Station	1956	800889
M	456m NW	Railway Station	1956	778607
M	457m NW	Railway Station	1938	715889
M	457m NW	Railway Station	1928	715889
M	457m NW	Railway Station	1908	715889
M	457m NW	Goods Station	1938	798951
M	457m NW	Goods Station	1928	798951
M	459m NW	Goods Station	1908	805625
Z	463m NE	Unspecified Mills	1891	722316
M	463m NW	Railway Station	1851	727048
M	463m NW	Railway Station	1967	740912
M	467m NW	Railway Buildings	1891	770243
Z	475m NE	Unspecified Hole	1983	664298
Z	479m NE	Woollen Mill	1851	657548



ID	Location	Land Use	Date	Group ID
AB	482m NE	Iron Works	1938	715028
AB	482m NE	Unspecified Commercial/Industrial	1891	754108
AB	482m NE	Iron Works	1928	715028
AB	482m NE	Unspecified Commercial/Industrial	1908	754108
AB	482m NE	Unspecified Works	1983	800914
AB	482m NE	Iron Works	1956	770469
AB	482m NE	Unspecified Works	1967	800914
M	493m NW	Unspecified Pit	1983	675607
11	496m NW	Abattoirs	1928	725983
12	499m N	Unspecified Mill	1956	753371

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	22
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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 22 >](#)

ID	Location	Land Use	Date	Group ID
F	171m NE	Unspecified Tank	1959	101653
F	172m NE	Unspecified Tank	1957	101653
G	185m N	Unspecified Tank	1959	92597
G	185m N	Unspecified Tank	1957	107217
E	285m NW	Unspecified Tank	1957	91501
E	286m NW	Unspecified Tank	1959	91501
T	378m W	Unspecified Tank	1992	103582
T	379m W	Unspecified Tank	1982	103582
K	407m E	Unspecified Tank	1957	105570
K	407m E	Unspecified Tank	1958	105570



ID	Location	Land Use	Date	Group ID
L	429m E	Unspecified Tank	1984	104943
L	430m E	Unspecified Tank	1957	104810
L	430m E	Unspecified Tank	1970	104810
L	430m E	Unspecified Tank	1959	104810
Y	453m N	Unspecified Tank	1891	103002
Y	453m N	Unspecified Tank	1891	103002
V	460m NE	Unspecified Tank	1891	106310
V	460m NE	Unspecified Tank	1891	106310
V	461m NE	Unspecified Tank	1984	107269
V	462m NE	Unspecified Tank	1959	107269
V	462m NE	Unspecified Tank	1957	107269
V	462m NE	Unspecified Tank	1970	107269

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

24

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 22 >](#)

ID	Location	Land Use	Date	Group ID
G	186m NE	Electricity Substation	1992	61555
G	186m NE	Electricity Substation	1992	61555
G	187m NE	Electricity Substation	1981	61555
G	187m NE	Electricity Substation	1976	61555
J	266m W	Electricity Substation	1992	53168
J	266m W	Electricity Substation	1982	53168
O	304m SE	Electricity Substation	1973	61371
O	304m SE	Electricity Substation	1997	56296



ID	Location	Land Use	Date	Group ID
O	304m SE	Electricity Substation	1996	56296
O	304m SE	Electricity Substation	1996	56296
O	304m SE	Electricity Substation	1998	56296
O	304m SE	Electricity Substation	1992	56296
U	385m SW	Electricity Substation	1992	59549
U	385m SW	Electricity Substation	1982	59549
H	391m NW	Electricity Substation	1992	58604
H	391m NW	Electricity Substation	1992	58604
H	401m NW	Electricity Substation	1976	51080
H	402m NW	Electricity Substation	1981	51080
W	418m SE	Electricity Substation	1973	56007
W	419m SE	Electricity Substation	1997	57757
W	419m SE	Electricity Substation	1996	57757
W	419m SE	Electricity Substation	1996	57757
W	419m SE	Electricity Substation	1998	57757
W	419m SE	Electricity Substation	1992	57757

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

8

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'.



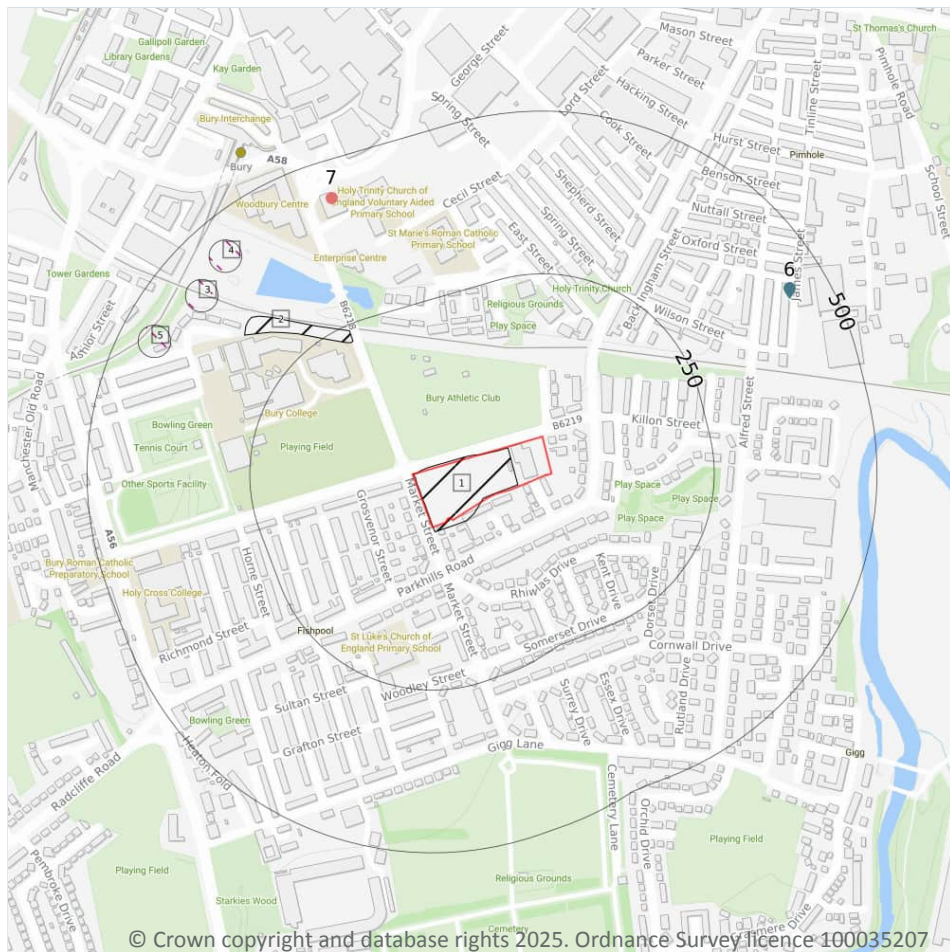
Features are displayed on the Past land use - un-grouped map on [page 22 >](#)

ID	Location	Land Use	Date	Group ID
N	302m NW	Garage	1976	22008
N	303m NW	Garage	1981	22008
X	422m SW	Garage	1957	20164
X	451m SW	Garage	1958	20164
AA	481m NW	Garage	1992	19493
AA	481m NW	Garage	1992	19493
AA	482m N	Garage	1981	21935
AA	482m N	Garage	1976	21935

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical landfill (EA/NRW)
- Historical landfill (LA/OS)
- Licensed waste sites
- 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

3

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

Features are displayed on the Waste and landfill map on [page 31 >](#)

ID	Location	Site address	Source	Data type
3	399m NW	Railway Cuttings	Historical Mapping	Point
4	417m NW	-	Historical Mapping	Point
5	421m NW	Railway Cuttings	Historical Mapping	Point

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

2

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.

Features are displayed on the Waste and landfill map on [page 31 >](#)

ID	Location	Details		
1	On site	Site Address: Wellington Road, Bury, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: C085 Waste Type: Industrial, Commercial, Household, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: County Borough of Bury Licence Holder: - First Recorded 30/06/1971 Last Recorded: 31/10/1971
2	224m NW	Site Address: Peel College, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: C087 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

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

1

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

Features are displayed on the Waste and landfill map on [page 31 >](#)

ID	Location	Details		
6	441m NE	Site Name: J S M Contract Salvage Ltd Site Address: 7, James Street, Bury, Lancashire, BL9 7EG Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 646822 EPR reference: EA/EPR/SP3096CJ Operator: J S M Contract Salvage Limited Waste Management licence No: 53669 Annual Tonnage: 5000	Issue Date: 17/03/1995 Effective Date: 17/03/1995 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Surrendered

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

3.7 Waste exemptions

Records within 500m

1

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.

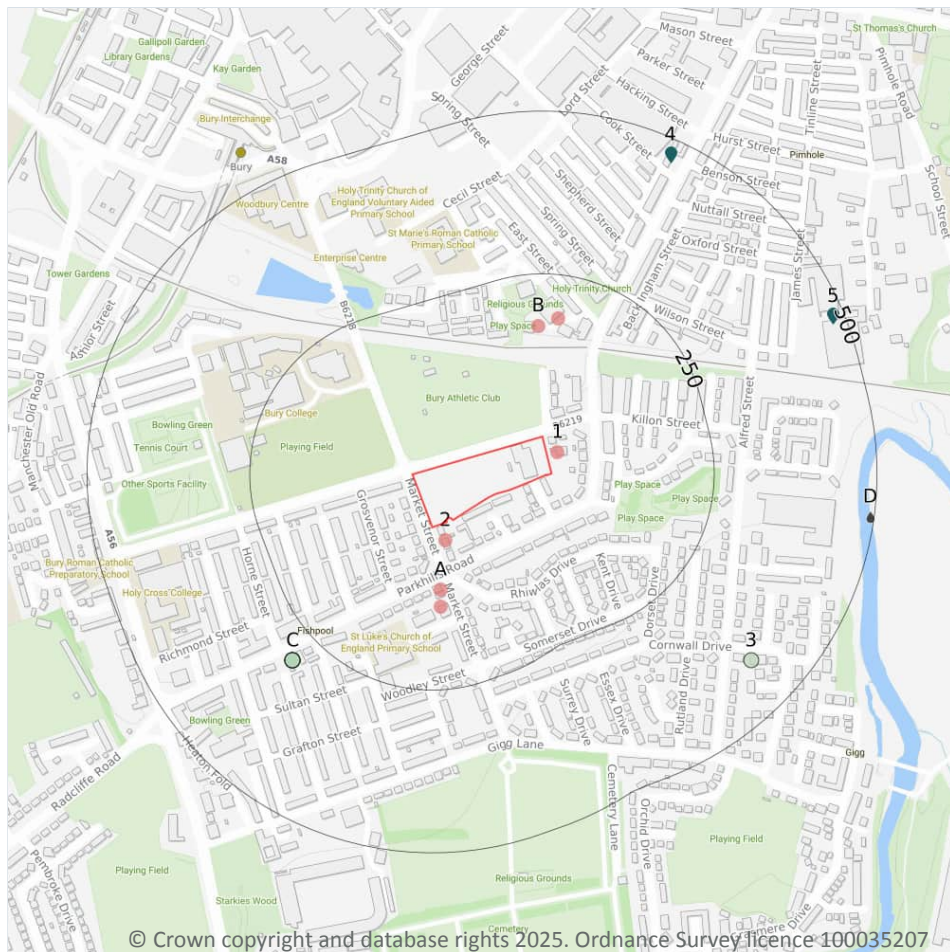
Features are displayed on the Waste and landfill map on [page 31 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
7	442m NW	-	WEX354561	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)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

6

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 34 >](#)

ID	Location	Company	Address	Activity	Category
1	17m E	Restoration Materials	194, Wellington Road, Bury, Greater Manchester, BL9 9AH	Cleaning Equipment and Supplies	Industrial Products
2	25m SW	Postbox Pharmacy	235, Market Street, Bury, Greater Manchester, BL9 9AA	Ambulance and Medical Transportation Services	Health Support Services



ID	Location	Company	Address	Activity	Category
A	96m S	Electricity Sub Station	Greater Manchester, BL9	Electrical Features	Infrastructure and Facilities
A	122m S	S K Mobiles	252, Market Street, Bury, Greater Manchester, BL9 9JN	Electrical Equipment Repair and Servicing	Repair and Servicing
B	171m N	Sawmill	Greater Manchester, BL9	Wood Products Including Charcoal, Paper, Card and Board	Industrial Products
B	183m NE	Electricity Sub Station	Greater Manchester, BL9	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0
----------------------------	----------

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0
----------------------------	----------

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0
----------------------------	----------

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
----------------------------	----------

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

2

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 34](#) >

ID	Location	Address	Details	
4	476m NE	Bury Engine Centre, Cook Street, Bury, BL9 0RP	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
5	483m NE	Chapel Fine Furniture, James Street, BL9 7EG	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m

3

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 34](#) >

ID	Location	Address	Details	
D	494m E	ANTLERLTD,BURY ,GREATERMANCH ESTER	Effluent Type: TRADE DISCHARGES - BOILER BLOWDOWN EFFLUENT Permit Number: 016992340 Permit Version: 1 Receiving Water: RIVER ROACH	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 01/10/1996 Effective Date: 01/10/1996 Revocation Date: 18/08/2011
D	494m E	ANTLERLTD,BURY ,GREATERMANCH ESTER	Effluent Type: TRADE DISCHARGES - BOILER BLOWDOWN EFFLUENT Permit Number: 0169/01/1977/47 Permit Version: 1 Receiving Water: -	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1991 Revocation Date: 31/12/1994



ID	Location	Address	Details	
D	494m E	ANTLERLTD,BURY ,GREATERMANCH ESTER	Effluent Type: TRADE DISCHARGES - BOILER BLOWDOWN EFFLUENT Permit Number: 0169/01/1977/47 Permit Version: 2 Receiving Water: RIVER ROCH	Status: REVOKED NEW CONSENT ISSUED (WATER ACT 1989 SECTION 113) Issue date: - Effective Date: 01/01/1995 Revocation Date: 30/09/1996

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
----------------------------	----------

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
----------------------------	----------

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
----------------------------	----------

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
----------------------------	----------

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

6

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 34](#) >

ID	Location	Details	
C	297m SW	Incident Date: 30/03/2002 Incident Identification: 67844 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Landfill Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
C	297m SW	Incident Date: 15/04/2003 Incident Identification: 151510 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Landfill Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
C	297m SW	Incident Date: 04/01/2002 Incident Identification: 50560 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Landfill Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
C	297m SW	Incident Date: 30/05/2003 Incident Identification: 162067 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Landfill Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
C	297m SW	Incident Date: 30/03/2002 Incident Identification: 67844 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Landfill Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
3	420m SE	Incident Date: 30/01/2002 Incident Identification: 55411 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	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

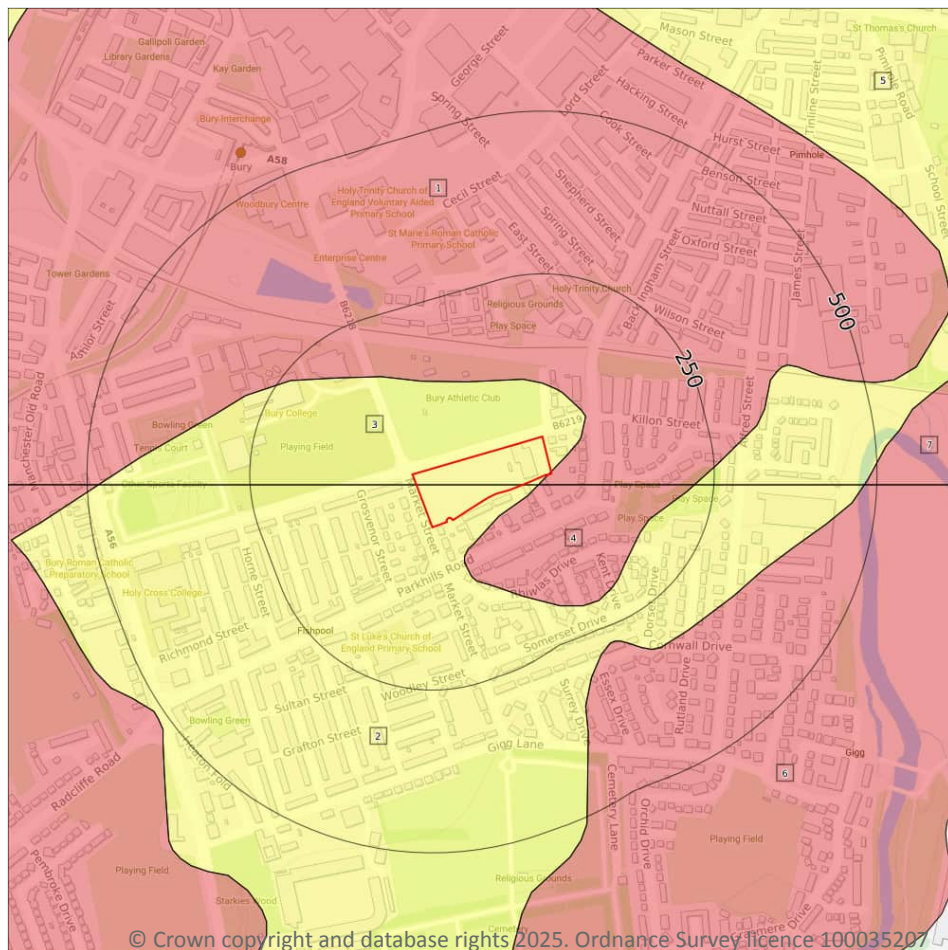
0

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

7

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 41](#) >

ID	Location	Designation	Description
1	On site	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
2	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

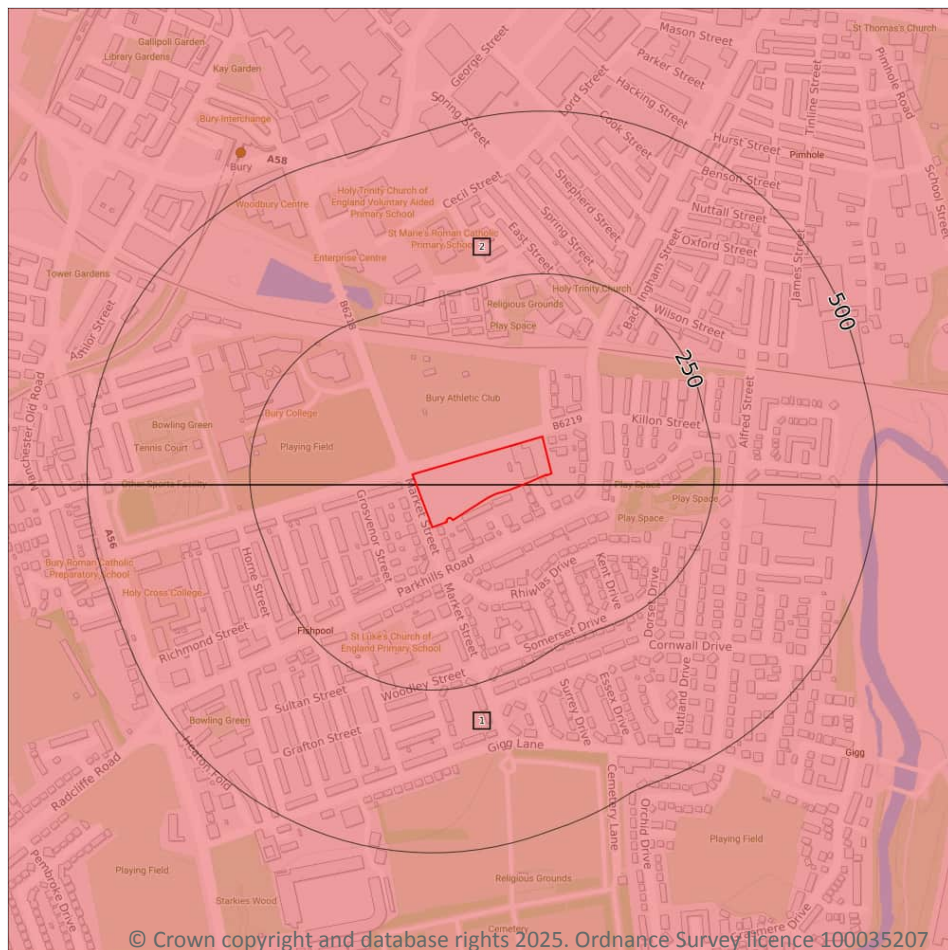


ID	Location	Designation	Description
3	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	9m E	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
5	220m E	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
6	275m SE	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
7	481m E	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

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 43](#) >

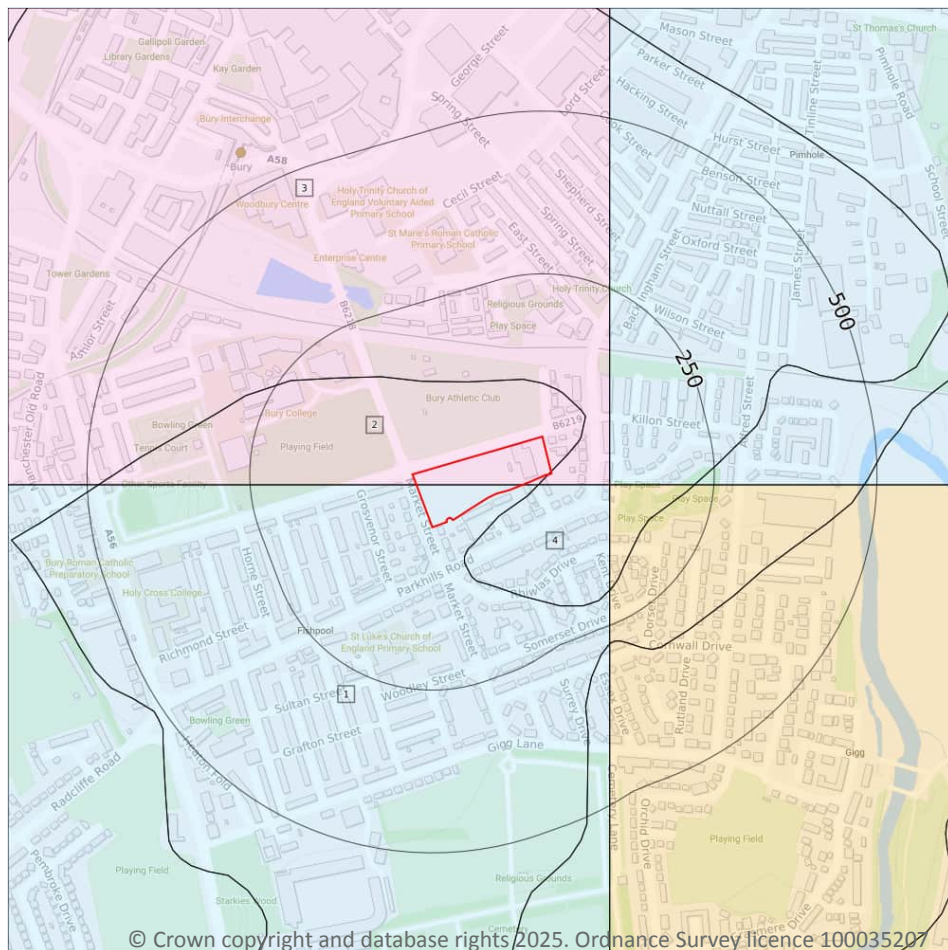
ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	On site	Secondary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



Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability

- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m

4

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 45 >](#)



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: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
4	9m E	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary 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

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

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

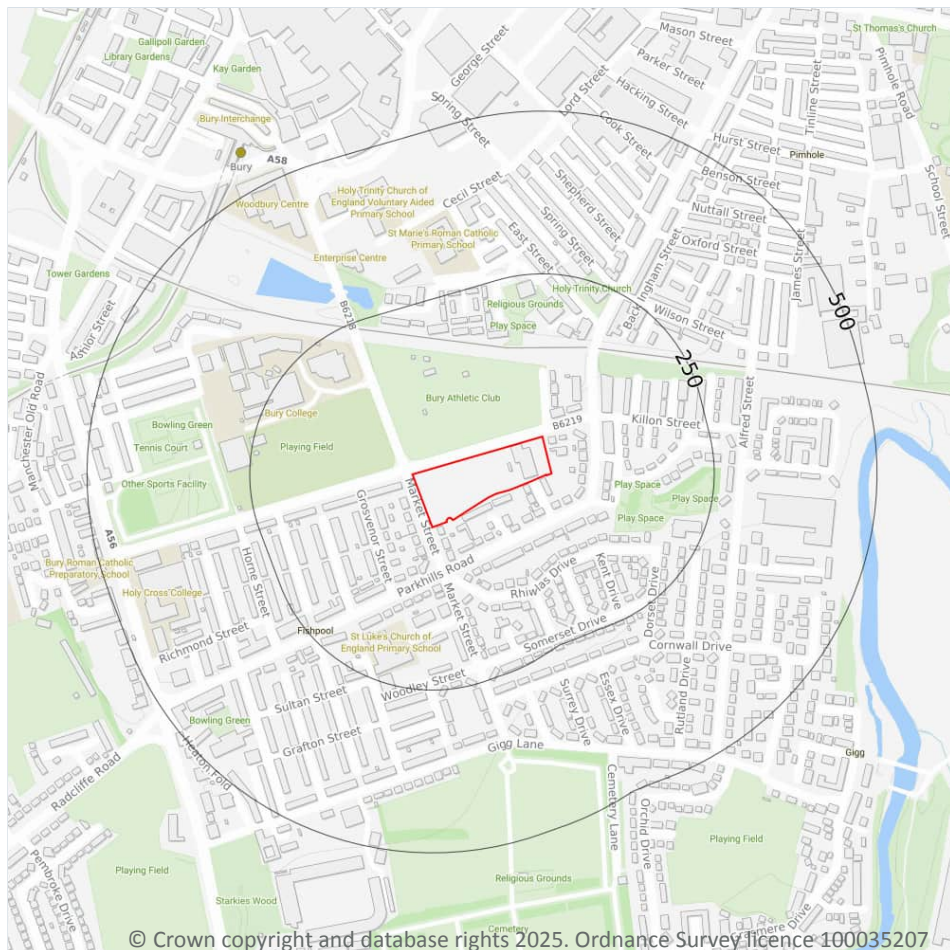


email on enquiries@environment-agency.gov.uk ↗.

