

**Site Address:** Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, S71 1NL

**Title:** Appendix A1 – Location Plan

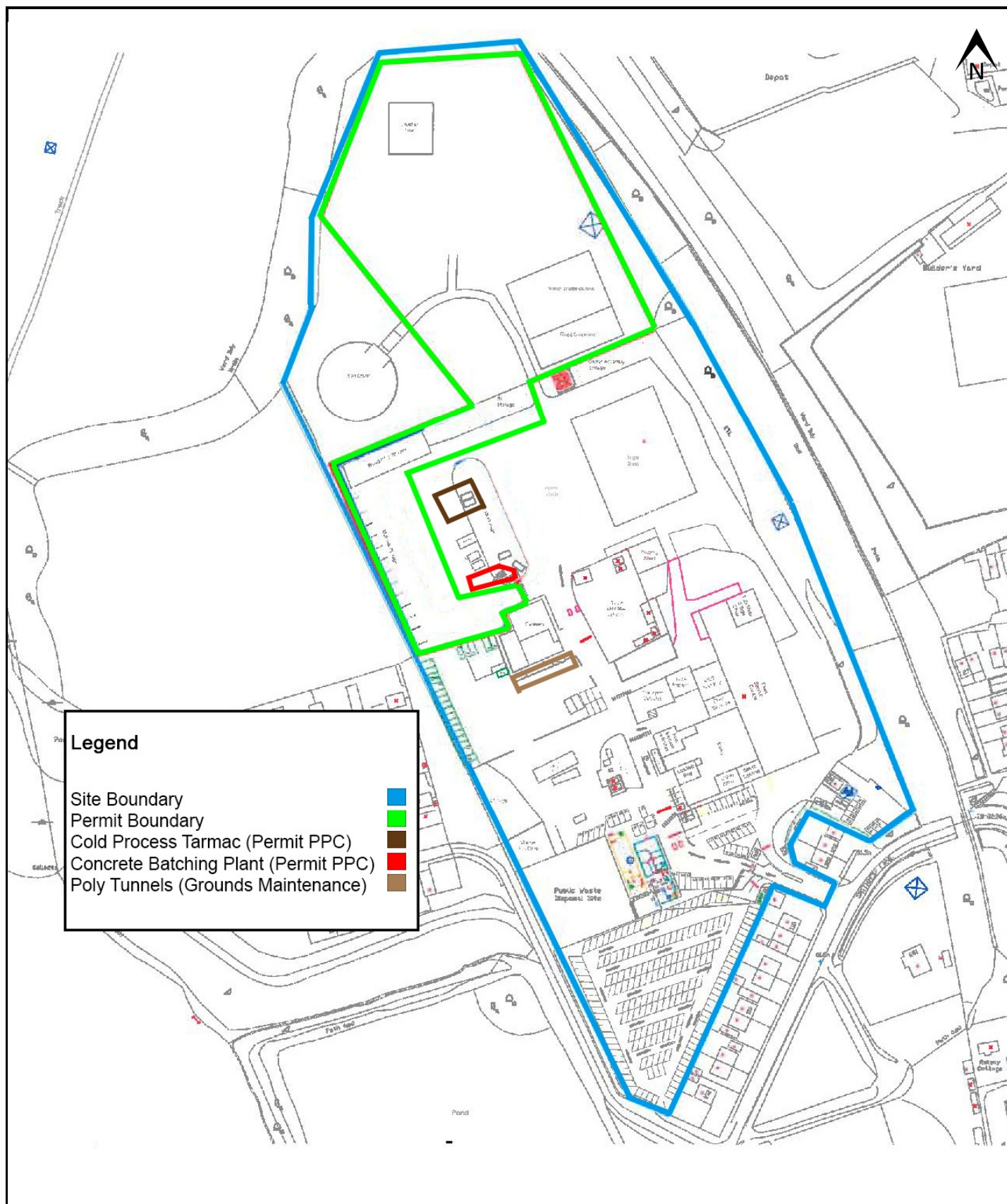
**Client:** Barnsley Metropolitan Borough Council

**Printed Scale:** NTS

**Date:** November 2017







### Legend

Site Boundary  
 Permit Boundary  
 Cold Process Tarmac (Permit PPC)  
 Concrete Batching Plant (Permit PPC)  
 Poly Tunnels (Grounds Maintenance)



**Site Address:** Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, S71 1NL

**Title:** Appendix A2 – Existing Layout / Permit Boundary

**Client:** Barnsley Metropolitan Borough Council

**Printed Scale:** NTS

**Date:** November 2017







INERT MATERIALS KEY:

- 16 – Metal Skip (Unprocessed)
- 17 – Topsoil (Processed)
- 18 – Stock piled planings (Processed)
- 19 – Grit sand (Processed)
- 20 – 20mm stone (Processed)
- 21 – Crushing pile (concrete slabs, lamp posts etc. Unprocessed)
- 22 – Mixed construction rubble (Unprocessed)
- 23 – Type 1 material (Processed)
- 24 – Mixed subsoil (Unprocessed)
- 25 – Type 2 material (Processed)
- 26 – Sand (Virgin Material)
- 27 – Pipe bedding (Virgin Material)
- 28 – Mixed clay (BMBC Waste only for onward Disposal)
- 29 – Fuel Tank (Double Bunded)
- 30 – Extec E72 heavy duty screening machine (Crusher and 360 loading plant hired in)

Key:

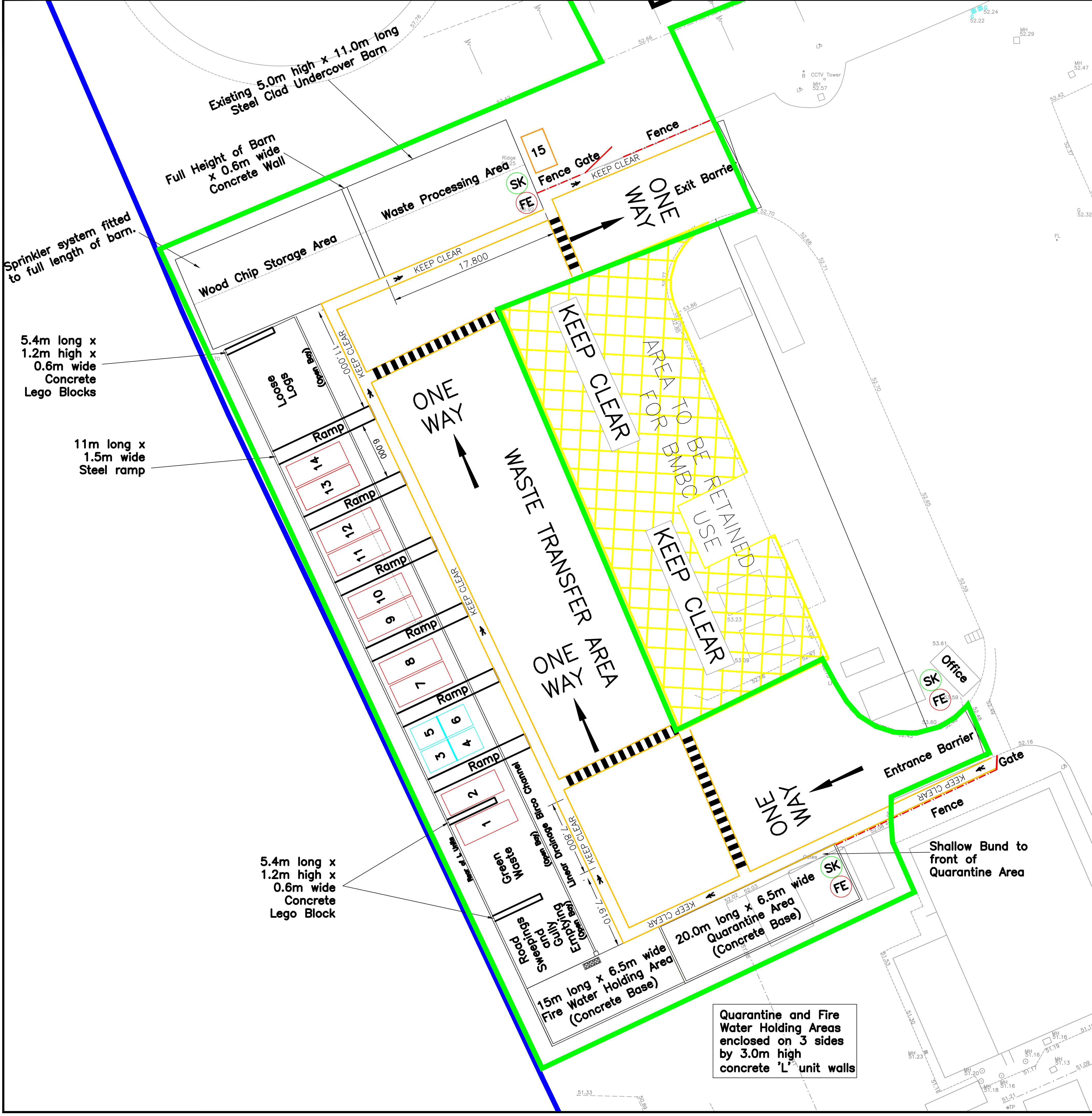
- Depot Boundary
- Environmental Permit Boundary
- FE Fire Extinguisher
- SK 240Ltr Spill Kit

Rev.	By	Amendments	Date



Project Smithies Lane Depot Council and Trade Waste Facility			
Drawing title Inert Waste Storage and Treatment Area			
Scale NTS	Drawn LR	Checked RK	Date 08/19
Drawing No. HS/SLD/LBA/100/04			File
I.M. Wilson, BEng (Hons), CEng, MICE, DMS Interim Head of Highways, Engineering and Transportation, Place Directorate Westgate Plaza One, Westgate Barnsley, S70 2DR Tel. (01226) 770770 Fax. (01226) 772222			





- Key:
- Depot Boundary
  - Environmental Permit Boundary
  - Fire Extinguisher
  - 240Ltr Spill Kit

- Waste Bays Key:
- 1 Denotes Roll On / Off Skip  
11.0m long x 2.4m wide x 2.69m high
  - 2 Denotes 1 tonne Skip
  - 15 Shipping container with freezer
- 1 – Green Waste (Open Bay)
  - 2 – Mixed Rubble including Sanitary and Glass
  - 3 – Yard Rubble
  - 4 – Paper and Card
  - 5 – Ferrous
  - 6 – Non-Ferrous
  - 7 – Landfill
  - 8 – Plastics
  - 9 – Wood
  - 10 – Residual Waste
  - 11 – Tyres on Rim
  - 12 – Tyres off Rim
  - 13 – Plaster Board
  - 14 – Spare
  - 15 – Road Kill / Dead Domestic Pets

Rev.	By	Amendments	Date

**BARNSELEY**  
Metropolitan Borough Council

Project  
Smithies Lane Depot  
Council & Trade Waste Facility

Drawing title  
Waste Transfer Area  
Signing and Lining & Waste Storage Layout

Scale 1:200 @A1	Drawn SCa	Checked RK	Date 06/2019
--------------------	--------------	---------------	-----------------

Drawing No.  
HS/SLD/LBA/100/05

I.M. Wilson, BEng (Hons), CEng, MICE, DMS  
Interim Head of Highways, Engineering and  
Transportation, Place Directorate  
Westgate Plaza One, Westgate  
Barnsley,  
S70 2DR  
Tel. (01226) 770770 Fax. (01226) 772222



#### Site Details:

BARNSELY METROPOLITAN  
BOROUGH COUNCIL, SMITHIES  
LANE DEPOT, SMITHIES LANE,  
SMITHIES, BARNSELY, S71 1NL

**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** County Series

**Map date:** 1850-1854

**Scale:** 1:10,560

**Printed at:** 1:10,560



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Surveyed 1851  
Revised N/A  
Edition 1850  
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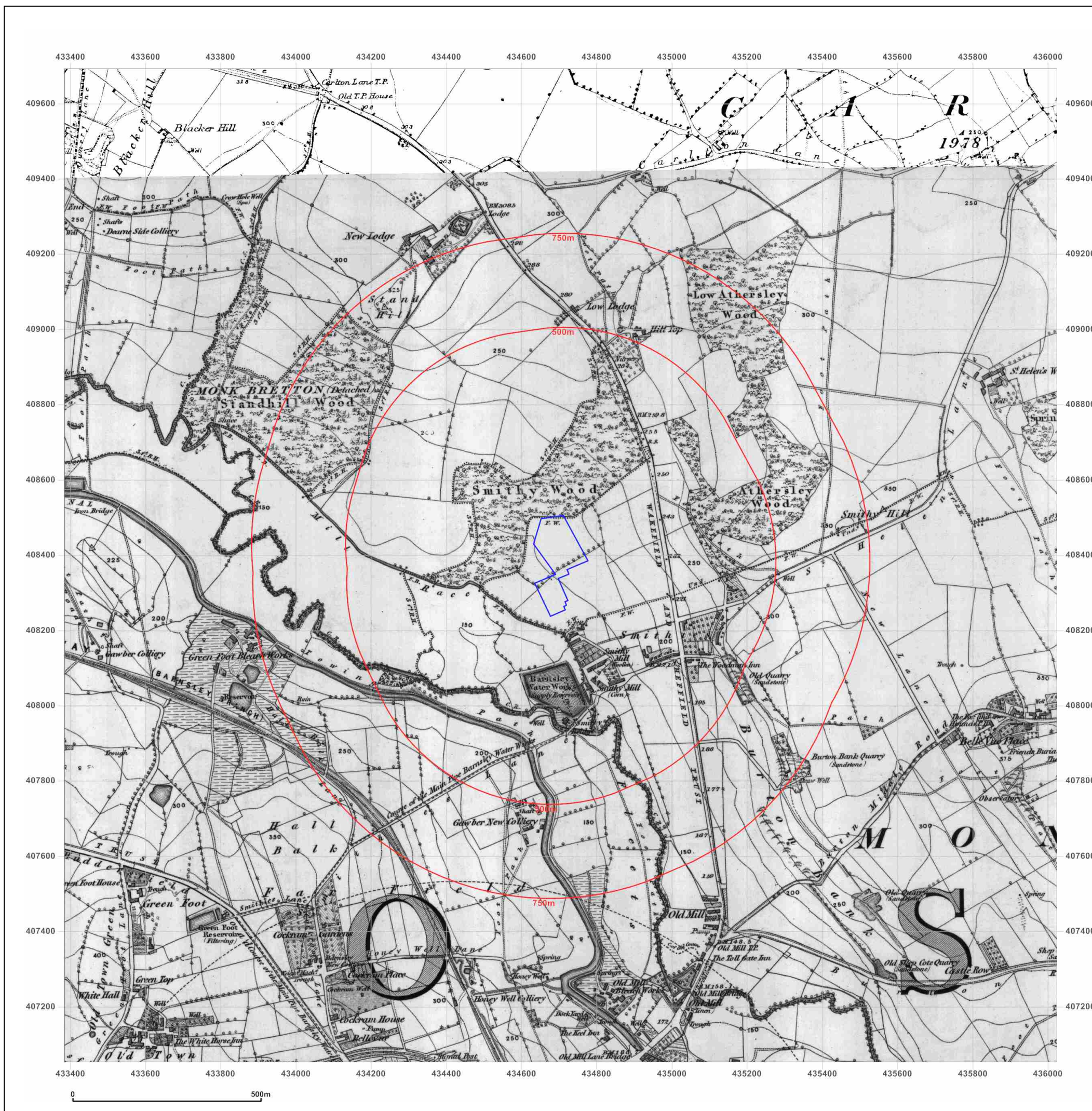


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** County Series

**Map date:** 1890-1891

**Scale:** 1:10,560

**Printed at:** 1:10,560



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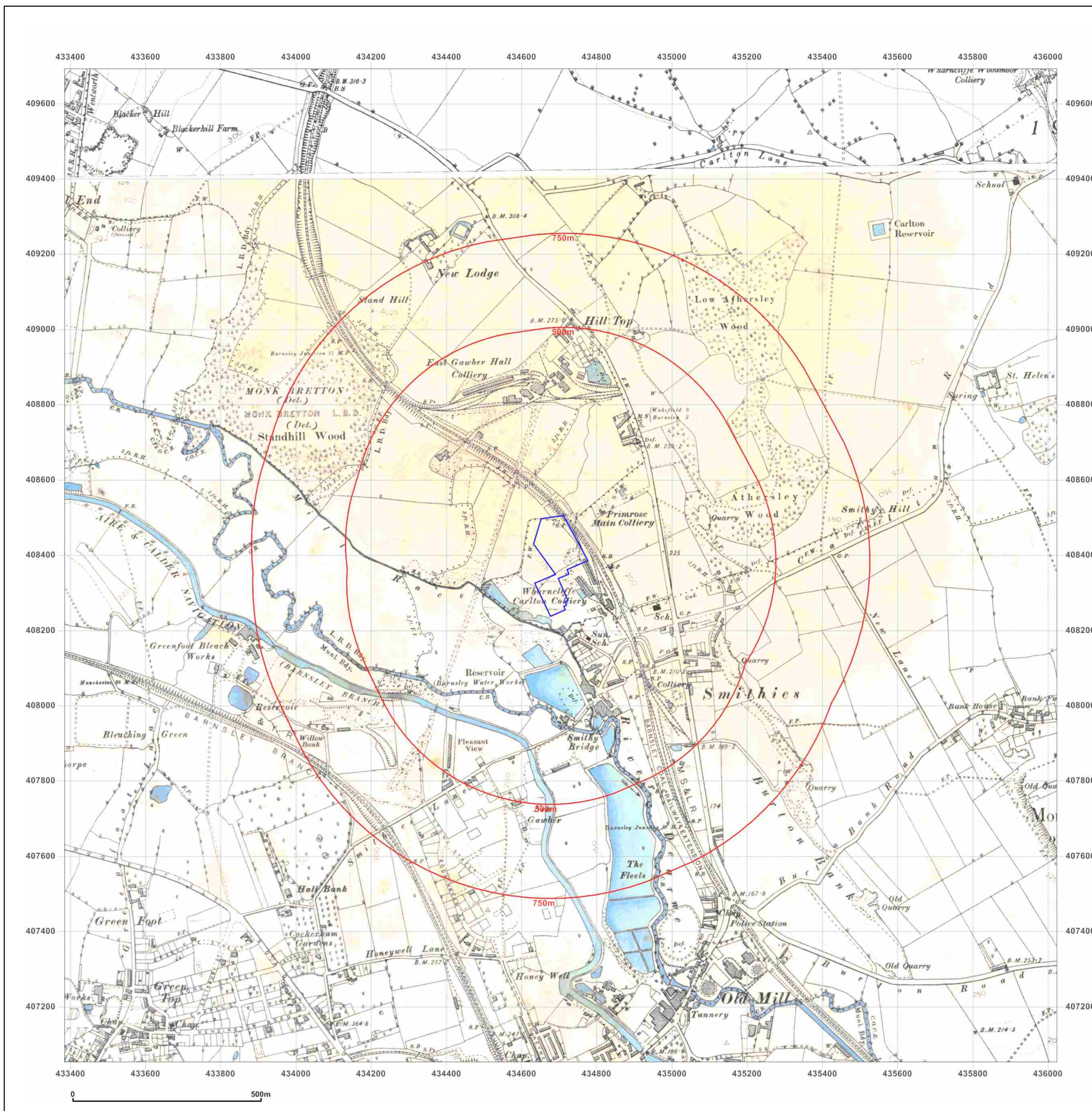


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** County Series

**Map date:** 1904

**Scale:** 1:10,560

**Printed at:** 1:10,560



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Edition 1904  
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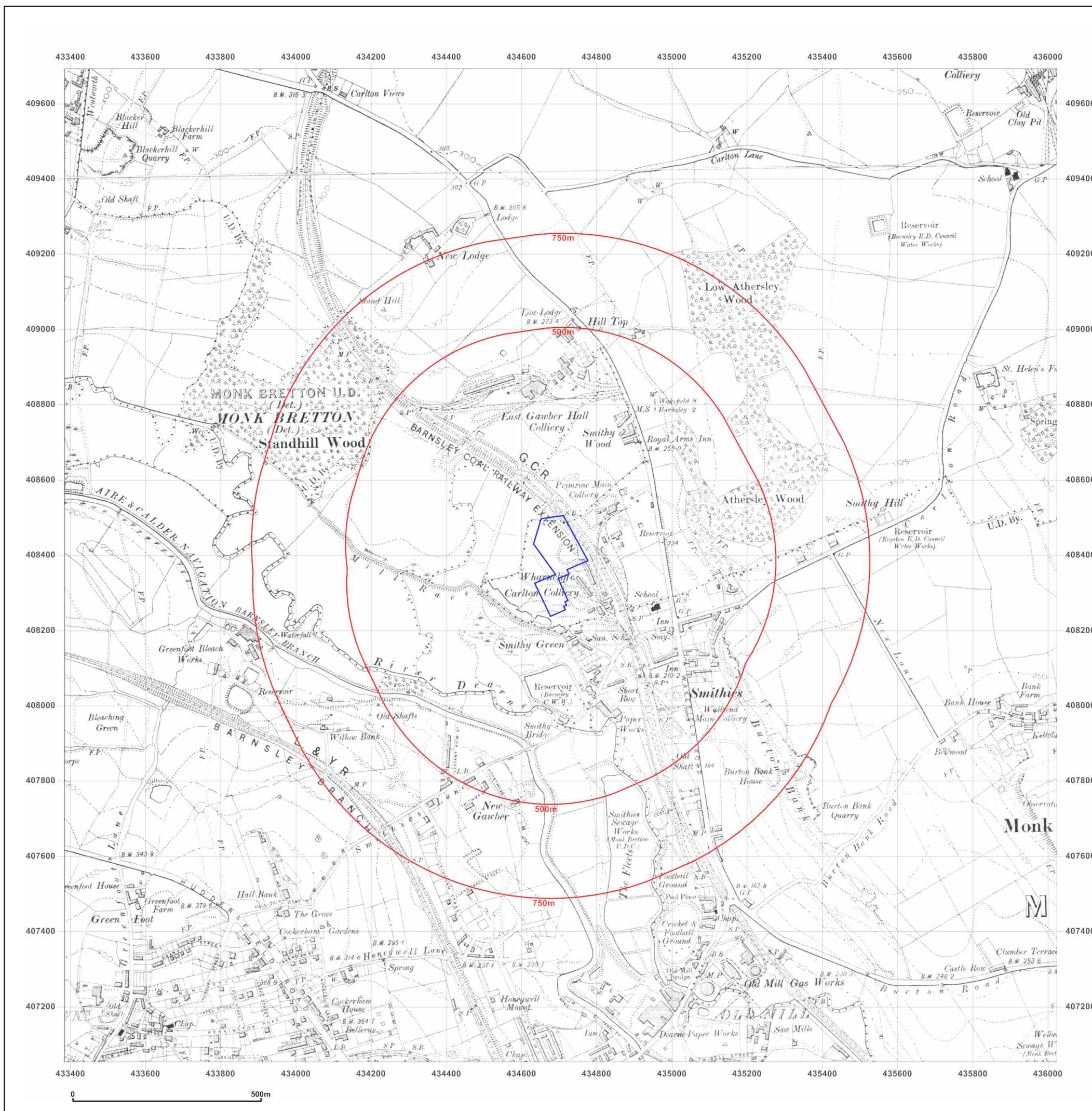


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** County Series

**Map date:** 1929-1930

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1851  
Revised 1930  
Edition 1930  
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Revised 1929  
Edition 1929  
Copyright N/A  
Levelled 1915

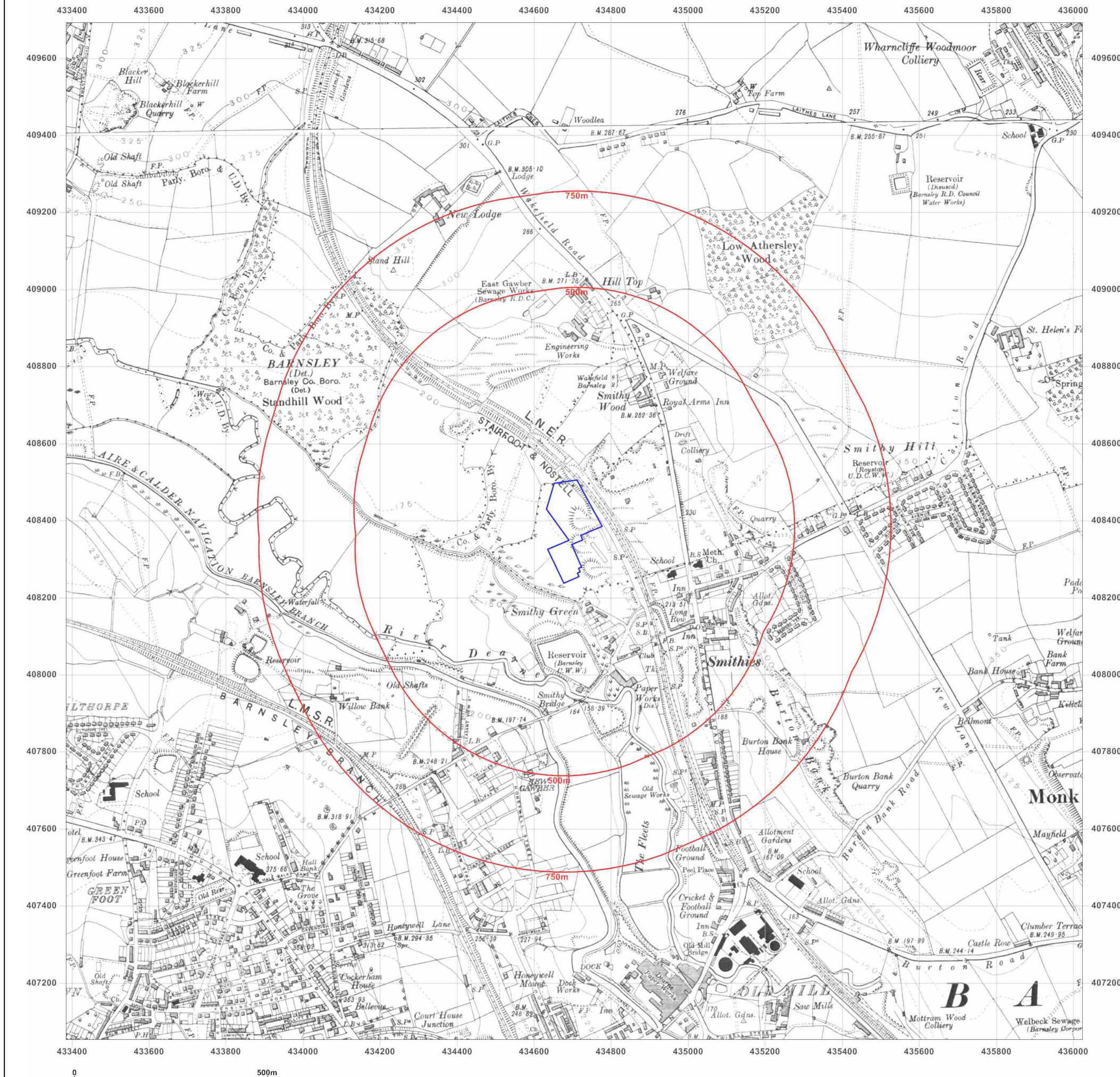


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** County Series

**Map date:** 1938

**Scale:** 1:10,560

**Printed at:** 1:10,560



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Edition 1938  
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Levelled 1929

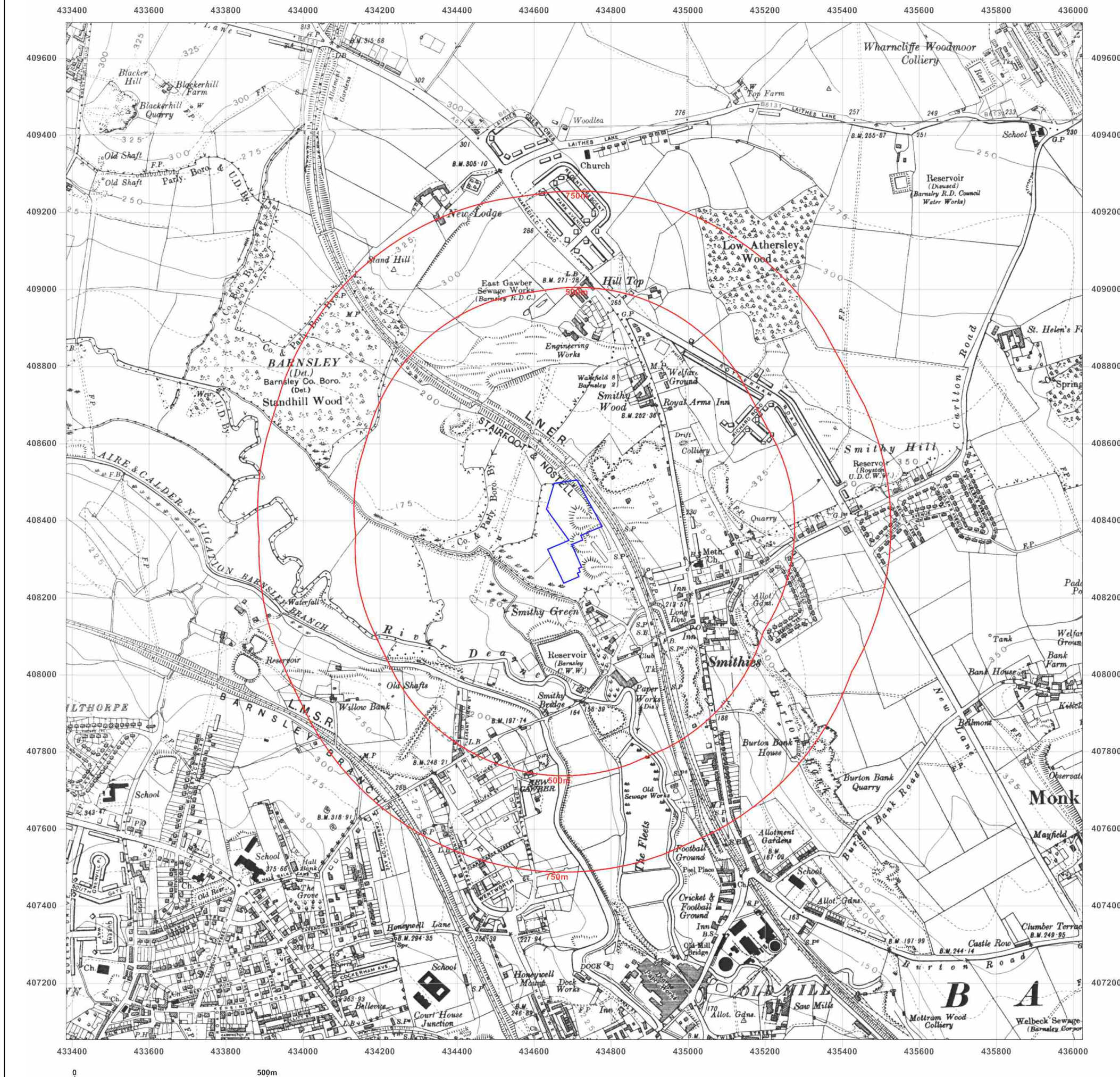


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** County Series

**Map date:** 1948

**Scale:** 1:10,560

**Printed at:** 1:10,560



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Edition 1948  
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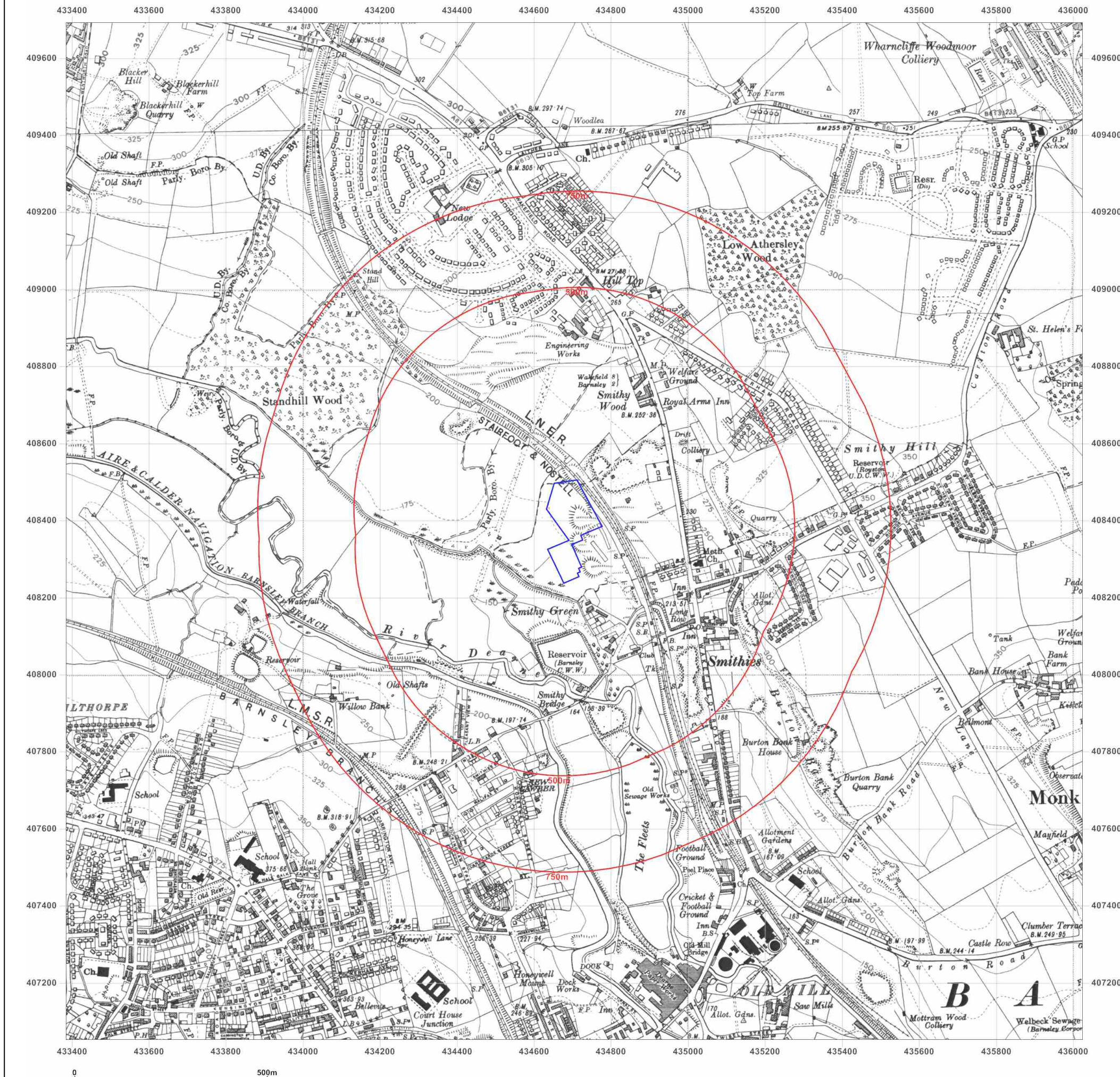


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** Provisional

**Map date:** 1955-1956

**Scale:** 1:10,560

**Printed at:** 1:10,560



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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** Provisional

**Map date:** 1966

**Scale:** 1:10,560

**Printed at:** 1:10,560



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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1973-1974

**Scale:** 1:10,000

**Printed at:** 1:10,000



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Edition N/A  
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Surveyed 1974  
Revised 1974  
Edition N/A  
Copyright 1975  
Levelled 1978

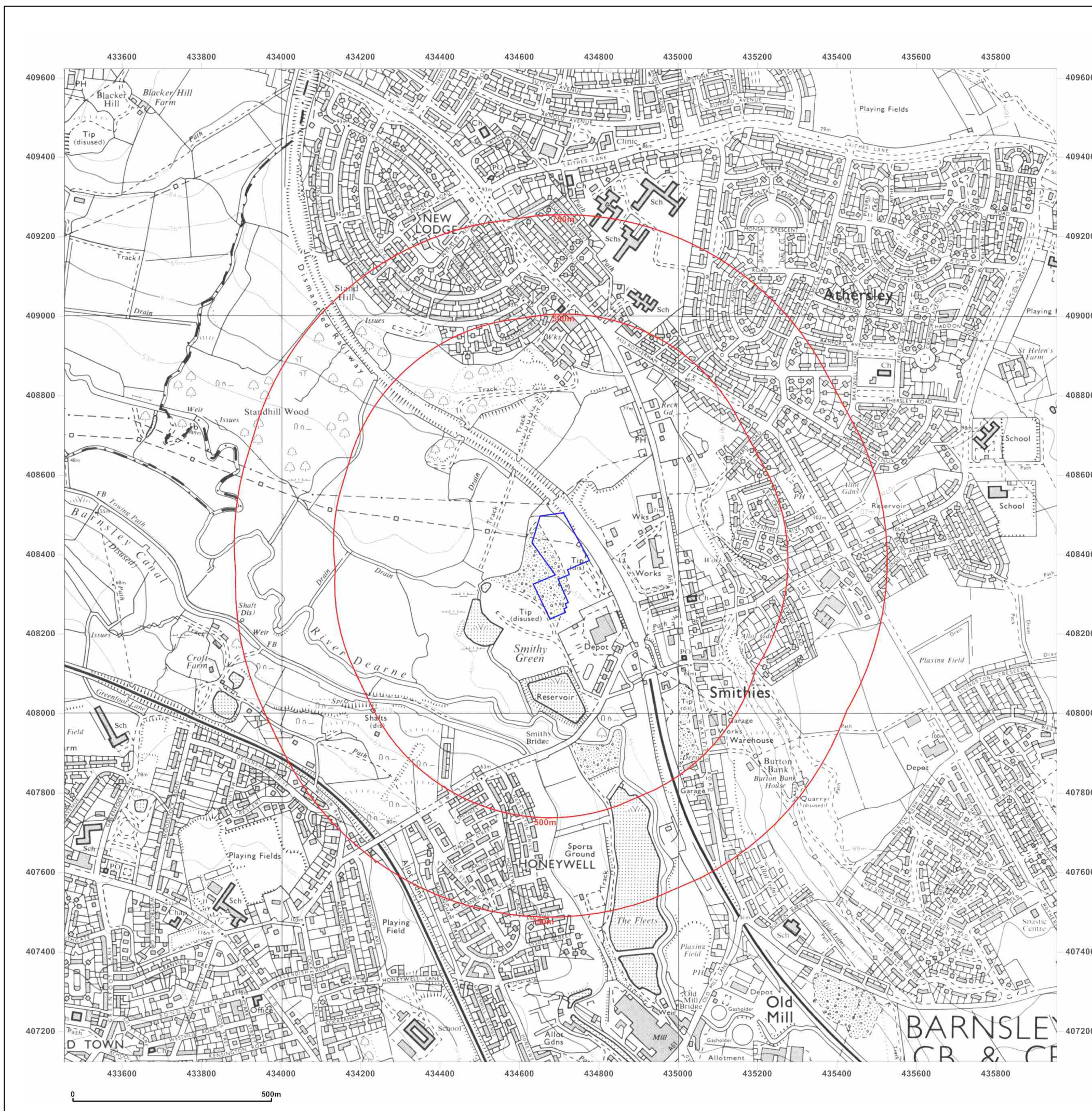


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1982

**Scale:** 1:10,000

**Printed at:** 1:10,000



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Revised 1982  
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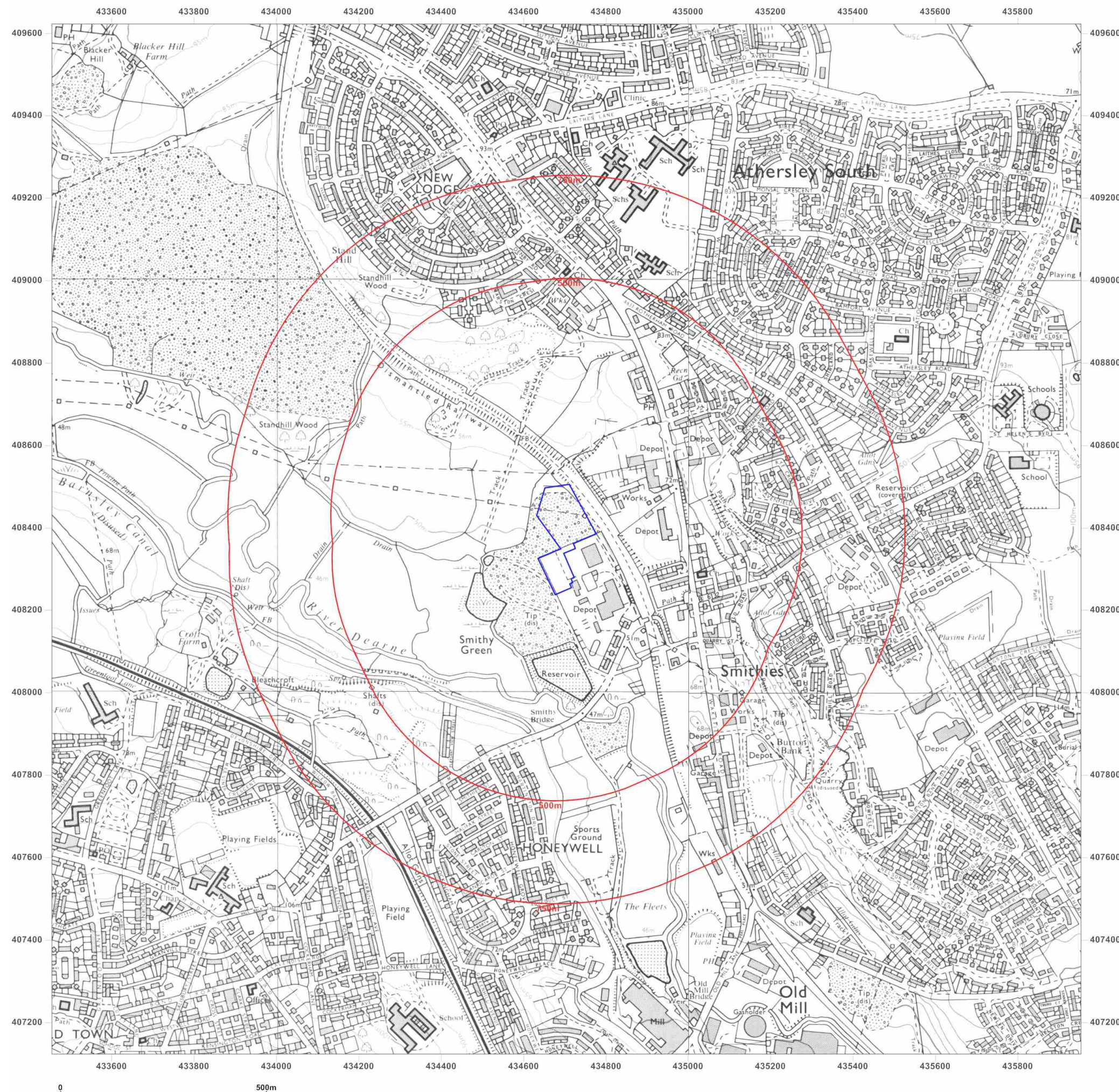


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**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1992-1993

**Scale:** 1:10,000

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Revised 1992  
Edition N/A  
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Levelled 1978

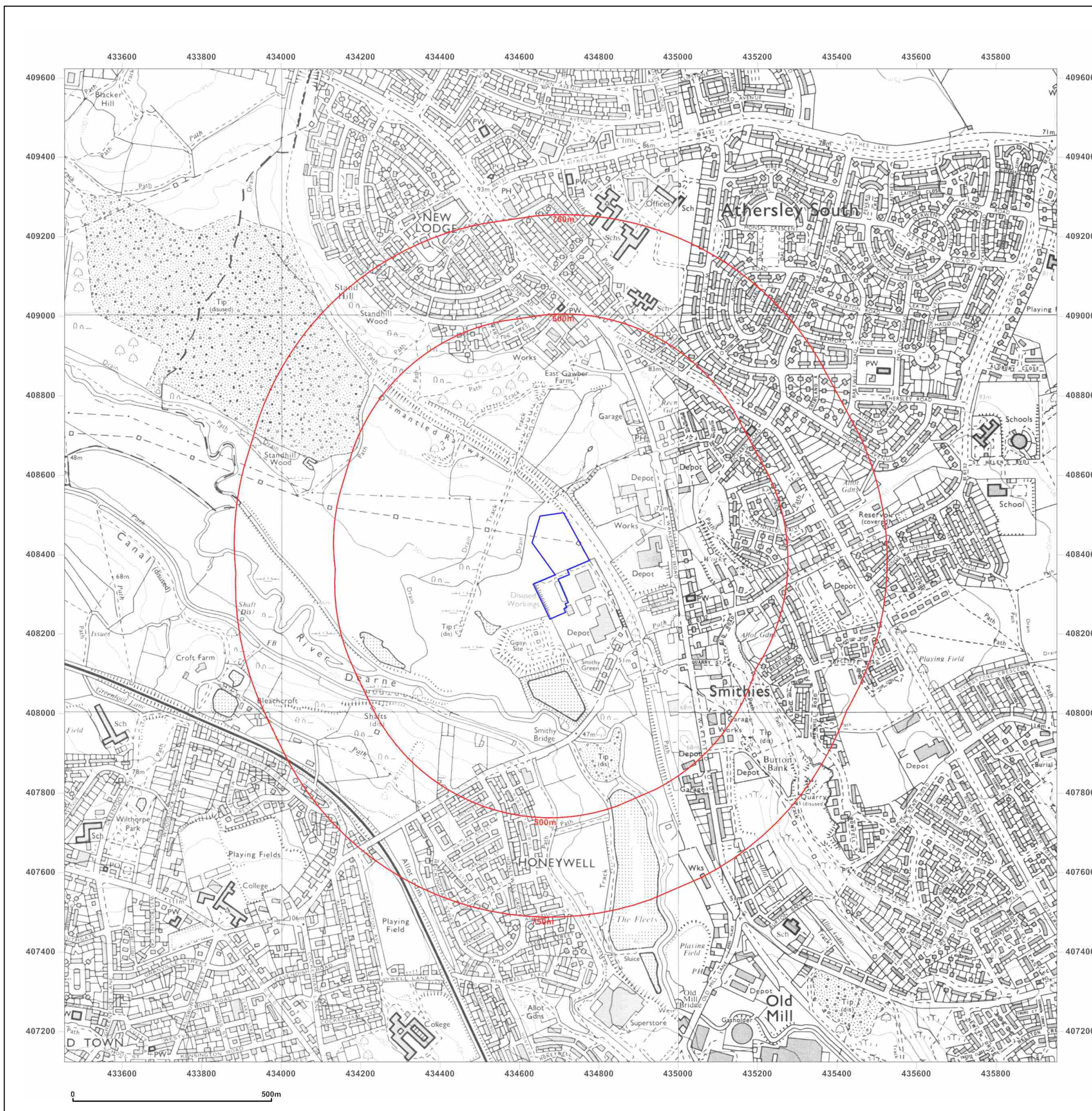


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**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** 1:10,000 Raster

**Map date:** 2002

**Scale:** 1:10,000

**Printed at:** 1:10,000



2002



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**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 2010

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2010



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**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 2014

**Scale:** 1:10,000

**Printed at:** 1:10,000



2014

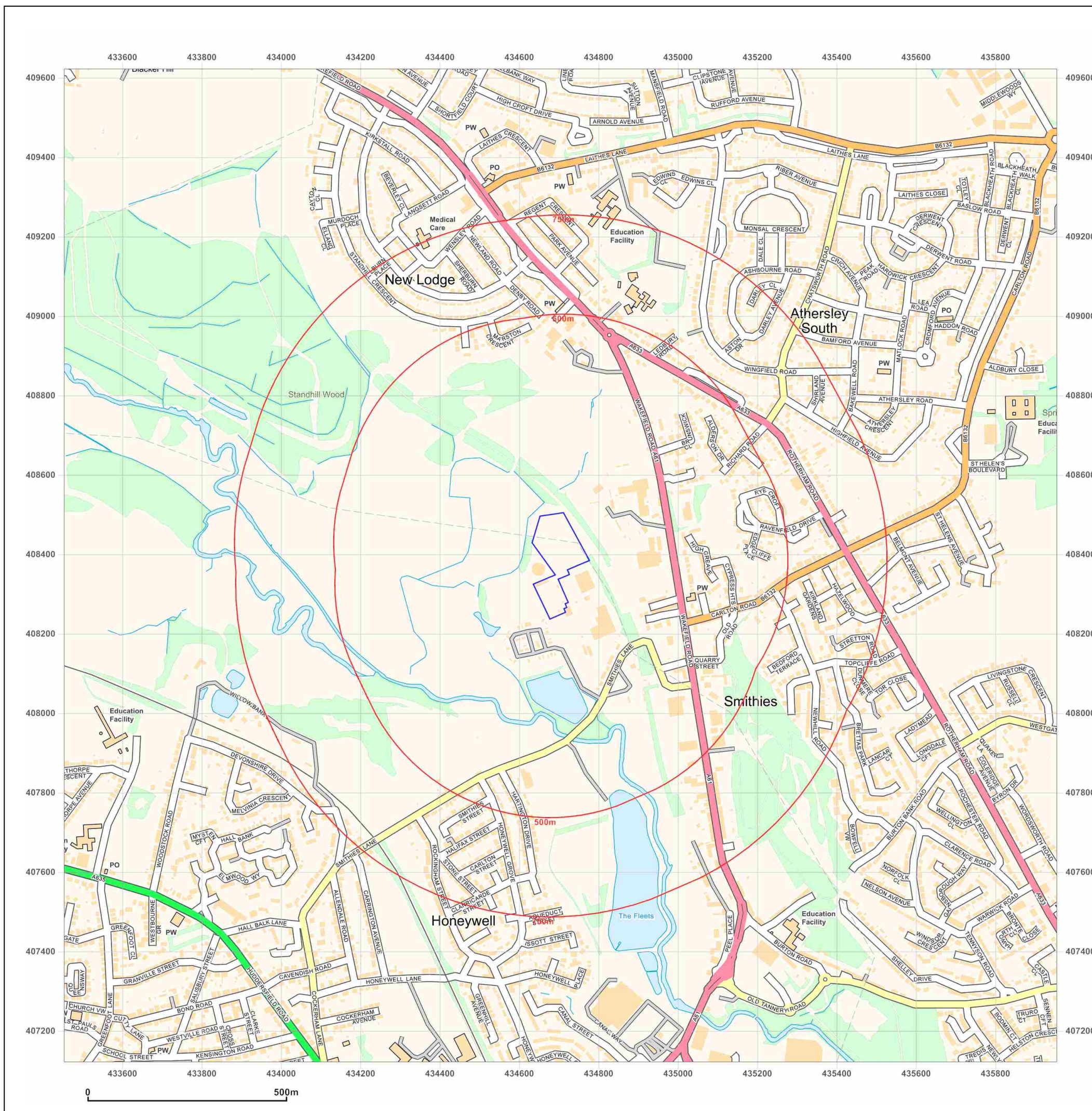


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** County Series

**Map date:** 1892

**Scale:** 1:2,500

**Printed at:** 1:2,500



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Edition 1892  
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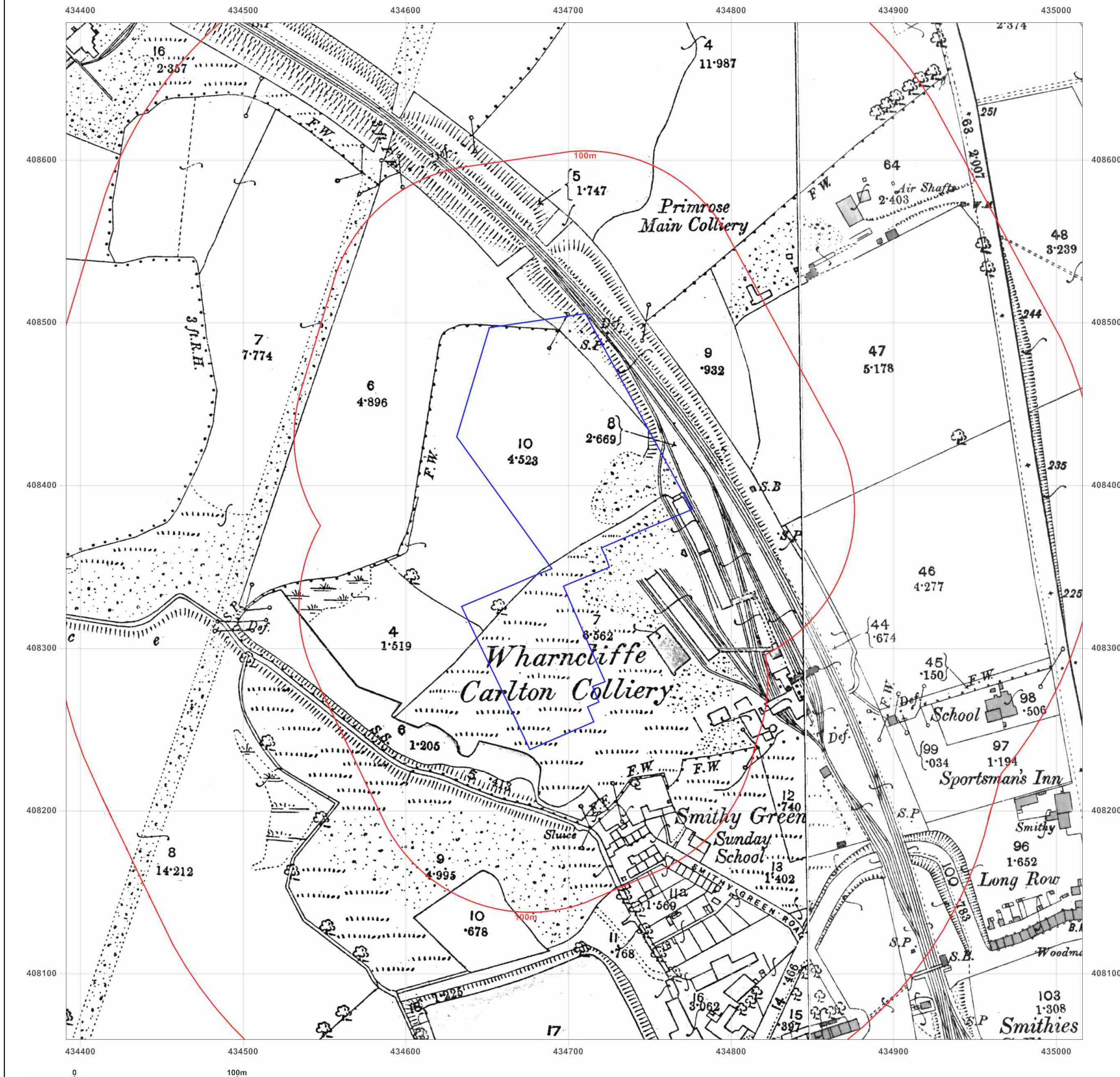


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1959

**Scale:** 1:1,250

**Printed at:** 1:2,000



Surveyed 1958  
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Edition N/A  
Copyright 1959  
Levelled 1930

Surveyed 1958  
Revised 1958  
Edition N/A  
Copyright 1959  
Levelled 1930

Surveyed 1958  
Revised 1958  
Edition N/A  
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Levelled 1930

Surveyed 1958  
Revised 1958  
Edition N/A  
Copyright 1959  
Levelled 1930

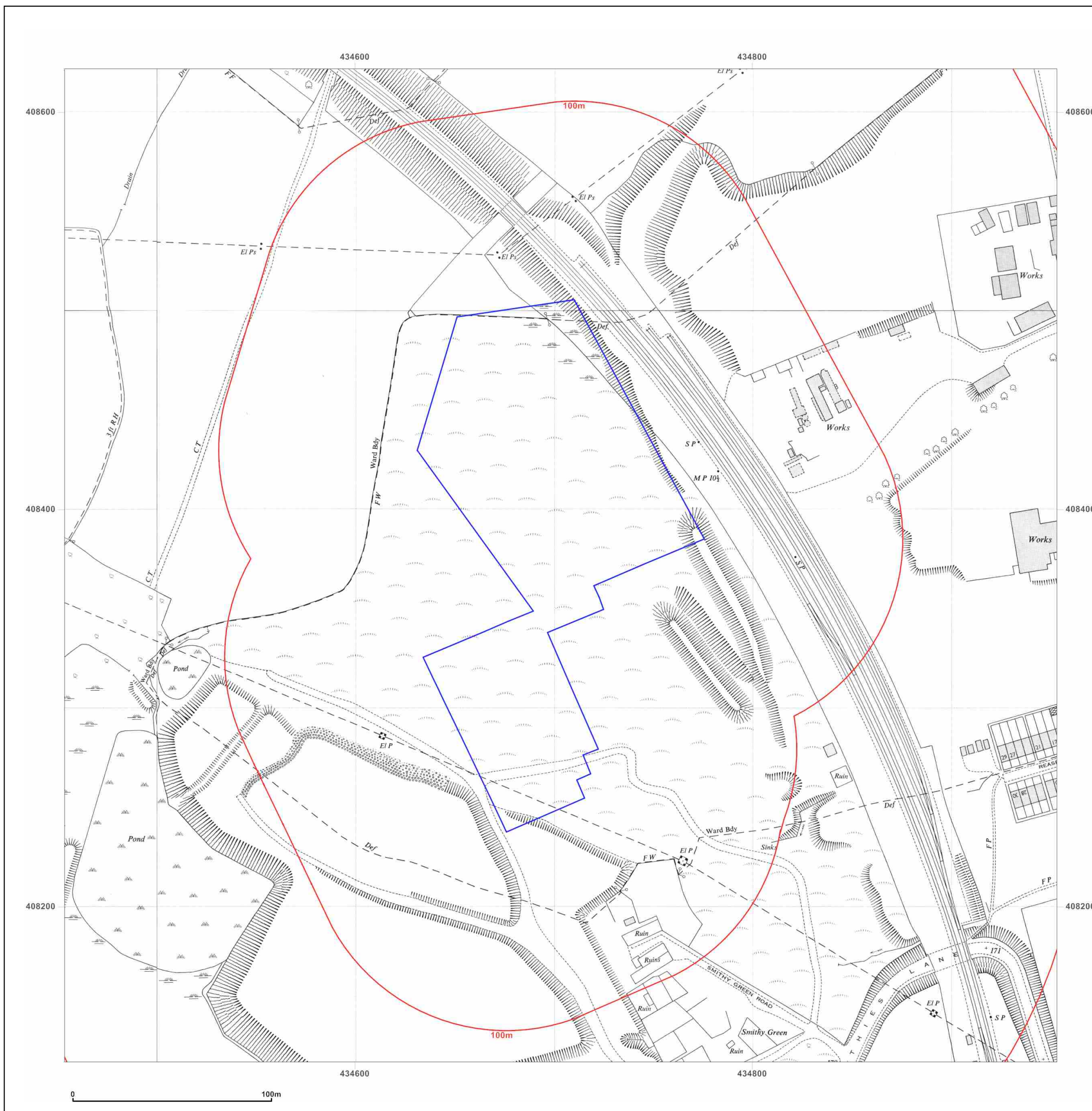


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1961

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1961  
Revised 1961  
Edition 1962  
Copyright 1962  
Levelled 1959

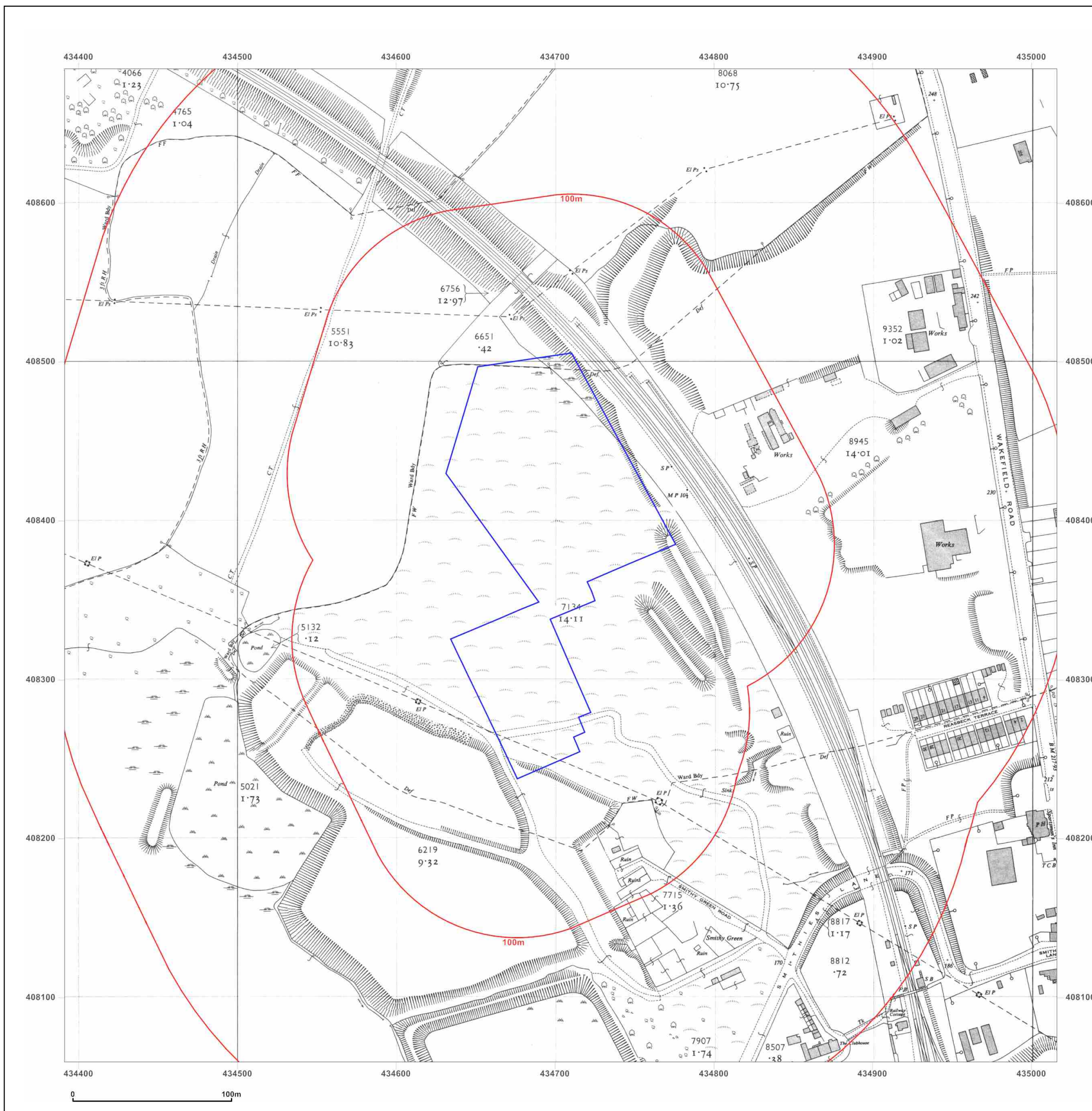


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**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1970

**Scale:** 1:1,250

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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1976-1981

**Scale:** 1:1,250

**Printed at:** 1:2,000



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Edition N/A  
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Revised 1976  
Edition N/A  
Copyright 1977  
Levelled 1963

Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright 1981  
Levelled 1963

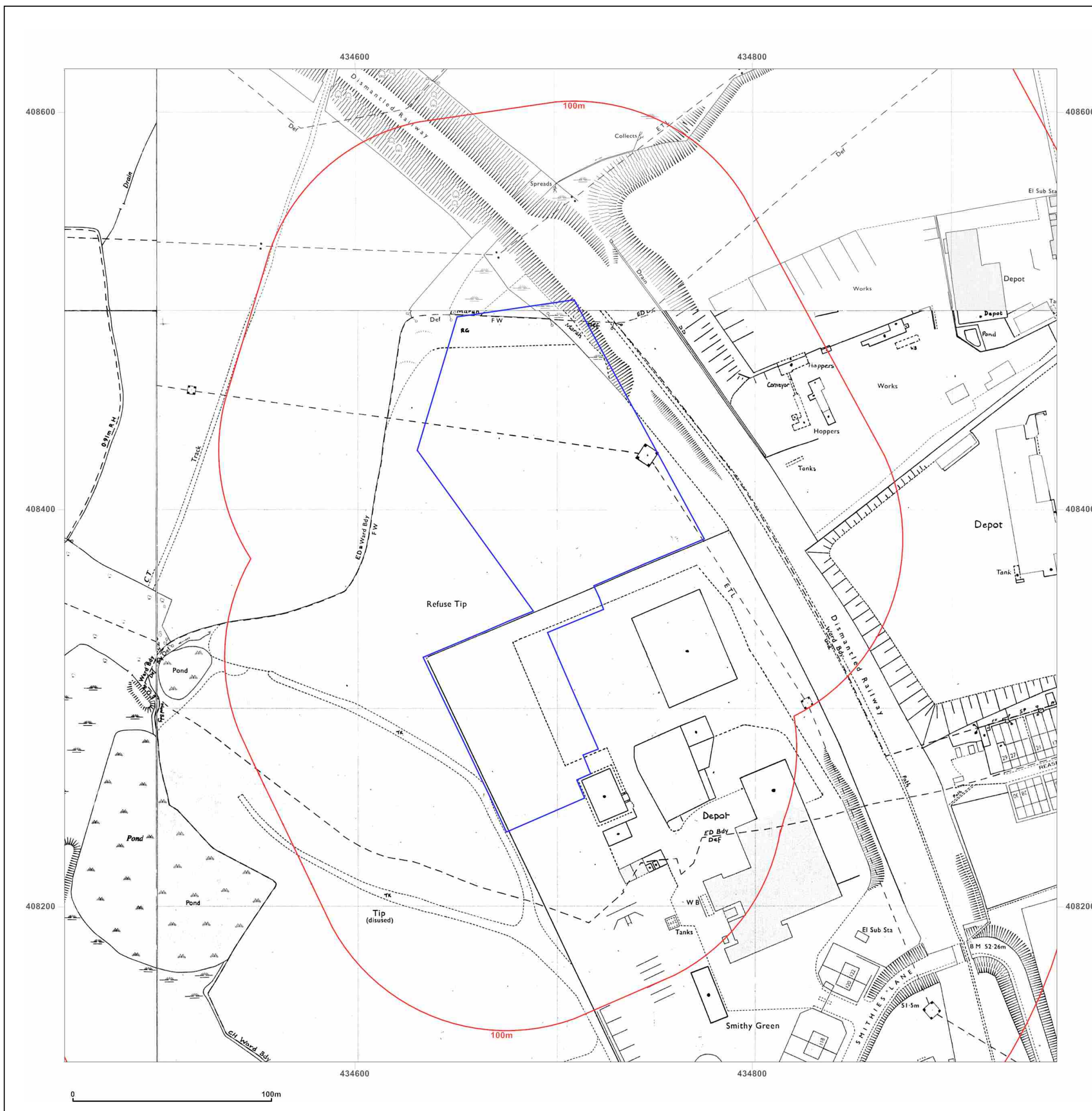


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**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1991-1993

**Scale:** 1:1,250

**Printed at:** 1:2,000



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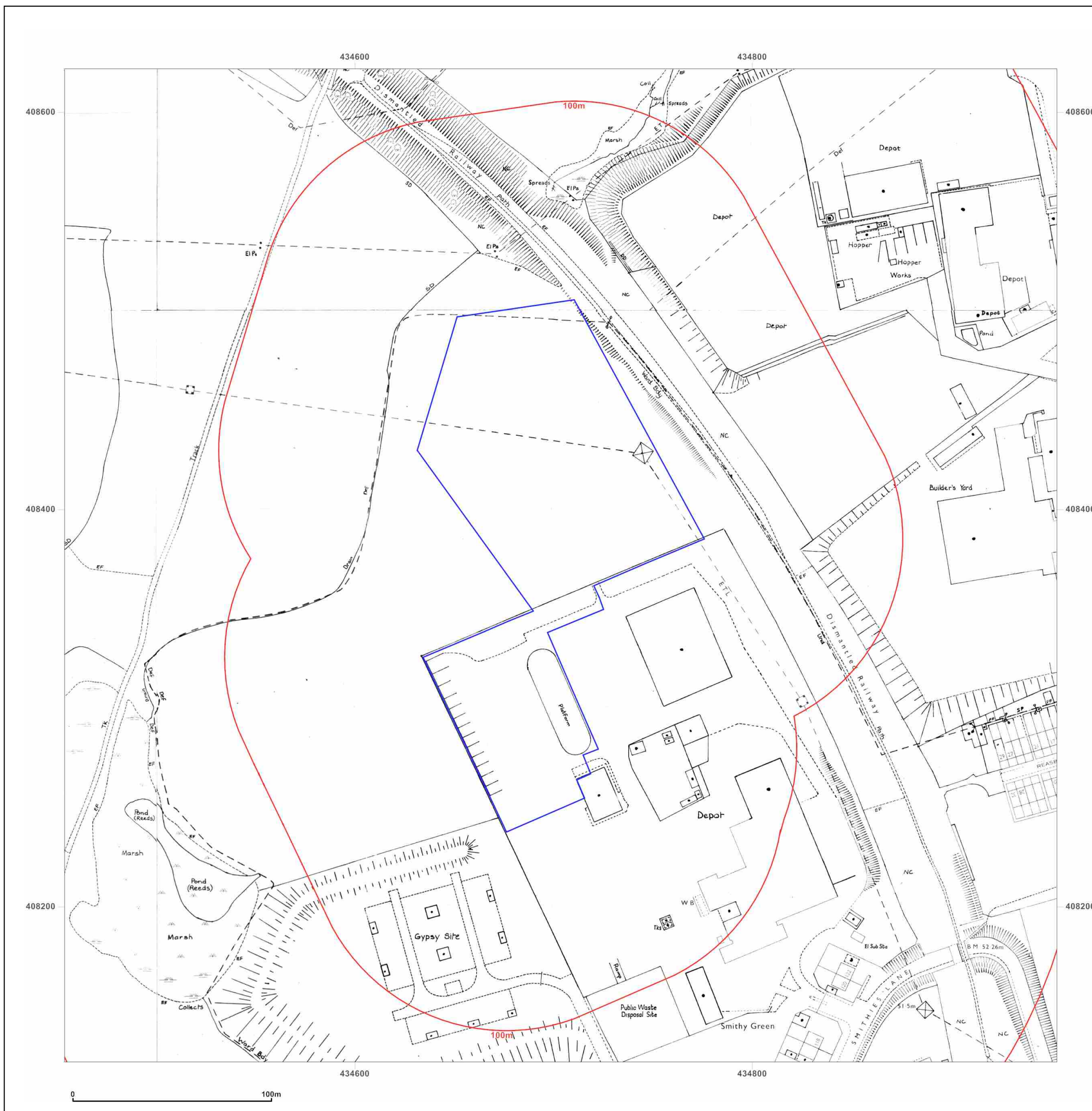


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#### Site Details:

BARNSELY METROPOLITAN  
BOROUGH COUNCIL, SMITHIES  
LANE DEPOT, SMITHIES LANE,  
SMITHIES, BARNSELY, S71 1NL

**Client Ref:** AC00165  
**Report Ref:** GS-4347109  
**Grid Ref:** 434703, 408372

**Map Name:** National Grid

**Map date:** 1993

**Scale:** 1:1,250

**Printed at:** 1:2,000



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Photograph 1 Fuelling station (located outside the proposed permit boundary)



Photograph 2 View of fuel tanks within the bunded area shown in Photograph 1 (located outside the proposed permit boundary)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 3 View of base of fuel tanks containment area shown in Photograph 1  
(located outside the proposed permit boundary)



Photograph 4 Fuelling area including hand-pump with some minor spillage (located  
outside the proposed permit boundary)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 5 Diesel tank with brick bunded containment, showing some external deterioration (located outside the proposed permit boundary)



Photograph 6 View of additional refuelling hand-pump (located outside the proposed permit boundary)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL
<b>Title:</b>	Appendix D – Site Photographs
<b>Client:</b>	Barnsley MBC
<b>Printed Scale:</b>	N/A
<b>Date:</b>	November 2017







Photograph 7 Bunded area below diesel tank shown in Photograph 5 showing some deterioration and requires emptying of water and fuel residue (located outside the proposed permit boundary)



Photograph 8 Evidence of fuel / water seepage from the bunded fuel tanks area (located outside the proposed permit boundary)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 9 View of the vehicle and bin wash-bay area (located just outside the proposed permit boundary)



Photograph 10 View of main access road looking back towards the site entrance (from just outside the south-eastern corner of the proposed permit boundary)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL		
<b>Title:</b>	Appendix D – Site Photographs		
<b>Client:</b>	Barnsley MBC		
<b>Printed Scale:</b>	N/A		
<b>Date:</b>	November 2017		







Photograph 11 View of the access road (looking toward the northern part of the proposed area to be permitted)



Photograph 12 Entrance to the south-western part of the proposed area to be permitted

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 13 View back toward the access road (to the right), from just within the south-western part of the proposed permit boundary (reverse of Photograph 12)



Photograph 14 View of the western boundary fence line behind the existing waste storage bays

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 15 View of the existing waste storage bays located along the western boundary of the site



Photograph 16 View of existing covered storage located within the north-western corner of the south-western part of the proposed site

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 17 View of covered storage bays and uncovered aggregate storage bays located within the south-western part of the proposed site



Photograph 18 View of the area where the additional covered storage building is to be sited

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 19 View of the gas bottle storage compound located adjacent to the entrance to the upper (northern) part of the proposed site



Photograph 20 View of a water storage tank sited opposite the gas bottle storage area (located outside the proposed permit boundary)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 21 View facing south toward the site entrance from within the upper (northern) proposed permit boundary



Photograph 22 View from within the upper part of the site proposed to be permitted showing current green waste and waste soils storage arrangements (facing west)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 23 View of the upper part of the area proposed to be permitted showing current storage arrangements for aggregates and road stone (facing north-west)



Photograph 24 View of the upper part of the area proposed to be permitted showing storage of aggregates and road stone (facing north)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 25 View of the upper part of the proposed area to be permitted showing aggregate crushing and screening operations (north-east corner)



Photograph 26 View of the upper part of the site from the top of a soil stockpile located adjacent to the eastern boundary (facing west-north-west)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 27 View from within the upper part of the proposed permit boundary showing security fencing along the eastern site boundary



Photograph 28 View from within the upper part of the site showing the location proposed for future green waste storage and bulking up (facing east)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 29 Upper part of the proposed site showing pylon base surrounded by a protective soil bund adjacent to the green waste storage and bulking area



Photograph 30 View of the upper part of the proposed area to be permitted, current street sweepings vehicle discharge area (facing south-east)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 31 View showing storage containers and nominally empty drums located in the south-eastern corner of the upper part of the site (facing south)



Photograph 32 Open surface water drain located between the water storage tank (Photograph 20) and the adjacent shed to the south

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 33 View of the access road, central lower site, including filling station and other materials storage (located outside the proposed permit boundary)



Photograph 34 View of the weighbridge to be utilised at proposed site located on the east side of the lower access road

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	November 2017	







Photograph 35 View of the lower access road from opposite the weighbridge

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL		
<b>Title:</b>	Appendix D – Site Photographs		
<b>Client:</b>	Barnsley MBC		
<b>Printed Scale:</b>	N/A		
<b>Date:</b>	November 2017		







Photograph 36 Waste Oil Tank located adjacent on the east side of the Fleet Services Garage – (included within the permit area)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	August 2019	







Photograph 37 Battery Storage Area located on the south side of the Fleet Services Garage – (included within the permit area)



Photograph 38 Commencement of construction of waste bays along western boundary of waste transfer and treatment area (facing north)

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	August 2019	







Photograph 39 Commencement of construction of waste bays along western boundary of Waste Transfer and Treatment area. Fall towards Birco strip drain apparent (facing south)



Photograph 40 Looking north across Waste Transfer and Treatment Area following completion of the base of the concrete bays (location of MH1/MH4 and fire water holding area in the foreground).