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

14

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 48 >](#)



ID	Location	Details	
-	944m E	Status: Historical Licence No: 2569002063 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT WATER FARM, HEAP BRIDGE, BURY" Data Type: Point Name: FISH Easting: 381800 Northing: 409700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 14/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/02/1966 Version End Date: -
-	944m E	Status: Historical Licence No: 2569002063 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT WATER FARM, HEAP BRIDGE, BURY Data Type: Point Name: FISH Easting: 381800 Northing: 409700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 14/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/02/1966 Version End Date: -
-	1093m E	Status: Historical Licence No: 2569002085 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT WATERFOLD FARM, HEAP BRIDGE, NEAR BURY" Data Type: Point Name: WILKINSON Easting: 382000 Northing: 410100	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: 15/02/1966 Version End Date: -
-	1093m E	Status: Historical Licence No: 2569002085 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT WATERFOLD FARM, HEAP BRIDGE, NEAR BURY Data Type: Point Name: WILKINSON Easting: 382000 Northing: 410100	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: 15/02/1966 Version End Date: -



ID	Location	Details	
-	1120m S	Status: Historical Licence No: 2569001258 Details: Pollution Remediation Direct Source: Ground Water - North West Region Point: "WELL POINT SYSTEM AT MANCHESTER ROAD, BURY" Data Type: Point Name: TOTALFINAELF UK LTD Easting: 380450 Northing: 408850	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 12/06/2002 Expiry Date: - Issue No: 1 Version Start Date: 12/06/2002 Version End Date: -
-	1120m S	Status: Historical Licence No: 2569001258 Details: Pollution Remediation Direct Source: Ground Water - North West Region Point: WELL POINT SYSTEM AT MANCHESTER ROAD, BURY Data Type: Point Name: TOTALFINAELF UK LTD Easting: 380450 Northing: 408850	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 12/06/2002 Expiry Date: - Issue No: 1 Version Start Date: 12/06/2002 Version End Date: -
-	1401m E	Status: Historical Licence No: 2569002059 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT SPOUT BANK FARM, HEAP BRIDGEBURY, LANCASHIRE" Data Type: Point Name: FISH Easting: 382300 Northing: 410200	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: 15/02/1966 Version End Date: -
-	1401m E	Status: Historical Licence No: 2569002059 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT SPOUT BANK FARM, HEAP BRIDGEBURY, LANCASHIRE Data Type: Point Name: FISH Easting: 382300 Northing: 410200	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: 15/02/1966 Version End Date: -



ID	Location	Details	
-	1526m SE	Status: Historical Licence No: 2569002272 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, PILSWORTH, BURY" Data Type: Point Name: CASTLEBROOK WATER CO. LTD Easting: 381680 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/04/2000 Expiry Date: - Issue No: 3 Version Start Date: 10/09/2002 Version End Date: -
-	1526m SE	Status: Historical Licence No: 2569002272 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, PILSWORTH, BURY Data Type: Point Name: CASTLEBROOK WATER CO. LTD Easting: 381680 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/04/2000 Expiry Date: - Issue No: 3 Version Start Date: 10/09/2002 Version End Date: -
-	1820m SE	Status: Active Licence No: NW/069/0002/013 Details: Dewatering Direct Source: Ground Water - North West Region Point: SUMP 'A' AT PILSWORTH LANDFILL SITE, PILSWORTH ROAD, BURY Data Type: Point Name: Viridor Waste Management Ltd Easting: 382340 Northing: 408890	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: NPS/NA/001648 Original Start Date: 31/03/2021 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 31/03/2021 Version End Date: -
-	1922m SE	Status: Active Licence No: NW/069/0002/013 Details: Dewatering Direct Source: Ground Water - North West Region Point: SUMP 'B' AT PILSWORTH LANDFILL SITE, PILSWORTH ROAD, BURY Data Type: Poly4 Name: Viridor Waste Management Ltd Easting: 383250 Northing: 409380	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: NPS/NA/001648 Original Start Date: 31/03/2021 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 31/03/2021 Version End Date: -



ID	Location	Details	
-	1963m S	Status: Active Licence No: NW/069/0001/020 Details: Dewatering Direct Source: Ground Water - North West Region Point: BURY WASTEWATER TREATMENT WORKS Data Type: Poly4 Name: United Utilities Water Ltd Easting: 380289 Northing: 407968	Annual Volume (m ³): 769479 Max Daily Volume (m ³): 2109 Original Application No: NPS/WR/040221 Original Start Date: 01/05/2024 Expiry Date: 31/07/2025 Issue No: 1 Version Start Date: 01/05/2024 Version End Date: -
-	1963m S	Status: Active Licence No: NW/069/0001/021 Details: Dewatering Direct Source: Ground Water - North West Region Point: BURY WASTEWATER TREATMENT WORKS Data Type: Poly4 Name: United Utilities Water Ltd Easting: 380289 Northing: 407968	Annual Volume (m ³): 769479 Max Daily Volume (m ³): 2109 Original Application No: NPS/WR/042279 Original Start Date: 01/05/2024 Expiry Date: 31/07/2025 Issue No: 1 Version Start Date: 01/05/2024 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	23
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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 48 >](#)

ID	Location	Details	
-	1202m NW	Status: Historical Licence No: 2569001285 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: RIVER IRWELL AT RMC NORTHERNT BURY CANAL WHARF Data Type: Point Name: CEMEX UK MATERIALS LTD Easting: 379706 Northing: 410696	Annual Volume (m ³): 5500 Max Daily Volume (m ³): 21 Original Application No: - Original Start Date: 23/03/2005 Expiry Date: 31/03/2015 Issue No: 2 Version Start Date: 01/04/2008 Version End Date: -



ID	Location	Details	
-	1202m NW	Status: Historical Licence No: 2569001285R01 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: RIVER IRWELL AT RMC NORTHERNT BURY CANAL WHARF Data Type: Point Name: CEMEX UK MATERIALS LTD Easting: 379706 Northing: 410696	Annual Volume (m ³): 5500 Max Daily Volume (m ³): 21 Original Application No: - Original Start Date: 01/04/2015 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 21/12/2018 Version End Date: -
-	1258m W	Status: Historical Licence No: 2569001056 Details: Dust suppression Direct Source: "Surface, Non-Tidal - North West Region" Point: "THE RIVER IRWELL AT HINDS LANE, BURY" Data Type: Point Name: J B SKIPS & SERVICES LTD Easting: 379450 Northing: 409850	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1997 Version End Date: -
-	1258m W	Status: Historical Licence No: 2569001056 Details: Dust suppression Direct Source: Surface, Non-Tidal - North West Region Point: THE RIVER IRWELL AT HINDS LANE, BURY Data Type: Point Name: J B SKIPS & SERVICES LTD Easting: 379450 Northing: 409850	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1997 Version End Date: -
-	1433m SW	Status: Historical Licence No: 2569001245 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "RIVER IRWELL AT RADCLIFFE, MANCHESTER" Data Type: Point Name: UNIFI DYED YARNS LTD Easting: 380000 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/11/1993 Expiry Date: - Issue No: 101 Version Start Date: 01/03/2000 Version End Date: -

ID	Location	Details	
-	1433m SW	Status: Historical Licence No: 2569001245 Details: Process water Direct Source: "Surface, Non-Tidal - North West Region" Point: "RIVER IRWELL AT RADCLIFFE, MANCHESTER" Data Type: Point Name: UNIFI DYED YARNS LTD Easting: 380000 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/11/1993 Expiry Date: - Issue No: 101 Version Start Date: 01/03/2000 Version End Date: -
-	1433m SW	Status: Historical Licence No: 2569001245 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "RIVER IRWELL AT RADCLIFFE, MANCHESTER" Data Type: Point Name: UNIFI DYED YARNS LTD Easting: 380000 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/11/1993 Expiry Date: - Issue No: 101 Version Start Date: 01/03/2000 Version End Date: -
-	1433m SW	Status: Historical Licence No: 2569001245 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: RIVER IRWELL AT RADCLIFFE, MANCHESTER Data Type: Point Name: UNIFI DYED YARNS LTD Easting: 380000 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/11/1993 Expiry Date: - Issue No: 101 Version Start Date: 01/03/2000 Version End Date: -
-	1433m SW	Status: Historical Licence No: 2569001245 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: RIVER IRWELL AT RADCLIFFE, MANCHESTER Data Type: Point Name: UNIFI DYED YARNS LTD Easting: 380000 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/11/1993 Expiry Date: - Issue No: 101 Version Start Date: 01/03/2000 Version End Date: -
-	1433m SW	Status: Historical Licence No: 2569001245 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: RIVER IRWELL AT RADCLIFFE, MANCHESTER Data Type: Point Name: UNIFI DYED YARNS LTD Easting: 380000 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/11/1993 Expiry Date: - Issue No: 101 Version Start Date: 01/03/2000 Version End Date: -



ID	Location	Details	
-	1450m SW	Status: Historical Licence No: NW/069/0001/004 Details: Hydroelectric Power Generation Direct Source: Surface, Non-Tidal - North West Region Point: RIVER IRWELL AT BEALEY'S WEIR Data Type: Point Name: Resolution Hydro Limited Easting: 379607 Northing: 409015	Annual Volume (m ³): 80000000 Max Daily Volume (m ³): 259200 Original Application No: NPS/WR/004482 Original Start Date: 20/12/2010 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/04/2019 Version End Date: -
-	1549m NW	Status: Historical Licence No: NW/069/0001/007 Details: Hydroelectric Power Generation Direct Source: Surface, Non-Tidal - North West Region Point: RIVER IRWELL AT CHAMBER HALL WEIR Data Type: Point Name: Bury Council Easting: 380014 Northing: 411406	Annual Volume (m ³): 90000000 Max Daily Volume (m ³): 340416 Original Application No: - Original Start Date: 10/06/2016 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 10/06/2016 Version End Date: -
-	1568m SW	Status: Historical Licence No: 2569001158 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "R IRWELL AT RADCLIFFE, MANCHESTER" Data Type: Point Name: ST REGIS PAPER COMPANY U K LTD Easting: 379400 Northing: 409100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 29/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 05/05/2001 Version End Date: -
-	1568m SW	Status: Historical Licence No: 2569001158 Details: Process water Direct Source: "Surface, Non-Tidal - North West Region" Point: "R IRWELL AT RADCLIFFE, MANCHESTER" Data Type: Point Name: ST REGIS PAPER COMPANY U K LTD Easting: 379400 Northing: 409100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 29/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 05/05/2001 Version End Date: -



ID	Location	Details	
-	1568m SW	Status: Historical Licence No: 2569001158 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: R IRWELL AT RADCLIFFE, MANCHESTER Data Type: Point Name: ST REGIS PAPER COMPANY U K LTD Easting: 379400 Northing: 409100	Annual Volume (m ³): 3636800 Max Daily Volume (m ³): 14183.52 Original Application No: - Original Start Date: 29/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 05/05/2001 Version End Date: -
-	1568m SW	Status: Historical Licence No: 2569001158 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: R IRWELL AT RADCLIFFE, MANCHESTER Data Type: Point Name: ST REGIS PAPER COMPANY U K LTD Easting: 379400 Northing: 409100	Annual Volume (m ³): 3636800 Max Daily Volume (m ³): 14183.52 Original Application No: - Original Start Date: 29/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 05/05/2001 Version End Date: -
-	1743m E	Status: Historical Licence No: NW/069/0002/002 Details: Hydroelectric Power Generation Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT HEAP BRIDGE WEIR Data Type: Point Name: Brother Investments Ltd Easting: 382536 Northing: 410666	Annual Volume (m ³): 76032000 Max Daily Volume (m ³): 345600 Original Application No: - Original Start Date: 17/09/2010 Expiry Date: 31/03/2026 Issue No: 2 Version Start Date: 18/09/2015 Version End Date: -
-	1907m NW	Status: Historical Licence No: 2569001170 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: KIRKLEES BRK AT WOOLFOLD, BURY93 Data Type: Line Name: ACTIVECRAFT LTD PAPERMAKERS Easting: 378700 Northing: 412500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/06/1995 Version End Date: -
-	1907m NW	Status: Historical Licence No: 2569001170 Details: Process water Direct Source: "Surface, Non-Tidal - North West Region" Point: "KIRKLEES BRK AT WOOLFOLD, BURY \$93" Data Type: Line Name: ACTIVECRAFT LTD PAPERMAKERS Easting: 378700 Northing: 412500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/06/1995 Version End Date: -



ID	Location	Details	
-	1907m NW	Status: Historical Licence No: 2569001170 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: KIRKLEES BRK AT WOOLFOLD, BURY \$93 Data Type: Line Name: ACTIVECRAFT LTD PAPERMAKERS Easting: 378700 Northing: 412500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/06/1995 Version End Date: -
-	1907m NW	Status: Historical Licence No: 2569001170 Details: Process Water Direct Source: Surface, Non-Tidal - North West Region Point: KIRKLEES BRK AT WOOLFOLD, BURY Data Type: Line Name: ACTIVECRAFT LTD PAPERMAKERS Easting: 378700 Northing: 412500	Annual Volume (m ³): 850102 Max Daily Volume (m ³): 3182.2 Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/06/1995 Version End Date: -
-	1909m SW	Status: Historical Licence No: 2569004054 Details: Process water Direct Source: "Surface, Non-Tidal - North West Region" Point: "THE MANCHESTER, BOLTON AND BURY CANAL AT BANK TOP, BURY" Data Type: Point Name: BRITISH WATERWAYS Easting: 379200 Northing: 408790	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 04/12/1998 Version End Date: -
-	1909m SW	Status: Historical Licence No: 2569004054 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: THE MANCHESTER, BOLTON AND BURY CANAL AT BANK TOP, BURY Data Type: Point Name: BRITISH WATERWAYS BOARD Easting: 379200 Northing: 408790	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1969 Expiry Date: - Issue No: 100 Version Start Date: 04/12/1998 Version End Date: -

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



5.8 Potable abstractions

Records within 2000m

2

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 48](#) >

ID	Location	Details	
-	1526m SE	Status: Historical Licence No: 2569002272 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, PILSWORTH, BURY" Data Type: Point Name: CASTLEBROOK WATER CO. LTD Easting: 381680 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/04/2000 Expiry Date: - Issue No: 3 Version Start Date: 10/09/2002 Version End Date: -
-	1526m SE	Status: Historical Licence No: 2569002272 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, PILSWORTH, BURY Data Type: Point Name: CASTLEBROOK WATER CO. LTD Easting: 381680 Northing: 408700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 10/04/2000 Expiry Date: - Issue No: 3 Version Start Date: 10/09/2002 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m

0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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



5.10 Source Protection Zones (confined aquifer)

Records within 500m

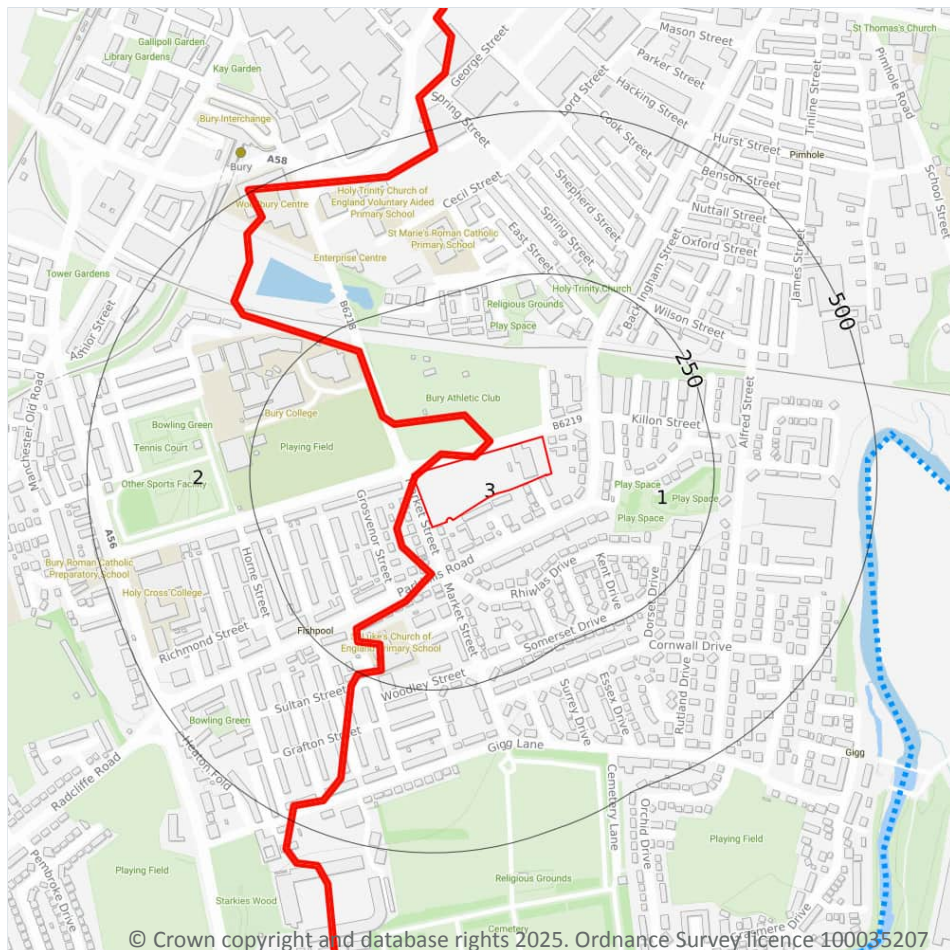
0

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

0

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

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

0

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.



This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

2

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 60 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Roch (Spodden to Irwell)	GB112069064600	Roch Irk Medlock	Irwell
2	On site	River	Irwell (Rossendale STW to Roch)	GB112069064620	Croal Irwell	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 60 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
8	486m E	River	Roch (Spodden to Irwell)	GB112069064600 ↗	Moderate	Fail	Moderate	2019
-	1135m NW	River	Irwell (Rossendale STW to Roch)	GB112069064620 ↗	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 60](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
3	On site	Northern Manchester Carboniferous Aquifers	GB41202G101800 ↗	Poor	Poor	Good	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

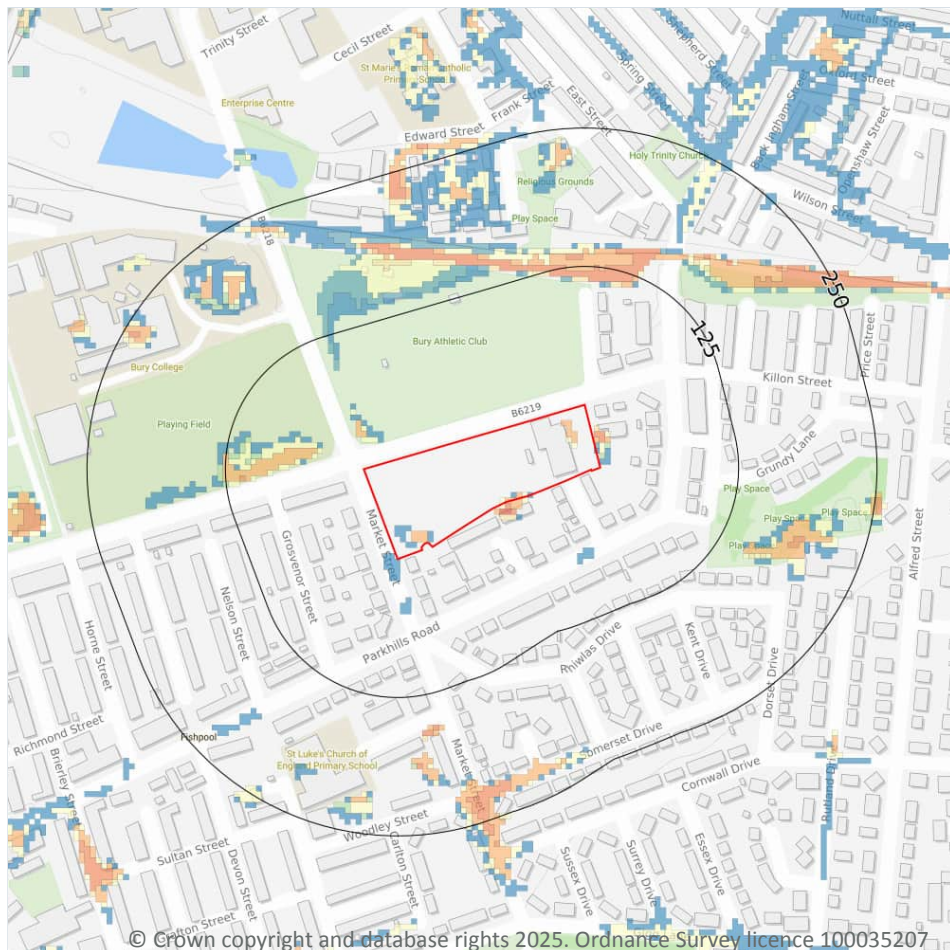
0

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



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.1m - 0.3m

Highest risk within 50m

1 in 30 year, Greater than 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 66](#) >

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.