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	August 2019	







Photograph 41 Looking south-west across the Waste Transfer and Treatment Area showing the construction of the concrete bunkers to the west. It is proposed to return these concrete bunkers across the south end of the site to form the quarantine and fire water holding areas. The concourse area above will be surfaced with an impermeable bituminous binder and surfacing materials.

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL	
<b>Title:</b>	Appendix D – Site Photographs	
<b>Client:</b>	Barnsley MBC	
<b>Printed Scale:</b>	N/A	
<b>Date:</b>	August 2019	





The Coal  
Authority

Resolving the **impacts** of mining

# CON29M Non-Residential Mining Report

SMITHIES LANE DEPOT  
SMITHIES LANE  
SMITHIES  
BARNESLEY  
SOUTH YORKSHIRE

Date of enquiry: 01 November 2017  
Date enquiry received: 01 November 2017  
Issue date: 01 November 2017

Our reference: 51001642056001  
Your reference: AC00165





# CON29M Non-Residential Mining Report

This report is based on, and limited to, the records held by the Coal Authority and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

## Client name

AC Environment Solutions Ltd

## Enquiry address




SMITHIES LANE DEPOT, SMITHIES LANE, SMITHIES,  
BARNSELY, SOUTH YORKSHIRE

## How to contact us

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+44 (0)1623 637 000 (International)

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Nottinghamshire  
NG18 4RG

[www.groundstability.com](http://www.groundstability.com)

 /company/the-coal-authority  
 /thecoalauthority  
 /coalauthority



Approximate position of property



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# Summary

Has the search report highlighted evidence or potential of		
1	Past underground coal mining	Yes
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	Yes
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	No
10	Mine gas	No
11	Hazards related to coal mining	No
12	Withdrawal of support	Yes
13	Working facilities order	No
14	Payments to owners of former copyhold land	No
15	Information from the Cheshire Brine Subsidence Compensation Board	No

**For detailed findings, please go to page 4.**



# Detailed findings

## 1. Past underground coal mining

The property is in a surface area that could be affected by underground mining in 4 seams of coal at 90m to 300m depth, and last worked in 1965.

Any movement in the ground due to coal mining activity should have stopped.

## 2. Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

## 3. Future underground coal mining

The property is not in an area where the Coal Authority has plans to grant a licence to remove coal using underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

## 4. Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

There may however be mine entries/additional mine entries in the local area which the Coal Authority has no knowledge of.

## 5. Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.



## **6. Past opencast coal mining**

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

## **7. Present opencast coal mining**

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

## **8. Future opencast coal mining**

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

## **9. Coal mining subsidence**

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

## **10. Mine gas**

The Coal Authority has no record of a mine gas emission requiring action.

## **11. Hazards related to coal mining**

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

## **12. Withdrawal of support**

The property is in an area where a notice to withdraw support was given in 1951.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

## **13. Working facilities order**

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

## **14. Payments to owners of former copyhold land**



The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

#### **15. Information from the Cheshire Brine Subsidence Compensation Board**

The property lies outside the Cheshire Brine Compensation District.



## Additional remarks

Information provided by the Coal Authority in this report is compiled in response to the Law Society's Con29M Coal Mining and Brine Subsidence Claim enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL. Please note that Brine Subsidence Claim enquiries are only relevant for England and Wales. This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions applicable at the time the report was produced.

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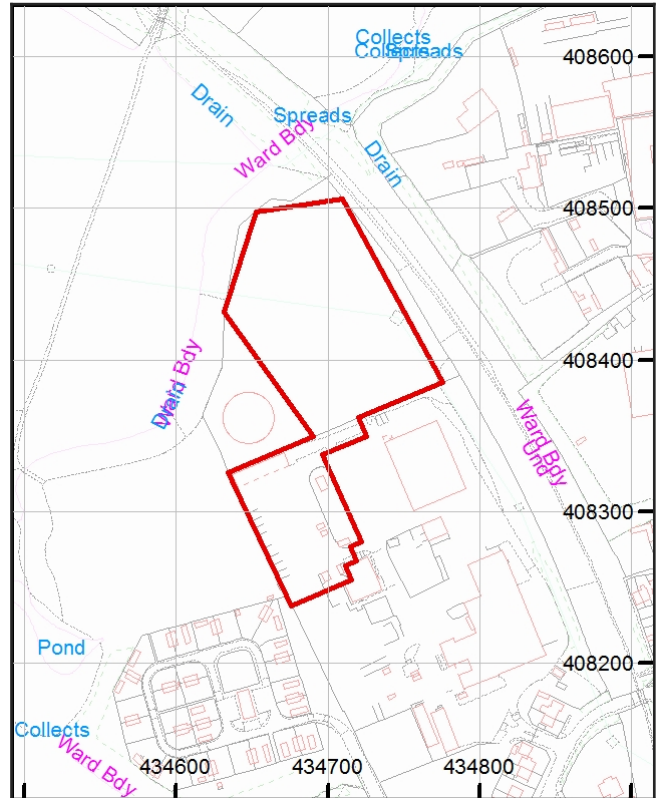
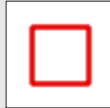
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# Enquiry boundary

## Key

Approximate position of enquiry boundary shown




## How to contact us

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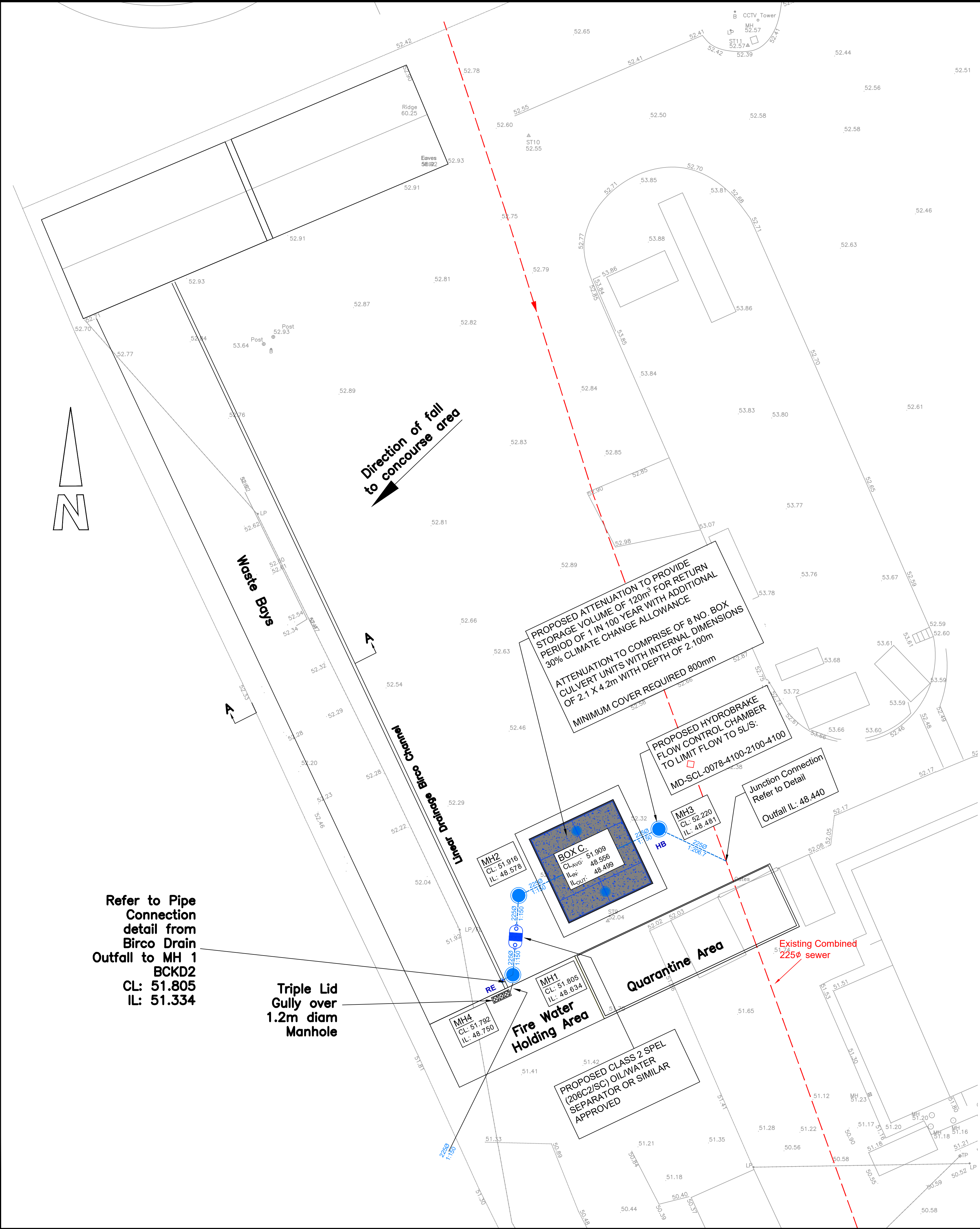
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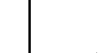

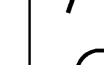



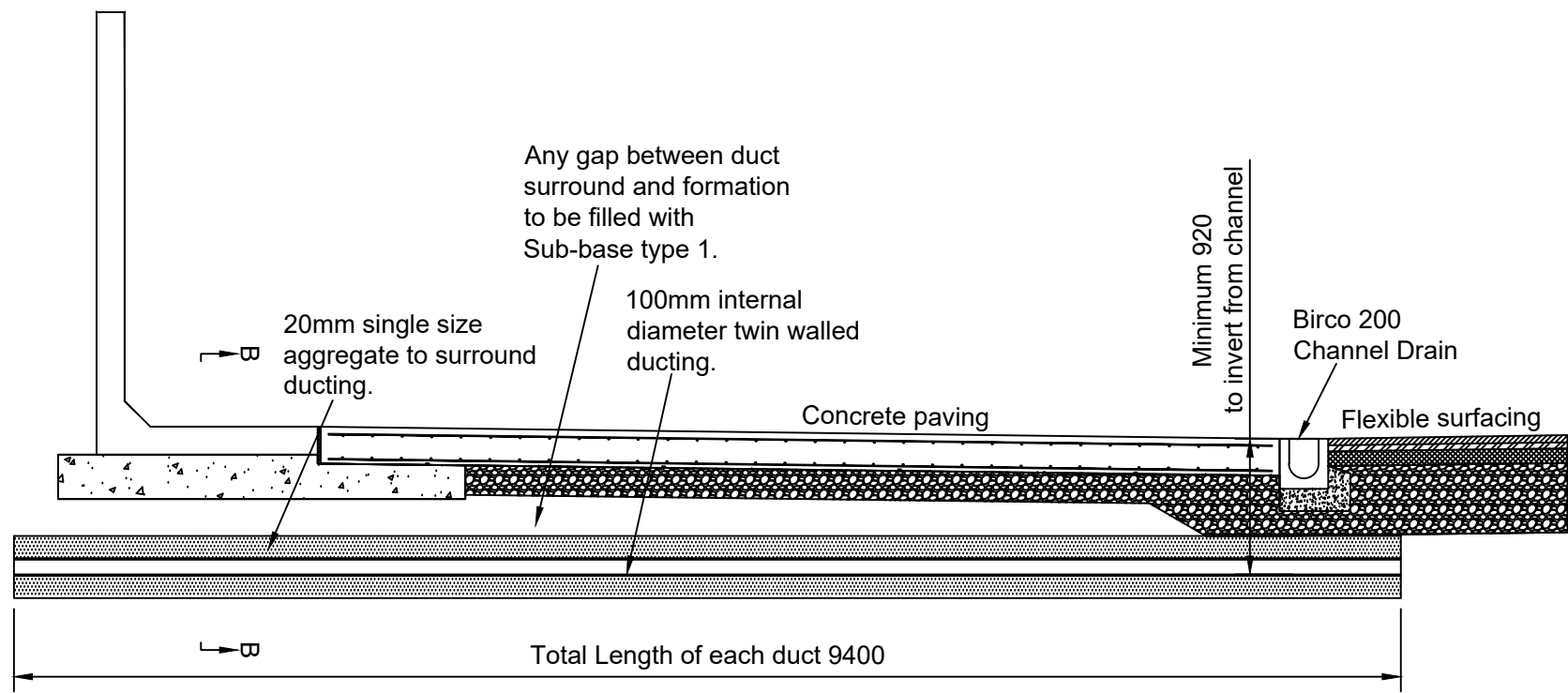
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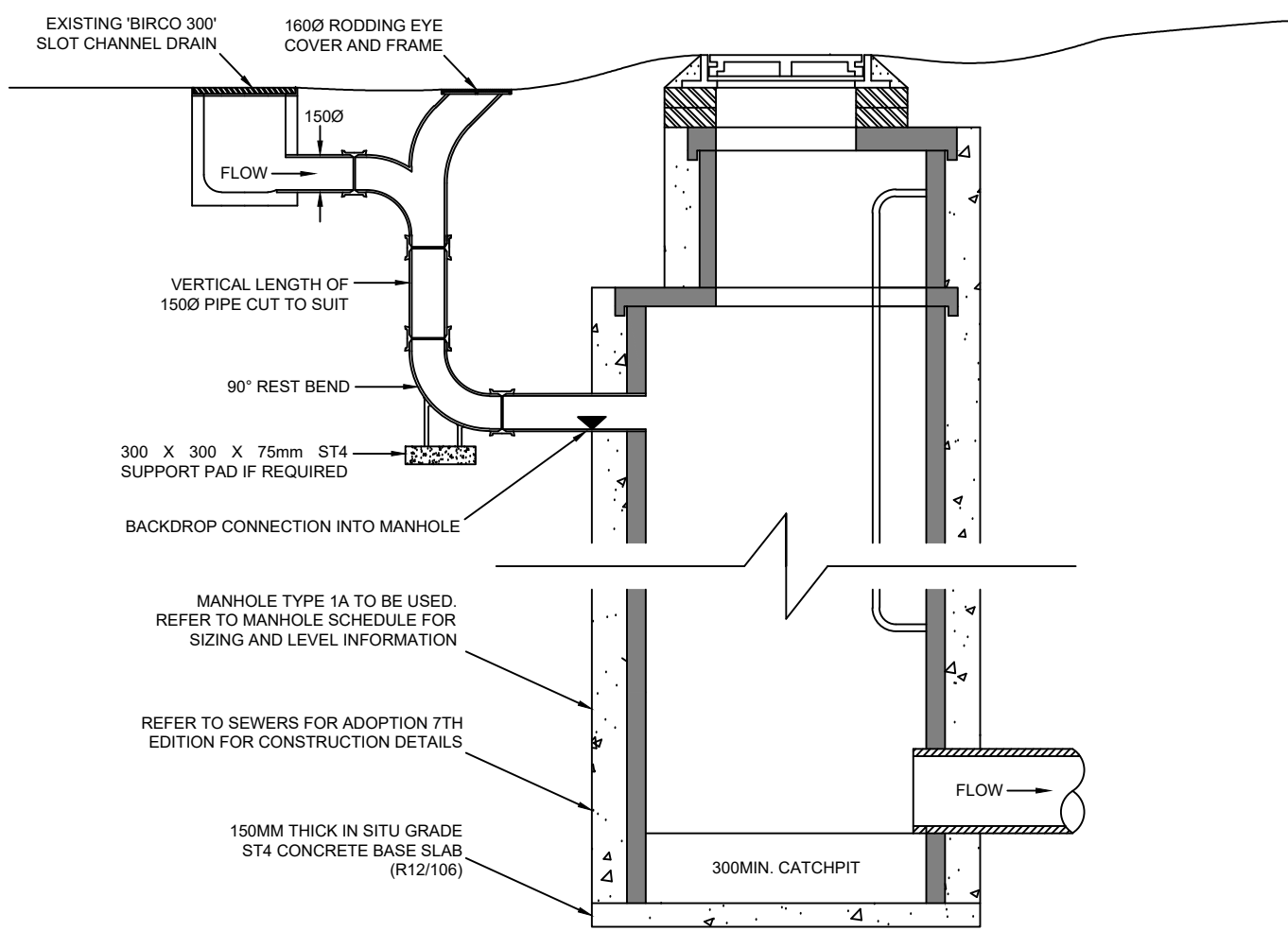




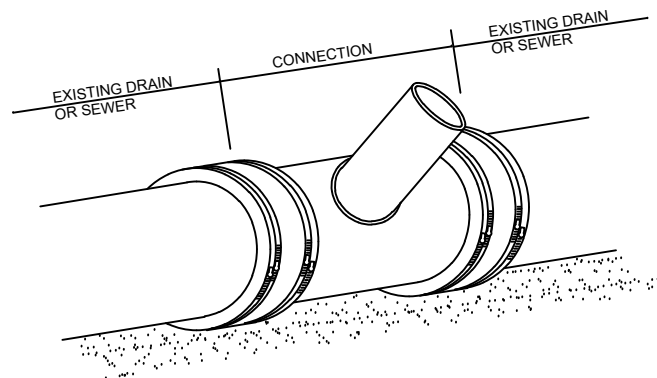
PIPE NETWORK AND MANHOLE SCHEDULE															
RUN FROM	RUN TO	UPSTREAM EASTING (#)	UPSTREAM NORTHING (#)	LAYOUT (North)	TYPE (#)	DIAMETER (mm)	PIPE LENGTH (m)	MANHOLE ID (#)	COVER LEVEL (m)	INVERT LEVEL (m)	BACKDROP LEVEL (m)	COMMENT (#)	TYPE (#)	LOAD CLASS (#)	DIAMETER (mm)
BCKD1	BCKD2	434650.429	408311.668	-	-	-	-	BCKD1	52.685	52.214	51.334	-	-	E600	-
BCKD2	MH1	434678.707	408252.043	-	-	-	-	BCKD2	51.805	51.334		RODDING EYE ACCESS	-	E600	-
MH1	MH2	434680.229	408252.791		PP	225	7.437	MH1	51.805	48.634		CATCHPIT 300 MIN.	PCC	E600	1200
MH2	BOX C.	434681.001	408260.188		PP	225	3.283	MH2	51.916	48.578	51.334	-	PCC	E600	1200
BOX C.	MH3	434694.307	408265.996		PP	225	2.835	MH3	52.220	48.481		HYDRO BRAKE	PCC	E600	1200
MH3	OUTFALL	434701.844	408262.128	-	PP	-	8.472	OUTFALL	-	48.440		-	-	-	-
MH 4	MH 1	434676.200	408250.000		PP	225	2.000	MH 1	51.792	48.750		-	PCC	E600	1200



SECTION A - A  
NOT TO SCALE



PIPE CONNECTION DETAIL FROM BIRCO CHANNEL DRAIN TO CATCHPIT  
MANHOLE (MH 1)  
NOT TO SCALE



- A. CONNECTION JUNCTION SHALL MATCH DIAMETERS OF EXISTING DRAIN OR SEWER AND THE PROPOSED PIPE CONNECTING TO IT.
- B. PROPRIETARY COUPLINGS SHALL BE FITTED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- C. SLEEVES (AND BUSHINGS IF REQUIRED) SHALL BE MADE FROM SYNTHETIC ELASTOMER CONFORMING TO THE PERFORMANCE REQUIREMENTS OF B.S.2494.
- D. CLAMPING BANDS SHALL BE MANUFACTURED FROM 300 SERIES AUSTENITIC STAINLESS STEEL.

JUNCTION CONNECTION

Rev.	By	Amendments	Date



Project  
Smithies Lane Depot  
Council & Trade Waste Facility


Drawing title  
Waste Transfer Area  
Proposed Drainage Strategy

Scale As Shown	Drawn SCa	Checked	Date 06/2019
Drawing No.	File		

HS/SLD/LBA/500/03

I.M. Wilson, BEng (Hons), CEng, MICE, DMS  
Interim Head of Highways, Engineering and  
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Barnsley Metropolitan Borough Council		Page 1
P O Box 601 Barnsley S70 2TN	Smithies Lane Depot Waste Transfer Station Surface Water Strategy	
Date 13/05/2019 15:34 File DEPOT DRAINAGE.MDX	Designed by ES Checked by WA	
Micro Drainage	Network 2018.1.1	

### STORM SEWER DESIGN by the Modified Rational Method

#### Design Criteria for Storm





Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	1	PIMP (%)	100
M5-60 (mm)	19.000	Add Flow / Climate Change (%)	0
Ratio R	0.345	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	2.000
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	0.750	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

#### Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	66.005	0.880	75.0	0.280	5.00	0.0	0.600	_	-1	Pipe/Conduit	
1.001	8.472	0.056	150.0	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.002	14.518	0.097	150.0	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.003	8.473	0.041	206.7	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	

#### Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	I.Area (ha)	Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	46.82	5.38	52.214	0.280	0.0	0.0	0.0	2.87	606.0	35.5
1.001	46.33	5.52	48.634	0.280	0.0	0.0	0.0	1.07	42.4	35.5
1.002	45.53	5.74	48.578	0.280	0.0	0.0	0.0	1.07	42.4	35.5
1.003	44.99	5.90	48.481	0.280	0.0	0.0	0.0	0.91	36.0	35.5

#### Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	2.000
Hot Start (mins)	0	Inlet Coefficient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1
Number of Input Hydrographs	0	Number of Offline Controls	0
Number of Online Controls	1	Number of Time/Area Diagrams	0
		Number of Storage Structures	1
		Number of Real Time Controls	0

#### Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Storm Duration (mins)	30
Ratio R	0.345		



Online Controls for Storm

Hydro-Brake® Optimum Manhole: B300 END, DS/PN: 1.001, Volume (m³): 17.3

Unit Reference	MD-SCL-0078-4100-2100-4100
Design Head (m)	2.100
Design Flow (l/s)	4.1
Flush-Flo™	Calculated
Objective	Minimise blockage risk
Application	Surface
Sump Available	Yes
Diameter (mm)	78
Invert Level (m)	48.634
Minimum Outlet Pipe Diameter (mm)	100
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.100	4.1	Kick-Flo®	0.700	2.5
Flush-Flo™	0.318	3.2	Mean Flow over Head Range	-	3.2

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	2.5	0.800	2.6	2.000	4.0	4.000	5.5	7.000	7.2
0.200	3.1	1.000	2.9	2.200	4.2	4.500	5.8	7.500	7.4
0.300	3.2	1.200	3.2	2.400	4.4	5.000	6.1	8.000	7.6
0.400	3.2	1.400	3.4	2.600	4.5	5.500	6.4	8.500	7.9
0.500	3.1	1.600	3.6	3.000	4.8	6.000	6.7	9.000	8.1
0.600	2.9	1.800	3.8	3.500	5.2	6.500	6.9	9.500	8.3



Storage Structures for Storm

Tank or Pond Manhole: B300 END, DS/PN: 1.001

Invert Level (m) 48.634

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	57.0	2.100	57.0	2.101	0.0



1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000      Additional Flow - % of Total Flow 0.000  
 Hot Start (mins) 0      MADD Factor \* 10m³/ha Storage 2.000  
 Hot Start Level (mm) 0      Inlet Coeffiecient 0.800  
 Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000  
 Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0      Number of Offline Controls 0      Number of Time/Area Diagrams 0  
 Number of Online Controls 1      Number of Storage Structures 1      Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model      FSR M5-60 (mm) 19.000 Cv (Summer) 0.750  
 Region England and Wales      Ratio R 0.345 Cv (Winter) 0.840


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status ON  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 1, 30, 100  
 Climate Change (%) 0, 0, 30

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level	Surcharged Depth	Flooded Volume
									(m)	(m)	(m³)
1.000	B300 START	15 Winter	1	+0%					52.245	-0.439	0.000
1.001	B300 END	120 Winter	1	+0%	1/15 Winter				49.011	0.152	0.000
1.002	MH1	240 Summer	1	+0%					48.622	-0.180	0.000
1.003	MH2	360 Summer	1	+0%					48.530	-0.175	0.000

PN	US/MH Name	Flow / Cap.	Pipe Flow (l/s)	Status	Level
					Exceeded
1.000	B300 START	0.06	34.8	OK	
1.001	B300 END	0.10	3.2	SURCHARGED	
1.002	MH1	0.09	3.2	OK	
1.003	MH2	0.11	3.2	OK	



Barnsley Metropolitan Borough Council		Page 5
P O Box 601 Barnsley S70 2TN	Smithies Lane Depot Waste Transfer Station Surface Water Strategy	
Date 13/05/2019 15:34 File DEPOT DRAINAGE.MDX	Designed by ES Checked by WA	
Micro Drainage	Network 2018.1.1	

### 30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

#### Simulation Criteria

Areal Reduction Factor 1.000    Additional Flow - % of Total Flow 0.000  
 Hot Start (mins) 0    MADD Factor \* 10m³/ha Storage 2.000  
 Hot Start Level (mm) 0    Inlet Coefficient 0.800  
 Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000  
 Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0    Number of Offline Controls 0    Number of Time/Area Diagrams 0  
 Number of Online Controls 1    Number of Storage Structures 1    Number of Real Time Controls 0

#### Synthetic Rainfall Details

Rainfall Model    FSR M5-60 (mm) 19.000 Cv (Summer) 0.750  
 Region England and Wales    Ratio R 0.345 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status ON  
 DVD Status ON  
 Inertia Status ON

Profile(s) Summer and Winter  
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440  
 Return Period(s) (years) 1, 30, 100  
 Climate Change (%) 0, 0, 30

					Water Surcharged	
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharged	First (Y) Flood
					First (Z) Overflow	Overflow Act.
						Level (m)
						Depth (m)
1.000	B300 START	15 Winter	30	+0%		52.290
1.001	B300 END	240 Winter	30	+0%	1/15 Winter	49.805
1.002	MH1	1440 Winter	30	+0%		48.622
1.003	MH2	1440 Winter	30	+0%		48.530

		Flooded		Pipe		Level	
PN	US/MH Name	Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Exceeded
1.000	B300 START	0.000	0.16		85.2	OK	
1.001	B300 END	0.000	0.10		3.2	SURCHARGED	
1.002	MH1	0.000	0.09		3.2	OK	
1.003	MH2	0.000	0.11		3.2	OK	



100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000	Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0	MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0	Inlet Coeffiecient 0.800
Manhole Headloss Coeff (Global) 0.500	Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000	

Number of Input Hydrographs 0	Number of Offline Controls 0	Number of Time/Area Diagrams 0
Number of Online Controls 1	Number of Storage Structures 1	Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FSR M5-60 (mm) 19.000 Cv (Summer) 0.750
Region England and Wales	Ratio R 0.345 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep 2.5 Second Increment (Extended)	
DTS Status	ON
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440	
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 30

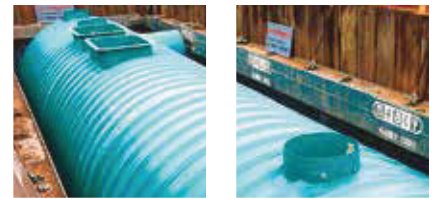
									Water	Surcharged	Flooded	
	US/MH			Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level	Depth	Volume
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.		(m)	(m)	(m³)
1.000	B300 START	15 Winter		100	+30%					52.341	-0.343	0.000
1.001	B300 END	240 Winter		100	+30%	1/15 Winter				51.801	2.942	0.000
1.002	MH1	240 Winter		100	+30%					48.632	-0.171	0.000
1.003	MH2	240 Winter		100	+30%					48.543	-0.163	0.000

		Pipe				Level
PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	Exceeded
1.000	B300 START	0.26		143.3	OK	
1.001	B300 END	0.15		5.0	FLOOD RISK	
1.002	MH1	0.13		5.0	OK	
1.003	MH2	0.17		5.0	OK	



## SPEL Products data manual

### Section 6 SPEL Stormceptor® by-pass separators



The SPEL Stormceptor is the first Environment Agency listed class 1 by-pass separator to BS EN 858-1:2002.

The Stormceptor provides a very effective means of separating oil and other light liquids from stormwater drainage systems.

Compliant to the European Standard BS EN 858-1, the Environment Agency's Pollution Prevention Guidelines PPG3 and the Construction Products Regulations.

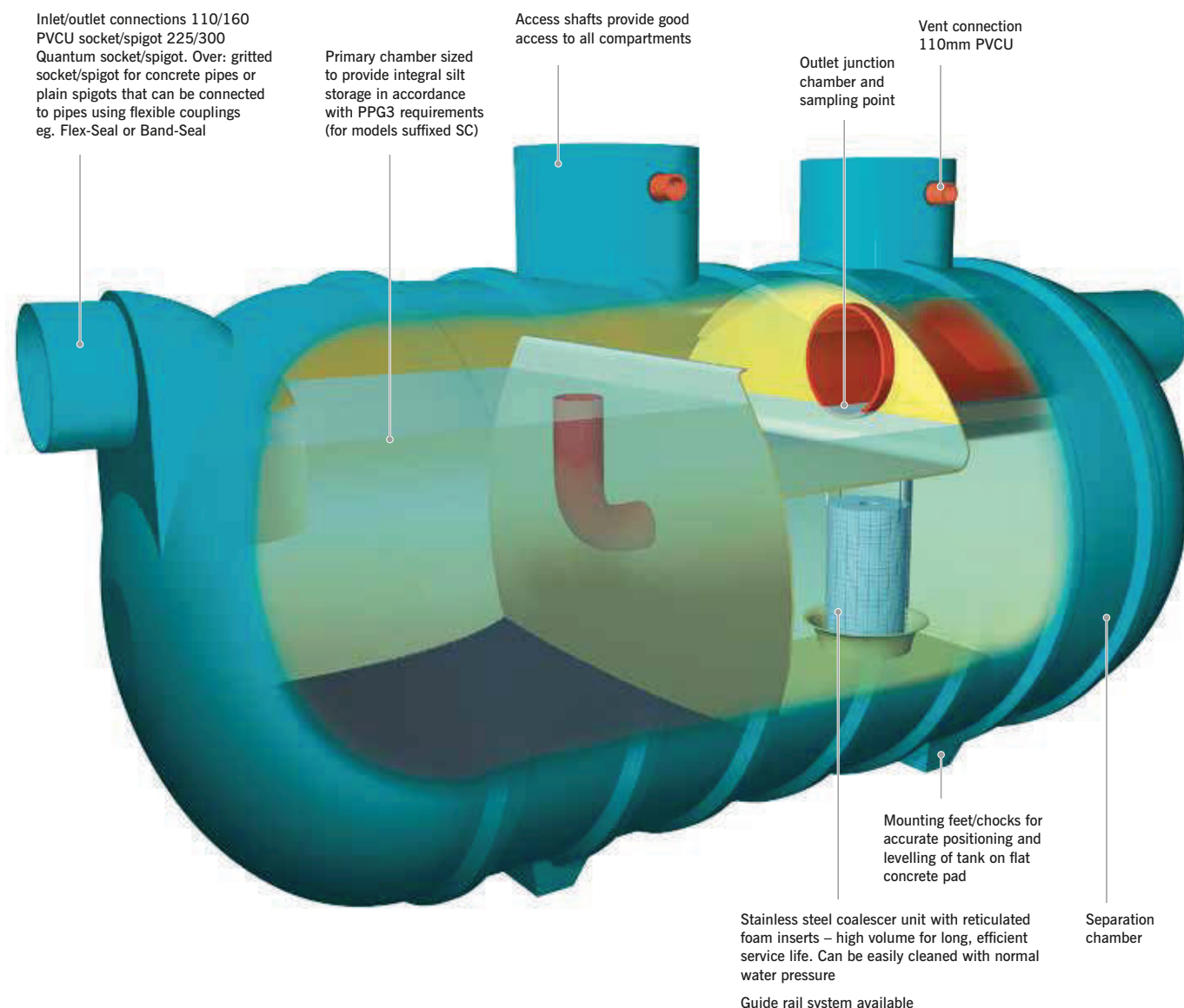
# **SPEL**







Compliant to the European Standard BS EN 858-1, the Environment Agency's Pollution Prevention Guidelines PPG3 and the Construction Products Regulations.