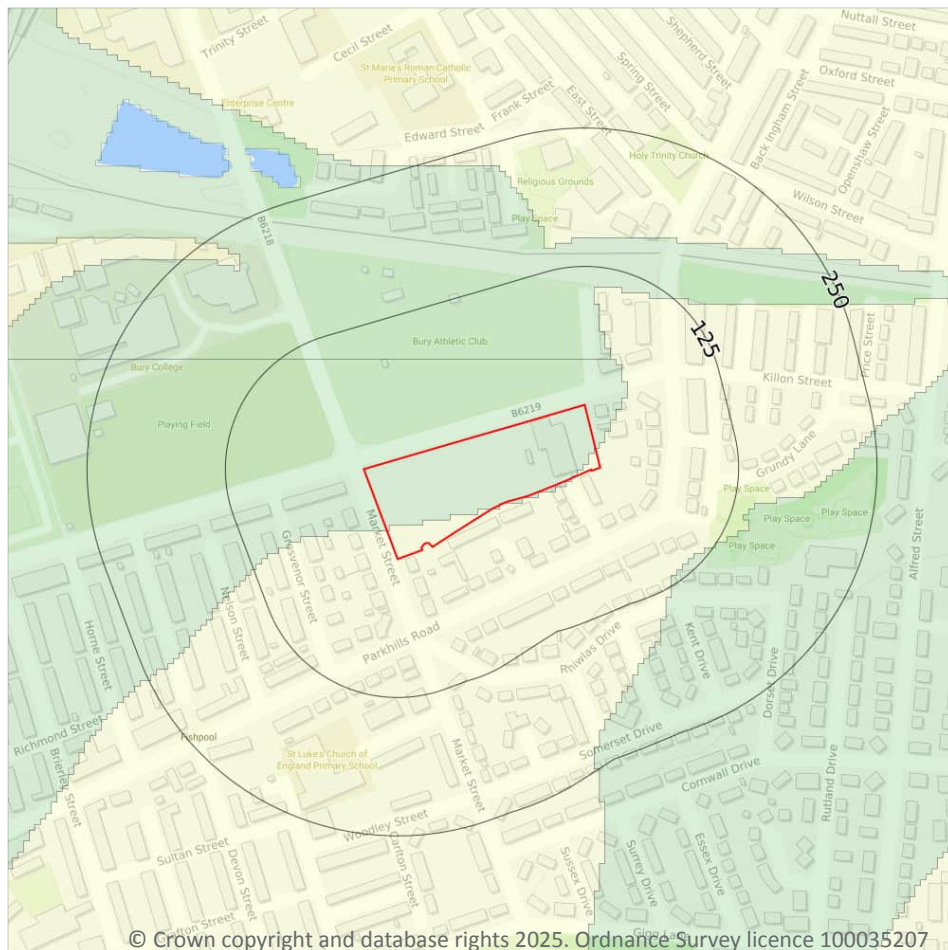
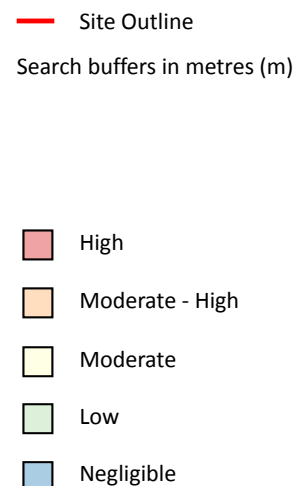
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.1m and 0.3m

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

Moderate

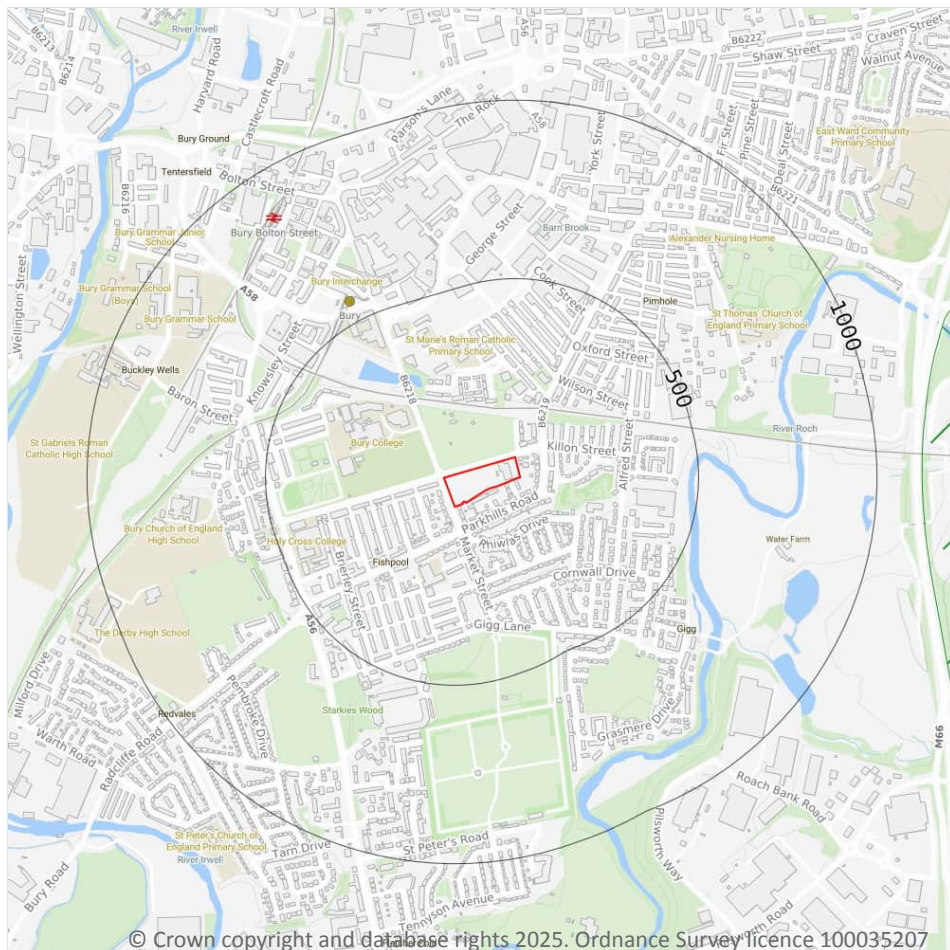
Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks 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 68](#) >

This data is sourced from Ambiantal Risk Analytics.



10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- Green Belt

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

2

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.

Features are displayed on the Environmental designations map on [page 69 >](#)

ID	Location	Name	Data source
-	1526m SE	Hollins Vale	Natural England
-	1871m NE	Chesham Woods	Natural England

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

6

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

Features are displayed on the Environmental designations map on [page 69](#) >

ID	Location	Name	Local Authority name
1	1126m E	Merseyside and Greater Manchester Green Belt	Rochdale
2	1252m E	Merseyside and Greater Manchester Green Belt	Bury
-	1339m W	Merseyside and Greater Manchester Green Belt	Bury
4	1426m SE	Merseyside and Greater Manchester Green Belt	Bury
-	1748m NE	Merseyside and Greater Manchester Green Belt	Bury
-	1866m S	Merseyside and Greater Manchester Green Belt	Bury

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

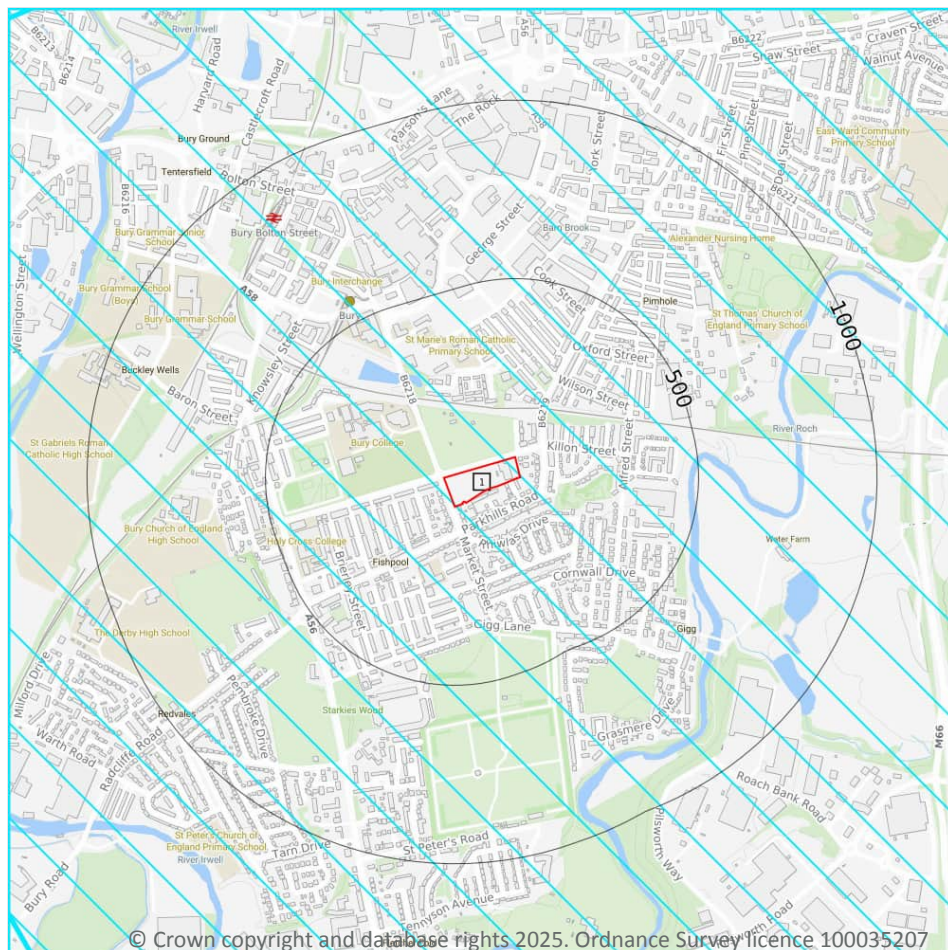
0

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.

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 74 >](#)

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. 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

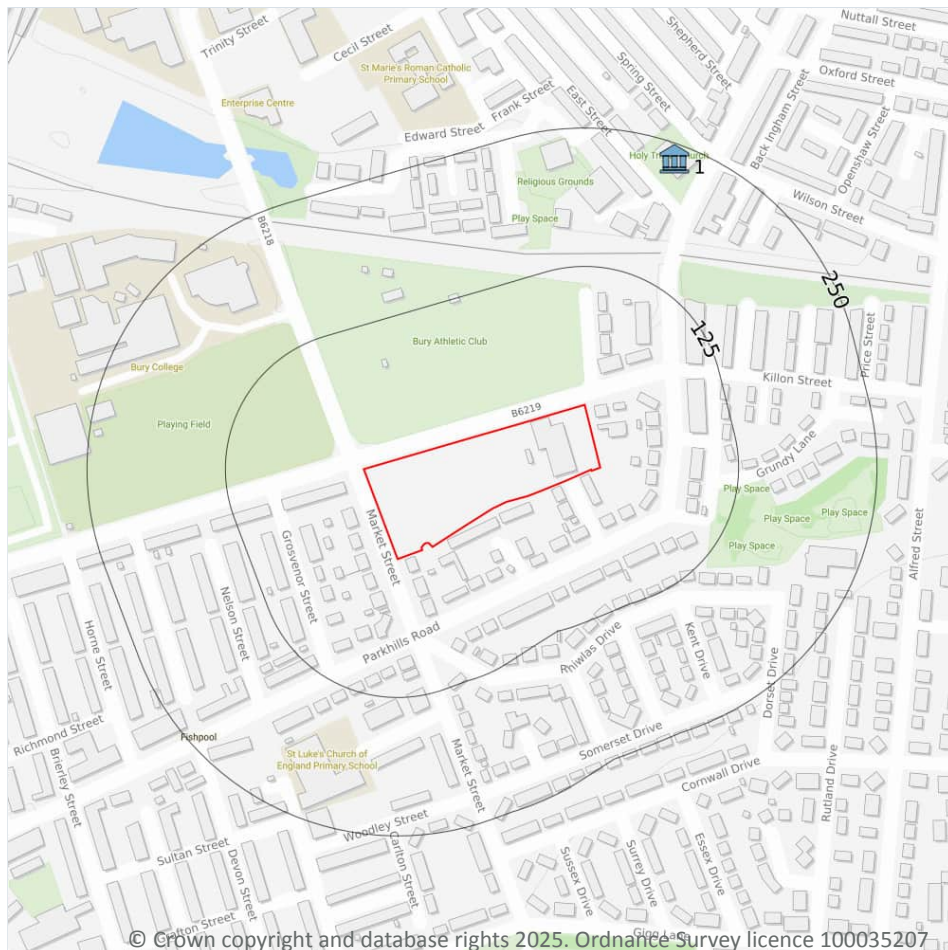
0

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

1

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 76 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
1	236m NE	Holy Trinity Church	II	1391180	23/10/2004

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



11.5 Conservation Areas

Records within 250m**0**

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.

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

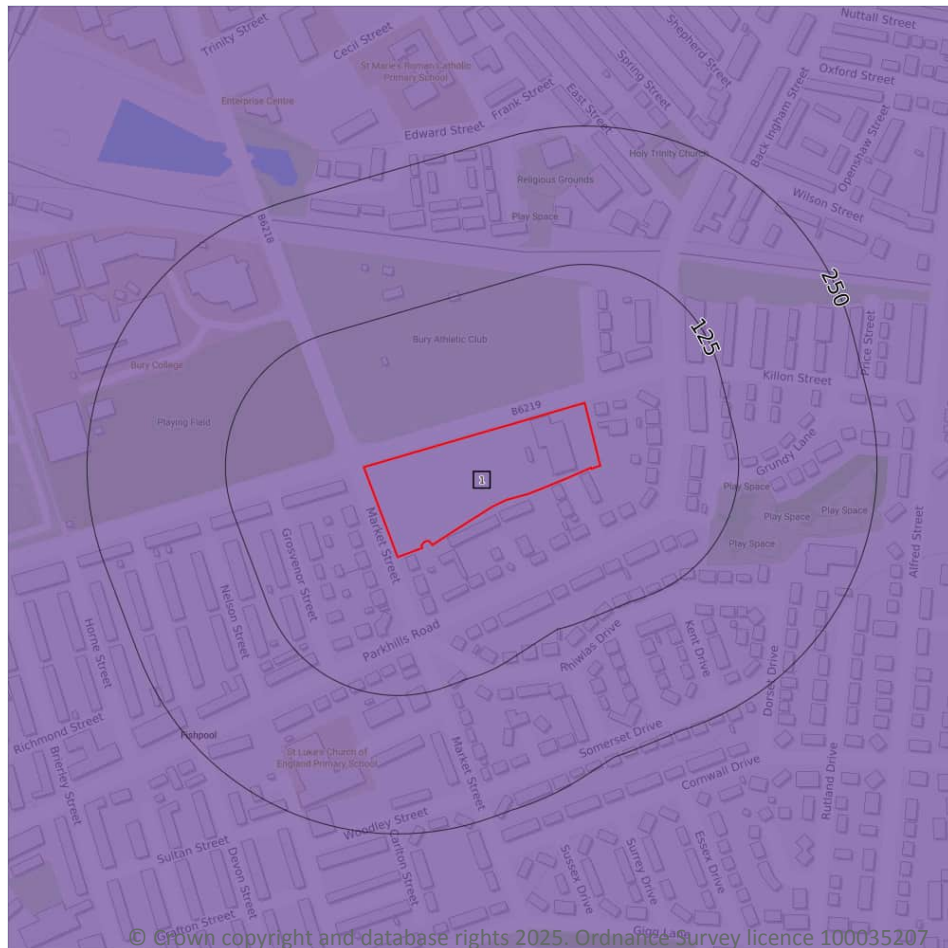
Records within 250m**0**

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 79](#) >

ID	Location	Classification	Description
1	On site	Urban	Non-agricultural/no quality assigned

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



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

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

1

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.

Features are displayed on the Habitat designations map on [page 81](#) >

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	201m NE	NLUD Ref: 421000444	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

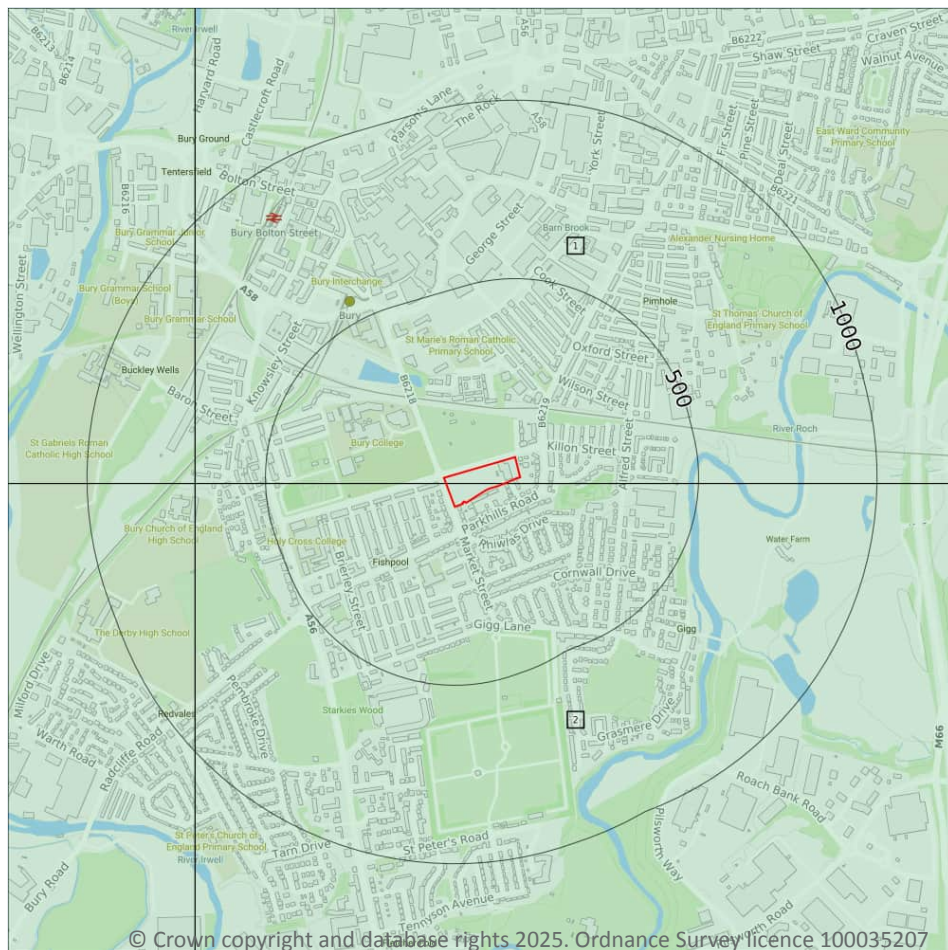
0

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

14.1 10k Availability

Records within 500m

2

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.

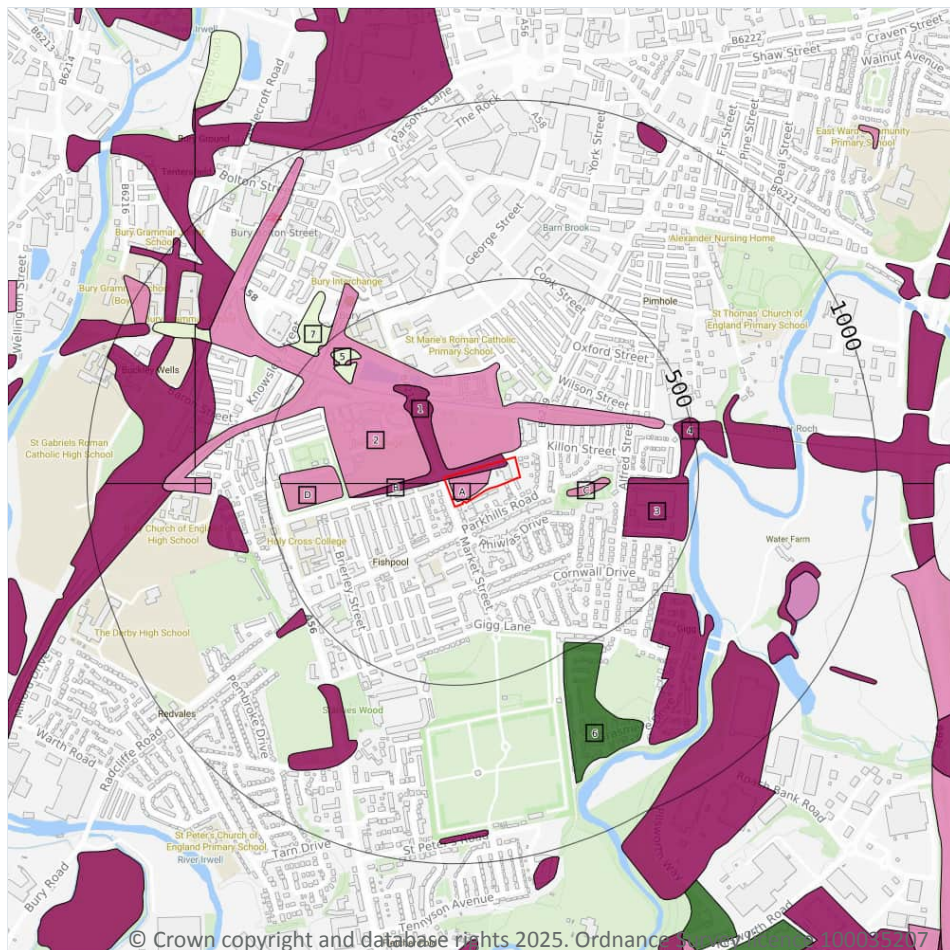
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 83](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD81SW
2	On site	Full	Full	Full	Full	SD80NW

This data is sourced from the British Geological Survey.



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



- 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

15

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 84](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	On site	WGR-VOID	Worked Ground (Undivided)	Void
A	On site	WGR-VOID	Worked Ground (Undivided)	Void
2	16m NW	WGR-VOID	Worked Ground (Undivided)	Void

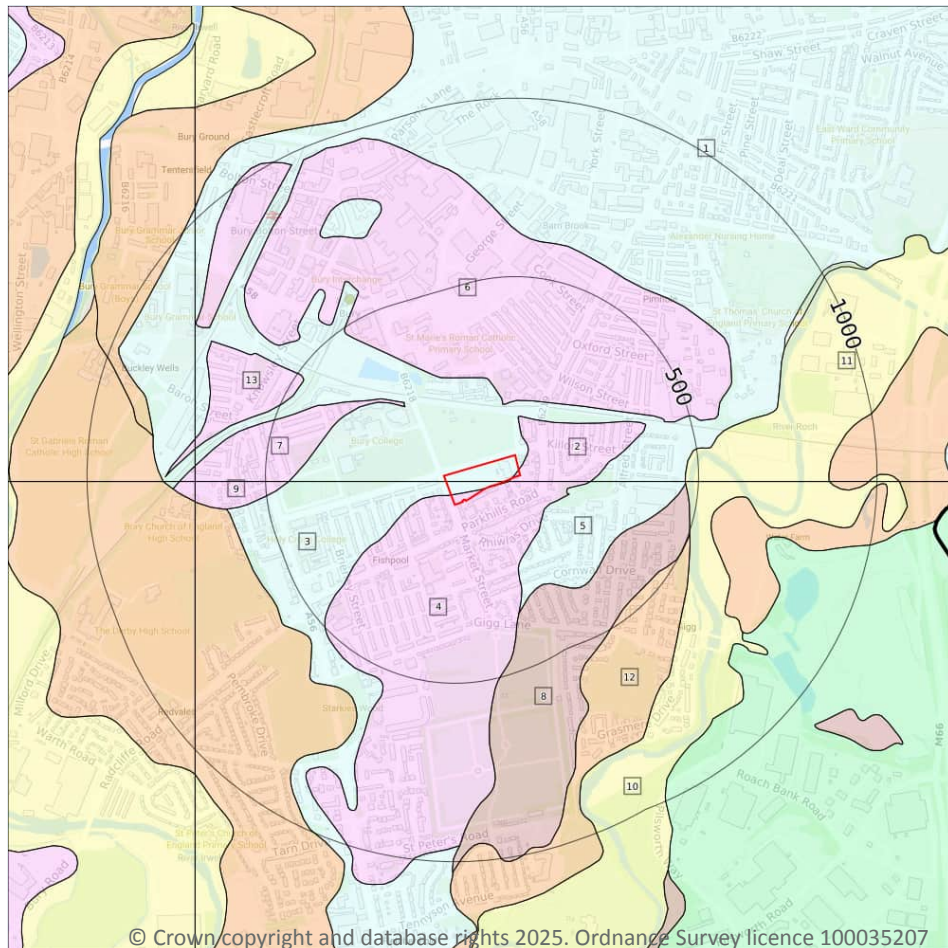


ID	Location	LEX Code	Description	Rock description
B	40m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	136m W	WGR-VOID	Worked Ground (Undivided)	Void
C	138m E	WGR-VOID	Worked Ground (Undivided)	Void
C	198m E	WGR-VOID	Worked Ground (Undivided)	Void
D	287m W	WGR-VOID	Worked Ground (Undivided)	Void
D	289m W	WGR-VOID	Worked Ground (Undivided)	Void
3	303m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	303m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
5	371m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
6	477m SE	LSGR-ARTDP	Landscaped Ground (Undivided)	Artificial Deposit
7	493m NW	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

13

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 86 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
2	On site	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
3	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton



ID	Location	LEX Code	Description	Rock description
4	On site	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
5	115m SE	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
6	146m N	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
7	223m NW	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
8	308m SE	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
9	435m W	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
10	463m E	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
11	463m E	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
12	467m SE	RTD1-XSV	River Terrace Deposits, 1 - Sand And Gravel	Sand And Gravel
13	475m NW	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

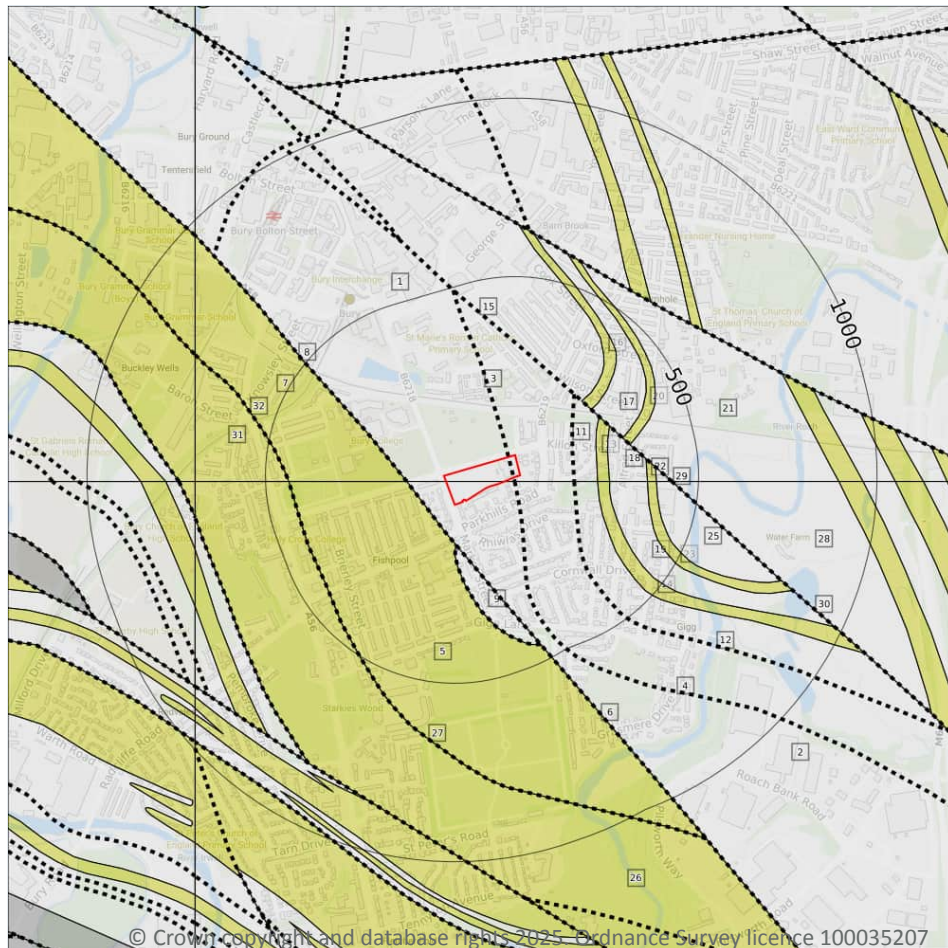
0

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

20

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 88](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
2	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
5	68m SW	CAR-SDST	Cannel Rock (south Lancashire) - Sandstone	Langsettian Sub-age



ID	Location	LEX Code	Description	Rock age
7	105m W	CAR-SDST	Cannel Rock (south Lancashire) - Sandstone	Langsettian Sub-age
9	112m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
13	216m E	OL-SDST	Old Lawrence Rock - Sandstone	Langsettian Sub-age
14	218m E	OL-SDST	Old Lawrence Rock - Sandstone	Langsettian Sub-age
16	241m NE	OL-SDST	Old Lawrence Rock - Sandstone	Langsettian Sub-age
17	249m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
18	249m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
19	252m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
20	304m E	OL-SDST	Old Lawrence Rock - Sandstone	Langsettian Sub-age
21	320m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
22	355m E	OL-SDST	Old Lawrence Rock - Sandstone	Langsettian Sub-age
23	357m E	OL-SDST	Old Lawrence Rock - Sandstone	Langsettian Sub-age
24	380m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
25	382m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
26	421m SW	TRBR-SDST	Trencherbone Rock - Sandstone	Langsettian Sub-age
28	426m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
31	435m W	TRBR-SDST	Trencherbone Rock - Sandstone	Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

12

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 88](#) >

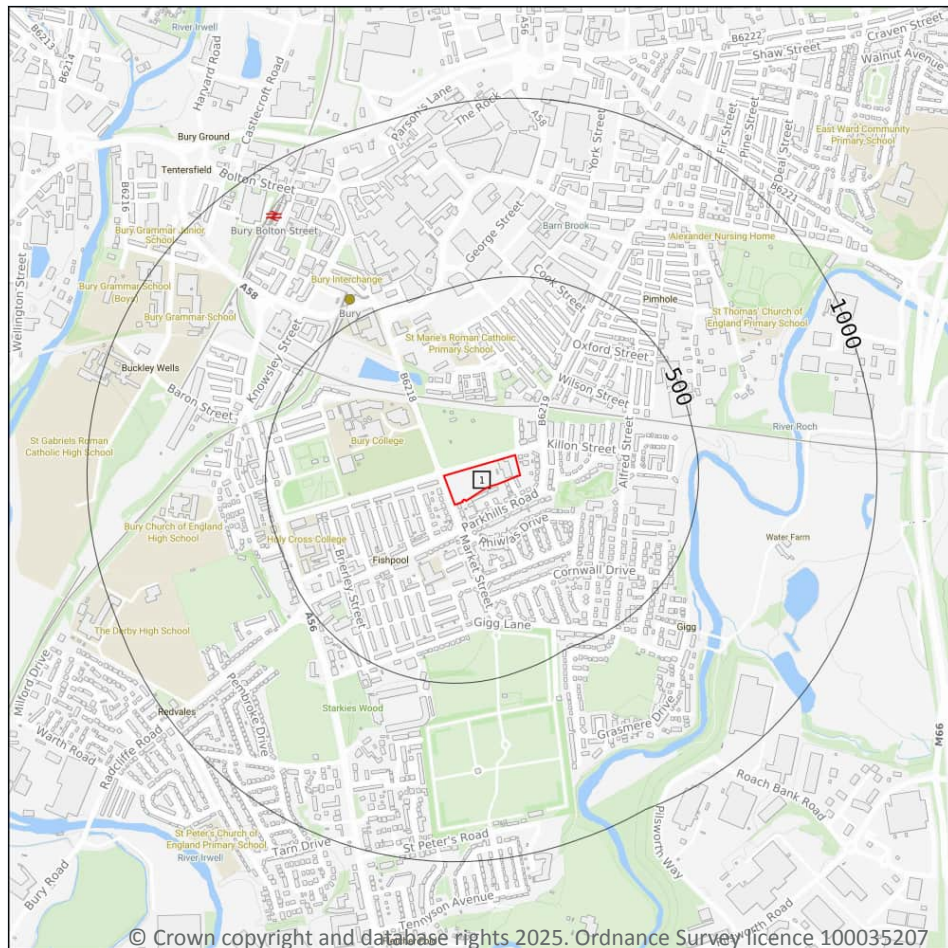


ID	Location	Category	Description
3	On site	ROCK	Coal seam, inferred
4	11m E	ROCK	Coal seam, inferred
6	68m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
8	105m W	FAULT	Normal fault, inferred; crossmarks on downthrow side
10	112m S	ROCK	Coal seam, inferred coincident with bedrock geology boundary
11	150m E	FOSSIL_HORIZON	Fossil horizon, mussel band
12	153m E	FOSSIL_HORIZON	Fossil horizon, mussel band
15	238m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
27	421m SW	ROCK	Coal seam, inferred coincident with bedrock geology boundary
29	426m E	FAULT	Normal fault, inferred; crossmarks on downthrow side
30	430m E	FAULT	Normal fault, inferred; crossmarks on downthrow side
32	435m W	ROCK	Coal seam, inferred coincident with bedrock geology boundary

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.

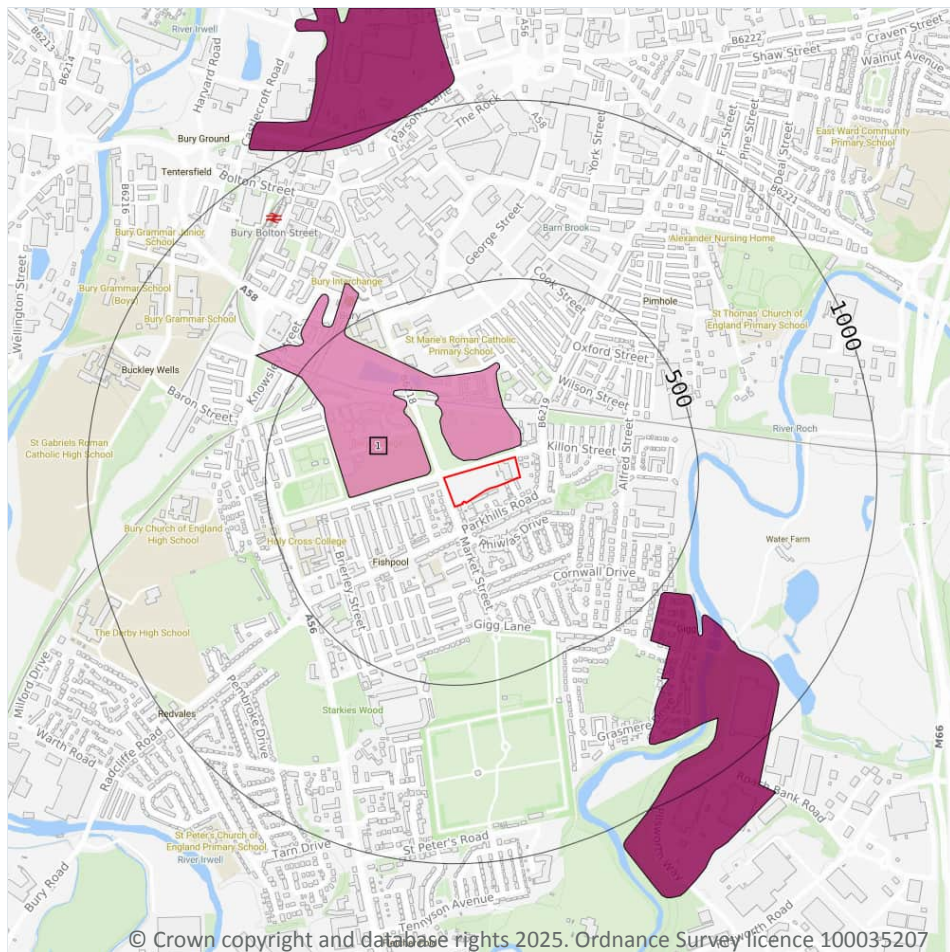
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 91](#) >

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



- 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 92](#) >

ID	Location	LEX Code	Description	Rock description
1	23m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

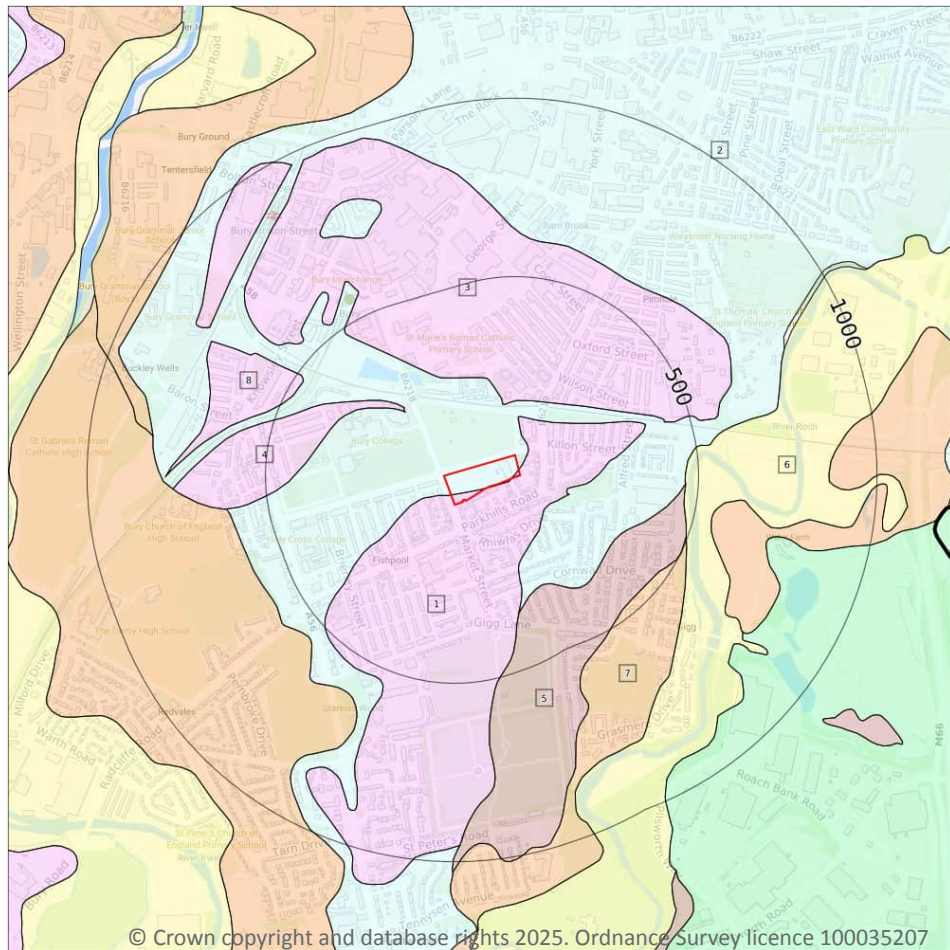
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial 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 - 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

8

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 94](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	On site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
3	145m N	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
4	210m NW	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
5	308m SE	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
6	463m E	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
7	467m SE	RTD1-XSV	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL
8	474m NW	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

4

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
On site	Mixed	High	Low
On site	Intergranular	Very High	High
On site	Intergranular	Very High	High

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

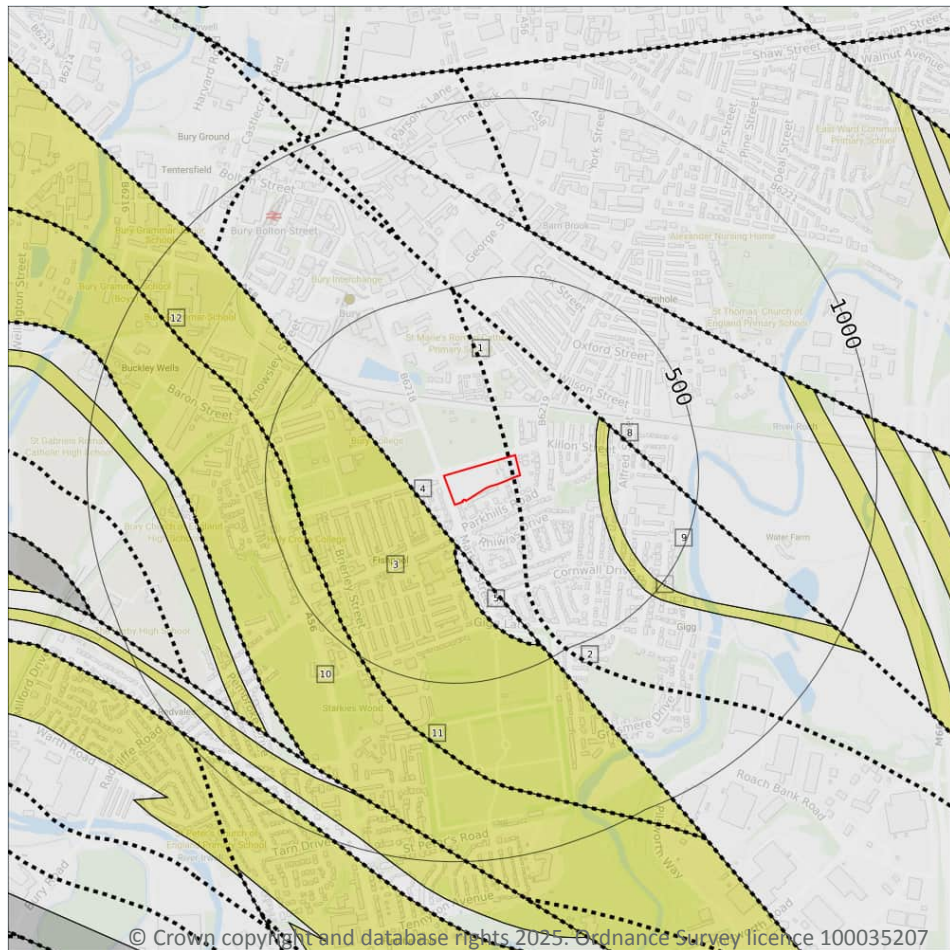
0

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

6

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 97](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
3	68m SW	CAR-SDST	CANNEL ROCK (SOUTH LANCASHIRE) - SANDSTONE	WESTPHALIAN
5	112m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN



ID	Location	LEX Code	Description	Rock age
7	217m E	OL-SDST	OLD LAWRENCE ROCK - SANDSTONE	WESTPHALIAN
9	249m E	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
10	421m SW	TRBR-SDST	TRENCHBONE ROCK - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	2
---------------------------	----------

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	Fracture	Moderate	Low
On site	Fracture	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	6
----------------------------	----------

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.

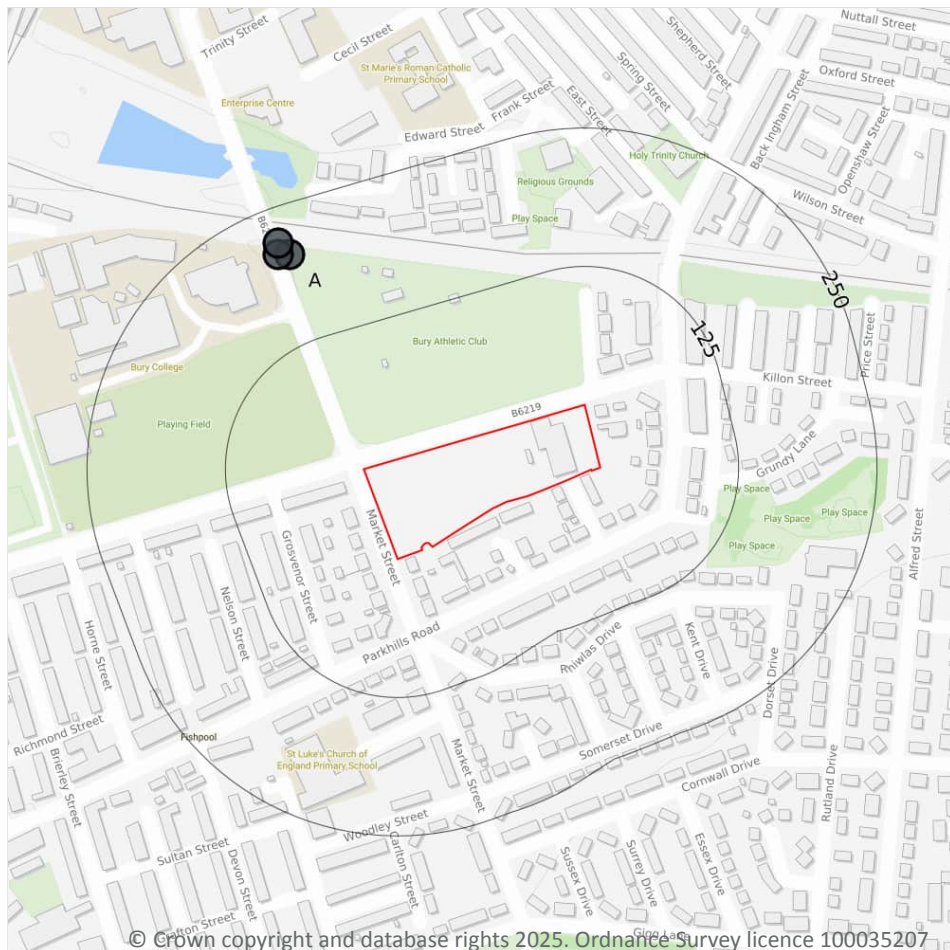
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 97](#) >

ID	Location	Category	Description
2	On site	ROCK	Coal seam, inferred
4	68m SW	FAULT	Fault, inferred
6	112m S	ROCK	Coal seam, inferred
8	238m NE	FAULT	Fault, inferred
11	421m SW	ROCK	Coal seam, inferred
12	434m W	ROCK	Coal seam, 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

3

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 99](#) >

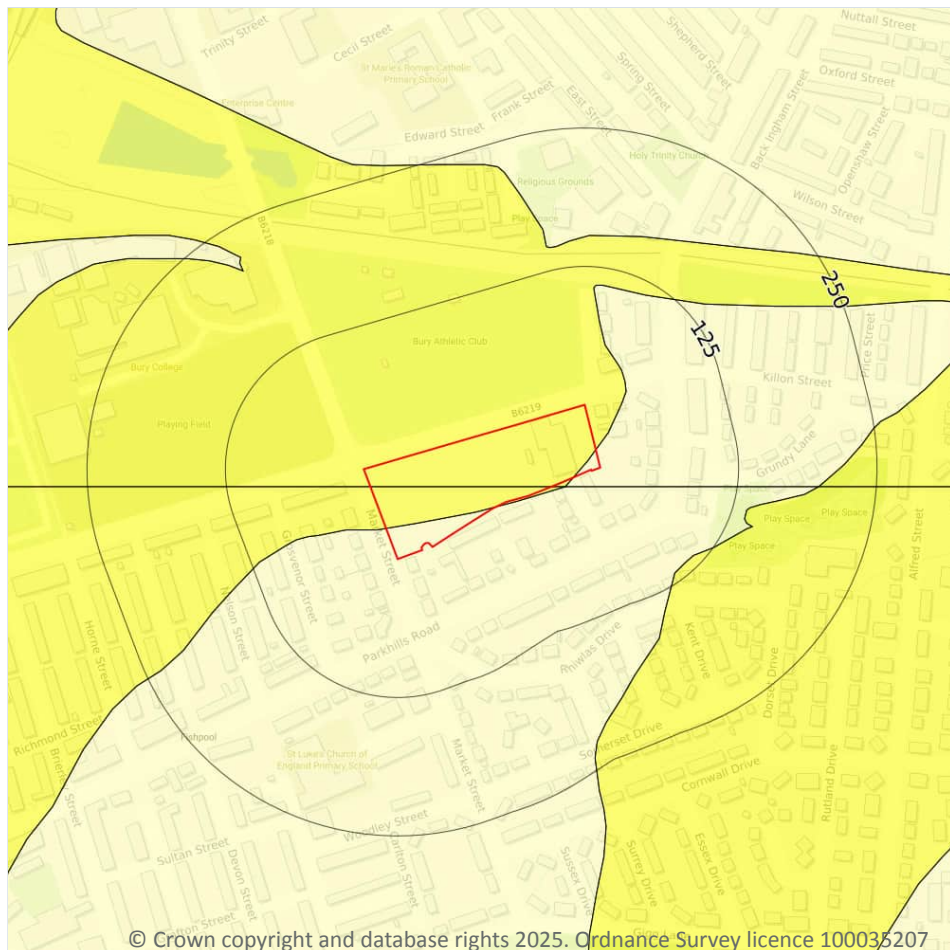
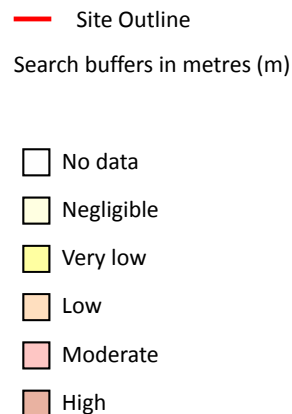
ID	Location	Grid reference	Name	Length	Confidential	Web link
A	205m NW	380630 410210	MARKET STREET BRIDGE BURY METRO BH2	-	Y	N/A
A	209m NW	380620 410210	MARKET STREET BRIDGE BURY METRO BH1	-	Y	N/A
A	218m NW	380620 410220	MARKET STREET BRIDGE BURY METRO TP1	-	Y	N/A



This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

2

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).

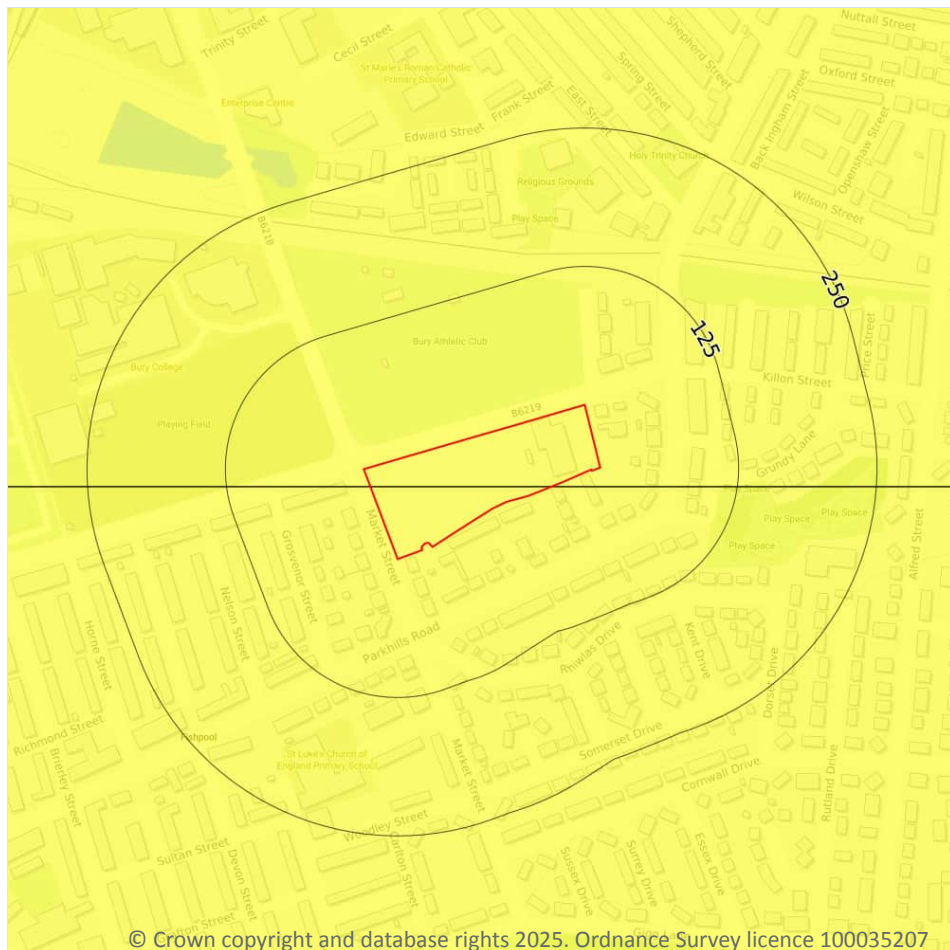
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 101](#) >

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

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 102 >](#)

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

1

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.