**The 'heart' of the SPEL Stormceptor is the unique long life, low maintenance coalescer unit which 'polishes' the final effluent AFTER 90% hydrocarbons of silt have been separated out.**

The SPEL Stormceptor is a well proven high quality factory-made unit specially designed and fabricated to provide a very effective means of separating oil and other light liquids from stormwater drainage systems.

The SPEL Stormceptor was the first Environment Agency listed class 1 by-pass separator to BS EN 858-1:2002.

The SPEL Stormceptor has been used effectively throughout the UK and abroad since 1985. All sizes and types of development have been catered for, including industrial development sites, hypermarkets and airports. Areas of up to 30 hectares can be covered with a single unit.



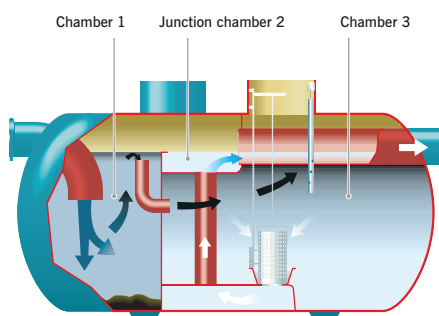
## 6.2 SPEL Stormceptor® by-pass separators

### Operation



#### Protecting coastal waters

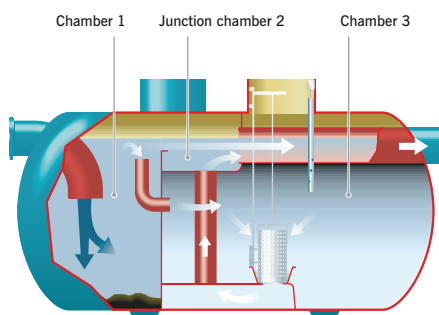
Surface water draining from runways at a busy RAF station in Anglesey is being treated by two SPEL Stormceptor class 1 by-pass separators.



#### Flows according to nominal size (NSB)

The polluted surface water first enters the primary chamber where silt settles out and is retained. The fuel, oil and other pollutants lighter than water, rise to the surface and are efficiently skimmed off and transferred to the separation chamber.

In normal conditions all the flow is through the separation chamber, where the quiescent conditions allow the pollutants to separate out efficiently. Water from the cleanest zone in the separation chamber flows through a coalescer unit, to remove smaller globules of oil, up to the junction chamber and thence to the outlet.



#### Storm flows above NSB

During a storm the level in the primary chamber rises and the stormwater passes over the weir into the junction chamber and to the outlet.

The design keeps the turbulence within the separation chamber to a minimum which avoids disturbing the contaminants retained.



The reclaimed former opencast coal site at Bermuda Park, Warwickshire. The main contractor – Tarmac Construction Midlands – has installed three SPEL 500 series Stormceptor by-pass separators with Econoskim fuel/oil skimming and separate fuel/oil containment facilities. These cater for an impermeable area of 68 acres.



Above and left: SPEL Stormceptor series 600 class 1 by-pass separator for a catchment area of 30 hectares.



## Class 1 and 2 models. How to select and specify

## How to select and specify

1. In accordance with the EA Pollution Prevention Guidelines PPG3:
  - Determine the type of separator – full retention or by-pass.
  - Determine the class of separator – class 1 or 2.
  - Specify whether silt capacity is required integrally or separately upstream of the separator.
2. Against the catchment area within which your requirements fall, the SPEL Separator nominal size can be ascertained.
3. Inlet/outlet pipe connection orientation A-I (see options below).
4. Inlet/outlet diameter in mm.

## Selecting size of SPEL Stormceptor

The nominal size (NSB) is obtained by this formula:  $NSB = 0.0018A(m^2)$  where A is the catchment area.

	NSB	Model	Class 1 or 2 C1 or C2	Silt Cap. SC	Orientation inlet/outlet	Inlet/outlet diameter
Example 1	20	320	C1	SC	D	600/600
Example 2	50	4100	C2	–	A	900/900

## Example 1

SPEL Stormceptor class 1 by-pass separator NSB 20 model 320C1/SC/D 600/600 (with silt capacity).

## Example 2

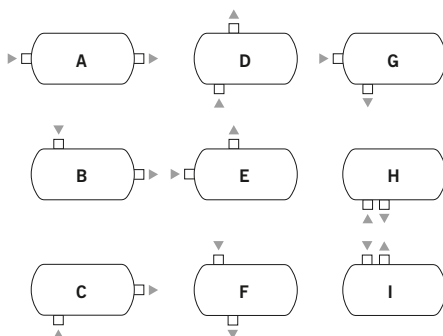
SPEL Stormceptor class 2 by-pass separator NSB 100 model 4100C2/A 900/900 (without silt capacity).

5. SPEL Separators are available in four specifications to suit invert depths and ground water conditions. Standard, Heavy, Extra Heavy and Special, see tables alongside.
6. Optional extras available see 5.6 and 5.7.
  - SPEL coalescer unit guide rail system.
  - SPEL coalescer unit lifting/locating/locking system.
  - SPEL Econoskim® light liquid skimming and separate containment system.
  - SPEL mechanical anchoring system. See 4.11/4.12.
7. SPEL automatic alarm/monitoring system. See 5.7.

## Choice of pipe connections

The orientation of inlet/outlet connections indicated depends on the pipe diameter (see under A-I and D-I overleaf) except for Class 2 Stormceptors which accommodate the larger diameter. Any special requirements contact Technical Sales.

Both inlet and outlet connections are spigots (GRP or PVCU) and can be connected to the site pipework using Flex-Seal, Band-Seal or similar flexible couplings.

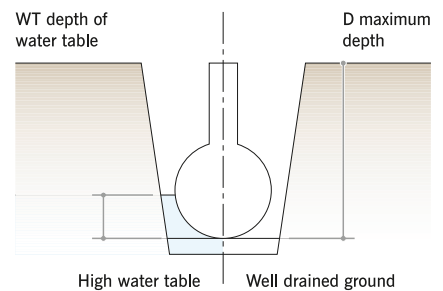


## Specification

Standard, heavy, extra heavy or special specification available dependent upon tank burial depth and water table level in winter. The tables below refer to tanks with a concrete surround. For extra heavy and special specification range and pea gravel surround refer to section 4 or contact technical sales.

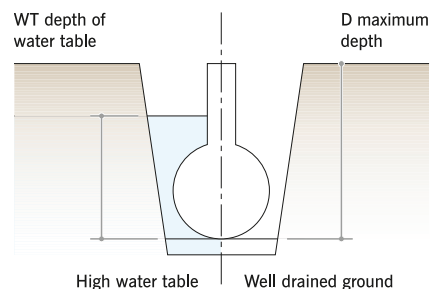
## Standard tanks

Series	WT(m)	D(m)
100/200	1.0	4.0
300	0.9	4.0
400	1.3	5.0
500	1.9	5.7
600	2.4	6.2



## Heavy tanks

Series	WT(m)	D(m)
100/200	2.0	6.0
300	2.8	5.6
400	3.5	6.0
500	4.5	7.25
600	4.7	7.3





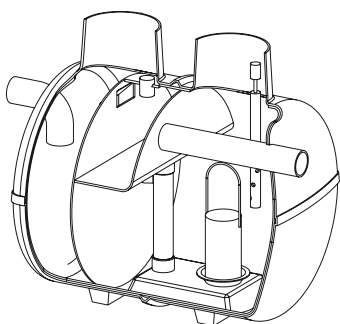
## 6.4 SPEL Stormceptor® by-pass separators 100 and 200 series, class 1 and 2 models

Compliant to the European Standard BS EN 858-1, the Environment Agency's Pollution Prevention Guidelines PPG3 and the Construction Products Regulations

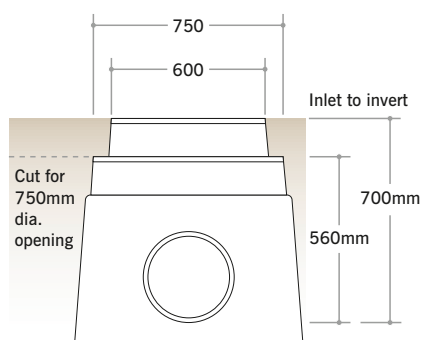
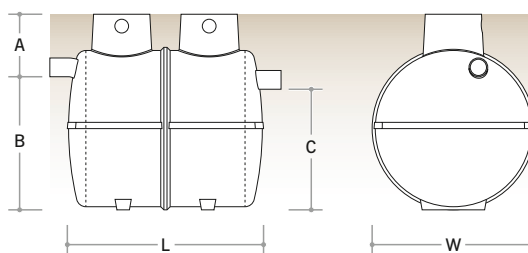
Class 2 models available for 100 and 200 series – change C1 for C2 when quoting model reference.

Model	Nominal size (NSB)	Catchment area a (m <sup>2</sup> )	Oil storage (litres)	Silt storage (litres)	Overall length (mm)	Overall diameter (mm)	Inlet Invert (mm)	Base to Inlet (mm)	Base to outlet (mm)	Max in/out pipe diameter (mm) for orientation		Number of access shafts diameter (mm)			
					L	W	A	B	C	type A-C	type D-I	450	600	750	900
<b>103 C1/SC</b>	3	1667	45	300	1550	1300	500	1015	965	160	160	2	-	-	-
<b>204 C1/SC</b>	4	2222	60	400	1860	1225	560	1350	1300	300	300	-	*	1	-
<b>206 C1/SC</b>	6	3333	90	600	2110	1225	560*	1350	1300	300	300	-	*	1	-
<b>208 C1/SC</b>	8	4444	120	800	2260	1225	560*	1350	1300	300	300	-	*	1	-
<b>210 C1/SC</b>	10	5556	150	1000	2920	1225	560*	1350	1300	300	300	-	*	1	-
<b>215 C1/SC</b>	15	8333	225	1500	4227	1225	560*	1350	1300	400	400	-	*	1	-

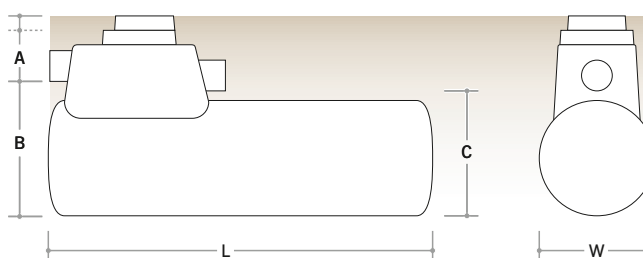
\* 200 Series Stormceptors have a dual size access shaft. For units that will collect silt we recommend using the 750mm diameter access which provides enough room for the silt removal hose to be lowered into the tank during maintenance. The value of 'A' here is for the 750mm access – the 600mm access has an 'A' value of 700mm.



100 series



200 series



### Dual access shaft openings

For access to desludge primary chamber, cut to 750mm dia. access shaft opening. Where a silt trap is incorporated upstream or silt build up will not occur 600mm diameter access shaft may be adequate.

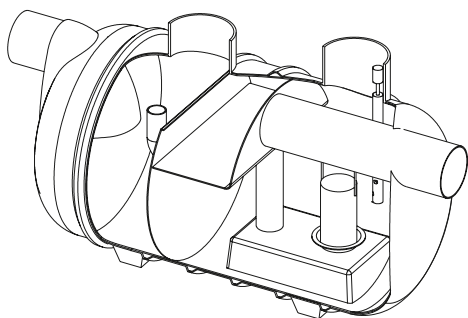
Refer to 6.7 and 6.8 for more comprehensive data including installation.



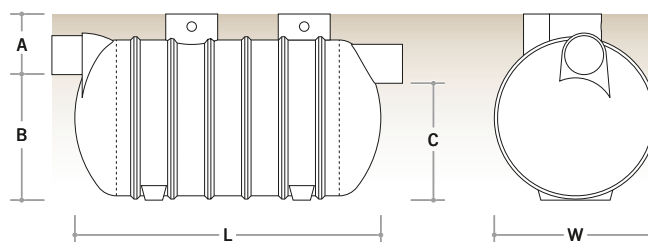
Compliant to the European Standard BS EN 858-1, the Environment Agency's Pollution Prevention Guidelines PPG3 and the Construction Products Regulations

Class 2 models available for 300 and 400 series – change C1 for C2 when quoting model reference.

Model	Nominal size (NSB)	Catchment area a (m <sup>2</sup> )	Oil storage (litres)	Silt storage (litres)	Overall length (mm) L	Overall diameter (mm) W	Inlet Invert (mm) A	Base to Inlet (mm) B	Base to outlet (mm) C	Max in/out pipe diameter (mm) for orientation		Number of access shafts diameter (mm)			
										type A-C	type D-I	450	600	750	900
<b>318 C1/SC</b>	18	10000	270	1800	3200	1875	700	1450	1350	450	600	-	2	-	-
<b>320 C1/SC</b>	20	11111	300	2000	3535	1875	700	1450	1350	450	600	-	2	-	-
<b>325 C1/SC</b>	25	13889	375	2500	4420	1875	700	1450	1350	450	600	-	2	-	-
<b>330 C1/SC</b>	30	16667	450	3000	5070	1875	700	1450	1350	450	600	-	-	1	1
<b>340 C1/SC</b>	40	22222	600	4000	7060	1875	740	1410	1310	450	600	-	1	1	-
<b>345 C1/SC</b>	45	25000	675	4500	7615	1875	740	1410	1310	450	600	-	1	1	-
<b>350 C1/SC</b>	50	27778	750	5000	8255	1875	740	1410	1310	450	600	-	1	1	-

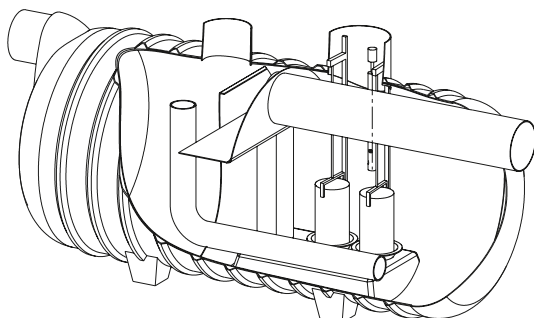


300 series

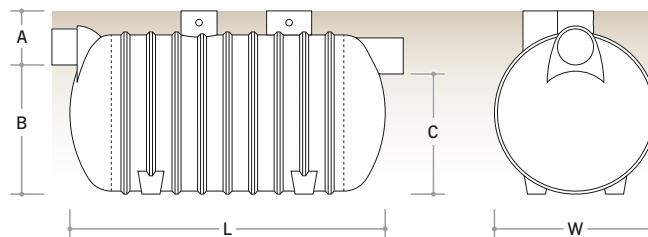


Model	Nominal size (NSB)	Catchment area a (m <sup>2</sup> )	Oil storage (litres)	Silt storage (litres)	Overall length (mm) L	Overall diameter (mm) W	Inlet Invert (mm) A	Base to Inlet (mm) B	Base to outlet (mm) C	Max in/out pipe diameter (mm) for orientation		Number of access shafts diameter (mm)			
										type A-C	type D-I	450	600	750	900
<b>460 C1/SC</b>	60	33333	900	6000	4400	2700	950	2100	2000	600	750	-	1	-	1
<b>470 C1/SC</b>	70	38889	1050	7000	5250	2700	950	2100	2000	600	750	-	1	-	1
<b>480 C1/SC</b>	80	44444	1200	8000	6170	2700	950	2100	2000	600	750	-	1	-	1
<b>4100 C1/SC</b>	100	55556	1500	10000	7400	2700	1100	1950	1850	750	900	-	1	-	1
<b>4125 C1/SC</b>	125	69444	1875	12500	9050	2700	1100	1950	1850	750	900	-	1	-	1
<b>4150 C1/SC</b>	150	83333	2250	15000	9950	2700	1100	1950	1850	750	900	-	-	-	2
<b>4160 C1/SC</b>	160	88889	2400	16000	11830	2700	1250	1800	1700	750	900	-	1	1	1

400 series – models without silt capacity are available if required – details on application.



400 series





## 6.6 SPEL Stormceptor® by-pass separators

### 500 and 600 series, class 1 and 2 models

#### Compliant to the European Standard BS EN 858-1, the Environment Agency's Pollution Prevention Guidelines PPG3 and the Construction Products Regulations

These Stormceptors are individually designed in accordance with specific site requirements according to catchment area, class, silt capacity, inlet/outlet connection size and orientation. The following is an approximate guide to the range of models available. Please contact our technical department for your specific requirements. Class 2 models available – change C1 for C2 when quoting model reference.

Model	Nominal size (NSB)	Catchment drainage area hectares	Oil storage litres NSBx15	Silt** storage litres NSBx100	*Overall length (mm)	*Overall diameter (mm)	Inlet Invert (mm)	Base to Inlet (mm)	Base to outlet (mm)	Max in/out pipe diameter (mm) for orientation	
					L	W				A	B
5180C1SC	180	10	2700	18000	10040	3650	1260	2615	2390	900	1200
5200C1SC	200	11.1	3000	20000	11140	3650	1260	2615	2400	900	1200
5250C1SC	250	13.9	3750	25000	13840	3650	1260	2615	2400	900	1200
6300C1SC	300	16.7	4500	30000	14250	4150	1425	2850	2600	1200	1500
6350C1SC	350	19.4	5250	35000	16635	4150					
6400C1SC	400	22.2	6000	40000	18259	4150					
6500C1SC	500	27.8	7500	50000	22250	4150					
6500C1	500	27.8	7500	Nil	16635	4150					
6600C1	600	33.3	9000	Nil	19899	4150					
6700C1	700	38.9	10500	Nil	23050	4150					
6750C1	750	41.7	11250	Nil	24650	4150					
6800C1	800	44.4	12000	Nil	–	4150					
61000C1	1000	55.5	15000	Nil	–	4150					

\*Tank shell – fittings extra. \*\*Where silt capacity required it is available on the models indicated.

Pipe size and orientation designed to suit site pipework and class 1 or 2.

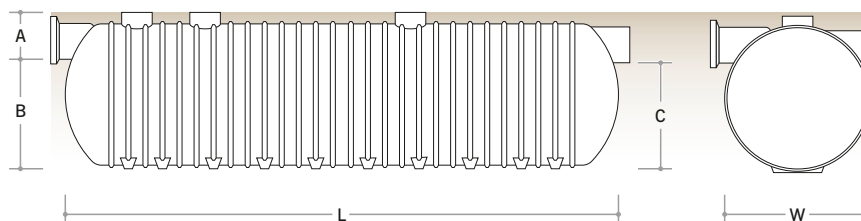
Silt capacity normally provided for integrally in accordance with PPG3.

#### Series 500

Inside diameter 3500mm, outside diameter 3650mm.

#### Series 600

Inside diameter 4000mm, outside diameter 4150mm.



#### Features

Filament wound shells are lightweight but have great strength and durability.

Life expectancy in excess of fifty years.

Smooth, high gloss, corrosion resistant, resin-rich internal surface.

External 'flow coat' water penetration barrier.

25 year warranty.

Stainless steel coalescer units (class 1 separators) with durable high volume reticulated foam inserts for long life and long term efficiency.

#### SPEL automatic alarm/monitoring system

This is to indicate when separator requires emptying or SPEL Tankstor® with Econoskim®. See 5.7.

#### Optional extras

SPEL coalescer unit guide rail system. See 9.7.

SPEL coalescer unit lifting/locating/locking system with lifting chains. See 9.6/9.7.

SPEL Econoskim light liquid skimming and separator containment system. Manual or automatic systems which save conventional emptying costs by 90%. Section 11.

SPEL pollution monitoring and containment systems. Section 11.

SPEL mechanical anchoring systems. See 4.11/4.12.

GRP non slip ladder/s with stainless steel fixings.

#### Regulation/specification compliance as appropriate

Environment Agency's Pollution Prevention Guidelines PPG3.

European Standard; Separator systems for light liquids BS EN 858-1:2002.

British Standard; Specification for design and construction of vessels and tanks in reinforced plastics BS 4994 : 1987.

European Standard; Underground tanks of glass reinforced plastics (GRP) BS EN 976-1 : 1997.

Materials to BS 3532, BS 3691 and or BS 2782 or equivalent standards.



### Compliant to the European Standard BS EN 858-1, the Environment Agency's Pollution Prevention Guidelines PPG3 and the Construction Products Regulations.

The 200 Series Stormceptor class 1 by-pass separators are single access shaft units with integral silt capacity. There is complete access to both the primary chamber and the fuel/oil separation chamber for desludging by suction tanker provided the 750mm dia. access shaft is utilised.

If a silt trap is situated upstream of the Stormceptor and/or no build up of silt will occur in the primary chamber the smaller 600mm dia. access shaft can be utilised.

### Performance

SPEL Stormceptor class 1 by-pass separators incorporate a coalescer unit and are designed to meet the requirements of the European Standard BS EN 858-1 and the Environment Agency's Pollution Prevention Guidelines PPG3, where the maximum permissible content of residual oil in the outlet is 5mg/l.

The coalescer unit has a robust high volume reticulated foam insert. The insert efficiently coalesces the finer globules of hydrocarbons for gravity separation and due to its large volume, lasts for long periods before requiring cleaning. Cleaning is then a simple operation using normal pressure water. The insert can be reused again and again, rarely requiring replacement.

The inlet/outlet diameters and fall across the separator as indicated ensure optimum performance.

The light liquid storage capacity (fuel, oil etc.) is 15 times the nominal size (NS) in litres, eg. SPEL Stormceptor NSB6 has a light liquid storage capacity of 90 litres.

The first primary chamber can be desludged by a suction tanker providing the 750mm dia. access together with the cover and frame to suit is incorporated.

### Specification

SPEL 200 series Stormceptor class 1 by-pass separators incorporate a strong filament wound shell and are manufactured in standard and heavy specification depending on burial depths and water table height as in the table above. See also 6.3.

### Inlet/outlet connections

Both inlet and outlet connections are either 225/300/400 dia. Quantum spigots. Flex-Seal/Band-Seal or similar couplings are available for connecting to site pipework if required.

### Burial depths for standard and heavy specification tanks

Standard	Maximum burial depth to bottom of tank	4 metres
	Maximum height of water table above bottom of tank	1 metre
Heavy	Maximum burial depth to bottom of tank	6 metres
	Maximum height of water table above bottom of tank	2 metres

### Handling

Tanks should be lifted using slings not chains or wire ropes. DO NOT drag tanks along the ground for any distance and avoid jarring or bumps. DO NOT lift with water in the tank. See 4.2.

### Preliminary

Remove the plastic tie used to hold the coalescer unit inside the tank.

Insert the coalescer unit securely into the base socket.

Ensure the foam insert is fitted inside the stainless steel coalescer unit.

During installation, it is important the foam inserts are not clogged with dust, debris or drops of wet concrete. To safeguard against this, we recommend covering the access shaft with a sheet of polythene.

### Installation guidance notes

Installation should be carried out by a competent contractor in accordance with the following procedures, Health & Safety at Work legislation and good building practice.

For detailed instructions see section 4 or installation instructions supplied with every tank.

1. Determine the size of the excavation allowing for the drain invert depth and a concrete surround. Allowance should be made for consolidating concrete under the unit when backfilling.
2. Pour concrete base to correct depth and level off.
3. When the concrete has set sufficiently, place the tank in position, check for levels (including inlet/outlet inverts) and fill with water to a maximum depth of: 200 series – 200mm, 300 series – 300mm, 400 series – 400mm. Ensure concrete slab is clean ready for placing concrete surround. Surround should preferably be placed within 48 hours of casting the base slab.
4. Place backfill concrete (ST4 mix) up to the depth of the water in the tank ensuring the concrete is properly consolidated under the tank to prevent voids. Consolidate by hand – do not use vibrating pokers. Connect up pipework.

5. Continue backfilling with concrete and at the same time filling the tank with water to equalise pressure and resist floatation. Where the tank is divided into chambers ensure all chambers are filled equally.
6. Top up the tank with water to inlet/outlet invert level and place remainder of concrete to a depth of approximately 150-200mm above the top of the tank. Where extension access shaft is fitted, this can be surrounded in concrete once the main tank concrete surround has set. (See Extension access shafts).
7. Where the concrete slab over the tank is to take vehicle loading it should be reinforced in accordance with good practice to take the maximum load and should be extended onto unexcavated ground. It is important that vehicle loading is not transferred to the tank shell or its concrete surround.
8. Incorporate inspection cover and frame.  
NOTE: For access to desludge the primary chamber fit only 750mm dia. manhole cover and frame.

### Venting

SPEL Separators are governed by the requirements of petroleum regulations: Petrol filling stations: Construction and Operation HS(G)41, ISBN 0-11885449-6. These state in paragraph 45, that each chamber of a petrol interceptor should be vented and vent pipes should extend to not less than 2.4m above ground level, should not be less than 75mm diameter and of a robust construction, and should be manifolded above ground.

### Extension access shafts

SPEL extension shafts are available in standard lengths of 500mm upwards and 500mm increments. When these should be surrounded with concrete, pour in lifts of approximately 500mm, allowing the concrete to set between each lift.

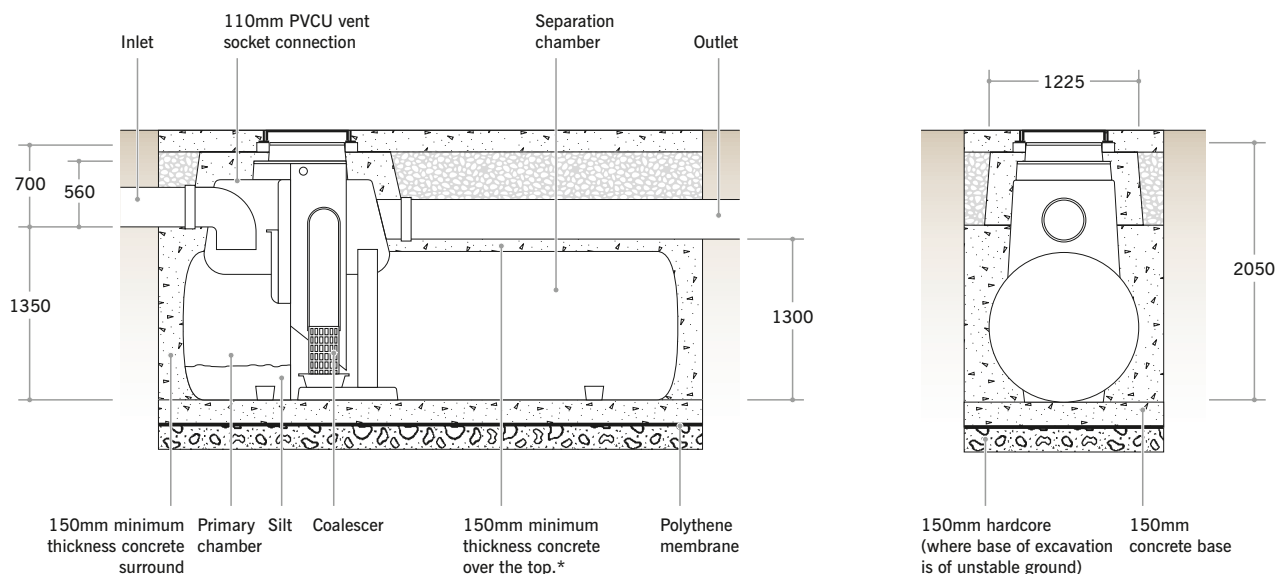
### Commissioning

On completion of installation, check the foam insert is fitted inside the stainless steel coalescer unit, the coalescer unit is inserted securely into the base socket and the tank is free of debris etc.



## 6.8 SPEL Stormceptor® by-pass separators

### 200 series, class 1 with silt capacity



\* Fabric reinforcement may be necessary where vehicle loading has to be taken into account or where high extension access shafts are to be fitted

#### SPEL automatic alarm/monitoring system

##### Requirement of the Environment Agency's Pollution Prevention Guidelines PPG3

The SPEL automatic alarm/monitoring system provides continuous monitoring of the separator contents by sensing when the light liquid within the separator has filled to a predetermined level (with design safety margins), and provides a simple audio-visual warning to alert the operator that the separator needs to be emptied.

#### Maintenance

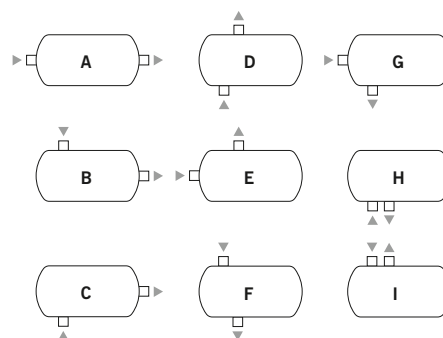
The SPEL 200 series Stormceptor class 1 by-pass separators have good access to both the primary chamber and the light liquid separation chamber for periodic emptying of retained light liquids and silt which is essential to maintain the units optimum performance.

Periods between emptying will have to be determined depending on site conditions but normally at least twice a year.

For detailed instructions see section 9.

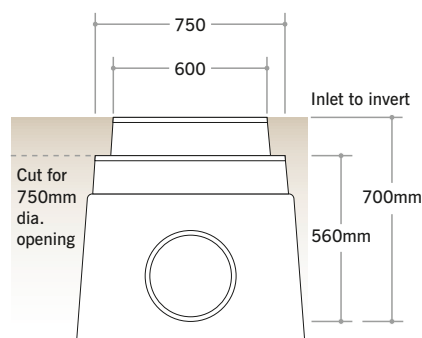
#### Procedure in brief

1. Lift handle and coalescer unit out of the tank and place ahead of the separator.
2. Remove foam insert and wash with normal water pressure, ensuring the dirty water runs into the separator.
3. Empty light liquids and silt alternating between both chambers to avoid excessive pressure one side of the partition.
4. Re-insert the foam insert into the stainless steel coalescer unit and re-insert the coalescer unit into the separator.



#### Choice of pipe connections

Orientation of inlet/outlet pipe connections.



#### Dual access shaft openings

For access to desludge primary chamber, cut to 750mm dia. access shaft opening. Where a silt trap is incorporated upstream or silt build up will not occur 600mm diameter access shaft may be adequate.

Catchment area m <sup>2</sup>	SPEL ref	Nominal size NSB	Oil storage litres NSBx15	Silt storage litres NSBx100	Overall length (mm)	Max pipe (mm)
2222	204C1SC	4	60	400	1860	300
3333	206C1SC	6	90	600	2110	300
4444	208C1SC	8	120	800	2260	300
5556	210C1SC	10	150	1000	2920	300
8333	215C1SC	15	225	1500	4227	300



# SALES QUOTE



**Quote No:** HQT-039409

**Quote Date:** 13/08/2019

**Sell To:** Richard King

Barnsley Metropolitan Borough Council  
Westgate Plaza

**Site Address:** Smithies Lane Depot

Barnsley  
S71 1NL

BARNSELEY  
S70 2DR

**Account No:** CON-003202

**Hydro Ref:** 18\_21\_0172 Smithies Lane Depot Barnsley

Item No	Description	Quantity	Unit Price	Amount
PQT1410.SCL	Hydro-Brake®Optimum Type HBO-SCL Product Code: SCL-0078-4100-2100-4100 Design Objective: Minimise blockage risk Design Flow = 4.100 l/s; Design Head = 2.100 m BBA Approved (08/4596 Product Sheet 1) WRc Approved (PT/329/0412) 3 mm thick Stainless Steel Grade 304L Designed to suit a minimum 100mm outlet pipe and a minimum 1200mm chamber Complete with: Lugs; Fixed Inlet and Pivoting Bypass Door	1.00	1,721.10	1,721.10
TOTAL GBP Excl. VAT				1,721.10

Product design, fabrication, standard installation details and delivery to UK mainland site or port included.

Delivery via specialist vehicle (Hiab, FORS, Crossrail etc.) not included, rates available on request.

Off-loading (unless specified) and equipment installation at site excluded.

Prices valid for 30 days from issue, standard payment terms 100% due with order unless alternative credit terms have been agreed in writing.

Flow control lead time 2 to 3 working weeks (unless stated otherwise) from receipt of approved drawings and checklists.

Lead time for all other products is longer and should be confirmed before ordering.

Product warranty - one year from date of purchase, only considered for those defects or faults reported in writing.

You can see our terms and conditions of sale on our website at <http://www.hydro-int.com/TC01.pdf>

**Hydro International (UK) Ltd**, Shearwater House, Clevedon Hall Estate  
Victoria Road, Clevedon, BS21 7RD  
Tel: +44 (0)1275 878371 Fax: +44 (0)1275 874979 Web: [www.hydro-int.com](http://www.hydro-int.com)

Registered in England No. 1474012, Registered Office: as above.