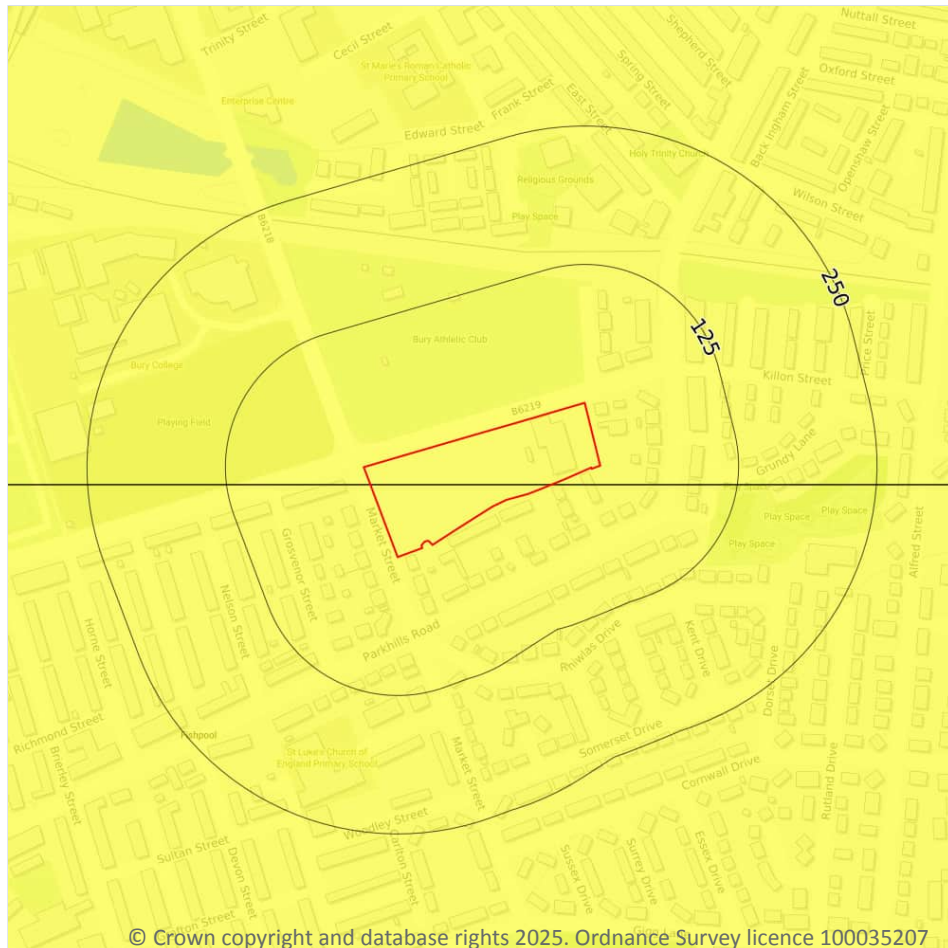
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 103](#) >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

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.

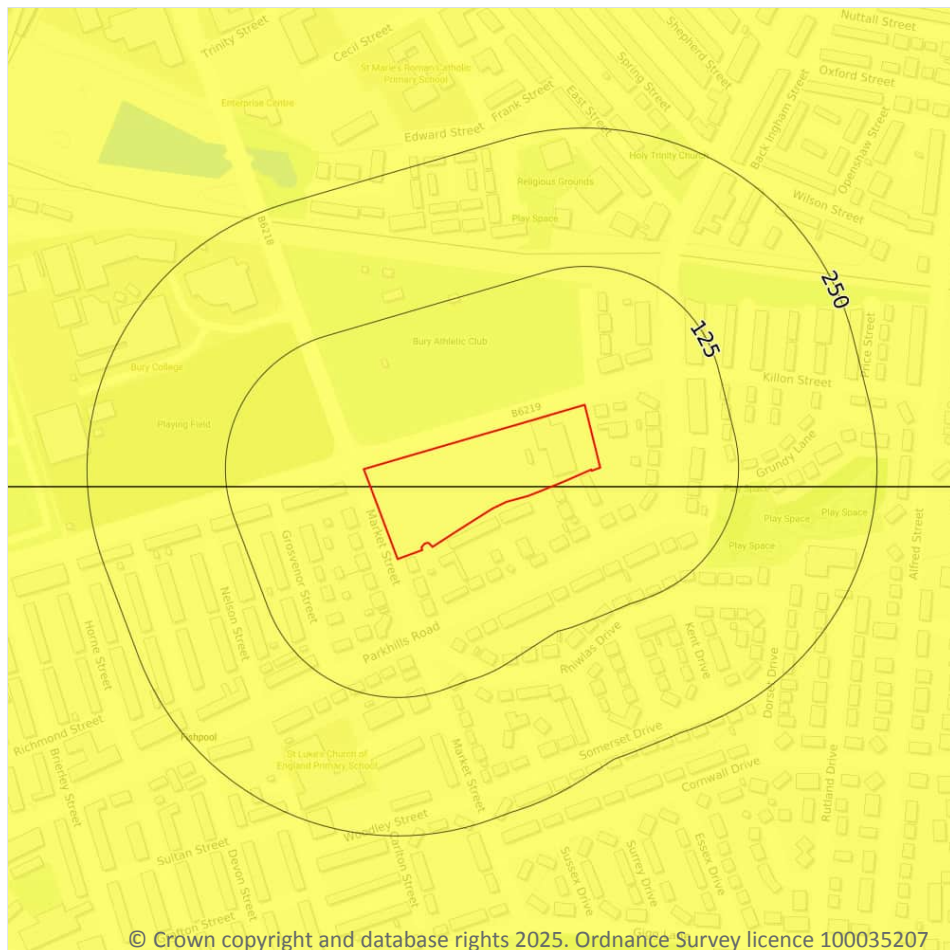
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 104](#) >

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

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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 105 >](#)

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 106](#) >

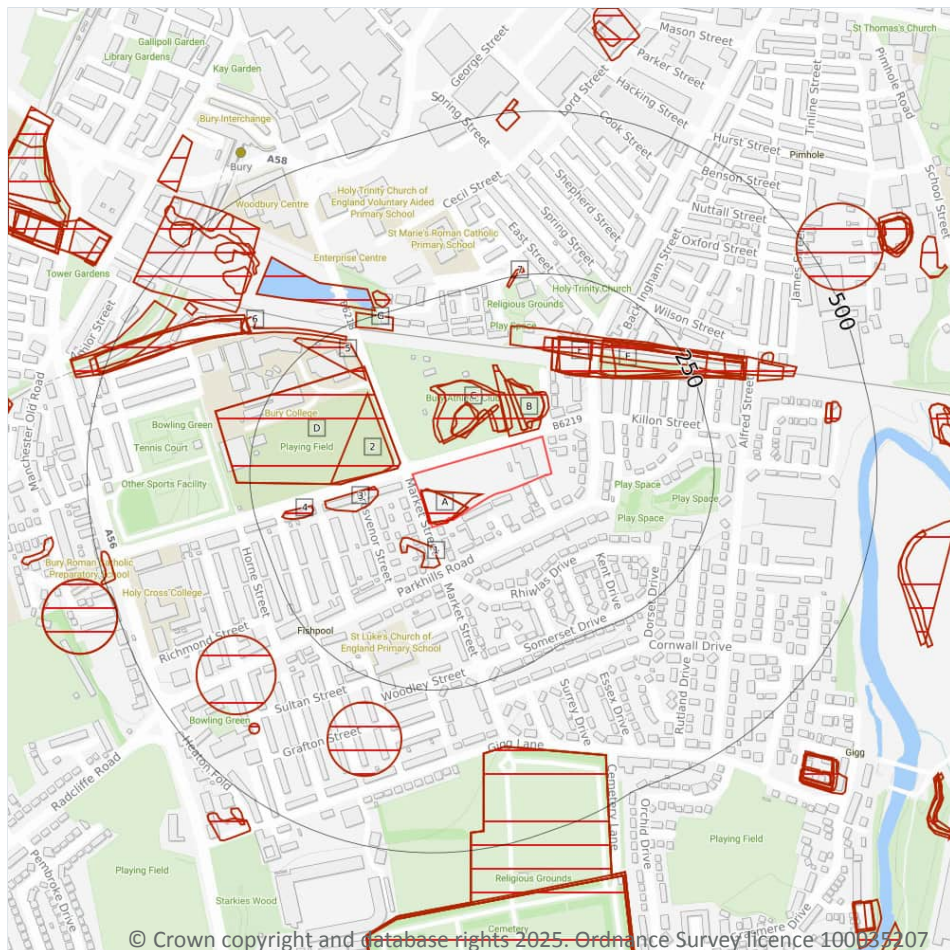
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- ▤ Surface ground workings
- ▥ Underground workings
- ▦ Underground mining extents
- ▧ Historical mineral planning areas
- ▨ TCA non-coal mining
- 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 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.

18.2 Surface ground workings

Records within 250m

32

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 and ground workings map on [page 108 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Unspecified Pit	1981	1:10000
A	On site	Unspecified Pit	1974	1:10000
A	On site	Unspecified Pit	1955	1:10560
B	13m NE	Unspecified Pit	1908	1:10560
B	17m NE	Unspecified Pit	1928	1:10560
B	17m NE	Unspecified Pit	1938	1:10560
B	17m NE	Unspecified Ground Workings	1956	1:10560
C	24m NE	Sand Pit	1956	1:10560
D	25m W	Unspecified Pit	1956	1:10560
D	25m W	Unspecified Pit	1967	1:10560
C	26m NE	Refuse Heap	1938	1:10560
1	28m SW	Unspecified Ground Workings	1891	1:10560
C	31m N	Refuse Heap	1908	1:10560
2	32m W	Unspecified Pit	1983	1:10000
C	36m NW	Unspecified Ground Workings	1928	1:10560
3	58m W	Unspecified Pit	1908	1:10560
E	103m NE	Cuttings	1938	1:10560
E	103m NE	Cuttings	1928	1:10560
E	103m NE	Cuttings	1908	1:10560
E	104m NE	Cuttings	1983	1:10000
F	105m NE	Cuttings	1956	1:10560
F	105m NE	Cuttings	1967	1:10560
F	131m NE	Cuttings	1851	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
E	133m NE	Cuttings	1891	1:10560
E	133m NE	Cuttings	1967	1:10560
E	145m NE	Cuttings	1956	1:10560
E	146m NE	Cuttings	1851	1:10560
4	162m W	Unspecified Pit	1908	1:10560
5	162m NW	Unspecified Pit	1983	1:10000
G	220m NW	Cuttings	1851	1:10560
6	230m NW	Unspecified Ground Workings	1983	1:10000
7	235m N	Unspecified Ground Workings	1956	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.3 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 data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from 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 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.



18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

1

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.

18.13 Brine areas

Records on site

0

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.

18.14 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.

18.15 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

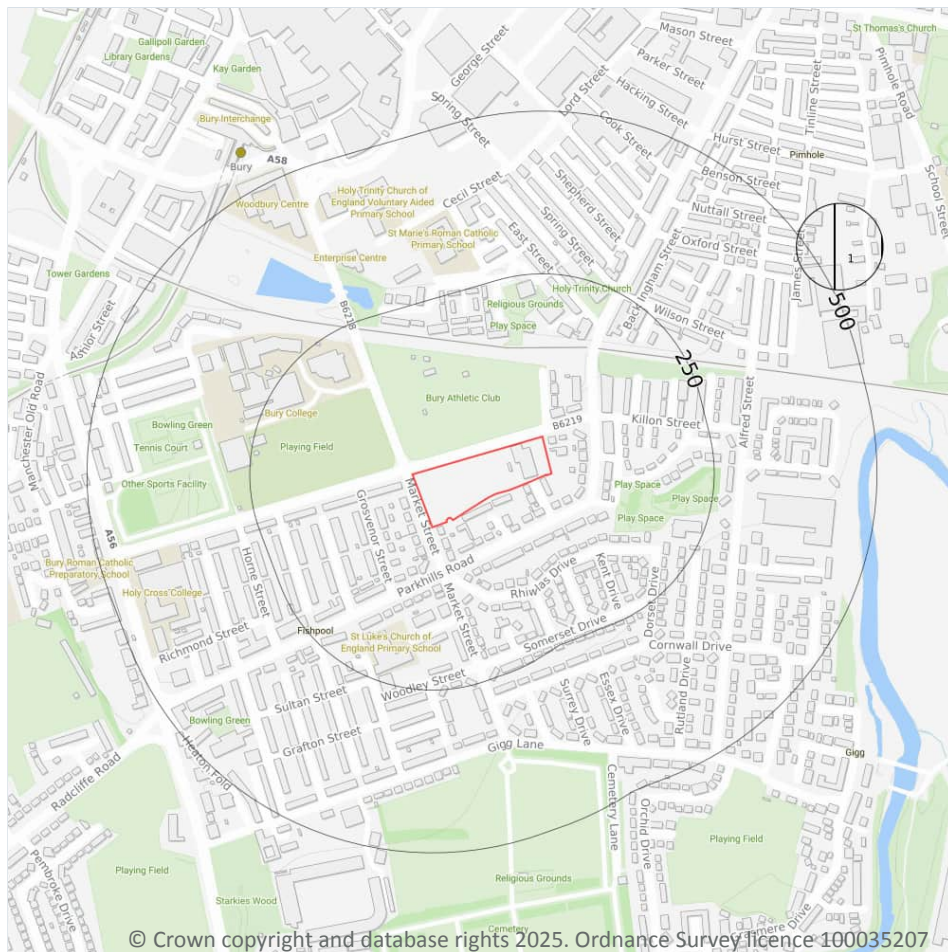
Records on site	0
-----------------	---

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 Ground cavities and sinkholes



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- Mining cavities
- Reported recent incidents
- Historical incidents

19.1 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.

19.2 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 Ground cavities and sinkholes map on [page 114 >](#)

ID	Location	Mine Address	Mineral
-	697m W	Schofield Hey Quarry, Britannia Quarries, Lancashire	Firestone, Freestone, Hearthstone , Honestone, Ragstone, Sandstone, Scythestone , Silver Sand, Whetstone

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

1

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.



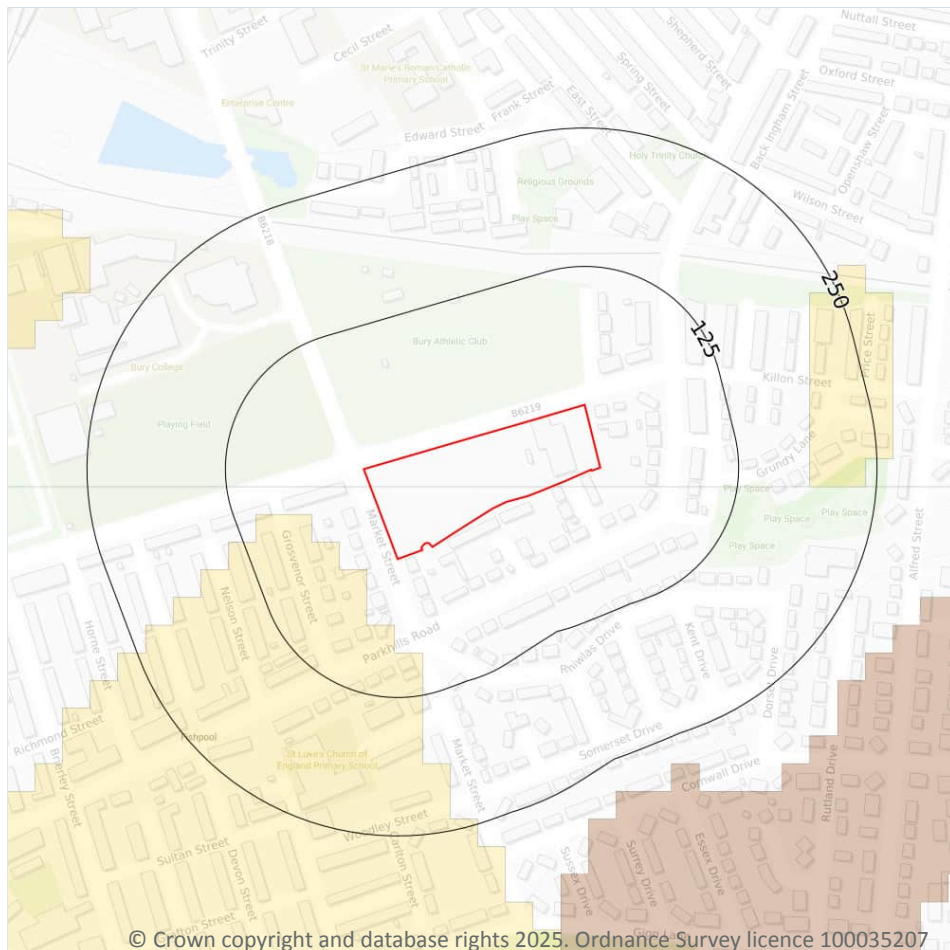
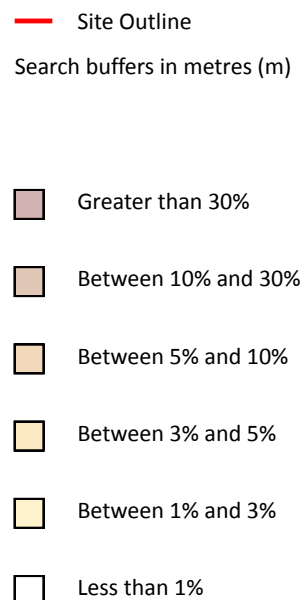
Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.
Features are displayed on the Ground cavities and sinkholes map on [page 114 >](#)

ID	Location	Type	Date of mapping
1	475m NE	Unspecified Hole	1983

This data is sourced from Groundsure.



20 Radon



20.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 117](#) >

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



This data is sourced from the British Geological Survey and UK Health Security Agency.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

6

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	15 - 30 mg/kg
On site	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
9m E	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
9m E	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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).

This data is sourced from the British Geological Survey.



21.3 BGS Measured Urban Soil Chemistry

Records within 50m

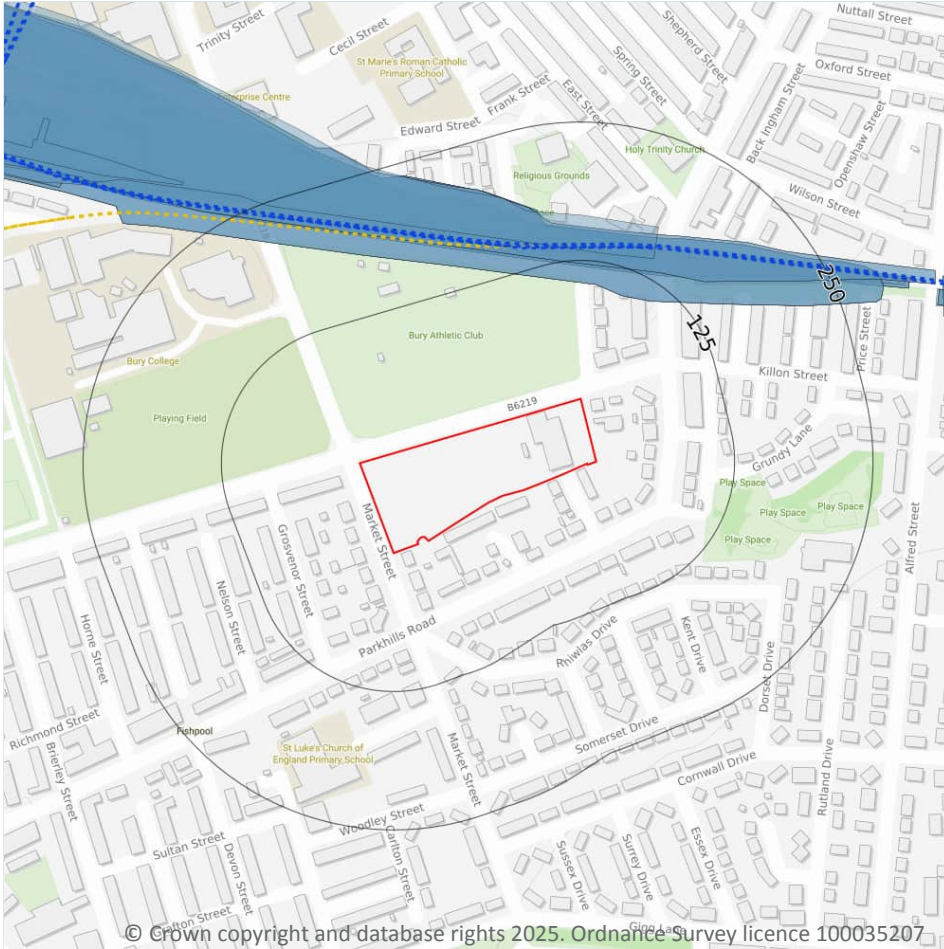
0

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.



22 Railway infrastructure and projects



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

22.1 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.

22.2 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.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

14

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 121](#) >

Location	Land Use	Year of mapping	Mapping scale
100m NE	Railway Sidings	1938	10560
100m NE	Railway Sidings	1928	10560
100m NE	Railway Sidings	1908	10560
119m NE	Railway Sidings	1910	2500
119m NE	Railway Sidings	1930	2500
119m NE	Railway Sidings	1937	2500
121m NE	Railway Sidings	1956	10560
121m NE	Railway Sidings	1967	10560
129m NE	Railway Sidings	1957	1250
131m NE	Railway Sidings	1891	2500
133m NE	Railway Sidings	1891	10560
146m NE	Railway Sidings	1959	2500
147m NE	Railway Sidings	1957	1250
154m N	Railway Sidings	1957	1250

This data is sourced from Ordnance Survey/Groundsure.



22.5 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.

22.6 Historical railways

Records within 250m

2

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

Features are displayed on the Railway infrastructure and projects map on [page 121 >](#)

Location	Description
143m N	Historical OSM
143m N	Abandoned

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

5

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 121 >](#)

Location	Name	Type
137m NE	Not given	Single Track
137m NE	East Lancashire Railway	rail
140m NE	Not given	Preserved
160m NE	Not given	Single Track
247m NW	Not given	Single Track

This data is sourced from Ordnance Survey and OpenStreetMap.



22.8 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.