**Turning Water Around...®**

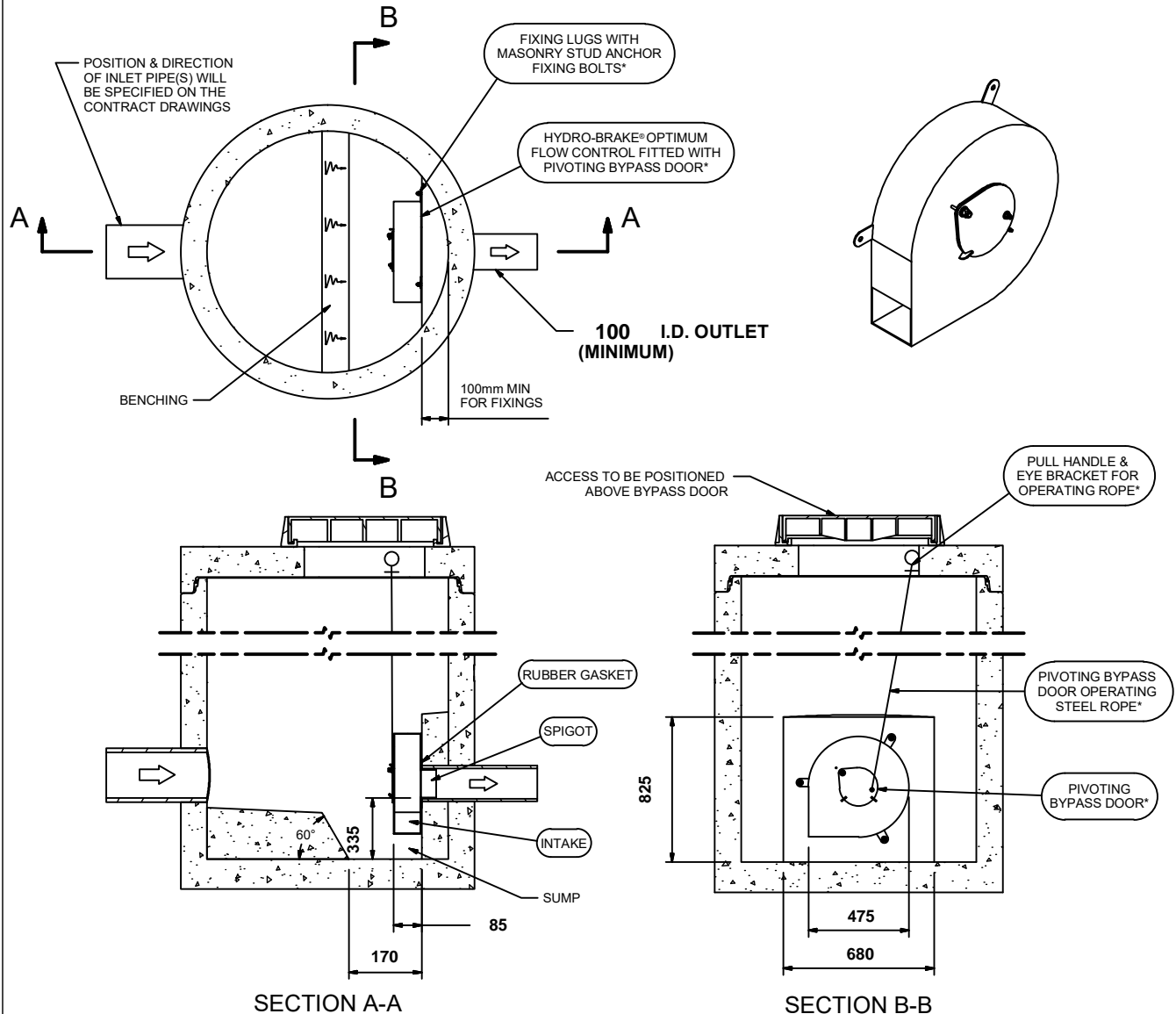


## Technical Specification

Control Point	Head (m)	Flow (l/s)
Primary Design	2.100	4.107
Flush-Flo™	0.318	3.247
Kick-Flo®	0.702	2.493
Mean Flow		3.177

Hydro-Brake® Optimum Flow Control including:

- 3 mm grade 304L stainless steel
- Integral stainless steel pivoting by-pass door allowing clear line of sight through to outlet, c/w stainless steel operating rope
- Beed blasted finish to maximise corrosion resistance
- Stainless steel fixings
- Rubber gasket to seal outlet



**IMPORTANT:**

○ LIMIT OF HYDRO INTERNATIONAL SUPPLY

THE DEVICE WILL BE HANDED TO SUIT SITE CONDITIONS  
FOR SITE SPECIFIC DETAILS AND MINIMUM CHAMBER SIZE REFER TO HYDRO INTERNATIONAL  
ALL CIVIL AND INSTALLATION WORK BY OTHERS

\* WHERE SUPPLIED

HYDRO-BRAKE® FLOW CONTROL & HYDRO-BRAKE® OPTIMUM FLOW CONTROL ARE REGISTERED TRADEMARKS FOR FLOW CONTROLS DESIGNED AND MANUFACTURED EXCLUSIVELY BY HYDRO INTERNATIONAL

**THIS DESIGN LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY. NOT TO SCALE.**

**DESIGN  
ADVICE**



The head/flow characteristics of this SCL-0078-4100-2100-4100 Hydro-Brake® Optimum Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.  
**The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.**

**Hydro**  
International®

DATE	8/13/2019 2:09:28 PM
SITE	Smithies Lane Depot Barnsley
DESIGNER	Kirsty Bull
REF	18_21_0172

SCL-0078-4100-2100-4100  
Hydro-Brake® Optimum

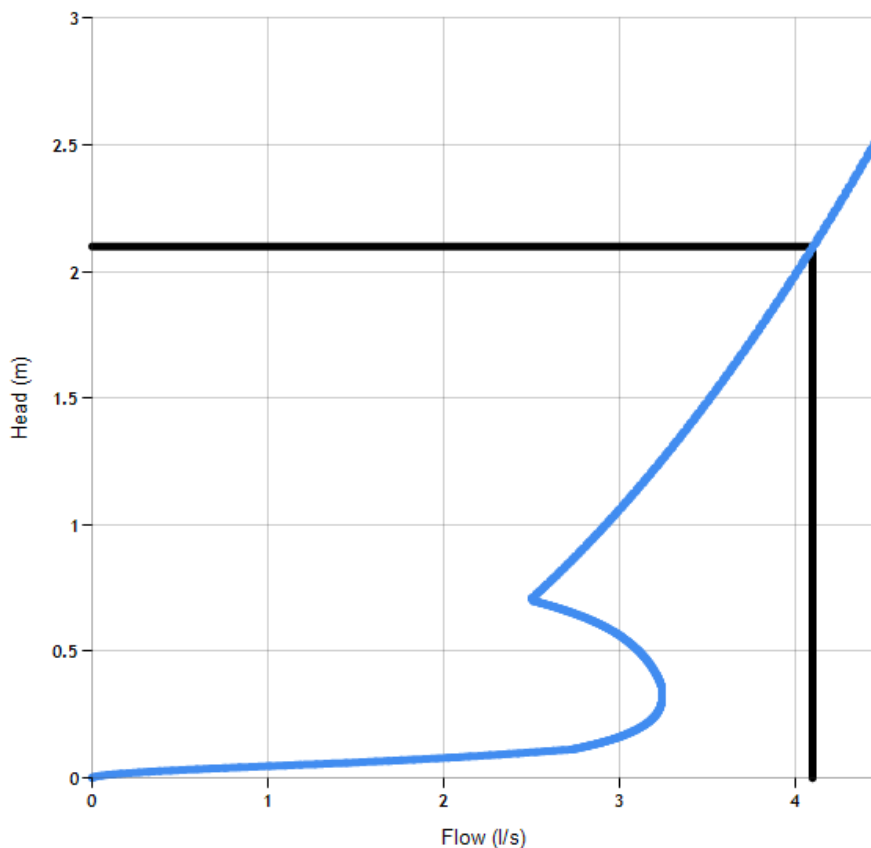


## Technical Specification

Control Point	Head (m)	Flow (l/s)
Primary Design	2.100	4.107
Flush-Flo™	0.318	3.247
Kick-Flo®	0.702	2.493
Mean Flow		3.177



PT/329/0412



Head (m)	Flow (l/s)
0.000	0.000
0.072	1.812
0.145	2.923
0.217	3.162
0.290	3.242
0.362	3.237
0.434	3.186
0.507	3.100
0.579	2.963
0.652	2.735
0.724	2.528
0.797	2.639
0.869	2.745
0.941	2.846
1.014	2.943
1.086	3.037
1.159	3.128
1.231	3.215
1.303	3.300
1.376	3.382
1.448	3.463
1.521	3.541
1.593	3.617
1.666	3.692
1.738	3.765
1.810	3.836
1.883	3.906
1.955	3.974
2.028	4.041
2.100	4.107

### DESIGN ADVICE



The head/flow characteristics of this SCL-0078-4100-2100-4100 Hydro-Brake Optimum® Flow Control are unique. Dynamic hydraulic modelling evaluates the full head/flow characteristic curve.

**The use of any other flow control will invalidate any design based on this data and could constitute a flood risk.**

**Hydro**  
International

DATE	8/13/2019 2:09:29 PM
SITE	Smithies Lane Depot Barnsley
DESIGNER	Kirsty Bull
REF	18_21_0172

SCL-0078-4100-2100-4100  
Hydro-Brake Optimum®





YorkshireWater

Barnsley Metropolitan Borough Council  
PO Box 601  
Barnsley  
S70 9FA

richardking@barnsley.gov.uk

CC mickclegg@barnsley.gov.uk

Your Ref:  
Our Ref: U012724

Developer Services  
Yorkshire Water Services Ltd  
Service Delivery Centre  
Western Way  
Halifax Road  
Bradford  
BD6 2LZ

Tel: 0345 120 8482  
Fax:

Email:  
technical.sewerage@yorkshirewater.co.uk  
For telephone enquiries ring:  
Developer Services on 0345 120 8482

3rd June 2019

Dear Mr King,

**Waste Transfer Station, Smithies Lane Depot, Smithies Lane Barnsley, S71 1NL - S106  
Connection T099978**

**PERMISSION TO MAKE 1 No. SEWER CONNECTIONS  
UNDER SECTION 106 OF THE WATER INDUSTRY ACT 1991**

Your connection to the public sewer at the above address has now been granted permission, subject to the details specified on the 'Permission Certificate', attached for your attention.

Subject to the details on the attached certificate, the sewer connection may be undertaken by persons competent and qualified for sewer works. You must ensure that you have permission to install the connection from all landowners beforehand.

If I can be of further assistance, please contact me at the above address.

For inspections, please contact 0345 1 20 84 82, quoting the reference number on the attached 'Permission Certificate'.

Yours sincerely

**Jane Phillips  
Sewerage Technician  
Developer Services**





YorkshireWater

**SEWER CONNECTION**  
UNDER SECTION 106 OF THE WATER INDUSTRY ACT 1991

**PERMISSION GRANTED**

At: Waste Transfer Station, Smithies Lane Depot, Smithies Lane Barnsley, S71 1NL

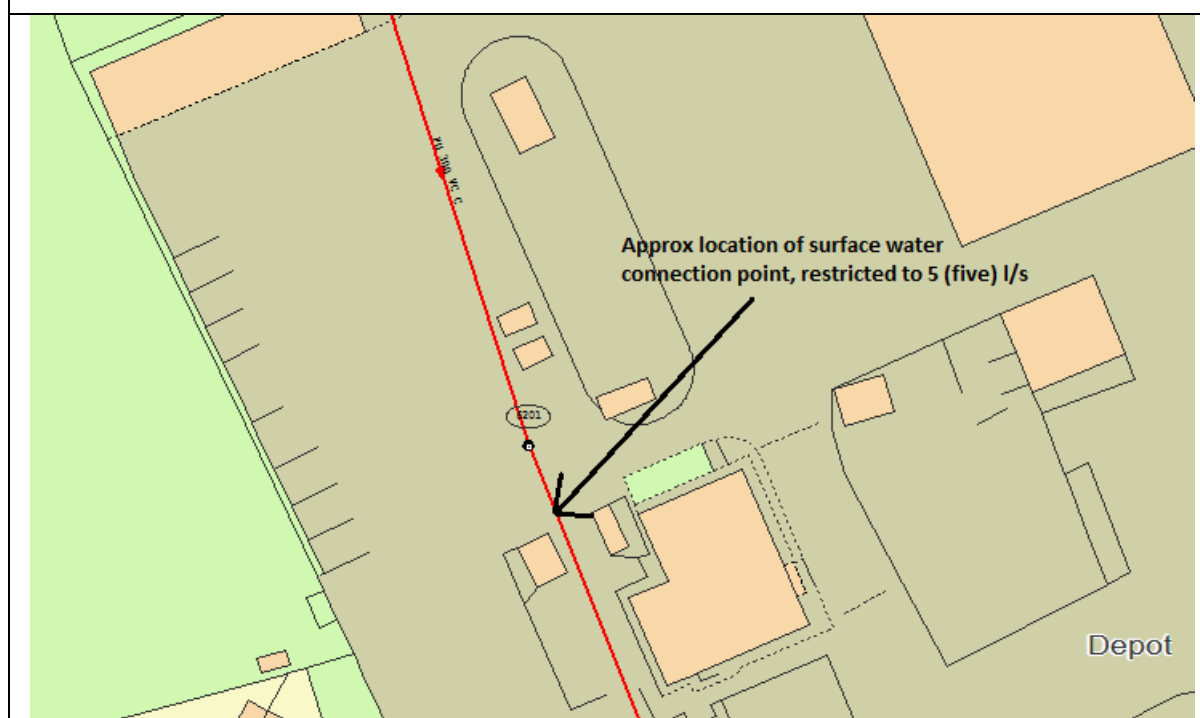
225mm private surface water drain connection by junction onto 225mm combined sewer located within the site.

Discharge rate of surface water restricted to no more than 5 (five) litres / second.

FOR A SITE INSPECTION PLEASE CONTACT DEVELOPER SERVICES  
AT LEAST FIVE DAYS PRIOR TO START OF DRAINAGE WORKS

0345 1 20 84 82

QUOTING REFERENCE NUMBER: T099978





## GENERAL GUIDANCE

### Who do I contact for a sewer connection inspection?

Please contact Yorkshire Water's scheduler on **0345 1 20 84 82** who will arrange for an inspector to visit the site at the time when the drainage works should be ready for inspecting.

The connection should be laid open for Yorkshire Water inspection. Our inspector will briefly assess if the method of connection is as detailed on the 'Permission Certificate' and that the workmanship is satisfactory. Additional fees may be payable for return visits to inspect corrective work. If your completed connection is backfilled without inspection you may later be invoiced for our CCTV costs and any associated corrective work.

### How many days notice should I give for an inspection?

We require at least five full working days notice to ensure that we can schedule an inspector to visit the site.

### What if I find that the size of the pipe is not as recorded on Yorkshire Water's records?

Yorkshire Water's statutory sewer records should be used as a guide only. No warranty is given with regard to its correctness. The location, sizes and materials of the connecting pipes should be established out on site prior to commencing works. It is your responsibility to establish the point and method of connection. Should the connection type change please contact Developer Services immediately on 0345 1 20 84 82 to discuss the proposals.

### What if I uncover a pipe not shown on Yorkshire Water records?

Should you uncover a pipe not recorded on Yorkshire Water's statutory sewer records and want to make a connection to this pipe you will need to establish who the owners/users are and gain their permission.

### What if my connection does not commence and I have arranged for an inspector to visit site?

Should you encounter difficulties with the connection and feel the inspection time cannot be met, please ensure that the inspection is cancelled at least two hours prior. Should an inspection not be cancelled, you may be liable to additional fees for extra inspections.

### Special guidance notes for SADDLE CONNECTIONS

In all cases the actual hole in the public sewer must be approved by the inspector before the saddle is fixed in place. Failure to comply with this requirement will mean that the saddle will have to be removed for inspection before approval is given. If a saddle connection is accepted in advance by Yorkshire Water, then it must, where possible, be positioned at 10 o'clock or 2 o'clock and at an angle of 45 degrees to the direction of flow. A single hole in the public sewer must be made by diamond core drilling. In all cases the integrity of the pipeline must be maintained and additional bed and surround, support and protection provided where deemed necessary by the inspector. The edge of the hole for the connection must be at least 225mm from a collar or spigot. Connection must be made to a pipe that has an existing connection.

### Special guidance notes for JUNCTION CONNECTIONS

Junction connections should be the oblique (y piece) variety and should be secured into the sewer with bandseal couplings, with the incoming branch aligned in the direction flow and positioned at 10 o'clock or 2 o'clock on the sewer section clock face.

### Special guidance notes for CONNECTING VIA AN EXISTING MANHOLE





Connections to existing manholes and inspection chambers should be made by carefully breaking in and forming a new channel into the main channel, then making good or by connecting to an existing stub pipe/socket left out as provision for connection. Any backdrops should be external not internal.

### **Special guidance notes for NEW MANHOLE CONNECTIONS**

Connections by a new manhole or inspection chamber should be an appropriate type and duty for the area situated. Any backdrops should be external not internal. New manholes or inspection chambers should be constructed to the standards as set out in the approved document 'Sewers for Adoption' with a cover and frame of the appropriate loading classification (B grade minimum).

### **Special guidance notes for connections in a HIGHWAY**

Where the connection pipe has less than 1.2m cover in a highway (or less than 0.9m in areas of highway that may be subject to traffic loading or interference) it should be protected with a mesh reinforced concrete strip spanning the pipe's granular bed and surround. The concrete strip should be separated at intervals (each pipe joint) with compressible filler board to maintain flexibility.

### **Additional Notes**

You should check that the receiving public sewer is low enough to create sufficient gradient to receive the connection. If it is not then you should consider revising your proposals to raise site levels or pump.

**Please note the connection details submitted have been granted permission under Section 106 of the Water Industry Act 1991. This permission is not an acceptance in respect to any planning conditions imposed under the Grant of Planning Permission.**





AC Environment Solutions  
3, Fountain Parade,  
Mapplewell/Barnsley, S75 6FW

Groundsure Reference: GS-4347108

Your Reference: AC00165

Report Date 13 Oct 2017

Report Delivery Method: Email - pdf

## Enviro Insight

Address: BARNSELY METROPOLITAN BOROUGH COUNCIL, SMITHIES LANE DEPOT, SMITHIES LANE,  
SMITHIES, BARNSELY, S71 1NL

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviro Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director  
Groundsure Limited

Enc.  
Groundsure Enviroinsight



**Address:** BARNSELY METROPOLITAN BOROUGH COUNCIL, SMITHIES LANE DEPOT, SMITHIES LANE, SMITHIES, BARNSELY, S71 1NL

**Date:** 13 Oct 2017

**Reference:** GS-4347108

**Client:** AC Environment Solutions

NW

N

NE

W

E



SW

S

SE

**Aerial Photograph Capture date:** 26-Mar-2012

**Grid Reference:** 434702,408371

**Site Size:** 1.97ha

**Report Reference:** GS-4347108

**Client Reference:** AC00165



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# Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	19	19	41	171
1.2 Additional Information – Historical Tank Database	0	0	15	26
1.3 Additional Information – Historical Energy Features Database	0	0	7	7
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	0	15
1.6 Potentially Infilled Land	15	13	43	132
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	5	1
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	10
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	9
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0



Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	3	0	3	5	9
3.1.3 BGS/DoE Landfill Site Survey	1	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	1	0	1	1	0	1
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	4	4	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	5	0	3	1

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	1	0	23	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	1
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology						
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	Yes					
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	None					
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.						

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes					
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	1
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	3
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	3	0	0	0	Not searched	Not searched



Section 6: Hydrogeology and Hydrology	0-500m					
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site?	No	No	No	No	Yes	Yes
6.10 Detailed River Network entries within 500m of the site	0	3	14	13	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding						
7.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	Yes					
7.2 Are there any Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	Yes					
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Low					
7.4 Are there any Flood Defences within 250m of the study site?	No					
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No					
7.6 Are there any areas used for Flood Storage within 250m of the study site?	Yes					
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential at Surface					
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Moderate					

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	1
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0



Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	1	0	0	0	0	3
8.14 Records of Green Belt land	1	0	0	0	0	3

Section 9: Natural Hazards	
9.1 What is the maximum risk of natural ground subsidence?	Low
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Very Low
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining	
10.1 Are there any coal mining areas within 75m of the study site?	Yes
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	Yes
10.3 Are there any brine affected areas within 75m of the study site?	No



# Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

## 1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

## 2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

## 3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

## 4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

## 5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

## 6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

## 7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

## 8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

## 9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

## 10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

## 11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

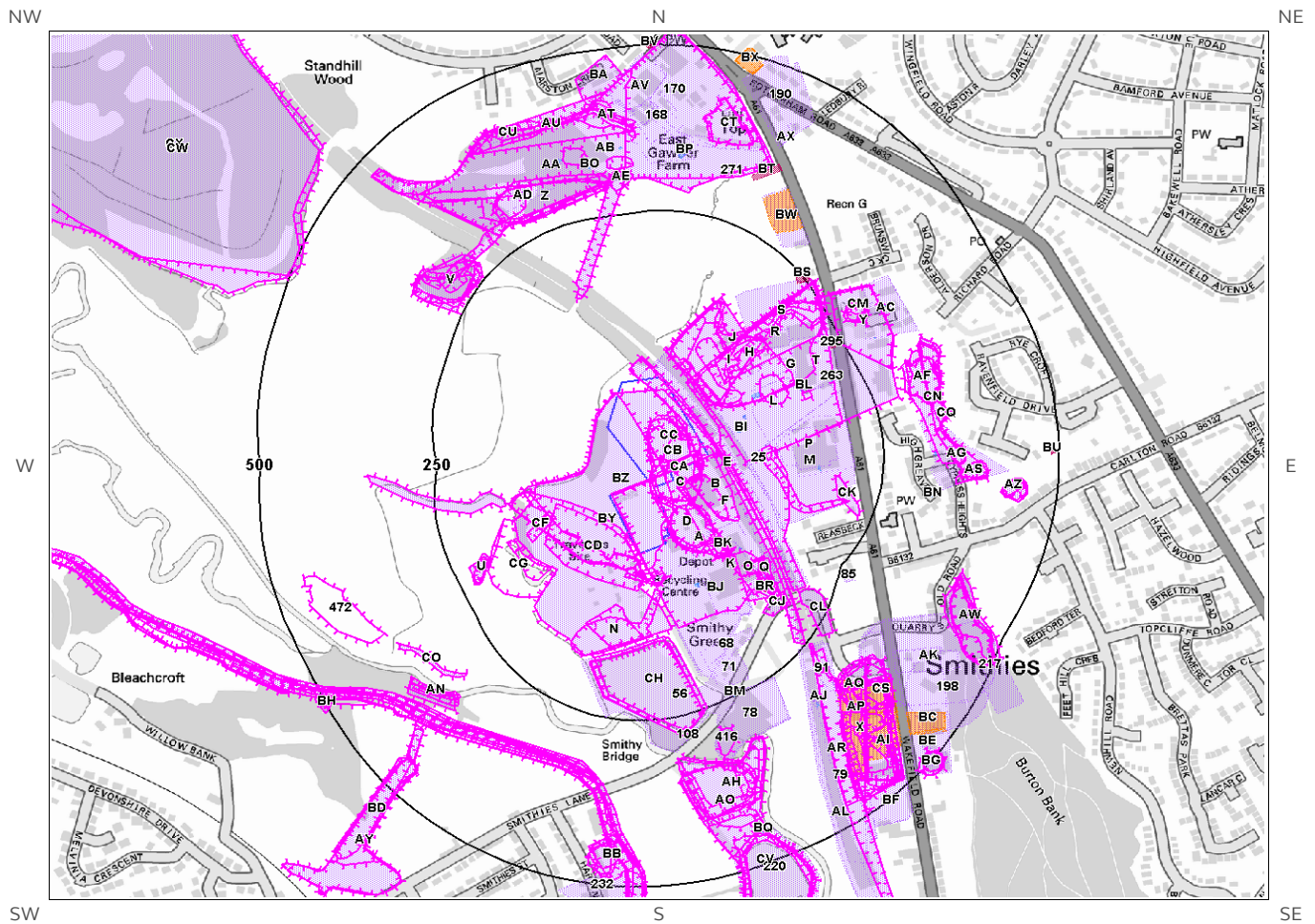
## Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

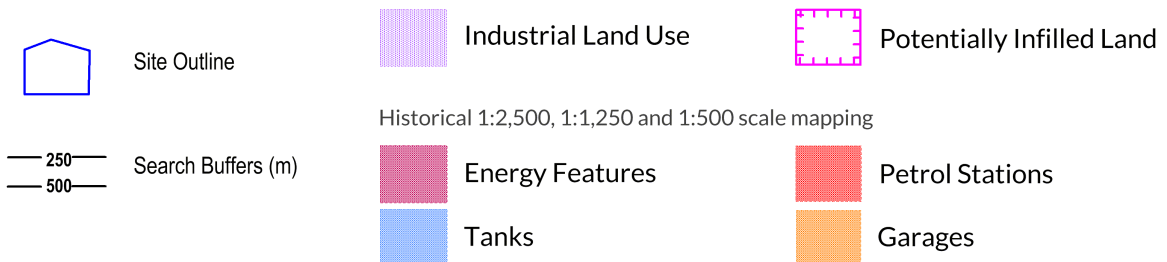
All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

# 1. Historical Land Use



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Historical 1:10,000 and 1:10,560 scale mapping





# 1. Historical Industrial Sites

## 1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 250

ID	Distance [m]	Direction	Use	Date
1B	0	On Site	Unspecified Heaps	1966
2A	0	On Site	Unspecified Disused Workings	1993
3A	0	On Site	Unspecified Commercial/Industrial	1982
4E	0	On Site	Railway Sidings	1938
5C	0	On Site	Unspecified Heaps	1938
6D	0	On Site	Refuse Heap	1904
7BY	0	On Site	Unspecified Disused Tip	1982
8B	0	On Site	Colliery	1904
9F	0	On Site	Railway Sidings	1904
10B	0	On Site	Colliery	1890
11B	0	On Site	Railway Sidings	1890
12BZ	0	On Site	Refuse Heap	1973
13C	0	On Site	Unspecified Heaps	1948
14CA	0	On Site	Refuse Heap	1890
15CB	0	On Site	Refuse Heap	1904
16C	0	On Site	Unspecified Heaps	1938
17CC	0	On Site	Unspecified Heap	1951
18C	0	On Site	Unspecified Heap	1951
19D	0	NE	Unspecified Heap	1951
20E	4	NE	Railway Sidings	1948
21CD	6	SW	Unspecified Disused Tip	1973
22E	11	NE	Railway Sidings	1951
23F	22	SE	Unspecified Disused Tip	1973
24L	22	NE	Colliery	1904
25	22	NE	Railway Sidings	1904
26G	27	NE	Colliery	1938
27G	27	NE	Colliery	1938
28H	27	NE	Refuse Heaps	1938
29H	27	NE	Refuse Heaps	1938
30I	28	NE	Refuse Heap	1948
31BJ	31	E	Unspecified Depot	1973
32J	35	NE	Refuse Heap	1951
33I	37	NE	Refuse Heap	1904

34J	40	NE	Unspecified Heap	1966
35K	41	E	Unspecified Depot	1993
36K	41	E	Unspecified Depot	1982
37L	43	NE	Unspecified Works	1982
38L	43	NE	Unspecified Works	1993
39M	53	E	Unspecified Depot	1993
40M	53	E	Unspecified Depot	1982
41N	57	SE	Unspecified Ground Workings	1938
42N	57	SE	Unspecified Ground Workings	1938
43BK	66	E	Unspecified Heap	1951
44R	72	NE	Colliery	1890
45CE	73	E	Refuse Heap	1973
46O	78	E	Refuse Heap	1904
47H	79	NE	Refuse Heap	1890
48CF	84	W	Unspecified Pit	1966
49P	98	E	Unspecified Works	1966
50L	108	NE	Refuse Heap	1904
51O	119	E	Unspecified Heap	1948
52P	119	E	Unspecified Works	1973
53O	120	E	Unspecified Heap	1938
54O	120	E	Unspecified Heap	1938
55Q	122	E	Unspecified Ground Workings	1951
56	126	S	Paper Works	1904
57S	126	NE	Unspecified Depot	1982
58AB	138	NW	Colliery	1890
59AA	138	NW	Refuse Heap	1890
60Q	139	E	Refuse Heap	1948
61Q	140	E	Refuse Heap	1938
62Q	140	E	Refuse Heap	1938
63R	146	NE	Unspecified Depot	1993
64CI	149	W	Refuse Heap	1951
65S	155	NE	Refuse Heap	1948
66T	163	NE	Unspecified Works	1966
67T	163	NE	Unspecified Works	1973
68	167	SE	Woollen Mill	1850
69CJ	171	SE	Cuttings	1966
70CK	182	E	Unspecified Ground Workings	1966
71	185	SE	Corn Mill	1850
72U	195	SW	Unspecified Heap	1966
73U	195	SW	Unspecified Heap	1973
74U	195	SW	Unspecified Heap	1982
75U	198	SW	Unspecified Disused Tip	1993
76CL	203	E	Cuttings	1938



77Y	245	NE	Colliery	1948
78	246	SE	Disused Paper Works	1938
79	246	SE	Railway Sidings	1938
80AR	253	SE	Railway Sidings	1951
81V	254	NW	Refuse Heaps	1938
82V	254	NW	Refuse Heaps	1938
83W	254	SE	Railway Sidings	1890
84W	254	SE	Colliery	1890
85	255	E	Smithy	1904
86V	256	NW	Refuse Heap	1948
87V	256	NW	Refuse Heap	1904
88V	258	NW	Refuse Heap	1890
89X	258	SE	Colliery	1904
90X	258	SE	Railway Sidings	1904
91	260	SE	Railway Sidings	1948
92BW	260	NE	Garage	1993
93V	261	NW	Refuse Heaps	1951
94V	269	NW	Unspecified Pit	1982
95V	269	NW	Unspecified Pit	1973
96V	269	NW	Unspecified Pit	1966
97V	269	NW	Unspecified Pit	1993
98Y	270	NE	Unspecified Drift	1948
99Y	274	NE	Drift	1938
100Y	274	NE	Drift	1938
101Z	274	NW	Unspecified Heap	1938
102Z	274	NW	Unspecified Heap	1938
103AA	276	NW	Railway Sidings	1904
104AB	276	NW	Colliery	1904
105AD	276	NW	Refuse Heap	1904
106AA	278	NW	Railway Sidings	1890
107Z	278	N	Unspecified Heap	1948
108	281	S	Smithy	1850
109AC	281	NE	Unspecified Depot	1982
110AC	281	NE	Unspecified Depot	1992
111CM	283	NE	Refuse Heap	1951
112AD	284	N	Unspecified Heap	1951
113AE	287	N	Unspecified Heap	1982
114AE	287	N	Unspecified Heap	1993
115AF	298	E	Unspecified Ground Workings	1904
116CN	300	E	Unspecified Quarry	1951
117AC	302	NE	Railway Sidings	1948
118AF	303	E	Unspecified Quarry	1890
119AC	303	NE	Railway Sidings	1938
120CO	304	SW	Unspecified Ground Workings	1993

121AG	305	E	Unspecified Works	1982
122AG	305	E	Unspecified Works	1966
123AG	305	E	Unspecified Works	1974
124AG	305	E	Unspecified Works	1992
125AH	311	S	Unspecified Disused Tip	1993
126AH	312	S	Refuse Heap	1982
127AH	312	S	Refuse Heap	1973
128AH	312	S	Refuse Heap	1966
129AK	313	SE	Smithies	1966
130AI	315	SE	Unspecified Depot	1992
131AI	315	SE	Unspecified Depot	1982
132AJ	315	SE	Unspecified Tank	1951
133AJ	316	SE	Unspecified Tank	1948
134AK	317	SE	Smithies	1992
135AK	317	SE	Smithies	1982
136X	317	SE	Refuse Heap	1938
137X	317	SE	Refuse Heap	1938
138AJ	317	SE	Unspecified Tank	1938
139AB	319	N	Unspecified Heap	1966
140AB	319	N	Unspecified Heap	1973
141AB	319	N	Unspecified Heap	1982
142AB	319	N	Unspecified Heap	1993
143AP	320	SE	Unspecified Ground Workings	1951
144CP	321	S	Disused Canal	1966
145X	321	SE	Refuse Heap	1948
146AL	322	SE	Railway Sidings	1948
147AL	322	SE	Railway Sidings	1904
148AM	323	S	Disused Canal	1973
149AM	323	S	Disused Canal	1982
150AM	323	S	Disused Canal	1993
151AQ	325	SE	Unspecified Ground Workings	1966
152AG	325	E	Unspecified Quarry	1948
153CQ	325	E	Unspecified Quarry	1938
154AF	326	E	Unspecified Ground Workings	1948
155BP	331	N	Unspecified Tanks	1904
156AA	332	N	Refuse Heap	1904
157AN	333	SW	Unspecified Ground Workings	1993
158AN	333	SW	Gravel Pit	1951
159AH	333	S	Refuse Heap	1951
160X	334	SE	Unspecified Heap	1951
161X	335	SE	Unspecified Disused Tip	1974
162AO	335	S	Refuse Heaps	1938
163AO	335	S	Refuse Heaps	1938



164AO	336	S	Refuse Heap	1948
165AN	339	SW	Refuse Heap	1948
166AA	340	N	Unspecified Tank	1904
167AP	344	SE	Refuse Heap	1904
168	350	N	Engineering Works	1938
169AQ	350	SE	Refuse Heap	1890
170	354	N	Engineering Works	1948
171AS	355	E	Unspecified Quarry	1948
172AR	356	SE	Refuse Heap	1966
173CS	357	SE	Unspecified Heap	1966
174AS	358	E	Unspecified Quarry	1951
175AK	360	SE	Smithies	1938
176AT	362	N	Unspecified Ground Workings	1973
177AT	362	N	Unspecified Ground Workings	1982
178AT	362	N	Unspecified Ground Workings	1966
179AK	363	SE	Smithies	1974
180AR	365	SE	Refuse Heap	1904
181AU	371	N	Unspecified Ground Workings	1948
182AU	372	N	Unspecified Ground Workings	1938
183AU	372	N	Unspecified Ground Workings	1938
184AT	376	N	Unspecified Ground Workings	1951
185AV	380	N	Unspecified Works	1973
186AV	380	N	Unspecified Works	1982
187AV	380	N	Unspecified Works	1966
188AV	380	N	Unspecified Works	1993
189W	382	SE	Refuse Heap	1966
190	382	NE	Nursery	1850
191BC	385	SE	Unspecified Works	1966
192CU	391	N	Refuse Heap	1904
193AX	394	NE	Unspecified Tank	1948
194AW	398	SE	Unspecified Ground Workings	1966
195AW	398	SE	Unspecified Ground Workings	1982
196AW	398	SE	Unspecified Ground Workings	1992
197AW	398	SE	Unspecified Ground Workings	1974
198	398	SE	Smithies	1951
199AW	399	SE	Unspecified Quarry	1951
200AX	399	NE	Unspecified Tank	1951
201AW	399	SE	Unspecified Quarry	1890

202AW	399	SE	Unspecified Ground Workings	1948
203AW	399	SE	Unspecified Ground Workings	1904
204AW	402	SE	Unspecified Quarry	1938
205BD	405	SW	Refuse Heap	1890
206AY	406	SW	Refuse Heaps	1938
207AY	406	SW	Refuse Heaps	1938
208AX	412	NE	Unspecified Tank	1938
209AZ	420	E	Refuse Heap	1938
210AZ	420	E	Refuse Heap	1938
211AZ	420	E	Refuse Heap	1948
212AZ	421	E	Gravel Pit	1951
213BB	423	S	Refuse Heap	1966
214BA	429	N	Sewage Works	1938
215BA	429	N	Sewage Works	1938
216BB	431	S	Refuse Heap	1951
217	433	E	Old Sandstone Quarry	1850
218BB	437	S	Refuse Heap	1904
219BB	437	S	Refuse Heap	1948
220	439	SE	Paper Works	1948
221BB	439	S	Refuse Heap	1938
222BB	439	S	Refuse Heap	1938
223BC	443	SE	Garage	1992
224BC	443	SE	Garage	1974
225BC	443	SE	Garage	1982
226BD	447	SW	Unspecified Heap	1993
227BD	447	SW	Unspecified Heap	1973
228BD	447	SW	Unspecified Heap	1982
229BD	447	SW	Unspecified Heap	1966
230BD	447	SW	Refuse Heap	1951
231AY	447	SW	Refuse Heaps	1948
232	470	S	Colliery	1850
233BE	470	SE	Unspecified Works	1992
234BE	470	SE	Unspecified Works	1982
235BE	470	SE	Unspecified Works	1974
236BF	476	SE	Unspecified Depot	1966
237BF	476	SE	Unspecified Depot	1974
238BG	487	SE	Refuse Heap	1904
239BG	487	SE	Unspecified Heap	1948
240BG	487	SE	Unspecified Warehouse	1974
241BF	489	SE	Unspecified Old Shaft	1904
242BG	489	SE	Unspecified Heap	1951
243BG	489	SE	Unspecified Heap	1938
244BG	489	SE	Unspecified Heap	1938
245CW	492	W	Unspecified Disused Tip	1993



246BH	494	SW	Unspecified Disused Shafts	1993
247BH	494	SW	Unspecified Disused Shafts	1982
248BH	495	SW	Unspecified Disused Shaft	1966
249BH	498	SW	Unspecified Disused Shafts	1973
250CX	500	W	Refuse Heap	1982

## 1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary:

41

ID	Distance (m)	Direction	Use	Date
251BI	54	NE	Tanks	1981
252BI	72	NE	Tanks	1959
253BJ	74	SE	Tanks	1970
254BJ	74	SE	Tanks	1991
255BJ	74	SE	Tanks	1981
256L	98	NE	Tanks	1970
257BK	101	E	Unspecified Tank	1906
258BK	101	E	Unspecified Tank	1892
259H	131	NE	Unspecified Tank	1991
260M	156	E	Unspecified Tank	1981
261BL	162	NE	Tanks	1906
262BL	209	NE	Unspecified Tank	1981
263	209	NE	Unspecified Tank	1977
264BM	246	SE	Unspecified Tank	1892
265BM	246	SE	Unspecified Tank	1906
266Y	293	NE	Unspecified Tank	1993
267Y	293	NE	Unspecified Tank	1976
268AJ	314	SE	Unspecified Tank	1961
269AJ	314	SE	Unspecified Tank	1961
270AJ	314	SE	Unspecified Tank	1959
271	320	N	Unspecified Tank	1892
272V	320	NW	Unspecified Tank	1892
273V	320	NW	Unspecified Tank	1906
274AG	321	E	Unspecified Tank	1983
275AJ	321	SE	Unspecified Tank	1906
276AG	322	E	Unspecified Tank	1978
277BN	323	E	Unspecified Tank	1983
278BN	324	E	Unspecified Tank	1993

279BO	326	N	Unspecified Tank	1892
280BO	326	N	Unspecified Tank	1906
281AC	326	NE	Unspecified Tank	1976
282AC	327	NE	Unspecified Tank	1993
283BP	331	N	Tanks	1892
284BP	331	N	Tanks	1906
285AA	343	N	Unspecified Tank	1892
286AA	343	N	Unspecified Tank	1906
287AB	348	N	Unspecified Tank	1892
288BQ	448	SE	Tanks	1990
289BQ	448	SE	Tanks	1959
290BQ	448	SE	Tanks	1970
291BQ	448	SE	Tanks	1960

### 1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

14

ID	Distance (m)	Direction	Use	Date
292BR	152	SE	Electricity Substation	1970
293BR	153	SE	Electricity Substation	1991
294BR	153	SE	Electricity Substation	1981
295	231	NE	Electricity Substation	1977
296BS	238	NE	Electricity Substation	1977
297BS	238	NE	Electricity Substation	1982
298BS	238	NE	Electricity Substation	1991
299BT	323	NE	Electricity Substation	1977
300BT	323	NE	Electricity Substation	1982
301BU	486	E	Electricity Substation	1983
302BU	487	E	Electricity Substation	1993
303BU	487	E	Electricity Substation	1978
304BV	494	N	Electricity Substation	1971
305BV	495	N	Electricity Substation	1991

### 1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary:

0



Database searched and no data found.