22.9 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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Client Ref: 14378/A
Report Ref: CAR1-87S-QBY-RZY-Z7Z
Grid Ref: 380803, 410004

Map Name: County Series

Map date: 1850-1851

Scale: 1:10,560

Printed at: 1:10,560



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Map Name: County Series

Map date: 1890-1891

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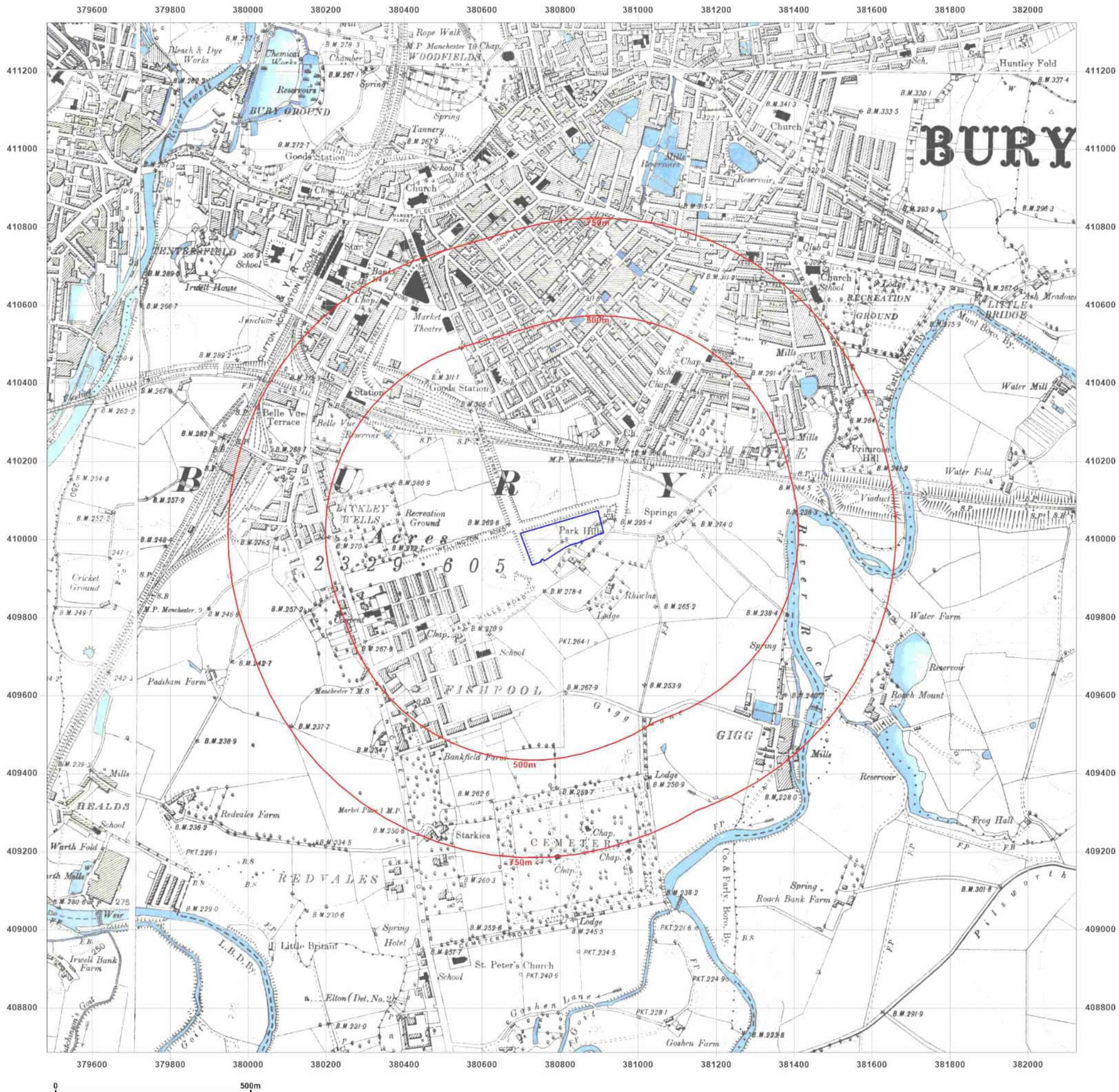


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Grid Ref: 380803, 410004

Map Name: County Series

Map date: 1908-1909

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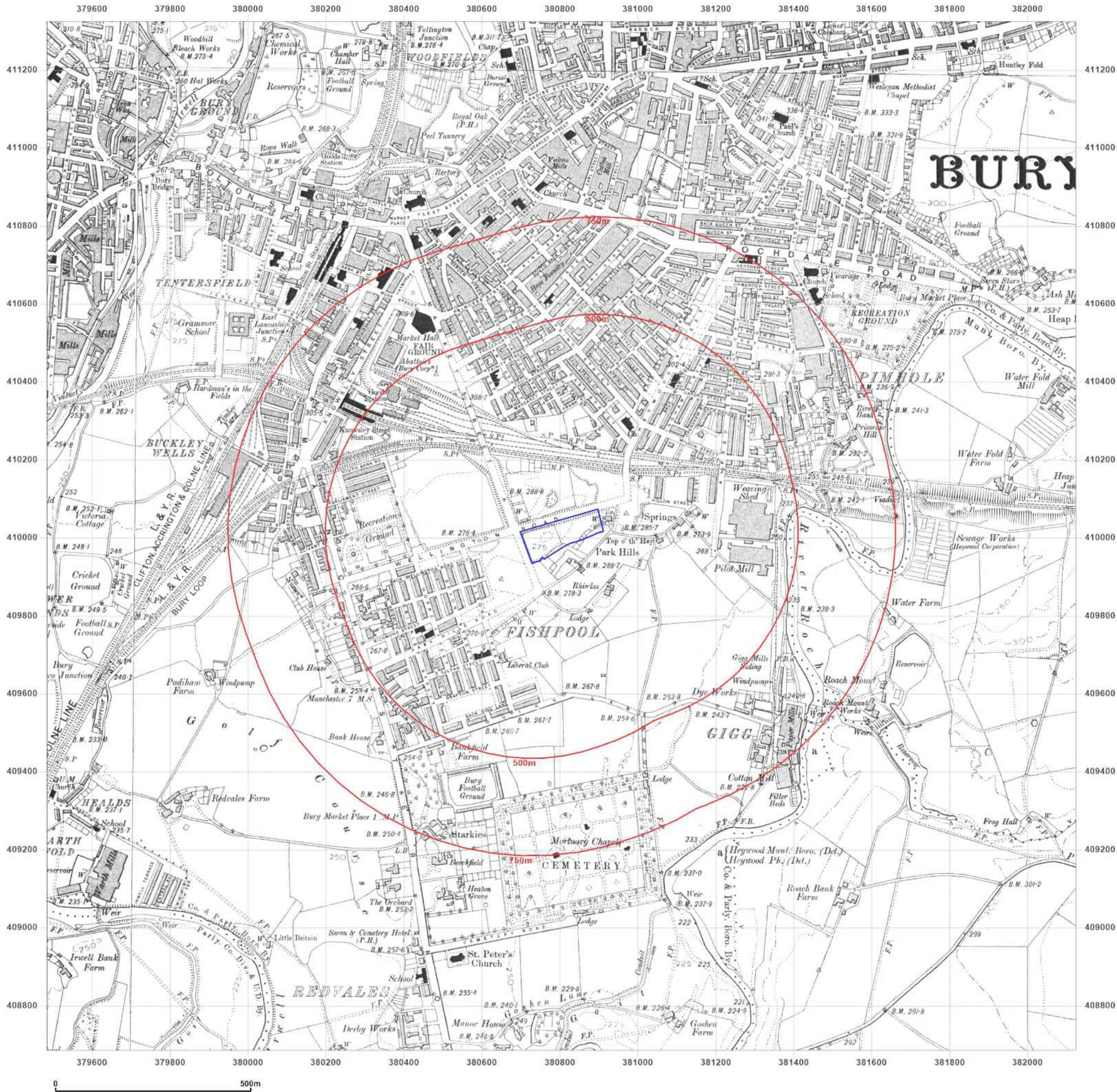


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Map Name: County Series

Map date: 1927-1928

Scale: 1:10,560

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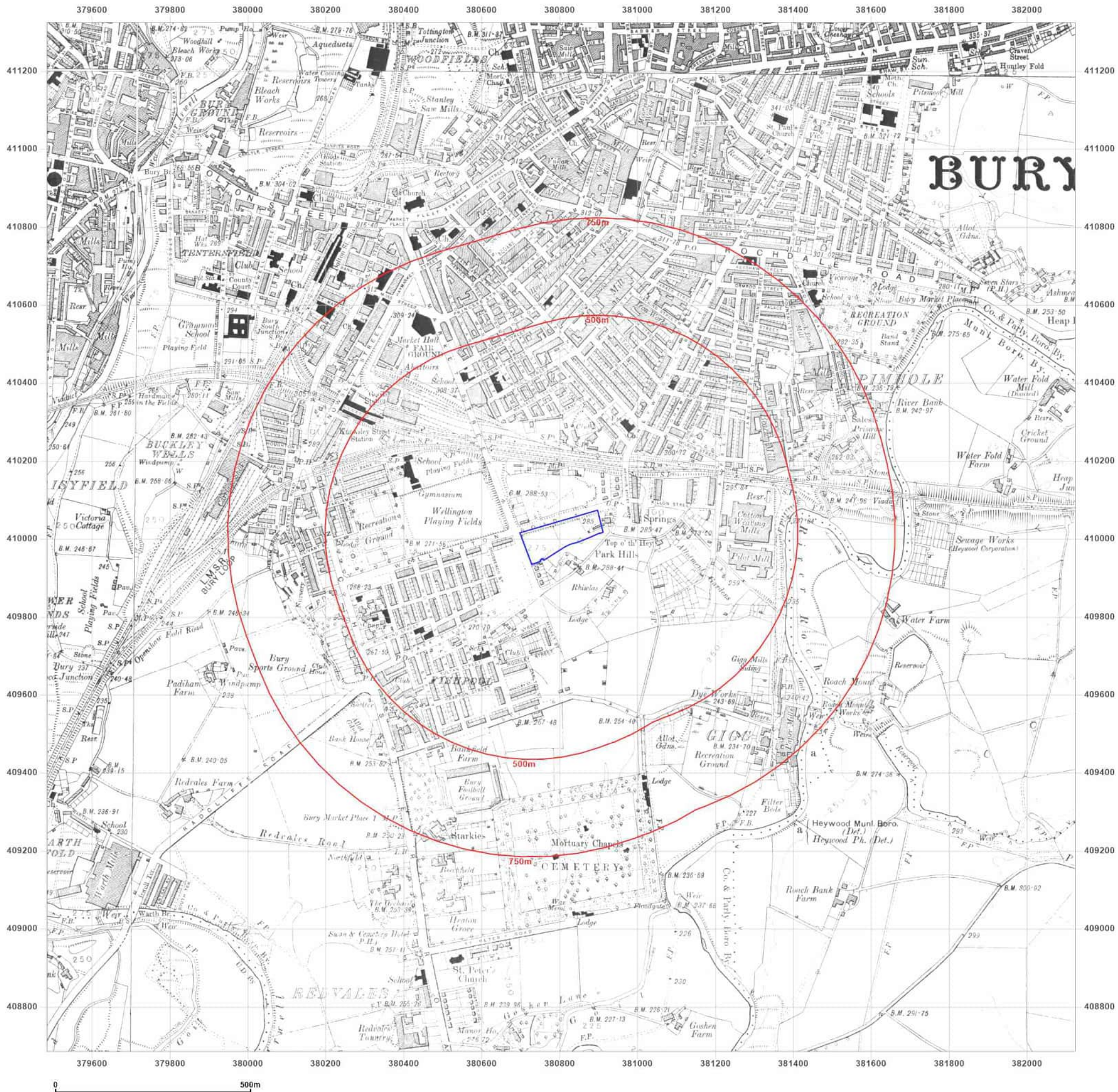


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Grid Ref: 380803, 410004

Map Name: County Series

Map date: 1938

Scale: 1:10,560

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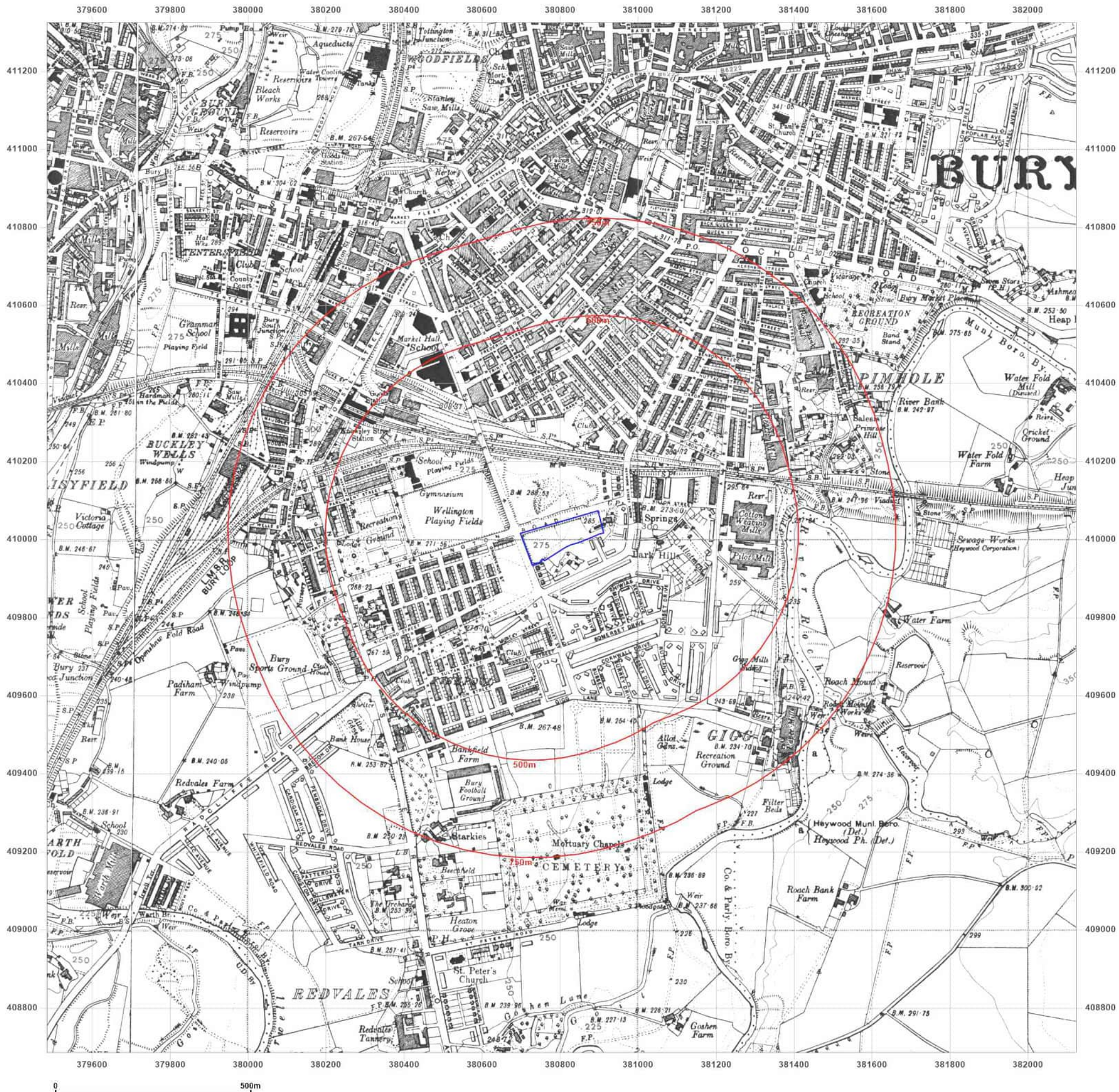


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Grid Ref: 380803, 410004

Map Name: Provisional

Map date: 1955-1956

Scale: 1:10,560

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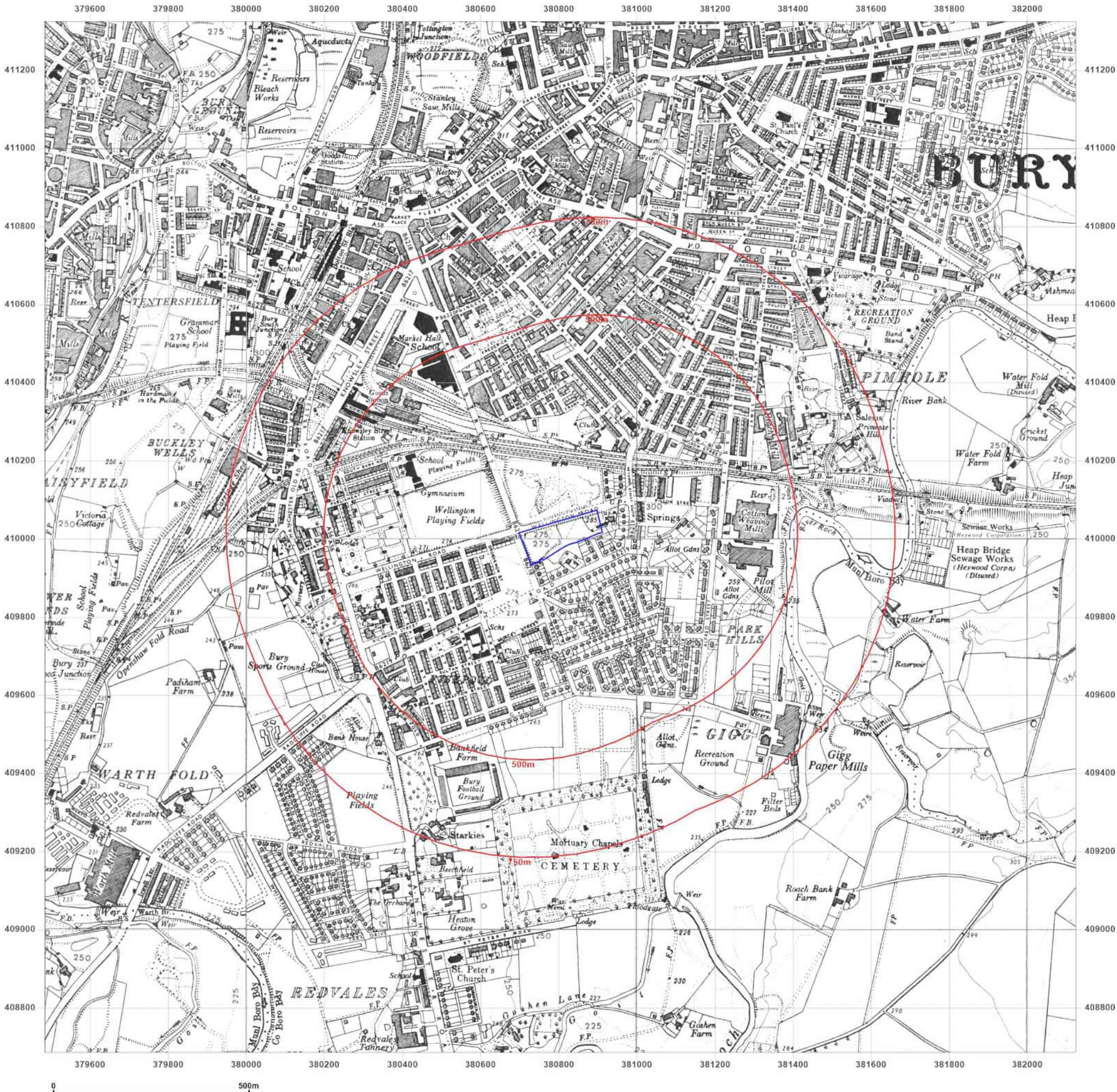


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Grid Ref: 380803, 410004

Map Name: Provisional

Map date: 1965-1969

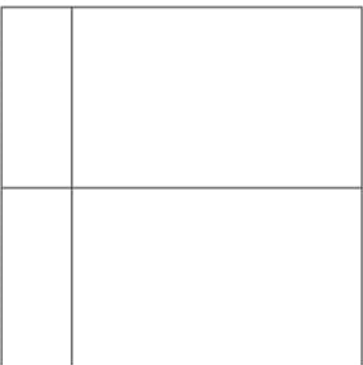
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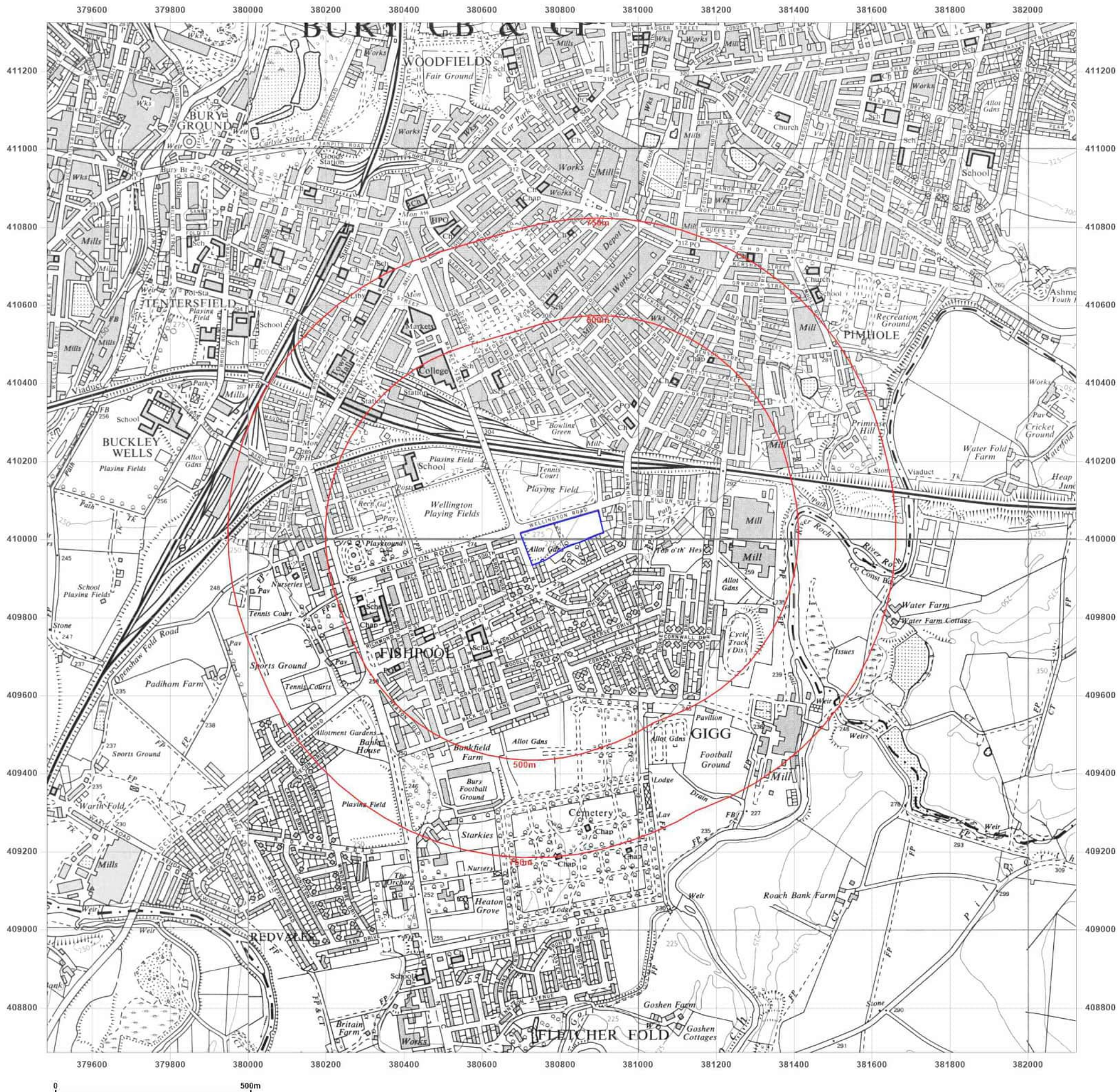


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Grid Ref: 380803, 410004

Map Name: National Grid

Map date: 1980-1983

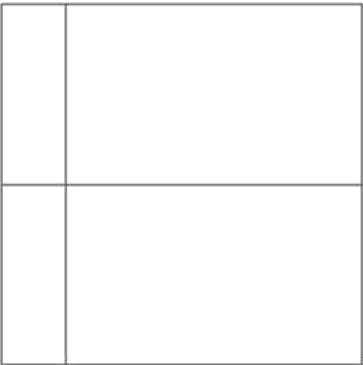
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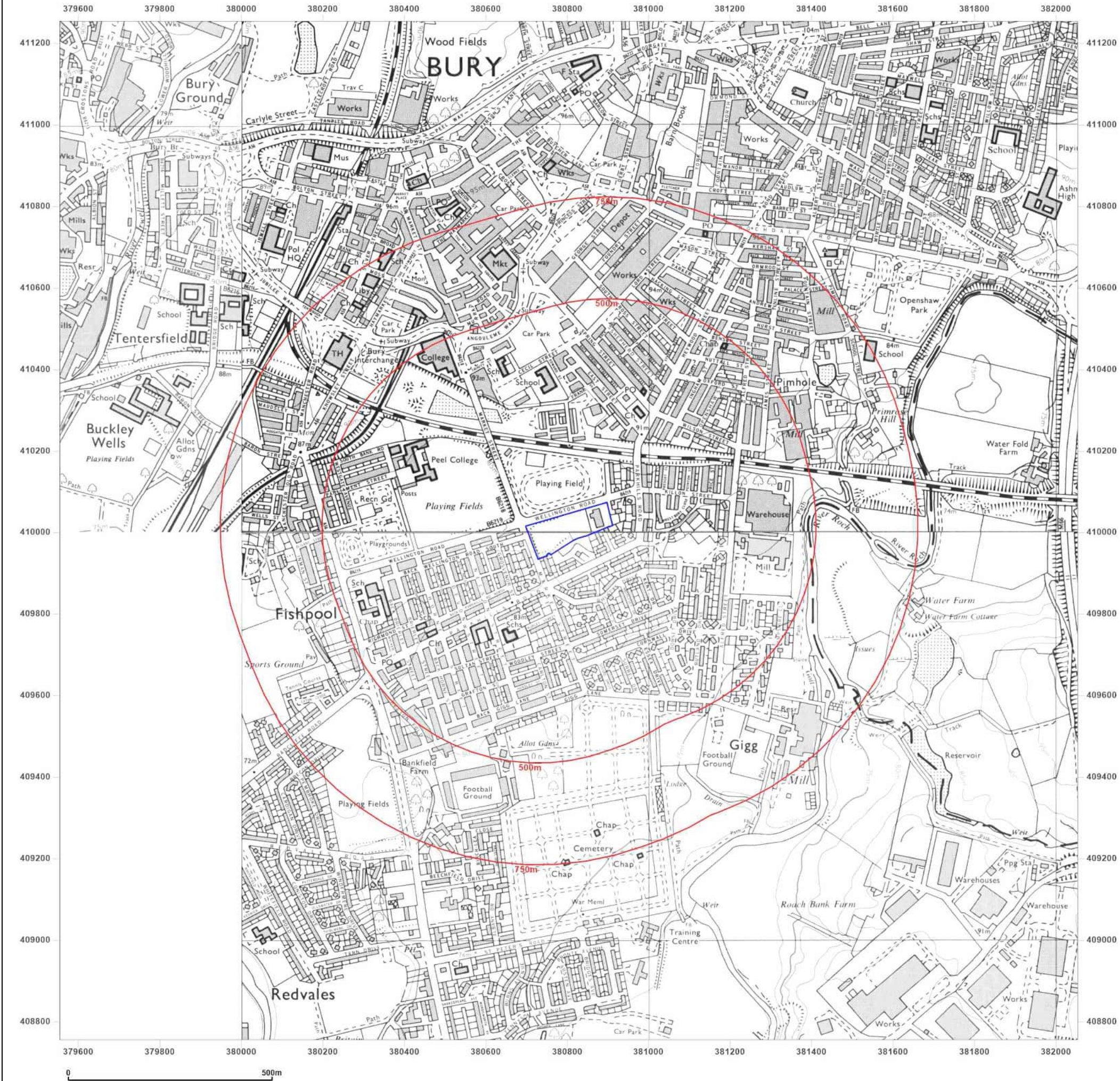