## 1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 15

ID	Distance (m)	Direction	Use	Date
306BW	270	NE	Garage	1991
307AP	317	SE	Garage	1991
308AP	353	SE	Garage	1993
309X	355	SE	Garage	1991
310X	355	SE	Garage	1990
311AI	382	SE	Garage	1992
312BC	426	SE	Garage	1977
313BC	427	SE	Garage	1962
314BC	427	SE	Garage	1960
315BX	473	N	Garage	1977
316BX	473	N	Garage	1959
317BX	474	N	Garage	1961
318BX	474	N	Garage	1961
319BX	474	N	Garage	1982
320BX	474	N	Garage	1991

## 1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 203

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
321BY	0	On Site	Unspecified Disused Tip	1982
322B	0	On Site	Colliery	1904
323B	0	On Site	Colliery	1890
324BK	0	On Site	Unspecified Disused Workings	1993
325BZ	0	On Site	Refuse Heap	1973
326C	0	On Site	Unspecified Heaps	1948
327D	0	On Site	Refuse Heap	1904
328B	0	On Site	Unspecified Heaps	1966
329CA	0	On Site	Refuse Heap	1890
330CA	0	On Site	Unspecified Heap	1951
331CB	0	On Site	Refuse Heap	1904

332CC	0	On Site	Unspecified Heap	1951
333C	0	On Site	Unspecified Heaps	1938
334C	0	On Site	Unspecified Heaps	1938
335D	0	NE	Unspecified Heap	1951
336CD	6	SW	Unspecified Disused Tip	1973
337CD	7	SW	Pond	1890
338CD	9	SW	Pond	1904
339B	22	SE	Unspecified Disused Tip	1973
340L	22	NE	Colliery	1904
341G	27	NE	Colliery	1938
342G	27	NE	Colliery	1938
343H	27	NE	Refuse Heaps	1938
344H	27	NE	Refuse Heaps	1938
345H	28	NE	Refuse Heap	1948
346J	35	NE	Refuse Heap	1951
347I	37	NE	Refuse Heap	1904
348H	40	NE	Unspecified Heap	1966
349N	57	SE	Unspecified Ground Workings	1938
350N	57	SE	Unspecified Ground Workings	1938
351BK	66	E	Unspecified Heap	1951
352R	72	NE	Colliery	1890
353CE	73	E	Refuse Heap	1973
354K	78	E	Refuse Heap	1904
355H	79	NE	Refuse Heap	1890
356N	82	SW	Pond	1890
357CF	84	W	Unspecified Pit	1966
358L	108	NE	Refuse Heap	1904
359CG	115	SW	Pond	1973
360CG	115	SW	Pond	1982
361CG	115	SW	Pond	1966
362O	119	E	Unspecified Heap	1948
363O	120	E	Unspecified Heap	1938
364O	120	E	Unspecified Heap	1938
365CG	120	SW	Pond	1993
366O	122	E	Unspecified Ground Workings	1951
367CH	129	S	Reservoir	1973
368CH	129	S	Reservoir	1993
369CH	129	S	Disused Reservoir	1966
370CH	129	S	Reservoir	1982
371CH	129	S	Disused Reservoir	1951
372CH	133	S	Reservoir	1938
373CH	134	S	Reservoir	1904
374CH	134	S	Reservoir	1890
375CH	134	S	Reservoir	1948



376AB	138	NW	Colliery	1890
377AA	138	NW	Refuse Heap	1890
378O	139	E	Refuse Heap	1948
379O	140	E	Refuse Heap	1938
380O	140	E	Refuse Heap	1938
381CI	149	W	Refuse Heap	1951
382S	155	NE	Refuse Heap	1948
383BL	162	NE	Reservoir	1904
384CJ	171	SE	Cuttings	1966
385CK	182	E	Unspecified Ground Workings	1966
386U	195	SW	Unspecified Heap	1973
387U	195	SW	Unspecified Heap	1966
388U	195	SW	Unspecified Heap	1982
389U	198	SW	Unspecified Disused Tip	1993
390CL	203	E	Cuttings	1938
391Y	245	NE	Colliery	1948
392V	254	NW	Refuse Heaps	1938
393V	254	NW	Refuse Heaps	1938
394W	254	SE	Colliery	1890
395V	256	NW	Refuse Heap	1904
396V	256	NW	Refuse Heap	1948
397V	258	NW	Refuse Heap	1890
398X	258	SE	Colliery	1904
399V	261	NW	Refuse Heaps	1951
400V	269	NW	Unspecified Pit	1966
401V	269	NW	Unspecified Pit	1993
402V	269	NW	Unspecified Pit	1973
403V	269	NW	Unspecified Pit	1982
404Y	270	NE	Unspecified Drift	1948
405Y	274	NE	Drift	1938
406Y	274	NE	Drift	1938
407Z	274	NW	Unspecified Heap	1938
408Z	274	NW	Unspecified Heap	1938
409AB	276	NW	Colliery	1904
410AD	276	NW	Refuse Heap	1904
411Z	278	N	Unspecified Heap	1948
412CM	283	NE	Refuse Heap	1951
413Z	284	N	Unspecified Heap	1951
414AE	287	N	Unspecified Heap	1982
415AE	287	N	Unspecified Heap	1993
416	289	SE	Pond	1890
417AF	298	E	Unspecified Ground Workings	1904
418CN	300	E	Unspecified Quarry	1951
419AF	303	E	Unspecified Quarry	1890

420CO	304	SW	Unspecified Ground Workings	1993
421AH	311	S	Unspecified Disused Tip	1993
422AH	312	S	Refuse Heap	1973
423AH	312	S	Refuse Heap	1982
424AH	312	S	Refuse Heap	1966
425X	317	SE	Refuse Heap	1938
426X	317	SE	Refuse Heap	1938
427AB	319	N	Unspecified Heap	1966
428AB	319	N	Unspecified Heap	1982
429AB	319	N	Unspecified Heap	1973
430AB	319	N	Unspecified Heap	1993
431AP	320	SE	Unspecified Ground Workings	1951
432CP	321	S	Disused Canal	1966
433X	321	SE	Refuse Heap	1948
434AM	323	S	Disused Canal	1993
435AM	323	S	Disused Canal	1973
436AM	323	S	Disused Canal	1982
437AQ	325	SE	Unspecified Ground Workings	1966
438AG	325	E	Unspecified Quarry	1948
439CQ	325	E	Unspecified Quarry	1938
440AF	326	E	Unspecified Ground Workings	1948
441CR	328	S	Canal	1948
442CR	328	S	Canal	1904
443	328	S	Canal	1938
444AH	329	SE	Pond	1890
445CR	330	S	Canal	1890
446AA	332	N	Refuse Heap	1904
447AN	333	SW	Unspecified Ground Workings	1993
448AN	333	SW	Gravel Pit	1951
449AH	333	S	Refuse Heap	1951
450X	334	SE	Unspecified Heap	1951
451X	335	SE	Unspecified Disused Tip	1974
452AO	335	S	Refuse Heaps	1938
453AO	335	S	Refuse Heaps	1938
454AH	336	S	Refuse Heap	1948
455AN	339	SW	Refuse Heap	1948
456AQ	344	SE	Refuse Heap	1904
457AQ	350	SE	Refuse Heap	1890
458AS	355	E	Unspecified Quarry	1948
459AR	356	SE	Refuse Heap	1966
460CS	357	SE	Unspecified Heap	1966
461AS	358	E	Unspecified Quarry	1951

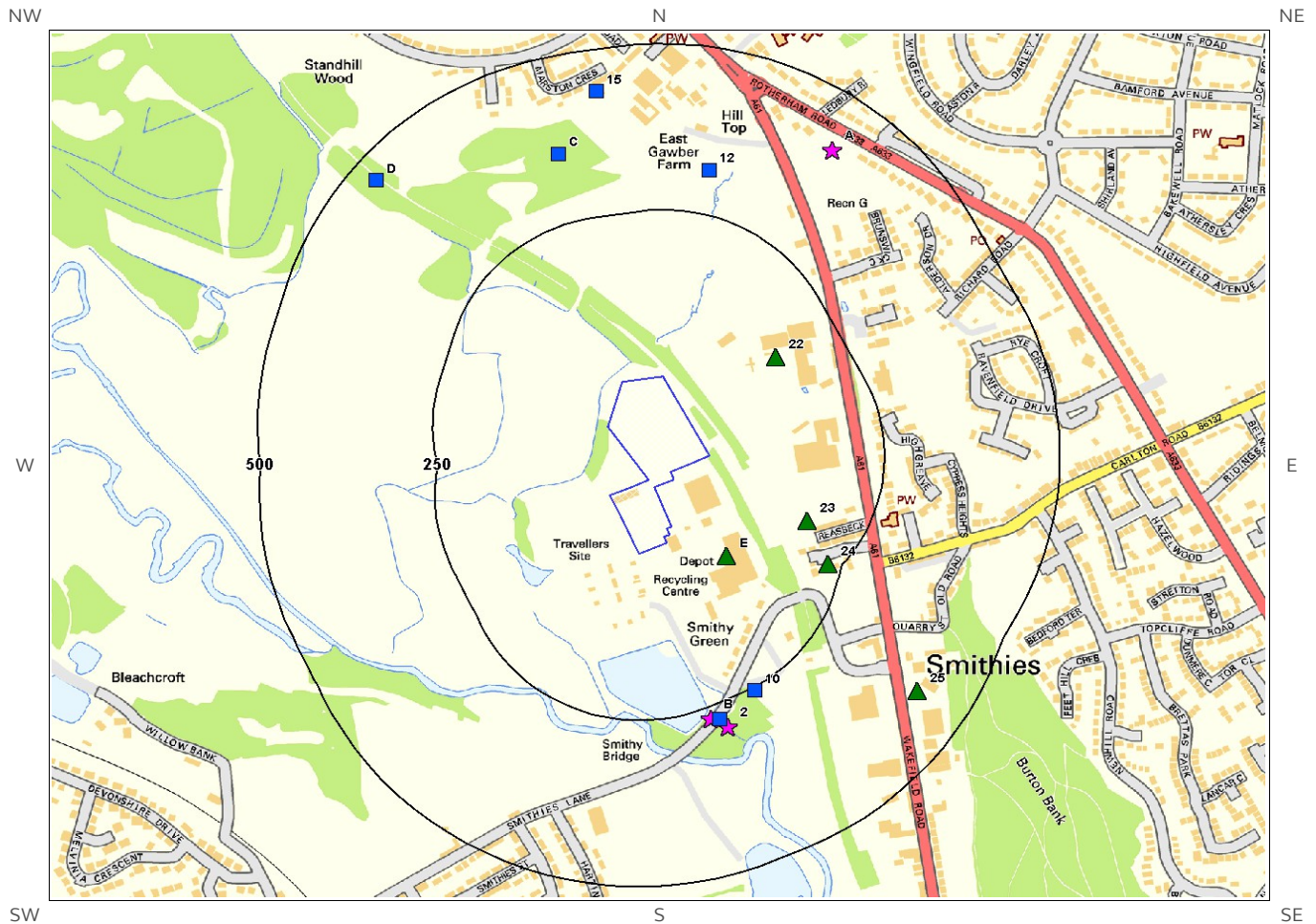


462CT	361	N	Pond	1904
463AT	362	N	Unspecified Ground Workings	1966
464AT	362	N	Unspecified Ground Workings	1973
465AT	362	N	Unspecified Ground Workings	1982
466CT	362	N	Pond	1890
467AI	365	SE	Refuse Heap	1904
468AU	371	N	Unspecified Ground Workings	1948
469AU	372	N	Unspecified Ground Workings	1938
470AU	372	N	Unspecified Ground Workings	1938
471AT	376	N	Unspecified Ground Workings	1951
472	379	SW	Pond	1993
473AI	382	SE	Refuse Heap	1966
474CU	391	N	Refuse Heap	1904
475AW	398	SE	Unspecified Ground Workings	1992
476AW	398	SE	Unspecified Ground Workings	1982
477AW	398	SE	Unspecified Ground Workings	1974
478AW	398	SE	Unspecified Ground Workings	1966
479AW	399	SE	Unspecified Quarry	1951
480AW	399	SE	Unspecified Ground Workings	1948
481AW	399	SE	Unspecified Quarry	1890
482AW	399	SE	Unspecified Ground Workings	1904
483AW	402	SE	Unspecified Quarry	1938
484BD	405	SW	Refuse Heap	1890
485AY	406	SW	Refuse Heaps	1938
486AY	406	SW	Refuse Heaps	1938
487CV	419	S	Ponds	1890
488AZ	420	E	Refuse Heap	1938
489AZ	420	E	Refuse Heap	1938
490AZ	420	E	Refuse Heap	1948
491AZ	421	E	Gravel Pit	1951
492BB	423	S	Refuse Heap	1966
493BA	429	N	Sewage Works	1938
494BA	429	N	Sewage Works	1938
495BB	431	S	Refuse Heap	1951
496BB	437	S	Refuse Heap	1904
497BB	437	S	Refuse Heap	1948
498BB	439	S	Refuse Heap	1938

499BB	439	S	Refuse Heap	1938
500BD	447	SW	Unspecified Heap	1982
501BD	447	SW	Unspecified Heap	1993
502BD	447	SW	Refuse Heap	1951
503BD	447	SW	Unspecified Heap	1973
504BD	447	SW	Unspecified Heap	1966
505AY	447	SW	Refuse Heaps	1948
506CV	450	SE	Ponds	1948
507CV	450	S	Water Body	1904
508CV	453	S	Ponds	1973
509CV	453	S	Ponds	1982
510CV	453	S	Ponds	1966
511CV	464	S	Ponds	1993
512BG	487	SE	Refuse Heap	1904
513BG	487	SE	Unspecified Heap	1948
514BF	489	SE	Unspecified Old Shaft	1904
515BG	489	SE	Unspecified Heap	1951
516BG	489	SE	Unspecified Heap	1938
517BG	489	SE	Unspecified Heap	1938
518CW	492	W	Unspecified Disused Tip	1993
519BH	494	SW	Unspecified Disused Shafts	1993
520BH	494	SW	Unspecified Disused Shafts	1982
521BH	495	SW	Unspecified Disused Shaft	1966
522BH	498	SW	Unspecified Disused Shafts	1973
523CX	500	W	Refuse Heap	1982



## 2. Environmental Permits, Incidents and Registers Map



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- |                               |   |  |
|-------------------------------|---|--|
| Site Outline                  | Recorded Pollution Incident                   | RAS 3 & 4 Authorisations                                       |
| Dangerous Substances (List 1) | Dangerous Substances (List 2)                 | Part A(1) Authorised Processes and Historic IPC Authorisations |
| Water Industry Referrals      | Licenced Discharge Consents                   | Part A(2) and Part B Authorised Processes                      |
| Red List Discharge Consents   | Sites Determined as Contaminated Land         | COMAH / NIHHS Sites  |
|                               | Hazardous Substance Consents and Enforcements |  |

## 2. Environmental Permits, Incidents and Registers

### 2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

#### 2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

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#### 2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

---

#### 2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

#### 2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

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#### 2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

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## 2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

6

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
20E	88	E	434799 408233	Address: BMBC, Smithies Lane Depot, Smithies Lane, Barnsley, S71 1NL Process: Crushing And Screening Designated Material Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
21E	88	E	434799 408233	Address: Engineering Services DLO, Smithies Lane Department, Barnsley, S71 1NL Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
22	153	NE	434870 408533	Address: Hope Construction Materials Ltd, (Previously Tarmac Northern Ltd), Wakefield Road, Barnsley, S71 1NU Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
23	171	SE	434915 408285	Address: Tilcon Ltd, Wakefield Rd, Barnsley, S71 1NU Process: cement/lime/mortar process Status: Historical Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
24	229	E	434944 408219	Address: Dc Cook Limited, Wakefield Road, Barnsley, S71 1NJ Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
25	421	SE	435070 408030	Address: Wakefield Road Service Station, Wakefield Road, Barnsley, S71 1NJ Process: Petrol Vapour Recovery Status: Historical Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified

## 2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

## 2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

10

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
10	255	SE	434840 408032	<p>Address: UNDEFINED SITE, SEE OUTLET NGR OR COMMENTS, FOR MORE INFO ABOUT THE SITE, (DO NOT CHANGE THESE DETAILS), NK</p> <p>Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY</p> <p>Permit Number: S/CB/8</p> <p>Permit Version: 1</p> <p>Receiving Water: VARIES WITH OUTLET</p> <p>Status: TRANSFERRED FROM R(PP)A 1951-1961</p> <p>Issue date: 29/05/1963</p> <p>Effective Date: 29-May-1963</p> <p>Revocation Date: 31/03/2005</p>
11B	273	SE	434790 407990	<p>Address: SMITHIES LANE CSO, SMITHIES LANE, BARNSELY, SOUTH YORKSHIRE</p> <p>Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY</p> <p>Permit Number: WRA7958</p> <p>Permit Version: 1</p> <p>Receiving Water: TRIBUTARY OF THE RIVER DEARNE</p> <p>Status: NEW CONSENT (WRA 91, S88 &amp; SCHED 10 AS AMENDED BY ENV ACT 1995)</p> <p>Issue date: 28/03/2003</p> <p>Effective Date: 28-Mar-2003</p> <p>Revocation Date: -</p>
12	316	N	434775 408815	<p>Address: UNDEFINED SITE, SEE OUTLET NGR OR COMMENTS, FOR MORE INFO ABOUT THE SITE, (DO NOT CHANGE THESE DETAILS), NK</p> <p>Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY</p> <p>Permit Number: S/CB/8</p> <p>Permit Version: 1</p> <p>Receiving Water: VARIES WITH OUTLET</p> <p>Status: TRANSFERRED FROM R(PP)A 1951-1961</p> <p>Issue date: 29/05/1963</p> <p>Effective Date: 29-May-1963</p> <p>Revocation Date: 31/03/2005</p>
13C	355	N	434560 408840	<p>Address: HILL TOP FARM CSO, WAKEFIELD ROAD, EAST GAWBER FARM, BARNSELY, SOUTH YORKSHIRE</p> <p>Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY</p> <p>Permit Number: WRA8691</p> <p>Permit Version: 1</p> <p>Receiving Water: DITCH TO THE RIVER DEARNE</p> <p>Status: NEW CONSENT (WRA 91, S88 &amp; SCHED 10 AS AMENDED BY ENV ACT 1995)</p> <p>Issue date: 11/03/2005</p> <p>Effective Date: 01-Apr-2005</p> <p>Revocation Date: 03/06/2007</p>
14C	355	N	434560 408840	<p>Address: HILL TOP FARM CSO, WAKEFIELD ROAD, EAST GAWBER FARM, BARNSELY, SOUTH YORKSHIRE</p> <p>Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY</p> <p>Permit Number: WRA8691</p> <p>Permit Version: 2</p> <p>Receiving Water: DITCH TO THE RIVER DEARNE</p> <p>Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)</p> <p>Issue date: 04/06/2007</p> <p>Effective Date: 04-Jun-2007</p> <p>Revocation Date: -</p>
15	438	N	434614 408934	<p>Address: UNDEFINED SITE, SEE OUTLET NGR OR COMMENTS, FOR MORE INFO ABOUT THE SITE, (DO NOT CHANGE THESE DETAILS), NK</p> <p>Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY</p> <p>Permit Number: S/CB/8</p> <p>Permit Version: 1</p> <p>Receiving Water: VARIES WITH OUTLET</p> <p>Status: TRANSFERRED FROM R(PP)A 1951-1961</p> <p>Issue date: 29/05/1963</p> <p>Effective Date: 29-May-1963</p> <p>Revocation Date: 31/03/2005</p>



ID	Distance (m)	Direction	NGR	Details
16D	464	NW	434300 408800	<p>Address: TANKERSLEY SEWAGE TREATMENT WORKS, LIGETT LANE, NEAR WORSBOROUGH, BARNSELY, SOUTH YORKSHIRE, S75 3BS</p> <p>Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY</p> <p>Permit Number: E698(SS)</p> <p>Permit Version: 2</p> <p>Receiving Water: BIRDWELL DYKE</p> <p>Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)</p> <p>Issue date: 24/03/2004</p> <p>Effective Date: 24-Mar-2004</p> <p>Revocation Date: 31/03/2009</p>
17D	464	NW	434300 408800	<p>Address: TANKERSLEY SEWAGE TREATMENT WORKS, LIGETT LANE, NEAR WORSBOROUGH, BARNSELY, SOUTH YORKSHIRE, S75 3BS</p> <p>Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY</p> <p>Permit Number: E698(SS)</p> <p>Permit Version: 2</p> <p>Receiving Water: BIRDWELL DYKE</p> <p>Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)</p> <p>Issue date: 24/03/2004</p> <p>Effective Date: 24-Mar-2004</p> <p>Revocation Date: 31/03/2009</p>
18D	464	NW	434300 408800	<p>Address: TANKERSLEY SEWAGE TREATMENT WORKS, LIGETT LANE, NEAR WORSBOROUGH, BARNSELY, SOUTH YORKSHIRE, S75 3BS</p> <p>Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY</p> <p>Permit Number: E698(SS)</p> <p>Permit Version: 1</p> <p>Receiving Water: BIRDWELL DYKE</p> <p>Status: TRANSFERRED FROM R(PP)A 1951-1961</p> <p>Issue date: 16/11/1981</p> <p>Effective Date: 16-Nov-1981</p> <p>Revocation Date: 23/03/2004</p>
19D	464	NW	434300 408800	<p>Address: TANKERSLEY SEWAGE TREATMENT WORKS, LIGETT LANE, NEAR WORSBOROUGH, BARNSELY, SOUTH YORKSHIRE, S75 3BS</p> <p>Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY</p> <p>Permit Number: E698(SS)</p> <p>Permit Version: 1</p> <p>Receiving Water: BIRDWELL DYKE</p> <p>Status: TRANSFERRED FROM R(PP)A 1951-1961</p> <p>Issue date: 16/11/1981</p> <p>Effective Date: 16-Nov-1981</p> <p>Revocation Date: 23/03/2004</p>

### 2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

### 2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

## 2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

## 2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

9

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
1B	268	S	434777 407990	Incident Date: 04-Sep-2003 Incident Identification: 187370 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2	288	SE	434801 407978	Incident Date: 14-Jan-2002 Incident Identification: 52306 Pollutant: Sewage Materials Pollutant Description: Crude Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3A	416	NE	434950 408846	Incident Date: 26-Nov-2002 Incident Identification: 123048 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Natural Organic Material Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
4A	416	NE	434950 408846	Incident Date: 26-Nov-2002 Incident Identification: 123048 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
5A	416	NE	434950 408846	Incident Date: 26-Nov-2002 Incident Identification: 123048 Pollutant: General Biodegradable Materials and Wastes:Specific Waste Materials:Specific Waste Materials:Specific Waste Materials Pollutant Description: Natural Organic Material:Commercial Waste:Household Waste:Tyres Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
6A	416	NE	434950 408846	Incident Date: 26-Nov-2002 Incident Identification: 123048 Pollutant: Specific Waste Materials Specific Waste Materials Specific Waste Materials Pollutant Description: Natural Organic Material Commercial Waste Household Waste Tyres Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)



ID	Distance (m)	Direction	NGR	Details
7A	416	NE	434950 408846	Incident Date: 26-Nov-2002 Incident Identification: 123048 Pollutant: General Biodegradable Materials and Wastes : Specific Waste Materials Pollutant Description: Natural Organic Material :Commercial Waste :Household Waste :Tyres Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
8A	416	NE	434950 408846	Incident Date: 26-Nov-2002 Incident Identification: 123048 Pollutant: Specific Waste Materials Pollutant Description: Tyres Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
9A	416	NE	434950 408846	Incident Date: 26-Nov-2002 Incident Identification: 123048 Pollutant: Specific Waste Materials Pollutant Description: Household Waste Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)

### 2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

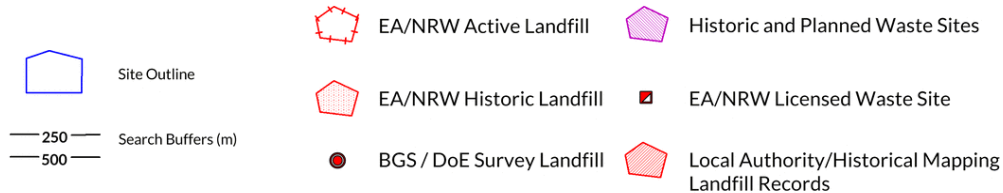
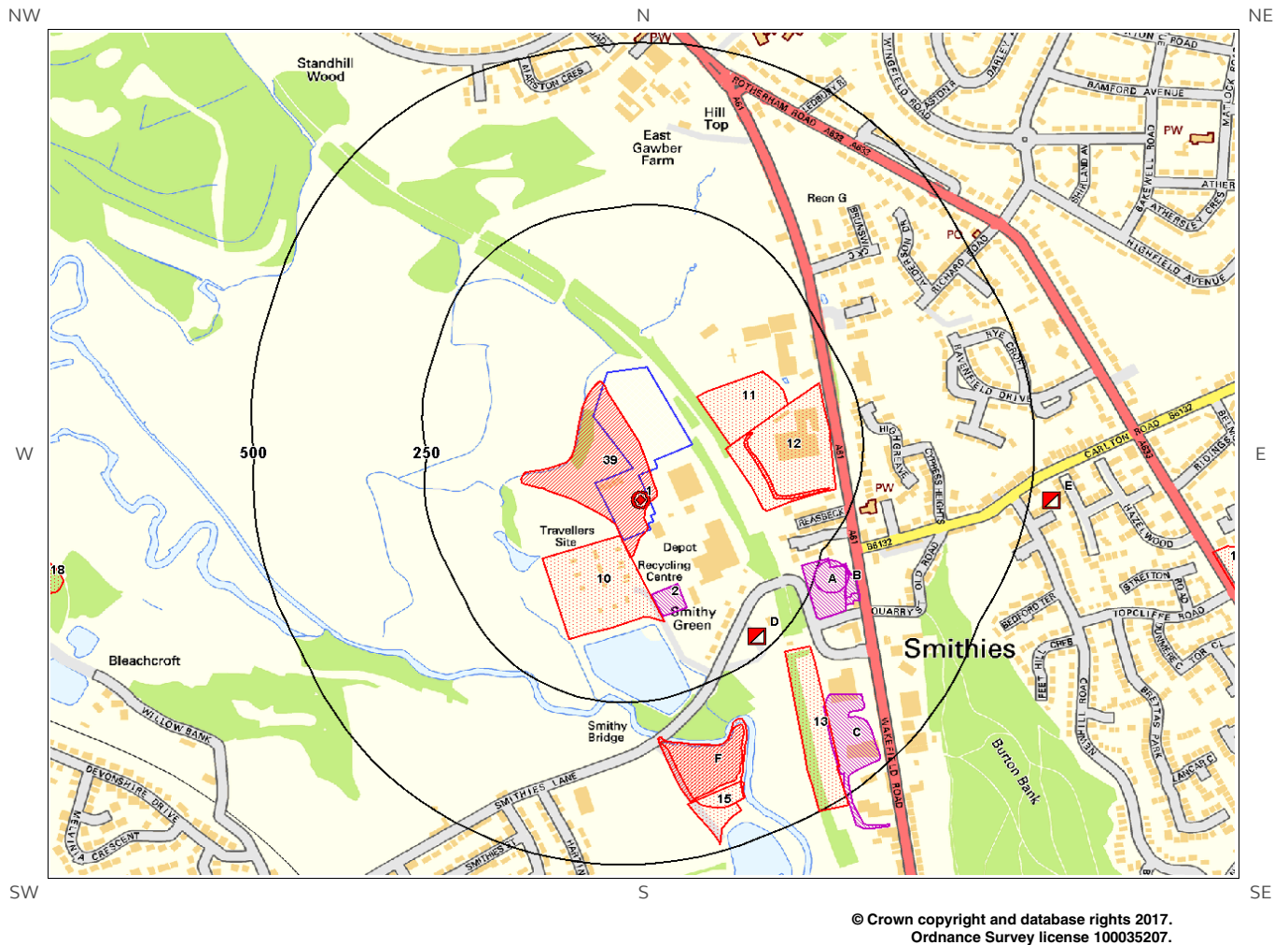
## 2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

0

Database searched and no data found.

# 3. Landfill and Other Waste Sites Map





# 3. Landfill and Other Waste Sites

## 3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

20

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
10	2	SW	434600 408100	Site Address: Smithies Tip, Smithies Tip, Off Smithies Lane, Barnsley Waste Licence: - Site Reference: 4400/(141) Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
11	41	NE	434800 408400	Site Address: Land adjacent to Wakefield Road, Barnsley Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Prospect Estates Limited Licence Holder: - First Recorded: 01-Jun-1997 Last Recorded: 30-Nov-1997
12	49	E	434900 408300	Site Address: Dalestone Works, Wakefield Road, Barnsley Waste Licence: - Site Reference: 4400/(142) Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
13	272	SE	434900 407900	Site Address: Wakefield Road, Barnsley Waste Licence: Yes Site Reference: 20B320(79), WD20 B320, 4400/B320 Waste Type: Industrial, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 28-Jul-1981 Licence Surrendered: 09-May-1988 Licence Holder Address: c/c C E Smith and Son, 14 Regent Street, Barnsley Operator: Booth Excavations Limited Licence Holder: Booth Excavations Limited First Recorded: 28-Jul-1981 Last Recorded: 09-May-1988

ID	Distance (m)	Direction	NGR	Details	
14F	314	S	434800 407800	Site Address: Smithy Green Tip, Smithies Lane, Barnsley, Yorkshire Waste Licence: - Site Reference: - Waste Type: Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Barnsley County Borough Council Licence Holder: - First Recorded: 31-Dec-1948 Last Recorded: -
15	409	SE	434800 407500	Site Address: Star Paper Limited, Old Mill Lane, Barnsley Waste Licence: Yes Site Reference: WD20 B4(i), 4400/B4 Waste Type: Inert, Liquid sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 11-Jan-1978 Licence Surrendered: 25-Feb-1982 Licence Holder Address: - Operator: Star Paper Limited Licence Holder: Star Paper Mills First Recorded: 31-Jan-1978 Last Recorded: 25-Feb-1982
Not shown	648	S	434900 407500	Site Address: The Fleets Dam, Off Smithies Lane, Barnsley Waste Licence: Yes Site Reference: WD20 B774, 4400/B774, 20B774 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 05-Sep-1990 Licence Surrendered: Licence Holder Address: Stainborough Fisheries, The Wickets, Low Lane, Stainborough, Barnsley Operator: - Licence Holder: Mr A Hanson First Recorded: 30-Sep-1990 Last Recorded: 31-Dec-1994
17	778	E	435600 408100	Site Address: Rotherham Road, Monk Bretton, Barnsley Waste Licence: Yes Site Reference: 20B456(94), WD20 B456, 4400/B456 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 13-Mar-1985 Licence Surrendered: 04-Jun-1986 Licence Holder Address: Department of Architecture and Planning, Regent House, Barnsley Operator: Barnsley Metropolitan Borough Council Licence Holder: Barnsley Metropolitan Borough Council First Recorded: 13-Mar-1985 Last Recorded: 04-Jun-1986
18	792	W	433700 408100	Site Address: Croft Farm, Willow Bank, Barnsley Waste Licence: Yes Site Reference: WD20 B742 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 10-Jul-1990 Licence Surrendered: 31-Dec-1993 Licence Holder Address: Croft Farm, Willow Bank, Barnsley Operator: Mr K Hadfield Licence Holder: Mr K Hadfield First Recorded: 30-Sep-1990 Last Recorded: 31-Dec-1993
Not shown	831	S	434800 407300	Site Address: Star Paper Mill, Barnsley Waste Licence: - Site Reference: 4400/B59, WD20/B4(ii) Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Star Paper Mill Licence Holder: Star Paper Mills First Recorded: 31-Jan-1978 Last Recorded: 31-Dec-1990
Not shown	864	S	434800 407500	Site Address: Star Paper Limited, Old Mill Lane, Barnsley Waste Licence: Yes Site Reference: WD20 B4(i), 4400/B4 Waste Type: Inert, Liquid sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 11-Jan-1978 Licence Surrendered: 25-Feb-1982 Licence Holder Address: - Operator: Star Paper Limited Licence Holder: Star Paper Mills First Recorded: 31-Jan-1978 Last Recorded: 25-Feb-1982