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Grid Ref: 380803, 410004

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

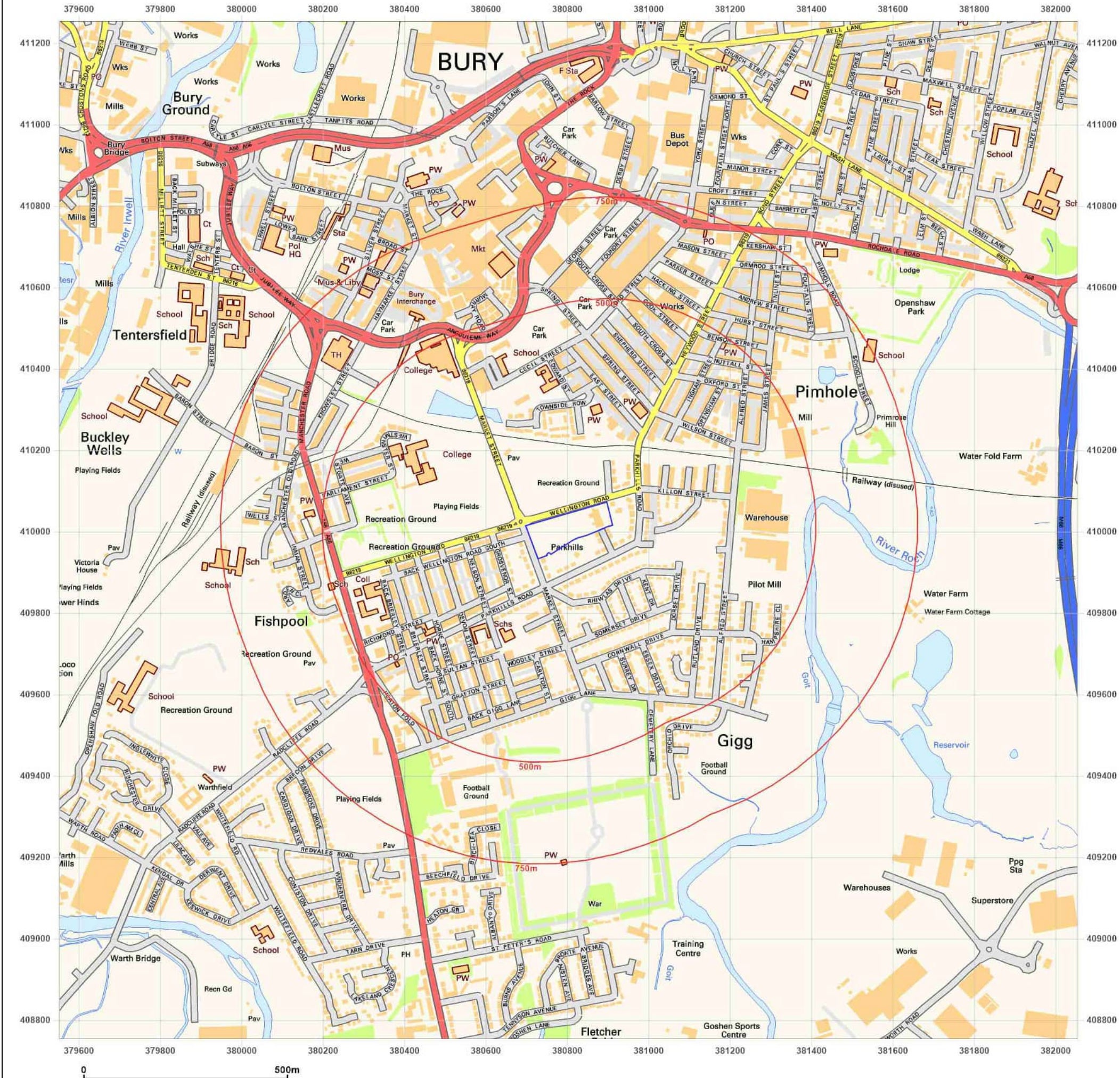


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Grid Ref: 380803, 410004

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

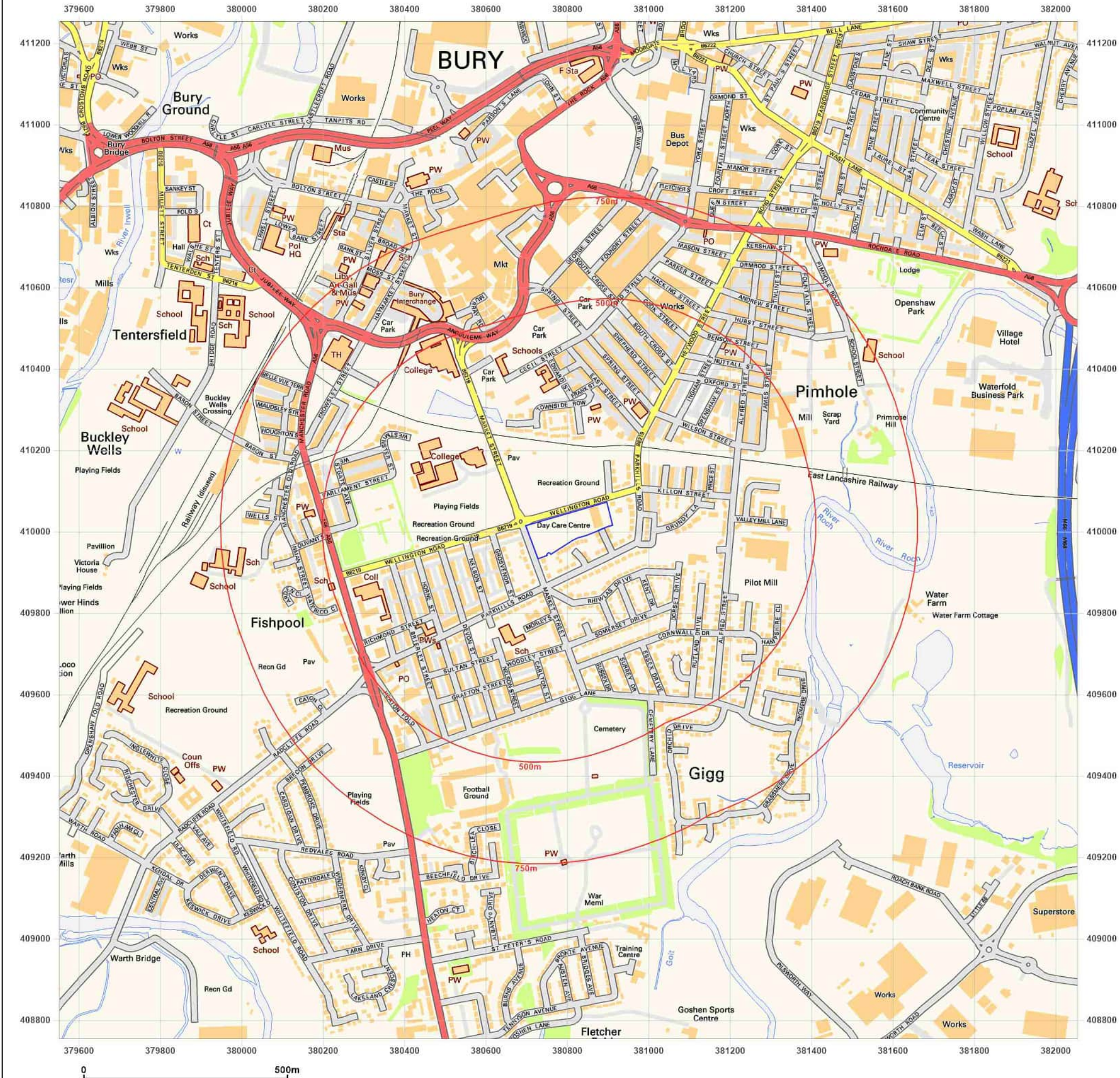


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Grid Ref: 380803, 410004

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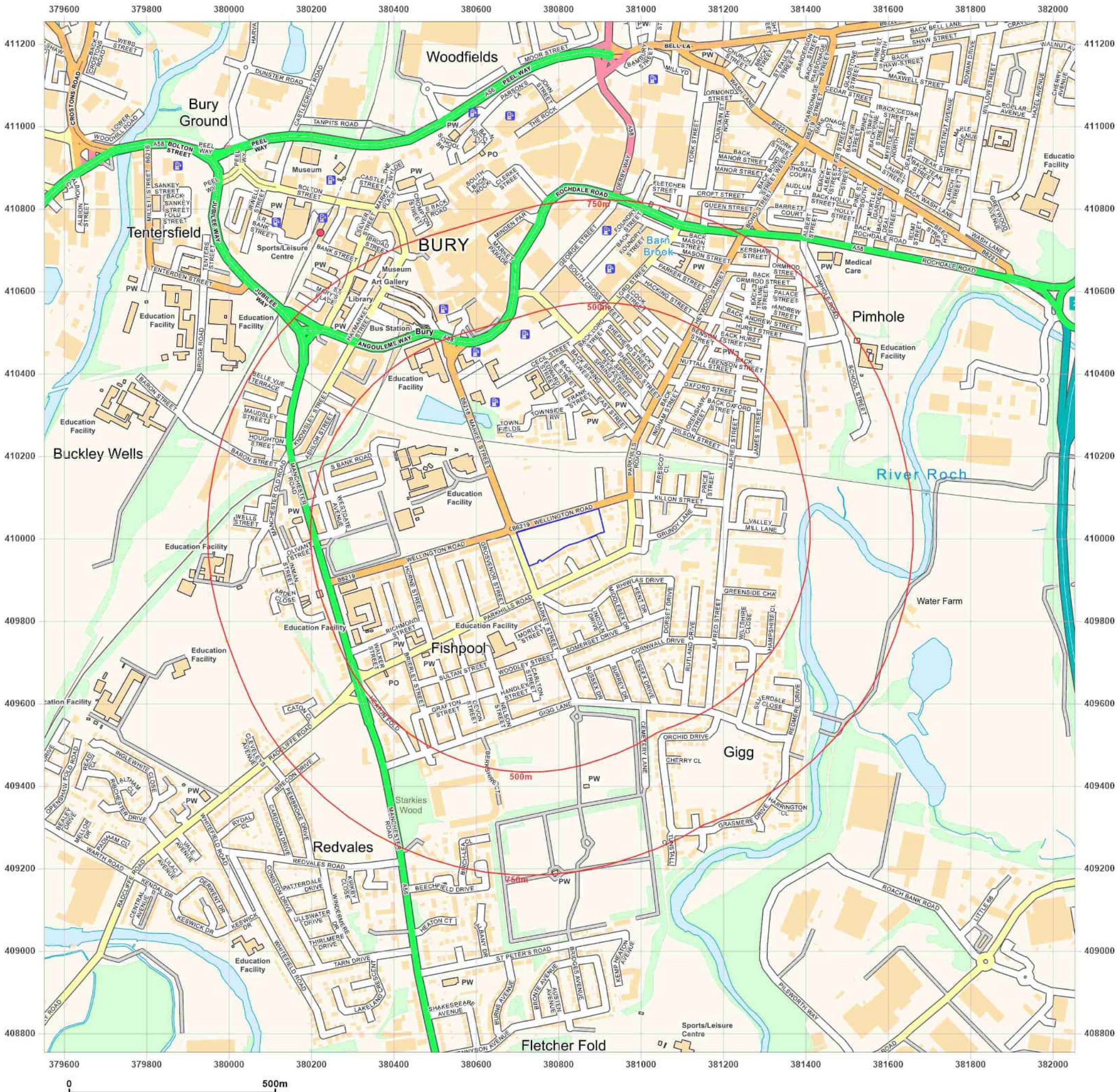


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Client Ref: 14378/A
Report Ref: CAR1-87S-QBY-RZY-Z7Z
Grid Ref: 380803, 410004

Map Name: County Series

Map date: 1891

Scale: 1:2,500

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Client Ref: 14378/A
Report Ref: CAR1-87S-QBY-RZY-Z7Z
Grid Ref: 380803, 410004

Map Name: County Series Town Plan

Map date: 1891

Scale: 1:500

Printed at: 1:1,000



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Edition	N/A
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Revised	N/A
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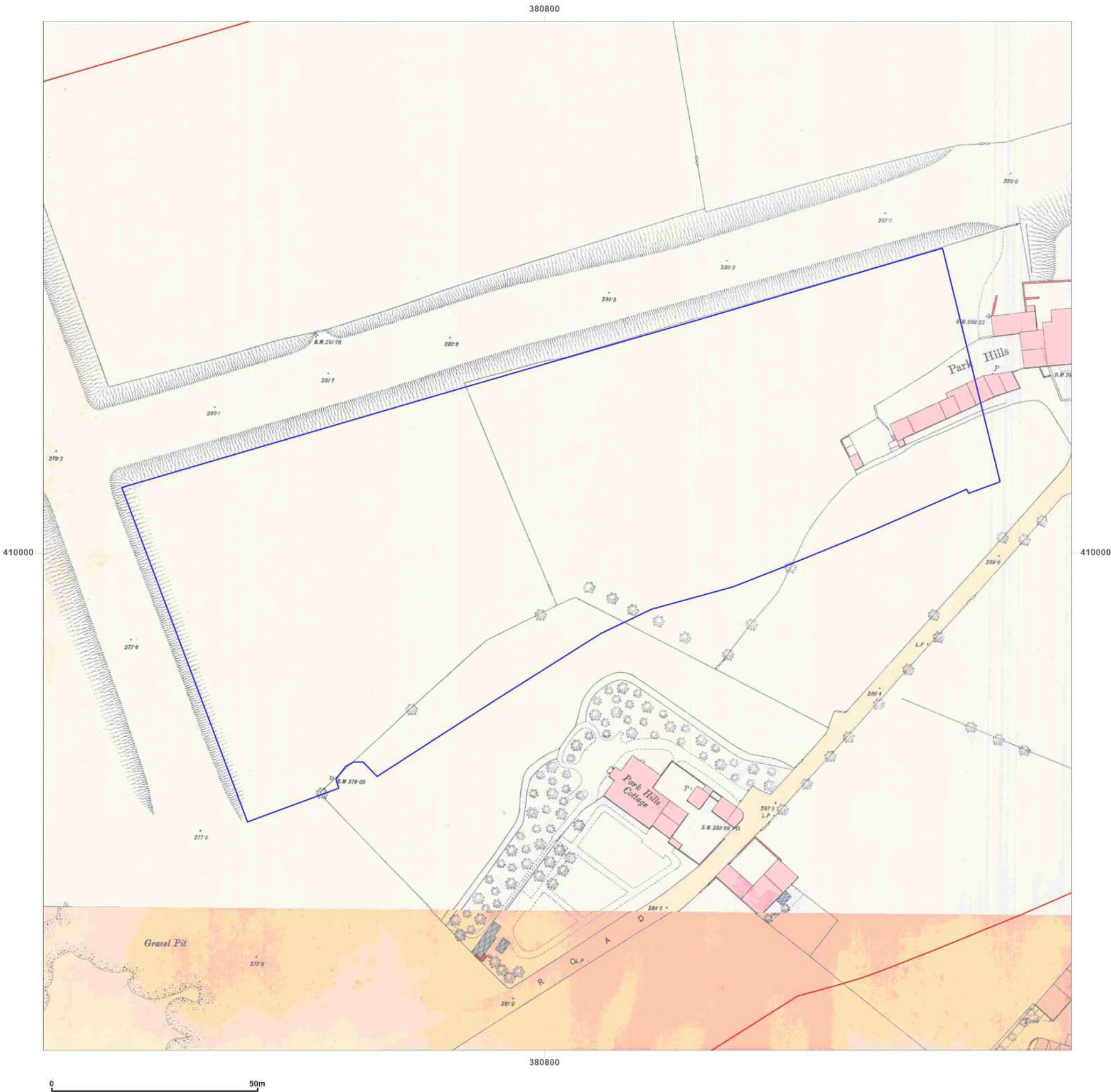


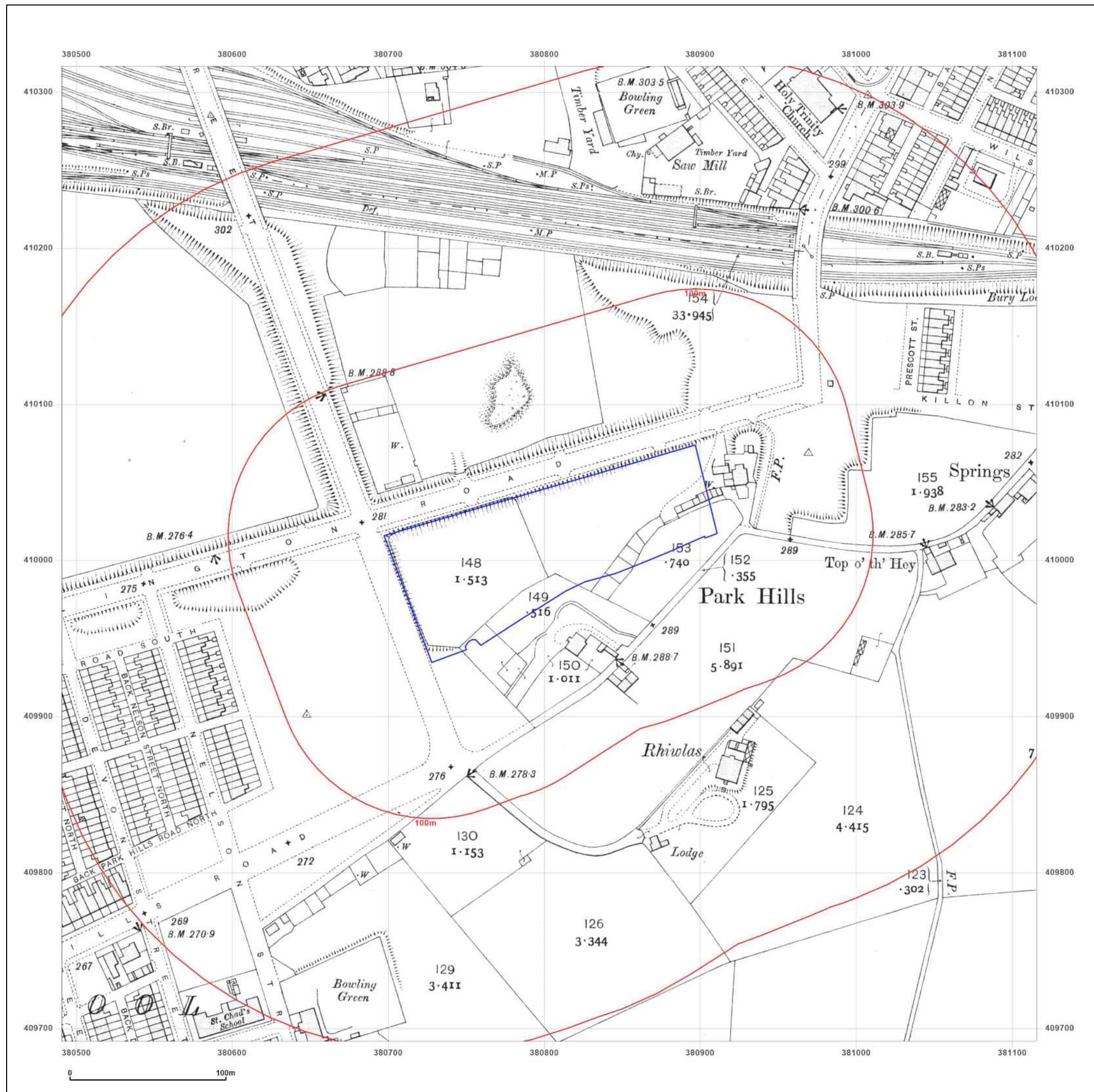
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Grid Ref: 380803, 410004

Map Name: County Series

Map date: 1910

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Grid Ref: 380803, 410004

Map Name: County Series

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Grid Ref: 380803, 410004

Map Name: County Series

Map date: 1937

Scale: 1:2,500

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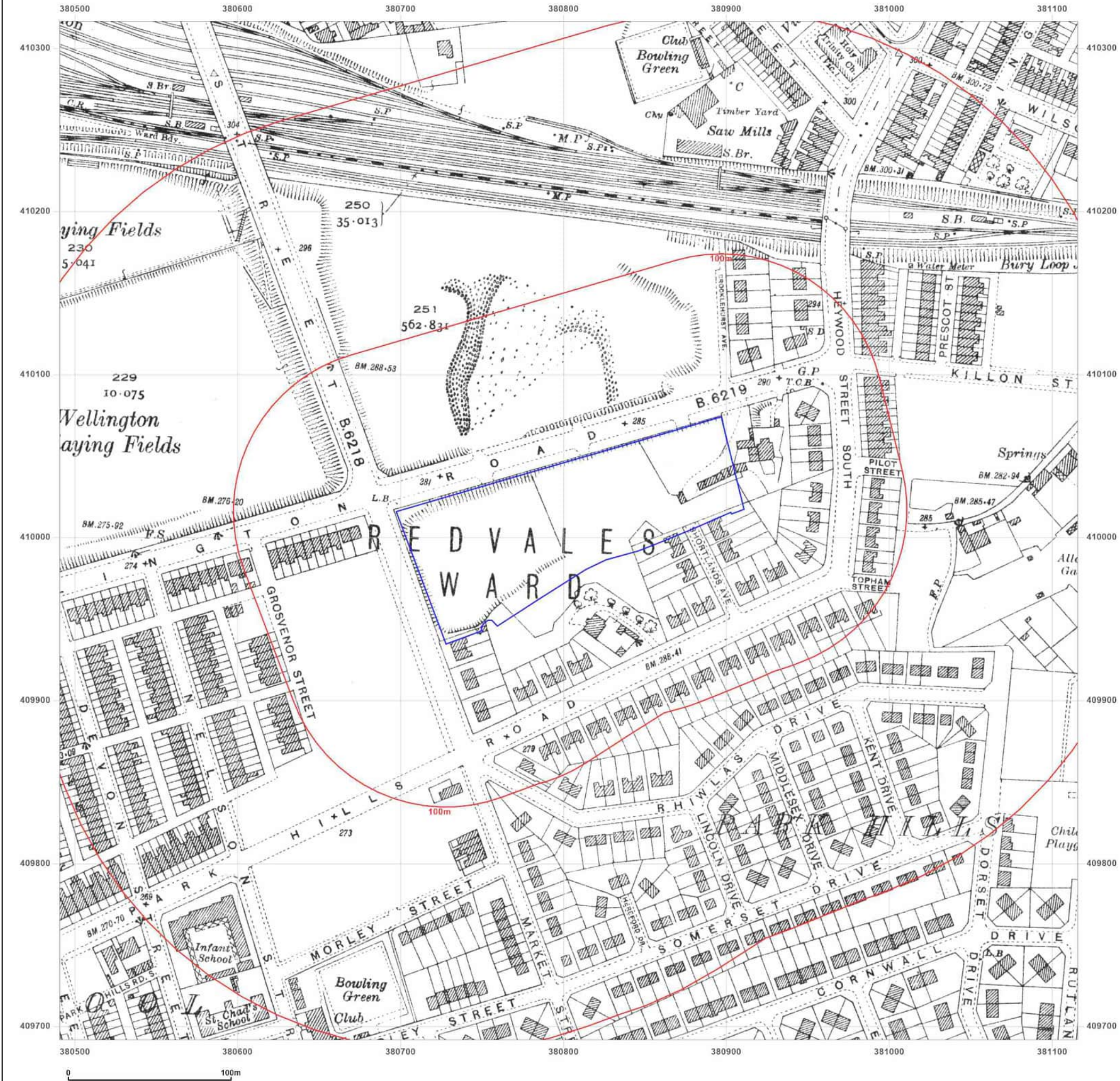