ID	Distance (m)	Direction	NGR	Details	
Not shown	1017	S	434800 407100	Site Address: Disused Canal, Old Mill Lane, Barnsley Waste Licence: - Site Reference: 4400/(22) Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Barnsley Metropolitan Borough Council Licence Holder: Barnsley Metropolitan Borough Council First Recorded: - Last Recorded: -
Not shown	1061	SE	435100 407200	Site Address: Emgas Depot, Old Mill Lane, Barnsley Waste Licence: Yes Site Reference: WD20 B187, 4400/B187, 20B187(71) Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 11-Jan-1978 Licence Surrendered: 11-May-1984 Licence Holder Address: PO Box 145, De Montfort Street, Leicester Operator: East Midlands Gas Licence Holder: East Midlands Gas First Recorded: 31-Jan-1978 Last Recorded: 11-May-1984
Not shown	1116	S	434400 407000	Site Address: Land off Old Mill Lane, Town Centre, Barnsley Waste Licence: Yes Site Reference: WD20 B446 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 14-Nov-1984 Licence Surrendered: 30-Mar-1994 Licence Holder Address: c/o Twibell Plant Limited, Twibell Street, Barnsley Operator: Mr M White Licence Holder: White and Peace First Recorded: 30-Nov-1984 Last Recorded: 31-Dec-1989
Not shown	1193	SE	435900 407800	Site Address: Land to the rear of Nos. 16 to 26 Byron Drive, Byron Drive, Monk Bretton, Barnsley Waste Licence: Yes Site Reference: 3(b), 20B395(37), 4400/B359, WD20 B359 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 15-Sep-1982 Licence Surrendered: 05-Apr-1992 Licence Holder Address: Westgate, Monk Bretton, Barnsley Operator: D Thackery Licence Holder: Mr D Thackery First Recorded: 30-Sep-1982 Last Recorded: 31-Dec-1987
Not shown	1306	E	436100 408200	Site Address: Monk Bretton Recreation Ground, Lamb Lane, Monk Bretton, Barnsley Waste Licence: Yes Site Reference: 20B328(12), 4400/B328, WD20 B328 Waste Type: Inert, Industrial, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 28-Jul-1981 Licence Surrendered: 20-Apr-1983 Licence Holder Address: Department of Amenities and Recreation, 12/18 Eldon Street, Barnsley Operator: Barnsley Metropolitan Borough Council Licence Holder: Barnsley Metropolitan Borough Council First Recorded: 31-Aug-1981 Last Recorded: 20-Apr-1983
Not shown	1334	E	436100 408200	Site Address: Monk Bretton Recreation Ground, Lamb Lane, Monk Bretton, Barnsley Waste Licence: Yes Site Reference: 20B328(12), 4400/B328, WD20 B328 Waste Type: Inert, Industrial, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 28-Jul-1981 Licence Surrendered: 20-Apr-1983 Licence Holder Address: Department of Amenities and Recreation, 12/18 Eldon Street, Barnsley Operator: Barnsley Metropolitan Borough Council Licence Holder: Barnsley Metropolitan Borough Council First Recorded: 31-Aug-1981 Last Recorded: 20-Apr-1983
Not shown	1344	SE	435200 407000	Site Address: Canal to the rear of Twibell Street, Barnsley Waste Licence: Yes Site Reference: WD20 B369, 4400/B369, 20B369(83) Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 16-Sep-1982 Licence Surrendered: 06-Jun-1988 Licence Holder Address: 8A, Eastgate, Barnsley Operator: Barnsley Trades Council Licence Holder: Barnsley Trades Council First Recorded: 30-Sep-1982 Last Recorded: 06-Jun-1988

ID	Distance (m)	Direction	NGR	Details	
Not shown	1419	NW	434000 409900	Site Address: On waste land to the rear of Subseal Works, Subseal Works, Wakefield Road, Staincross Waste Licence: Yes Site Reference: WD20 B364, 4400/B364, 20B364(82) Waste Type: Inert, Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 14-Apr-1983 Licence Surrendered: Licence Holder Address: - Operator: William Freeman and Company Limited Licence Holder: W Freeman and Company First Recorded: 31-Dec-1962 Last Recorded: 31-Dec-1994
Not shown	1435	NW	433500 409400	Site Address: Blacker Hill Quarry, Wentworth Road, Mapplewell, Barnsley Waste Licence: Yes Site Reference: WD20 B278 Waste Type: Inert, Industrial, Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 01-Apr-1980 Licence Surrendered: 06-Jul-1984 Licence Holder Address: 114 Wentworth Road, Mapplewell, Barnsley Operator: Mr R Smith Licence Holder: Blacker Hill Quarry Limited First Recorded: 01-Apr-1980 Last Recorded: 31-Dec-1984

### 3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

1

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
1	0	On Site	434700.0 408300.0	Address: Smithy Green Tip, Smithies Lane, Barnsley, Yorks BGS Number: 1890.0	Risk: No risk to aquifer Waste Type: N/A

### 3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

4

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
39	0	On Site	434625 408347	Refuse Tip	1970 mapping	Polygon
40	76	E	434875 408352	Refuse Tip	1970 mapping	Polygon
41F	307	S	434789 407894	Refuse Tip	1970 mapping	Polygon
Not shown	1104	SE	435419 407268	Refuse Tip	1972 mapping	Polygon



## 3.2 Other Waste Sites

### 3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

8

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details		
2	92	SE	434741 408145	Type of Site: Public Waste Disposal Site Site Address: N/A	Planning Application Reference: N/A Date: 1991	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
3A	227	E	434967 408163	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1991	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
4A	227	E	434967 408163	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1981	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
5A	248	E	434978 408181	Type of Site: Recycling Centre Site Address: Carlton Road, BARNSELEY, South Yorkshire, S71 1UA	Planning Application Reference: B/04/0749/BA Date: -	Further Details: Scheme comprises construction of building for recycling of glass, plastic and metal cans. operating 24 hours a day, 7 days a week. An application (ref: B/04/0749/BA) for Detailed Planning permission was submitted to Barnsley B.C. on 12th April 2004. Data Source: Historic Planning Application Data Type: Point
6B	290	E	435009 408173	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1983	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
7B	290	E	435010 408166	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1993	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
8C	365	SE	435016 407896	Type of Site: Ground Workings and Refuse Heap Site Address: N/A	Planning Application Reference: N/A Date: 1960	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
9C	365	SE	435016 407896	Type of Site: Ground Workings and Refuse Heap Site Address: N/A	Planning Application Reference: N/A Date: 1960	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

### 3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

9

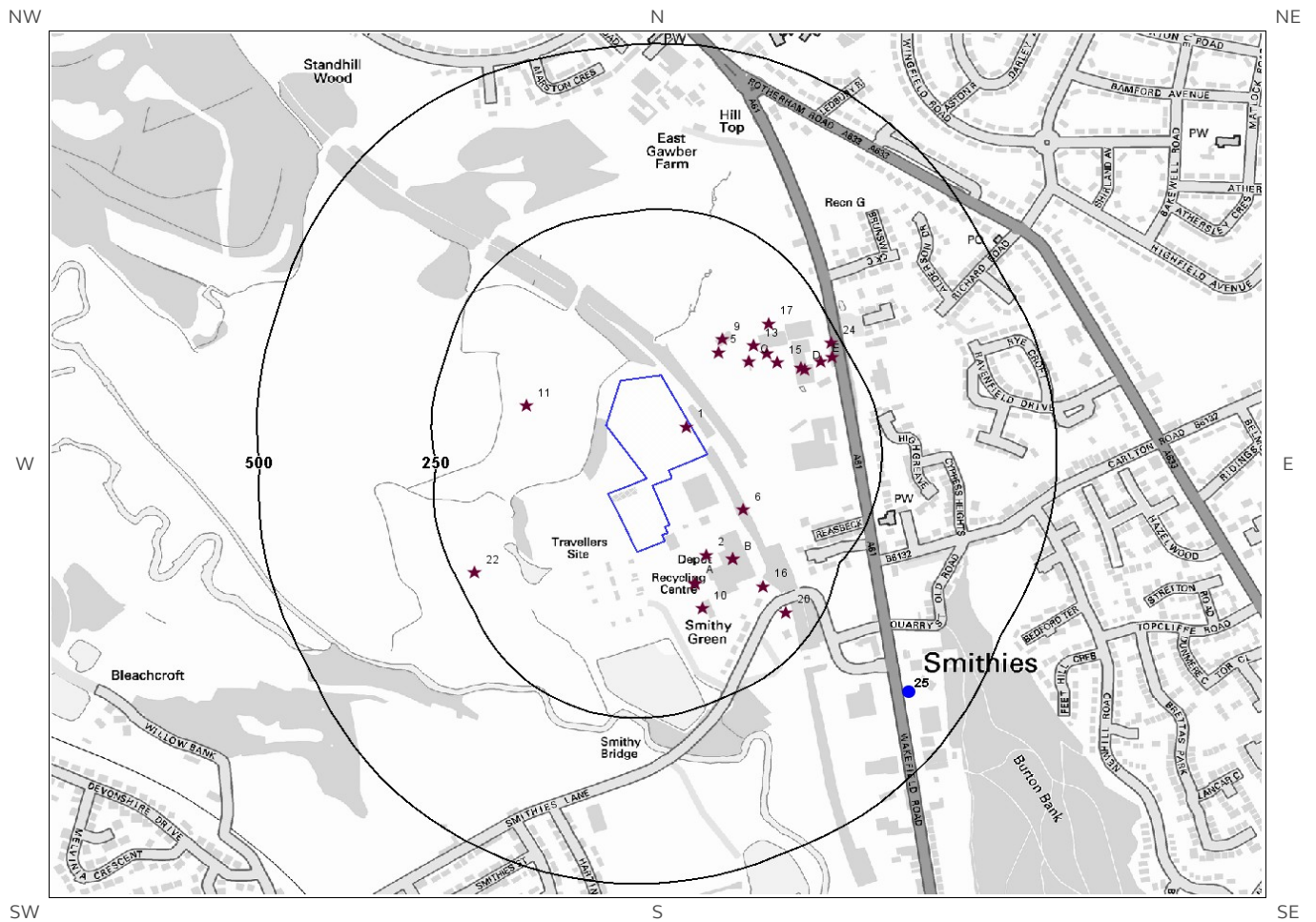
The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
30D	226	SE	434870 408090	<p>Site Address: Smithies Lane Civic Amenity Site, Smithies Lane, Smithies, Barnsley, South Yorkshire, S71 1NL Type: Household Waste Amenity Site Size: &lt; 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS067 EPR reference: EA/EPR/DP3992LS/T001 Operator: Waste Recycling Ltd Waste Management licence No: 60609 Annual Tonnage: 24999.0</p> <p>Issue Date: 14/06/1993 Effective Date: 26/01/2009 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Smithies Lane H W R C Site Correspondence Address: -</p>
31D	226	SE	434870 408090	<p>Site Address: Smithies Lane, Smithies, Barnsley, S Yorks Type: Household, Commercial &amp; Industrial Waste T Stn Size: &lt; 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: REG006 EPR reference: - Operator: Regional Waste Recycling Plc Waste Management licence No: 60609 Annual Tonnage: 5000.0</p> <p>Issue Date: 14/06/1993 Effective Date: 08/12/2006 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Smithies Lane Civic Amenity Site Correspondence Address: 2 Cecil Court, 49-55, London Road, Enfield, Middlesex, EN2 6DE</p>
32D	226	SE	434870 408090	<p>Site Address: Smithies Lane H W R C, Smithies Lane, Smithies, Barnsley, South Yorkshire, S71 1NL Type: Household Waste Amenity Site Size: &lt; 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS067 EPR reference: EA/EPR/DP3992LS/V002 Operator: F C C Recycling ( U K ) Limited Waste Management licence No: 60609 Annual Tonnage: 24999.0</p> <p>Issue Date: 14/06/1993 Effective Date: 26/01/2009 Modified: 23/11/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Smithies Lane Household Waste Recycling Centre Correspondence Address: -</p>
33D	226	SE	434870 408090	<p>Site Address: Smithies Lane Civic Amenity Site, Smithies Lane, Smithies, Barnsley, South Yorkshire, S71 1NL Type: Household, Commercial &amp; Industrial Waste T Stn Size: &lt; 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS067 EPR reference: EA/EPR/DP3992LS/T001 Operator: Waste Recycling Ltd Waste Management licence No: 60609 Annual Tonnage: 24999.0</p> <p>Issue Date: 14/06/1993 Effective Date: 26/01/2009 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Smithies Lane H W R C Site Correspondence Address: Ground Floor West, 900, Pavilion Drive, Northampton Business Park, Northampton, NN4 7RG</p>



ID	Distance (m)	Direction	NGR	Details	
34D	226	SE	434870 408090	Site Address: Smithies Lane, Smithies, Barnsley, S Yorks Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BDR013 EPR reference: - Operator: South Herts Waste Management Ltd Waste Management licence No: 60609 Annual Tonnage: 0.0	Issue Date: 14/06/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Smithies Lane Civic Amenity Site Correspondence Address: 48, Cardigan Road, Stanion, Northants, NN14 1BY
35E	531	E	435300 408300	Site Address: Rotherham Road, Carlton, Barnsley, South Yorkshire, S27 2AG Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: YOR007 EPR reference: - Operator: Yorkshire Water Services Waste Management licence No: 60547 Annual Tonnage: 0.0	Issue Date: 31/01/1994 Effective Date: - Modified: - Surrendered Date: 01/11/2000 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Carlton Road Depot Correspondence Address: Western House, Western Way, Halifax Road, Bradford, West Yorkshire, BD6 2LZ
36E	531	E	435300 408300	Site Address: Rotherham Road, Carlton, Barnsley, South Yorkshire, S27 2AG Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: YOR007 EPR reference: EA/EPR/AP3090ZE/S002 Operator: Yorkshire Water Services Ltd Waste Management licence No: 60547 Annual Tonnage: 39521.0	Issue Date: 31/01/1994 Effective Date: - Modified: - Surrendered Date: 01/11/2000 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Carlton Road Depot Correspondence Address: -
Not shown	865	SE	435123 407492	Site Address: Unit 7, Peel Place, Barnsley, South Yorkshire, S71 1LU Type: Treatment of waste to produce soil <75,000 tpy Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DUN001 EPR reference: EA/EPR/EB3509CF/A001 Operator: G M M Multi Utilities Limited Waste Management licence No: 403601 Annual Tonnage: 75.0	Issue Date: 24/10/2016 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Unit 7 Correspondence Address: -
Not shown	1071	SE	435200 407300	Site Address: Old Mill Lane, Barnsley, South Yorkshire Type: Household & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TRA002 EPR reference: EA/EPR/WP3790ZL/S002 Operator: British Gas Transco Plc Waste Management licence No: 60545 Annual Tonnage: 316.0	Issue Date: 15/07/1993 Effective Date: - Modified: - Surrendered Date: 06/09/2000 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Barnsley Depot Correspondence Address: -

## 4. Current Land Use Map



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- |   |                    |   |                          |  |                                 |
|---|--------------------|---|--------------------------|--|---------------------------------|
|  | Site Outline       |  | Current Industrial Sites |  | Electricity Transmission Cables |
|  | Search Buffers (m) |  | Petrol & Fuel Sites      |  | Gas Transmission Pipelines      |



## 4. Current Land Uses

### 4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

24

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	0	On Site	Pylon	434746 408428	S71	Electrical Features	Infrastructure and Facilities
2	62	E	Depot	434774 408235	S71	Container and Storage	Transport, Storage and Delivery
3A	74	SE	Tank	434757 408193	S71	Tanks (Generic)	Industrial Features
4A	77	SE	Tank	434758 408191	S71	Tanks (Generic)	Industrial Features
5	88	NE	Blok N Mesh South West Ltd	434791 408540	Unit 2 The Recovery Centre, Wakefield Road, Barnsley, S71 1NU	Fences, Gates and Railings	Industrial Products
6	96	SE	Pylon	434826 408303	S71	Electrical Features	Infrastructure and Facilities
7B	100	E	B M B C Waste Management Services	434811 408228	Smithies Lane, Barnsley, S71 1NL	Waste Storage, Processing and Disposal	Infrastructure and Facilities
8B	100	E	Barnsley Metropolitan Borough Council Fleet Services	434811 408228	Smithies Lane, Barnsley, S71 1NL	Vehicle Repair, Testing and Servicing	Repair and Servicing
9	102	NE	Depot	434797 408560	S71	Container and Storage	Transport, Storage and Delivery
10	114	SE	S C C Environment	434768 408154	Smithies Lane, Barnsley, S71 1NL	Recycling, Reclamation and Disposal	Recycling Services
11	118	W	Pylon	434517 408460	S71	Electrical Features	Infrastructure and Facilities
12C	119	NE	UK Platforms Ltd	434834 408526	Unit 3 The Recovery Centre, Wakefield Road, Barnsley, S71 1NU	Construction and Tool Hire	Hire Services
13	137	NE	Tank	434841 408551	S71	Tanks (Generic)	Industrial Features
14C	148	NE	Hopper	434860 408539	S71	Hoppers and Silos	Farming
15	155	NE	Works	434876 408525	S71	Unspecified Works Or Factories	Industrial Features
16	155	SE	Electricity Sub Station	434855 408187	S71	Electrical Features	Infrastructure and Facilities
17	172	NE	Depot	434863 408584	S71	Container and Storage	Transport, Storage and Delivery

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
18D	180	NE	Arrow Self Drive	434908 408517	Wakefield Road, Barnsley, S71 1NU	Vehicle Hire and Rental	Hire Services
19D	183	NE	Depot	434914 408515	S71	Container and Storage	Transport, Storage and Delivery
20	203	SE	Pylon	434888 408148	S71	Electrical Features	Infrastructure and Facilities
21E	210	NE	Depot	434938 408527	S71	Container and Storage	Transport, Storage and Delivery
22	224	SW	Refuse Tip (Disused)	434442 408208	S71	Refuse Disposal Facilities	Infrastructure and Facilities
23E	227	NE	Just Fascias Ltd	434953 408534	Unit 4 Davies Yard, Wakefield Road, Barnsley, S71 1NU	Construction Completion Services	Construction Services
24	237	NE	Electricity Sub Station	434953 408555	S71	Electrical Features	Infrastructure and Facilities

## 4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

1

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
25	416	SE	435062 408027	Obsolete	Wakefield Road Service Station, Wakefield Road, Wakefield Road, Smithies, Barnsley, South Yorkshire, S71 3LR	Not Applicable	Obsolete

## 4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

0

Database searched and no data found.



#### 4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

---

# 5. Geology

## 5.1 Artificial Ground and Made Ground

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

## 5.2 Superficial Ground and Drift Geology

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

## 5.3 Bedrock and Solid Geology

The database has been searched on site, including a 50m buffer.

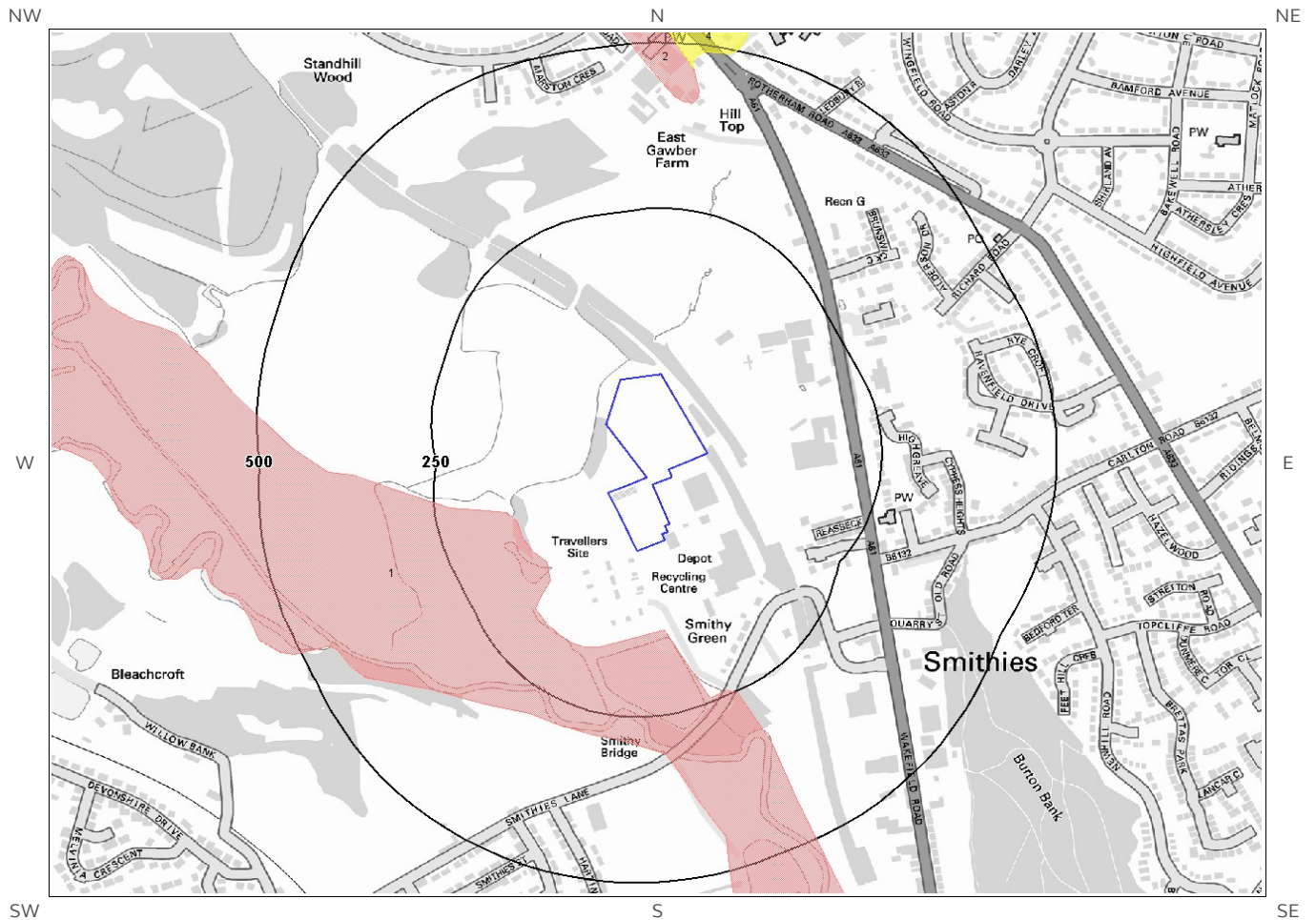
Lex Code	Description	Rock Type
KNR-SDST	KENT'S ROCK	SANDSTONE
PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION	SANDSTONE

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

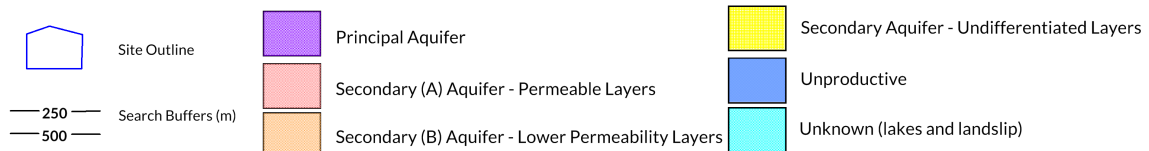


# 6 Hydrogeology and Hydrology

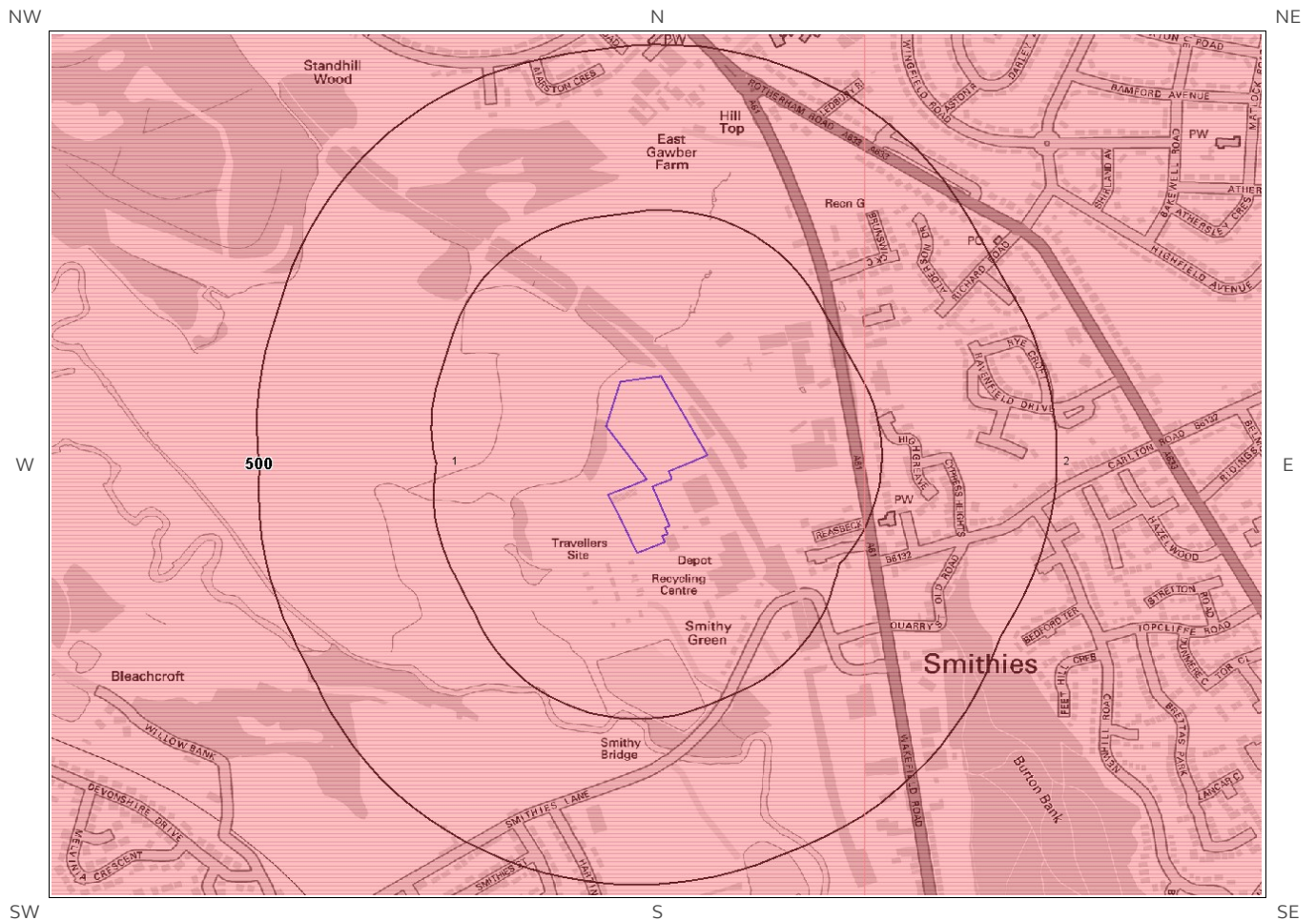
## 6a. Aquifer Within Superficial Geology



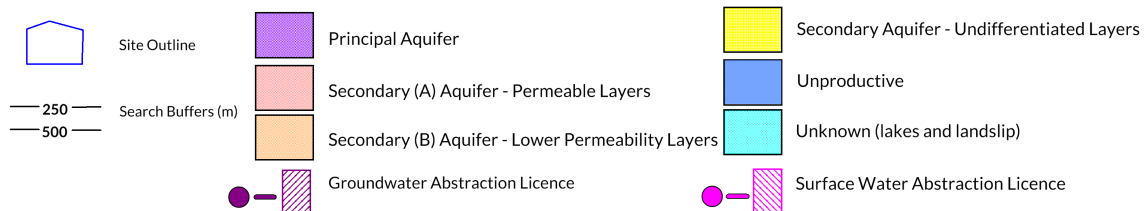
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# 6b. Aquifer Within Bedrock Geology and Abstraction Licenses

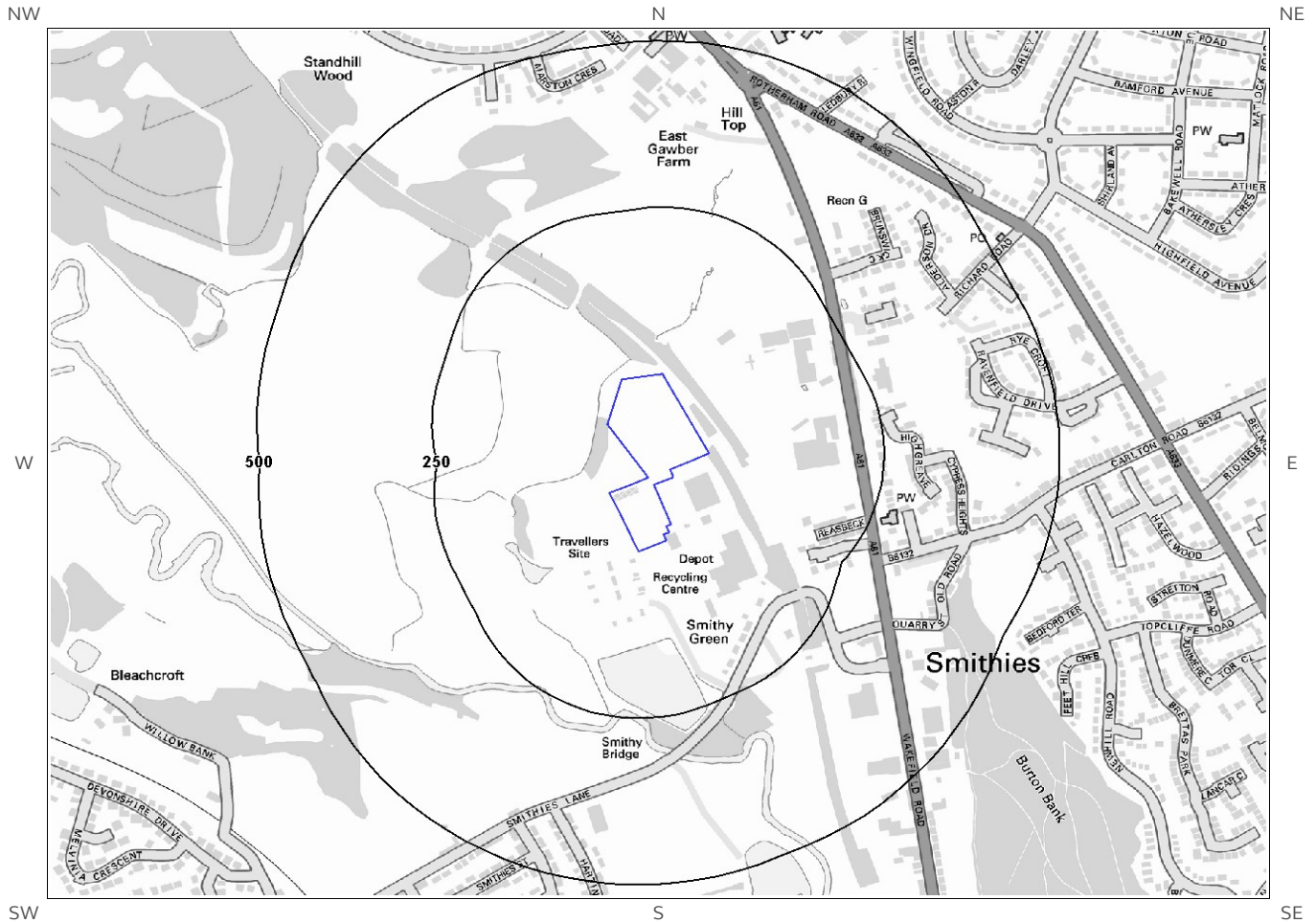


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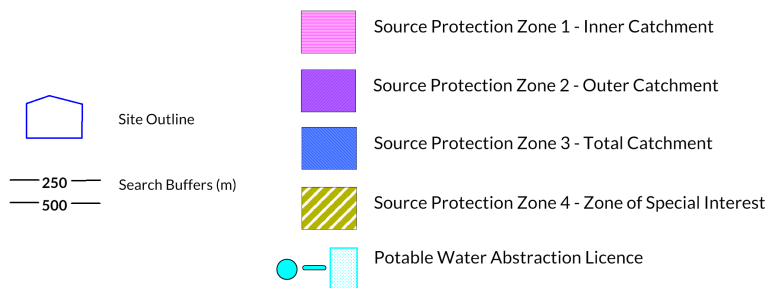


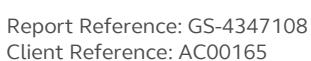
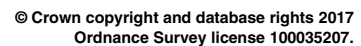


# 6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



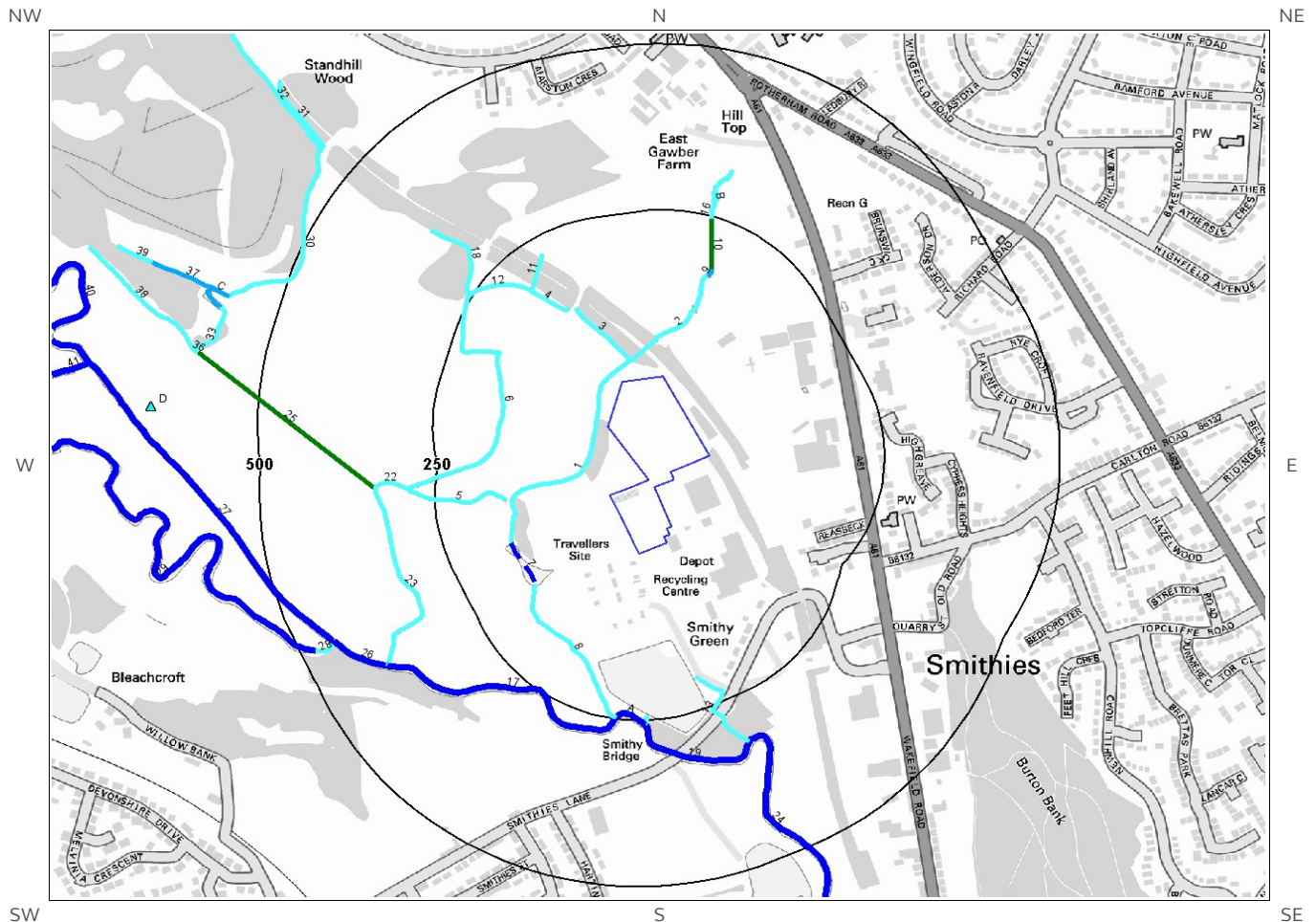
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# 6e. Hydrology – Detailed River Network and River Quality



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- |   |                                       |  |                                     |
|---|---------------------------------------|--|-------------------------------------|
|  | Primary River                         |  | Canal                               |
|  | Secondary River                       |  | Canal Tunnel                        |
|  | Tertiary River                        |  | Culvert                             |
|  | Lake/Reservoir                        |  | Multiple Channel Culvert            |
|  | Underground River (inferred)          |  | Underground River (Potential Sewer) |
|  | General Quality Assessment: Biology   |  | Underground River (local knowledge) |
|  | General Quality Assessment: Chemistry |  |                                     |

# 6. Hydrogeology and Hydrology

## 6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? **Yes**

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	124	SW	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	412	N	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
4	465	N	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

## 6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? **Yes**

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	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	224	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



## 6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1914	S	435336 406441	Status: Active Licence No: NE/027/0008/014 Details: Spray Irrigation - Direct Direct Source: Groundwaters Point: Borehole - Coal Measures - Oakwell Road - Barnsley Data Type: Point Name: Barnsley Football Club 2002 Ltd Annual Volume (m³): 21400 Max Daily Volume (m³): 100 Original Application No: NPS/WR/016056 Original Start Date: 29/6/2015 Expiry Date: 31/3/2029 Issue No: 1 Version Start Date: 29/6/2015 Version End Date:

## 6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1721	SE	435710 406850	Status: Historical Licence No: 2/27/08/122 Details: Make-Up or Top Up Water Direct Source: Surface Water Point: River Dearne Data Type: Point Name: BARNSELY METROPOLITAN BOROUGH COUNCIL Annual Volume (m³): - Max Daily Volume (m³): - Application No: 6891 Original Start Date: 7/10/1998 Expiry Date: 31/10/2006 Issue No: 101 Version Start Date: 1/8/2002 Version End Date:
Not shown	1721	SE	435710 406850	Status: Historical Licence No: 2/27/08/141 Details: Make-Up Or Top Up Water Direct Source: Surface Water Point: River Dearne Data Type: Point Name: BARNSELY METROPOLITAN BOROUGH COUNCIL Annual Volume (m³): 7800 Max Daily Volume (m³): 86.6 Application No: 8254 Original Start Date: 13/3/2007 Expiry Date: 31/3/2017 Issue No: 1 Version Start Date: 1/4/2008 Version End Date:
Not shown	1721	SE	435710 406850	Status: Historical Licence No: 2/27/08/122 Details: Make-Up or Top Up Water Direct Source: Surface Water Point: River Dearne Data Type: Point Name: BARNSELY METROPOLITAN BOROUGH COUNCIL Annual Volume (m³): 7800 Max Daily Volume (m³): 86.6 Application No: 6891 Original Start Date: 7/10/1998 Expiry Date: 31/10/2006 Issue No: 101 Version Start Date: 1/8/2002 Version End Date:

## 6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

No

Database searched and no data found.