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Grid Ref: 380803, 410004

Map Name: National Grid

Map date: 1957

Scale: 1:1,250

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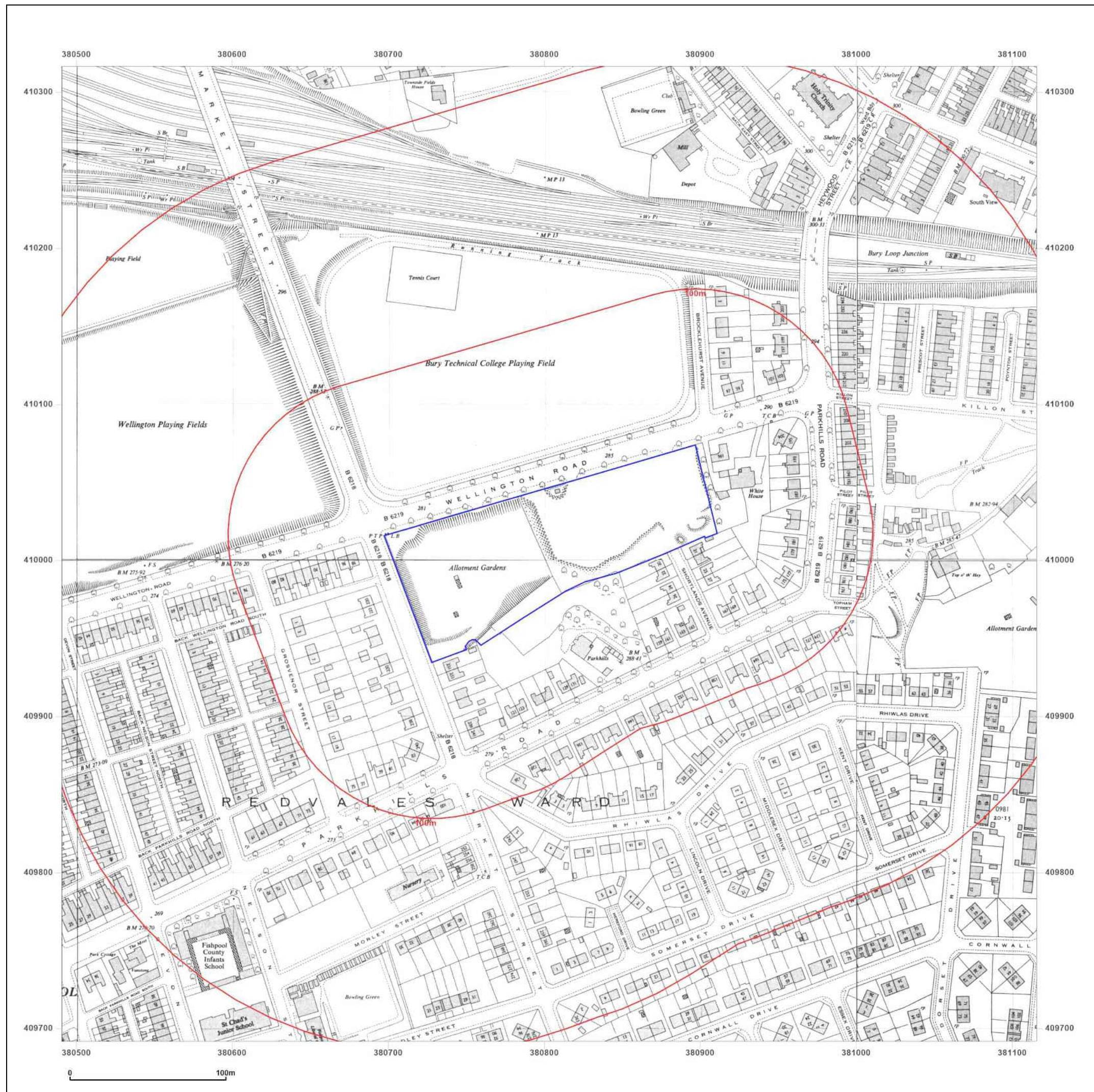
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Client Ref: 14378/A
Report Ref: CAR1-87S-QBY-RZY-Z7Z
Grid Ref: 380803, 410004

Map Name: National Grid
Map date: 1958-1959
Scale: 1:2,500
Printed at: 1:2,500



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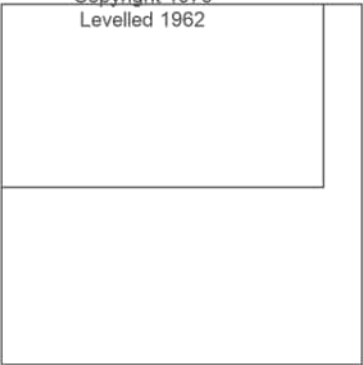
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Scale: 1:1,250

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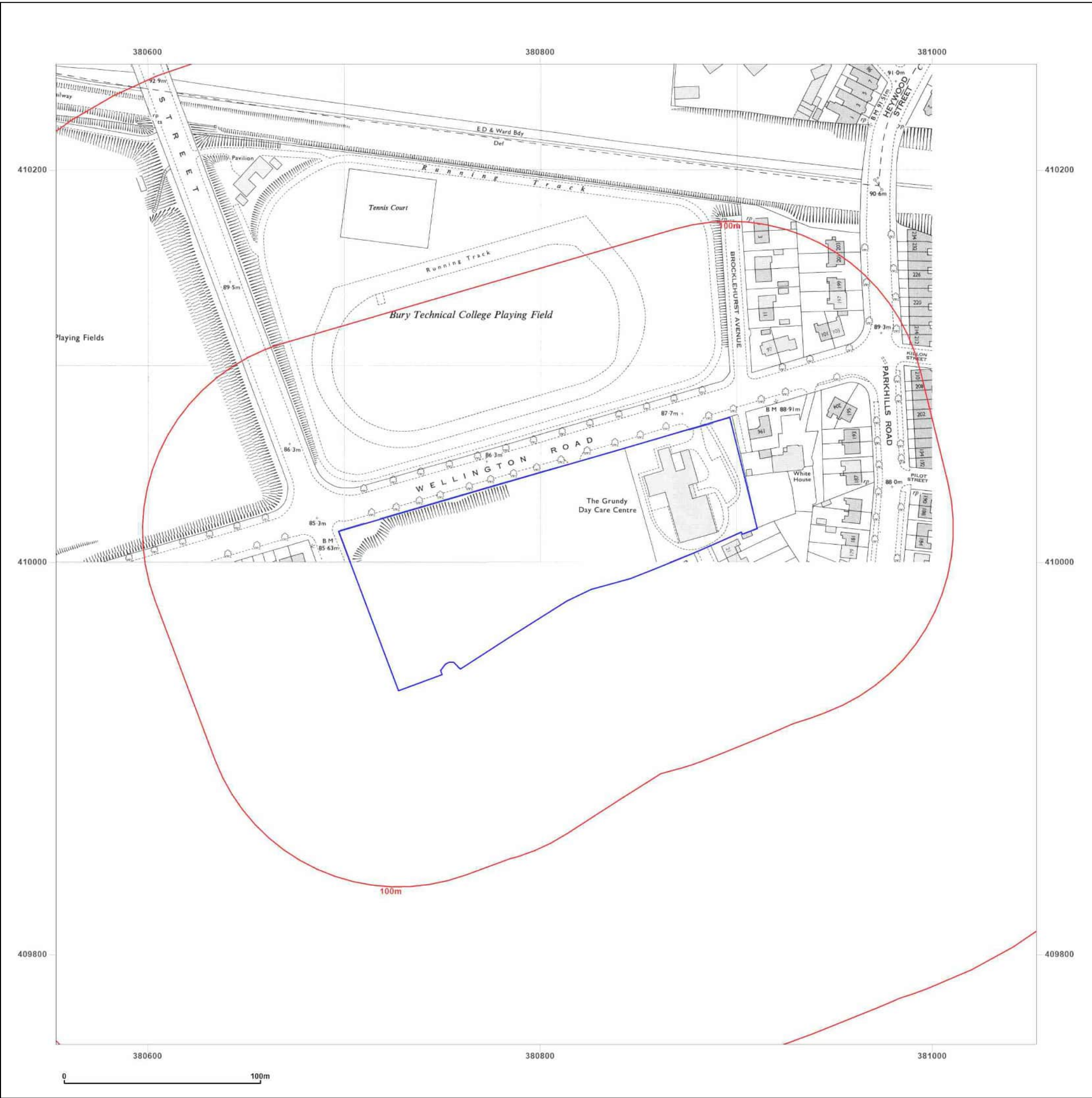


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Report Ref: CAR1-87S-QBY-RZY-Z7Z
Grid Ref: 380803, 410004

Map Name: National Grid

Map date: 1981-1984

Scale: 1:1,250

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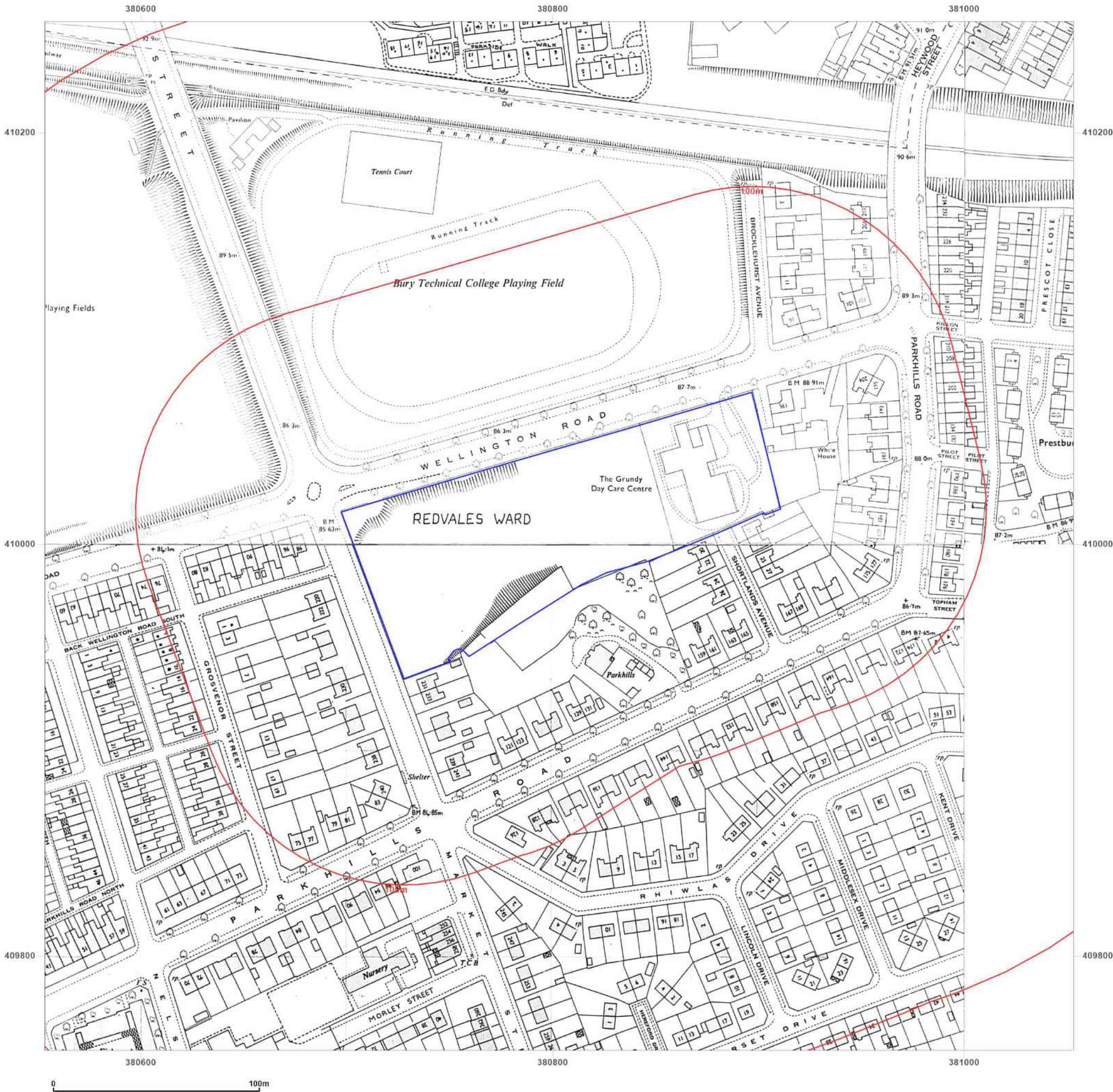


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Report Ref: CAR1-87S-QBY-RZY-Z7Z
Grid Ref: 380803, 410004

Map Name: National Grid

Map date: 1992

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Printed at: 1:2,000



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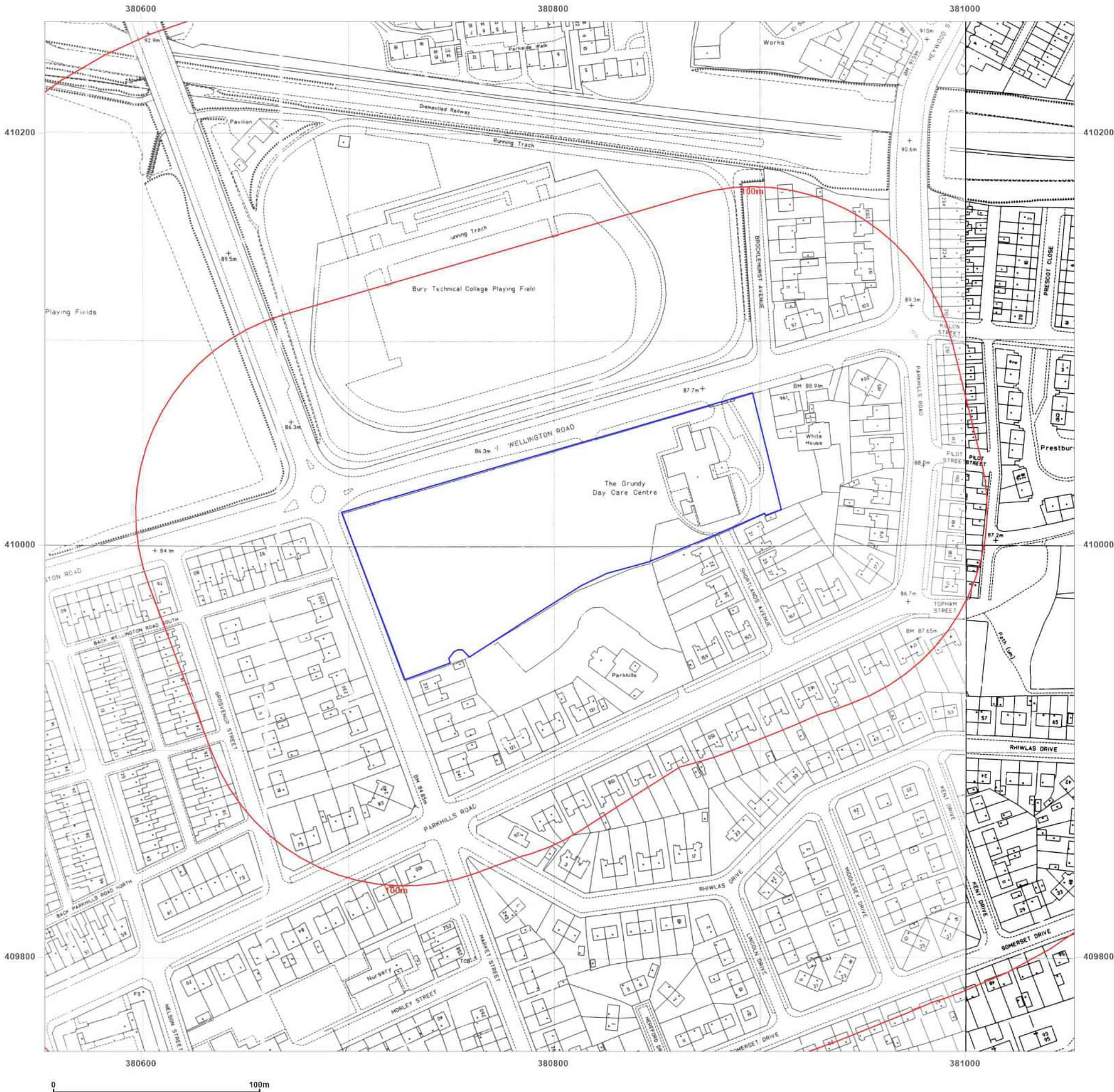


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Client Ref: 14378/A
Report Ref: CAR1-87S-QBY-RZY-Z7Z
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Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250

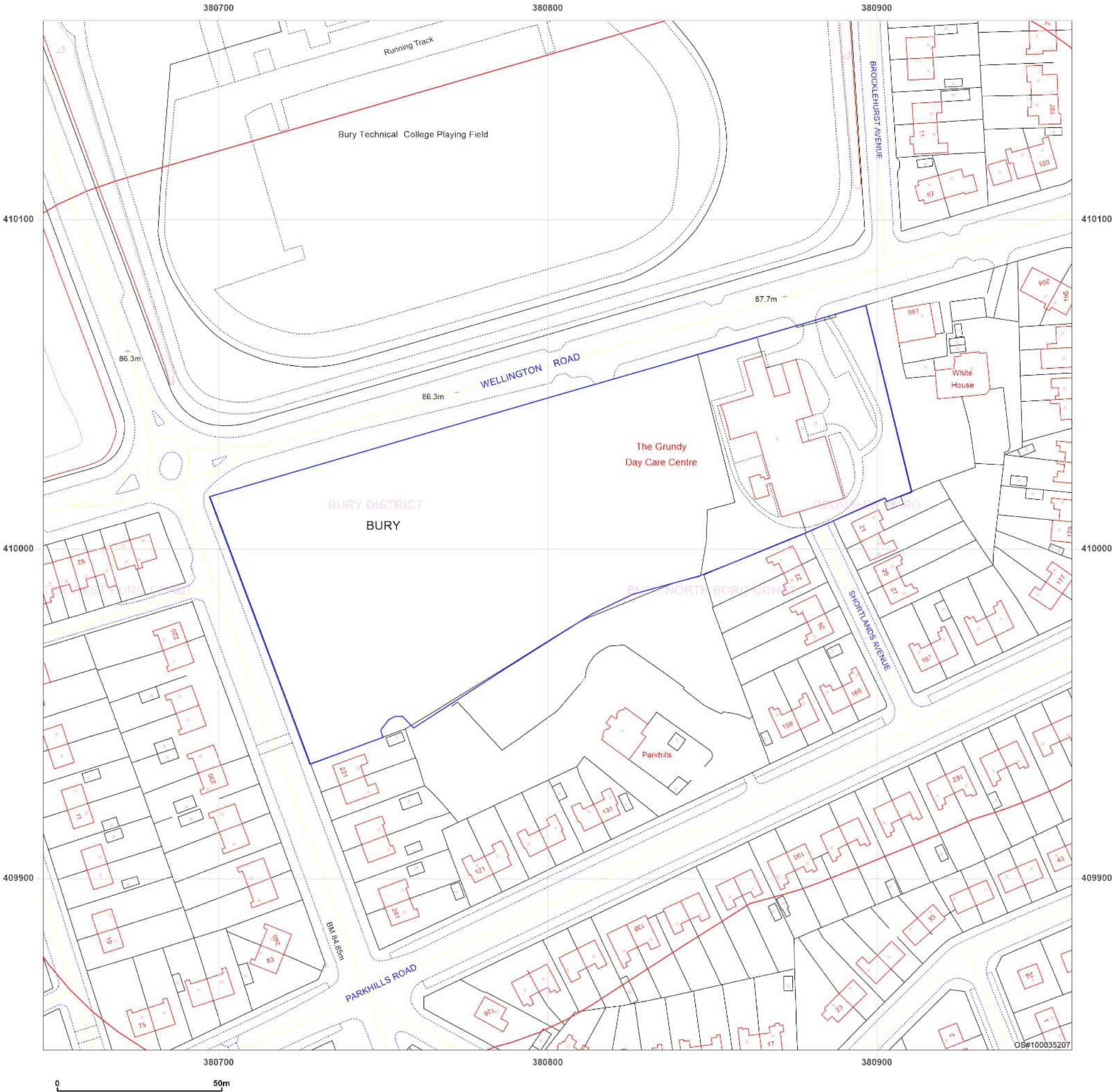


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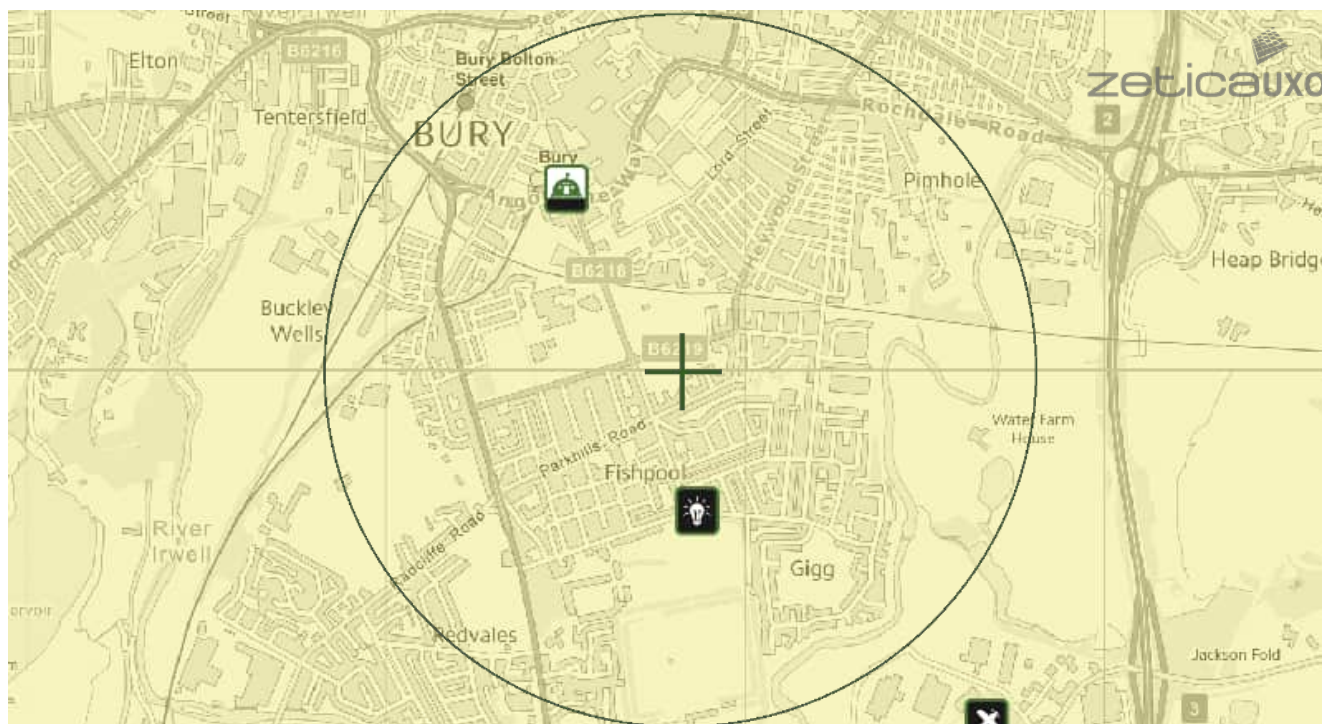


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SITE LOCATION

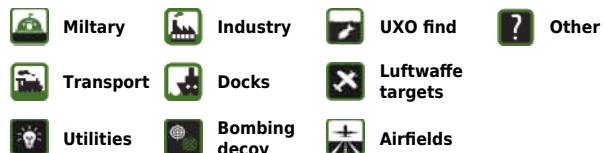
Map Centre: 380790,410000



This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.



How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density. Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then [additional detailed research](#) is recommended.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our [pre-desk study assessments \(PDSA\)](#) by emailing a site boundary and location to pdsa@zetica.com.

You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.

If I have any questions, who do I contact?

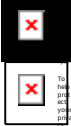
tel: +44 (0) 1993 886682 email: uxo@zetica.com web: www.zeticauxo.com

The information in this UXB risk map is derived from a range of sources and should be used with the [accompanying notes on our website](#).

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgement. The copyright remains with Zetica Ltd.

Peter Kenny

From: SM-Defra-RESP-noreply (DEFRA) <RESP-noreply@defra.gov.uk>
Sent: 02 May 2025 10:05
To: Peter Kenny
Subject: Pre-App – Habitats and Nature Conservation Screen EPR/TP3528LE/P001
CRM:0091684
Attachments: Waste pre-application basic advice.docx; Waste basic additional advice - DfR.docx



Dear Peter Kenny,

Permit type: SR2015 No 39
Application reference: EPR/TP3528LE/P001
Grid reference: SD 80794 10014
Site Name: Wellington Road, Bury, WELLINGTON ROAD, BURY, BL9 9AH
Date screen completed: 02/05/2025

We have received your request for a pre-application heritage and nature conservation screening.

We have attached basic advice documents.

The screening results indicate that you are eligible to apply for Standard Rule 2015 No 39.

We recommend that you use all of the available guidance in the attached advice and on our website to help you complete your environmental permit application.

If you still have questions or want to access other pre-application services then you should follow the instructions given towards the end of the basic advice document.

Please note we have screened this application for protected and priority sites, habitats and species for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be required.

The nature and heritage screening we have conducted is subject to change as it is based on data we hold at the time it is generated. We cannot guarantee there will be no changes to our screening data between the date of this screening and the submission of a permit application, which could result in the return of an application or requesting further information.

If you have follow up queries which fall under the remit of [basic pre-application advice](#) please email preapplicationservice@environment-agency.gov.uk. Do not reply to this email address.

Yours sincerely,

India Lewin

Pre-application Team

Regulated Industry, NPS Sheffield

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