## 6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.

## 6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site?

No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

## 6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site?

Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
0	On Site	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
0	On Site	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.



## 6.9 River Quality

Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site? Yes

### 6.9.1 Biological Quality:

Database searched and no data found.

### 6.9.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Chemical Quality Grade				
					2005	2006	2007	2008	2009
66D	653	W	433979 408458	River Name: River Dearne Reach: Cawthorne Dyke New Lodge End/Start of Stretch: End of Stretch NGR	B	B	B	B	B
67D	653	W	433979 408458	River Name: River Dearne Reach: New Lodge Old Mill End/Start of Stretch: Start of Stretch NGR	D	B	C	C	D
Not shown	1121	S	435100 407200	River Name: River Dearne Reach: New Lodge Old Mill End/Start of Stretch: Sample Point NGR	D	B	C	C	D

## 6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? Yes

The following Detailed River Network records are represented on the Hydrology Map (6e):

ID	Distance (m)	Direction	Details	
1	17	W	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
2	29	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
3	31	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
4	134	NW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
5	149	W	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
6	151	W	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
7	153	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
8	155	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
9	163	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
10	175	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
11	188	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12	188	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
13	200	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
14A	240	S	River Name: River Dearne Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
15A	244	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16	246	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17	248	S	River Name: River Dearne Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
18	253	NW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
19	256	S	River Name: River Dearne Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
20B	273	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21B	273	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
22	290	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined



ID	Distance (m)	Direction	Details	
23	313	SW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
24	319	SE	River Name: River Dearne Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
25	335	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
26	396	SW	River Name: River Dearne Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
27	450	SW	River Name: River Dearne Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
28	450	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
29	479	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
30	492	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined

---

## 6.11 Surface Water Features

Are there any surface water features within 250m of the study site?

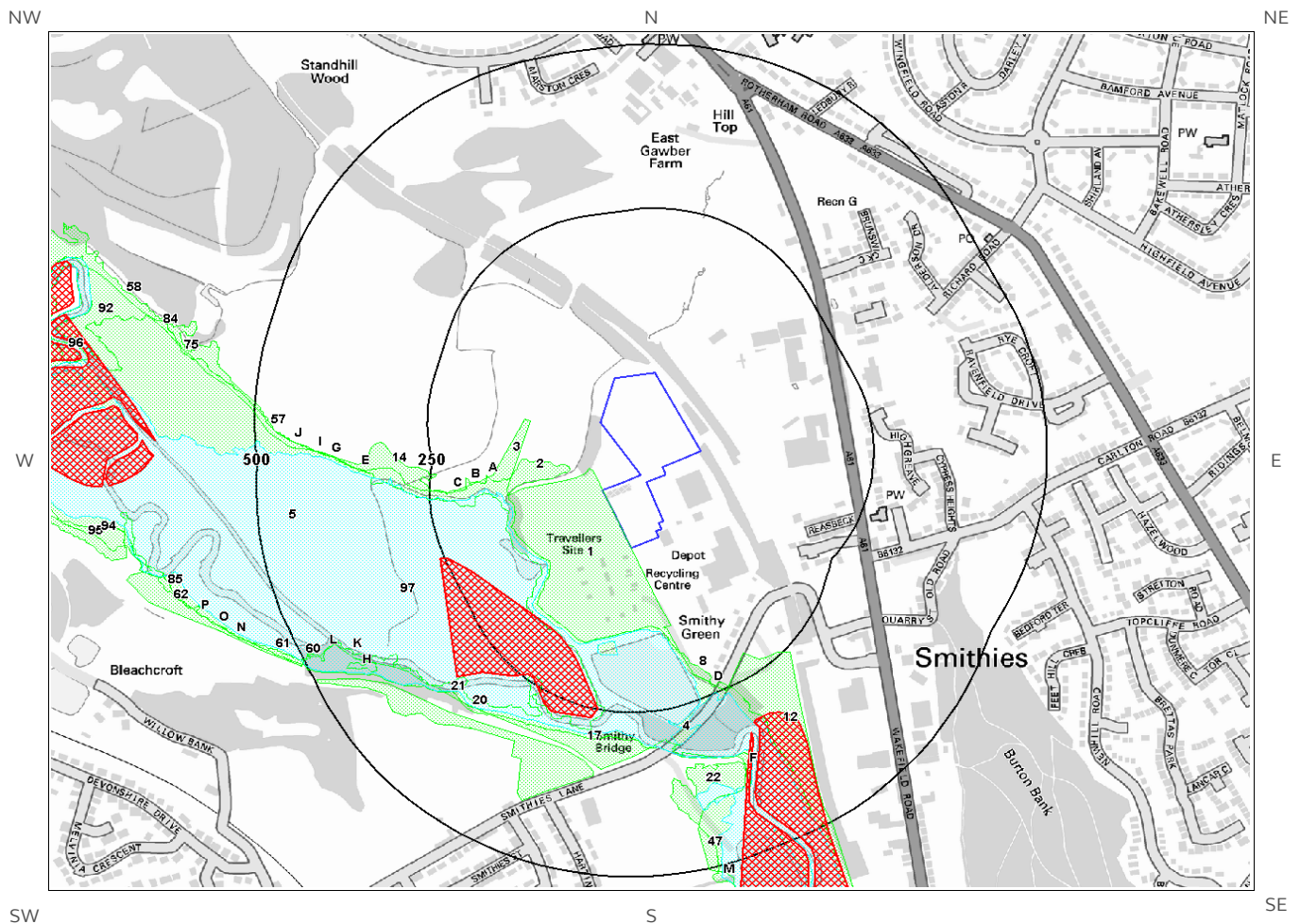
Yes

The following surface water records are not represented on mapping:

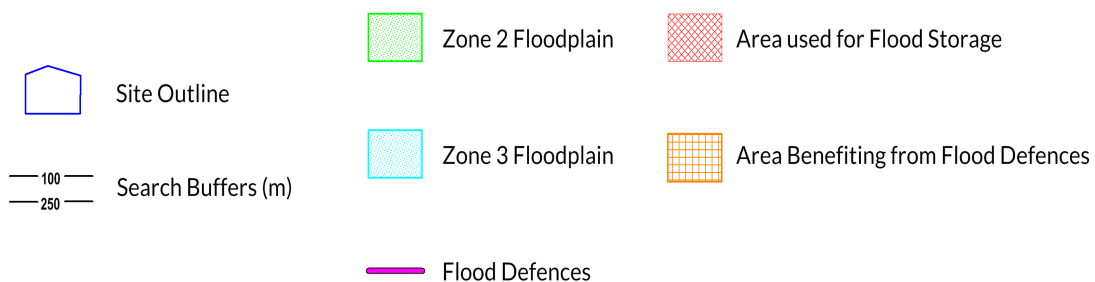
Distance (m)	Direction
16	NW
31	N
56	N
56	N
58	N
104	N
104	N
110	NE
112	N
122	SW
134	NW
134	S
135	S
135	W
149	W
166	SW
200	SE
235	S
246	N



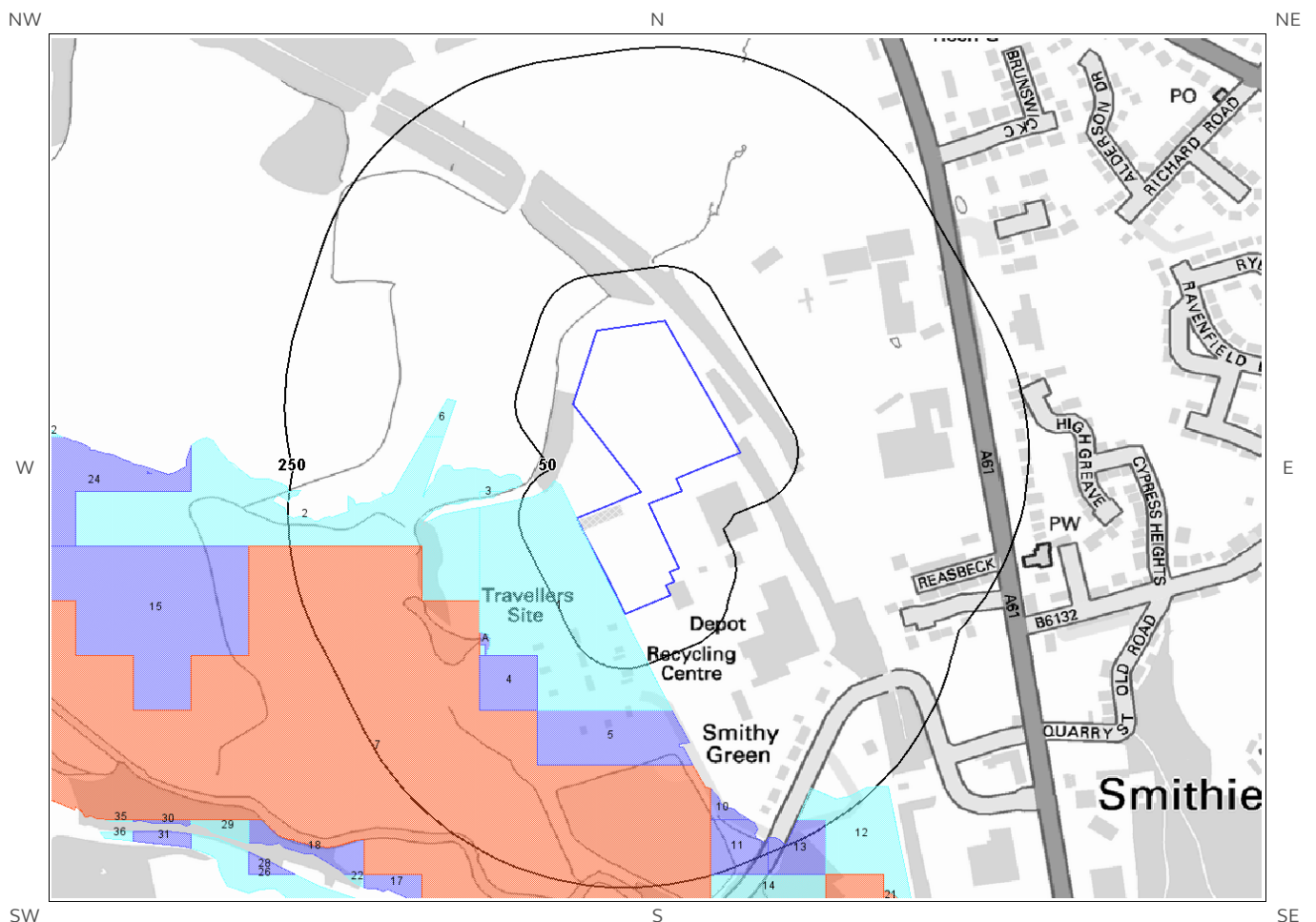
# 7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



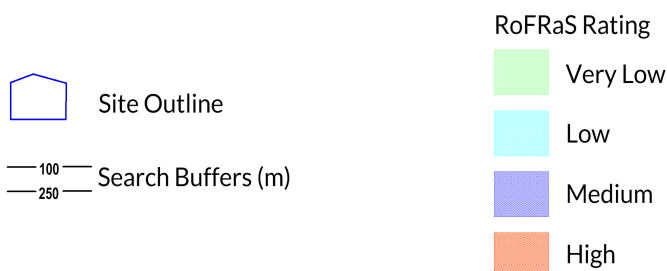
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# 7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



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# 7 Flooding

## 7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 2 floodplain? Yes

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Type
1	0	SW	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
2	57	NW	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
3	102	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
4	116	SW	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
5	130	SW	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
6A	166	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
7A	169	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
8	173	SE	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
9B	180	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
10B	197	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
11C	212	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
12	214	SE	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
13C	224	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
14	228	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
15D	233	SE	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
16D	237	SE	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)

## 7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 3 floodplain? Yes

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

ID	Distance (m)	Direction	Update	Type
1	121	SW	22-Aug-2017	Zone 3 - (Fluvial Models)

## 7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? Low

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Low (greater than 1 in 1000 but less than 1 in 100) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRaS flood Risk
1	0.0	SW	Low

## 7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No  
Database searched and no data found.

## 7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

## 7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? Yes



## 7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Clearwater Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

---

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

---

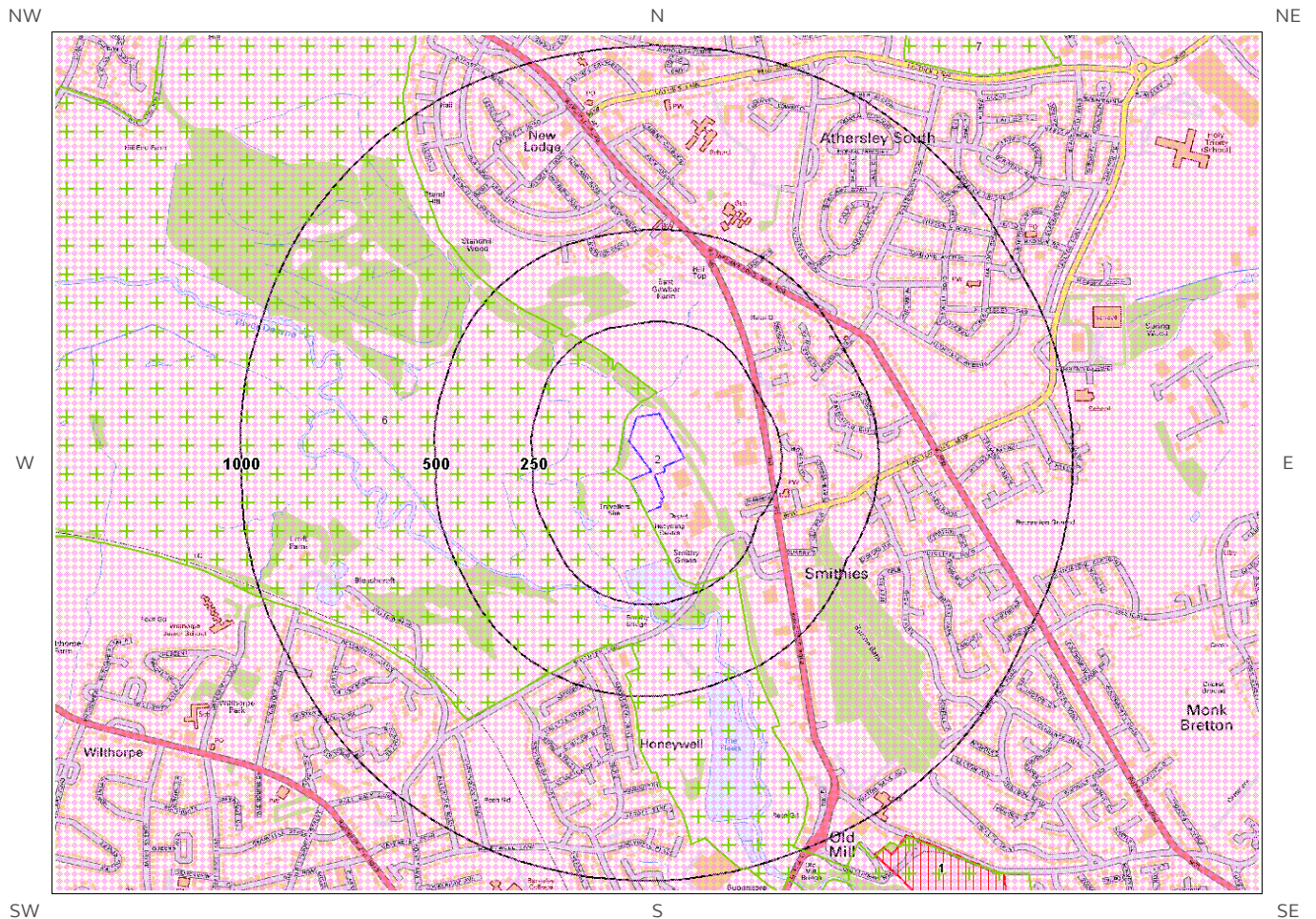
## 7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result? Moderate

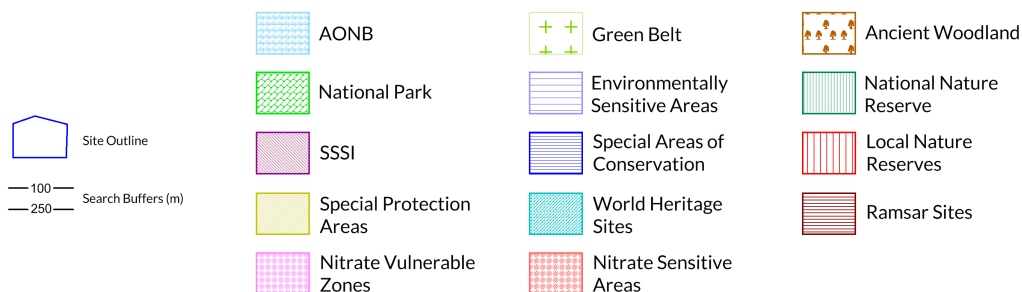
Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

# 8. Designated Environmentally Sensitive Sites Map



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# 8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

---

## 8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

0

Database searched and no data found.

---

## 8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

---

## 8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

---

## 8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

---

## 8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

---

## 8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

## 8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

1

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
1	1089	SE	Dearne Valley Park	Natural England

## 8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

## 8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

## 8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

## 8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.



## 8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

## 8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

4

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
2	0	On Site	Existing	DEFRA
Not shown	1418	NW	Existing	DEFRA
Not shown	1494	N	Existing	DEFRA
Not shown	1580	N	Existing	DEFRA

## 8.14 Records of Green Belt land within 2000m of the study site:

4

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ID	Distance	Direction	Green Belt Name	Local Authority Name
6	0	SW	Liverpool, Manchester and West Yorks Greenbelt	Barnsley District (B)
7	1149	NE	Liverpool, Manchester and West Yorks Greenbelt	Barnsley District (B)
Not shown	1267	NW	Liverpool, Manchester and West Yorks Greenbelt	Barnsley District (B)
Not shown	1497	N	Liverpool, Manchester and West Yorks Greenbelt	Barnsley District (B)

# 9. Natural Hazards Findings

## 9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **Groundsure Geo Insight**, available from our **website**. The following information has been found:

### 9.1.1 Shrink Swell

What is the maximum Shrink-Swell\* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

### 9.1.2 Landslides

What is the maximum Landslide\* hazard rating identified on the study site? Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property no significant increase in insurance risk due to natural slope instability problems.

### 9.1.3 Soluble Rocks

What is the maximum Soluble Rocks\* hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

\* This indicates an automatically generated 50m buffer and site.



#### 9.1.4 Compressible Ground

What is the maximum Compressible Ground\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Very low potential for compressible deposits to be present. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

#### 9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

#### 9.1.6 Running Sand

What is the maximum Running Sand\*\* hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

### 9.2 Radon

#### 9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.

\* This indicates an automatically generated 50m buffer and site.

### 9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing

ones as described in publication BR211 by the Building Research Establishment?

No radon protective measures are necessary.



# 10. Mining

## 10.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

Yes

The following coal mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

## 10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary?

Yes

The following non-coal mining information is provided by the BGS:

Distance (m)	Direction	Name	Commodity	Assessment of likelihood
0.0	On Site	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
0.0	On Site	Sheffield Area	Vein Mineral/Iron ore	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

Past underground mine workings may occur. The rock types present in these areas are such that small mineral veins may be present on which it is possible that small scale mining has been undertaken and/or it is possible that limited underground extraction of other materials may have occurred. All such occurrences are likely to be of minor localised extent and infrequent. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset. However, if in a coalfield area you should still consider a Coal Authority mining search for the area of interest.

## 10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site?

No

Guidance: No Guidance Required.

# Contact Details

**Groundsure Helpline**  
Telephone: 08444 159 000  
info@groundsure.com

**British Geological Survey Enquiries**  
Kingsley Dunham Centre  
Keyworth, Nottingham NG12 5GG  
Tel: 0115 936 3143.  
Fax: 0115 936 3276.  
Email:  
Web: [www.bgs.ac.uk](http://www.bgs.ac.uk)

BGS Geological Hazards Reports and general geological enquiries:  
[enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)

**Environment Agency**  
National Customer Contact Centre, PO Box 544  
Rotherham, S60 1BY  
Tel: 03708 506 506  
Web: [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)

**Public Health England**  
Public information access office  
Public Health England, Wellington House  
133-155 Waterloo Road, London, SE1 8UG  
[www.gov.uk/phe](http://www.gov.uk/phe)  
Email: [enquiries@phe.gov.uk](mailto:enquiries@phe.gov.uk)  
Main switchboard: 020 7654 8000

**The Coal Authority**  
200 Lichfield Lane  
Mansfield  
Notts NG18 4RG  
Tel: 0345 7626 848  
DX 716176 Mansfield 5  
[www.coal.gov.uk](http://www.coal.gov.uk)

**Ordnance Survey**  
Adanac Drive, Southampton  
SO16 0AS  
Tel: 08456 050505

**Local Authority**  
Authority: Barnsley Metropolitan Borough Council  
Phone: 01226 770770  
Web: <http://www.barnsley.gov.uk/>  
Address: PO Box 634, Barnsley, South Yorkshire, S70 9GG

**Gemapping PLC**  
Virginia Villas, High Street, Hartley Witney,  
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Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England who retain the Copyright and Intellectual Property Rights for the data.

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# Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link:  
<https://www.groundsure.com/terms-and-conditions-sept-2016>



# BMBC Council & Trade Waste Facility

## H5 Application Site Condition Report

<b>Site Address:</b>	Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, S71 1NL	
<b>Client:</b>	Barnsley Metropolitan Borough Council	
<b>Report Ref:</b>	AC00165/BMBC/H5-ASCR V1.1	
<b>Date:</b>	August 2019	
<b>AC Environment Solutions Ltd, 3 Fountain Parade, Mapplewell, Barnsley, S75 6FW</b> Tel: 01226 386081 Email: <a href="mailto:info@acenvironment.co.uk">info@acenvironment.co.uk</a> Web: <a href="http://www.acenvironment.co.uk">www.acenvironment.co.uk</a>		

## REPORT LIMITATIONS

This report has been produced by AC Environment Solutions Ltd, (AC Environment Solutions), for the site that is to be known as the BMBC Council and Trade Waste Facility, located at/within Smithies Lane Depot, Smithies Lane, Smithies, Barnsley S71 1NL on behalf of the client, Barnsley Metropolitan Borough Council, (BMBC) via the Association for Public Service Excellence (APSE); solely for the use of the client and their professional advisors with whom the assignment has been agreed.

AC Environment Solutions accepts no responsibility or liability for the consequences of the document being used for any project or purpose other than that for which it was commissioned, or by any third party with whom an agreement has not been executed. Written approval must be sought from AC Environment Solutions should any third party wish to use or rely upon its contents and a charge may be levied against such approval.

This report has relied on data provided by third party sources and whilst AC Environment Solutions has no reason to doubt their accuracy, we do not accept any responsibility or liability for the accuracy or completeness of third-party data or for any loss which may arise from reliance on data provided by any third party.

The opinions expressed in the report have been dictated by the finite data on which they are based and are relevant only for the purpose for which the report was commissioned. The information which has been reviewed should not be considered exhaustive and has been accepted as providing true and representative data pertaining to site conditions in good faith.

Should additional information become available which may affect the opinions expressed in this report, AC Environment Solutions Ltd retains the right to review such information, and, if warranted, to modify its opinions accordingly.

AC Environment Solutions knows of no conflict of interest in the production of this Report.

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**Environmental Consultant**

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**Managing Director / Minerals, Waste and Contaminated Land Surveyor**

Date: August 2019



## Document Revisions

[illegible]

# BMBC Council & Trade Waste Facility

## H5 Application Site Condition Report

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## H5 Application Site Condition Report Template

### COMPLETE SECTIONS 1-3 AND SUBMIT WITH APPLICATION

### DURING THE LIFE OF THE PERMIT: MAINTAIN SECTIONS 4-7

### AT SURRENDER: ADD NEW DOC REFERENCE IN 1.0; COMPLETE SECTIONS 8-10 & SUBMIT WITH YOUR SURRENDER APPLICATION.

1.0 Site Details	
Name of the applicant	<p>Barnsley Metropolitan Borough Council (Place Directorate) Smithies Lane Depot Smithies Lane Smithies Barnsley South Yorkshire S71 1NL</p> <p>Tel: 01226 774121 Email: mickclegg@barnsley.gov.uk</p>
Activity address	<p>Smithies Lane Depot Smithies Lane Smithies Barnsley South Yorkshire S71 1NL</p>
National grid reference	(SE) 434682 408302
Document reference and dates for Site Condition Report at permit application and surrender	<p>Application Site Condition Report (Reference AC00165/BMBC/H5-ASCRv1.1) was prepared in draft in December 2017, and was fully completed and QA checked in August 2019, following addition of sealed drainage information, in support of a bespoke environmental permit application based upon SR2015 No 6.</p> <p><b>Permit application submission date:</b> August/September 2019</p>
Document references for site plans (including location and boundaries)	See contents page - list of Appendices

#### Note:

In Part A of the application form you must give us details of the site's location and provide us with a site plan. We need a detailed site plan (or plans) showing:

- Site location, the area covered by the site condition report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If this information is not shown on the site plan required by Part A of the application form, then you should submit the additional plan or plans with this Site Condition Report.

2.0 Condition of the Land at Permit Issue	
Environmental setting including:	Sections 5 & 6 and Appendices E & G Section 9 and Appendix G Sections 7, 8 & 10 and Appendix F & G
Pollution history including:	Section 11 and Appendix G Sections 3, 11, 12 & 13 and Appendices C & G Section 4 and Appendix D Section 4 and Appendix D
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available).	Sections 3, 4, 11, 12 & 13 No known previous reports, for historical site investigation, assessment, remediation or verification of the subject site have been identified.
Baseline soil and groundwater reference data	Soil: Not available at time of H5 ASCR preparation. Groundwater: Not available at time of H5 ASCR preparation.
<b>Supporting information</b>	<ul style="list-style-type: none"> <li>Historical Ordnance Survey plans (Appendix C)</li> <li>Site Reconnaissance notes and photographs (Section 4 and Appendix D)</li> <li>Coal Authority Mining Report (Section 6 and Appendix E)</li> <li>Plans and drainage engineering drawings (Appendix F1 to F5)</li> <li>Groundsure environmental data set identifying environmental setting and pollution incidents (Appendix G)</li> </ul>

3.0 Permitted activities	
Permitted activities	<p>Bespoke permit (based upon <b>SR2015 No 6</b> 75kte – household, commercial and industrial waste transfer station with treatment).</p> <p><b>Description of Activities</b></p> <p><b>D15:</b> Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced).</p> <p><b>R13:</b> Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection on the site where it is produced).</p> <p><b>D14:</b> Repackaging prior to submission to any of the operations numbered D1 to D13.</p> <p><b>D9:</b> Physio-chemical treatment not specified elsewhere in Annex IIA which results in final compounds or mixtures which are discarded by means of any operations numbered D1 to D8 and D10 to D12.</p> <p><b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents.</p> <p><b>R4:</b> Recycling/reclamation of metals and metal compounds.</p> <p><b>R5:</b> Recycling/reclamation of other inorganic materials.</p>



	<p><b>Limits of Activities</b></p> <p>Treatment consisting only of manual and mechanical sorting, separation, screening, baling, shredding, crushing or compaction of waste into different components for disposal (up to 300 tonnes per day) or recovery (up to 300 tonnes per day).</p> <p>No more than a total of 50 tonnes of intact and shredded waste vehicle tyres (waste codes 16 01 03 and 19 12 04) shall be stored at the site.</p> <p>No more than a total of 25 tonnes of hazardous wastes (i.e. additional [bespoke] waste codes identified in the Non-Technical Summary) shall be stored at the site (with bulking up of these wastes for onward recovery only).</p>
Non-permitted activities undertaken	<p>Storage of plant and equipment.</p> <p>Access to and operation of salt dome and fleet activities.</p> <p>Other depot activities outside the proposed permit area - PPC permit (concrete batching), highways fleet activities including maintenance, vehicle wash bay and refuelling, grounds maintenance, offices and stores, employee parking.</p>
<p>Document references for:</p> <ul style="list-style-type: none"> <li>• plan showing activity layout; and</li> <li>• environmental risk assessment.</li> </ul>	<p>Appendix B1 and B2</p> <p>Sections 13 &amp; 14 (H5 ASCR CSM and Risk Assessment)</p> <p>(Please also see H1 Risk Assessment included as a separate document within the new bespoke application for activities not covered by the generic risk assessment which accompanies SR2015 No.6).</p>

**Note:**

In Part B of the application form you must tell us about the activities that you will undertake at the site. You must also give us an environmental risk assessment. This risk assessment must be based on our guidance (*Environmental Risk Assessment - EPR H1*) or use an equivalent approach.

It is essential that you identify in your environmental risk assessment all the substances used and produced that could pollute the soil or groundwater if there were an accident, or if measures to protect land fail.

These include substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

If your submitted environmental risk assessment does not adequately address the risks to soil and groundwater we may need to request further information from you or even refuse your permit application.

# 1 Introduction

- 1.1 AC Environment Solutions Limited (AC Environment Solutions) was instructed by Barnsley Metropolitan Borough Council, (BMBC) Places Directorate, via the Association for Public Service Excellence, (APSE) in September 2017, to prepare a H5 Application Site Condition Report, (ASCR), for an area of the site known as Smithies Lane Depot, Smithies Lane, Smithies, Barnsley, South Yorkshire S71 1NL.
- 1.2 This report is required to support an application to the Environment Agency for a bespoke Environmental Permit to facilitate both local authority internal and external commercial/trade waste activities at the depot. The bespoke permit is to be based upon standard rules set SR2015 No. 6 – household, commercial and industrial waste transfer station with treatment.
- 1.3 The report comprises a desk study and preliminary risk assessment to gather data, establish the environmental setting and provide an assessment of the baseline conditions at the time of the permit application, and to determine any potential for environmental risk which may impact both upon the development of, and the intended future uses of, the site. It should be noted that the development of the waste facility forms part of a wider depot redevelopment and improvement scheme for modernisation which is being implemented in phases.
- 1.4 The report has been prepared in accordance with the Environment Agency's CLR11 *11 – Model Procedures for the Management of Land Contamination* (September 2004) still in force at the date of submission of the application; '*H5 Horizontal Guidance – Site condition report guidance and templates*' (LIT8001 Version 3.0 May 2013), and other relevant sector guidance relating to environmental due diligence.
- 1.5 The study examines information gathered from a number of sources including historical Ordnance Survey mapping, records from British Geological Survey and publicly available records including those of the Environment Agency, Natural England, the Coal Authority, the Local Authority and other engineering and environmental bodies. The report may therefore contain public sector information licensed under the Open Government Licence v3.0. Some information has been collectively sourced from Groundsure Ltd in the form of an industry standard data report which has been interpreted and incorporated into this report.
- 1.6 Representatives of AC Environment Solutions undertook a site reconnaissance inspection of the proposed area to be permitted and key surrounding areas within the depot on 08 November 2017, during which a photographic record of the site was also made.
- 1.7 During the development stage of the project, issues relating to the existing infrastructure and sealed drainage within the proposed area to be permitted were examined, with assistance from representatives of the Environment Agency and Yorkshire Water plc (YW).
- 1.8 This ASCR details the infrastructure and sealed drainage improvements now in progress prior to commencement of waste activities in the area of the site which will operate under the bespoke waste permit. The design work for the improvements was conducted by BMBC Highways Department with approval for the necessary connections to foul drainage having been sought and agreed with YW.



- 1.9 No intrusive testing has been carried out as part of this assessment. The report may be used as both as reference point and an informative tool by the client in the design of future investigative works, in the event that a potential for environmental risk, including the potential for significant issues associated with the presence of any contamination or other environmental risk is identified.
- 1.10 The conclusions reached in this report are necessarily restricted to those which can be determined from available information and may be subject to amendment in the light of additional information becoming available or to changes in relevant legislation.
- 1.11 The writer knows of no conflicts of interest in the production of this report.

## 2 Site Location and Topography

- 2.1 The proposed area to be permitted is sited within the larger Smithies Depot, located approximately 1.4 kilometres to the north of Barnsley Town Centre, as shown on the location plan provided at Appendix A. Appendix A1 shows the existing layout of the depot in 2017 and the proposed permit boundary.
- 2.2 An approximate National Grid Reference for the centre of the site is (SE) 434682 408302. The site lies at a minimum of 52.0m above Ordnance Datum (AOD) within the yard area to the south-west rising to approximately 56.0m AOD at its northernmost point.
- 2.3 The site is approximately 1.72 hectares in aerial extent and will be divided into two main areas of operation. The permit boundary is shown outlined in green on the Schematic Layout Plans for the new facility at Appendix B1 and B2.
- 2.4 It should be noted that permit boundary for the southern area of the site has altered (contracted) slightly since the Groundsure data, historical Ordnance Survey maps and Coal Authority report were originally purchased, to allow access to, and to avoid operational conflict with the Highways team's concrete batching and materials storage area. The blue boundary present on these plans denotes the overall depot boundary.
- 2.5 The nature of the site as it existed on the day of the inspection, is described in detail in Section 4 of this report. It should be noted however, following recent master planning, BMBC are in the process of initiating a number of phased alterations within the wider depot in addition to making drainage improvements and adding infrastructure which will be directly associated with the operation of the proposed bespoke waste facility.



### 3 Site History

- 3.1 The history of the subject land and its surroundings has been ascertained by reference to historical 1:500, 1:1,250, 1:2,500, 1:10,000 and 1:10,560 scale Ordnance Survey (OS) map extracts dating from between 1850 and 2014; copies of which are presented at Appendix C.

#### **1:10,560 Scale Ordnance Survey extract of 1850-1854**

- 3.2 Earliest map extracts from 1850-1854 show the site to be an area of open undeveloped land with field boundaries evident.
- 3.3 To the south-east of the site are two quarries; '*Old Quarry (Sandstone)*' approximately 500m from the site and '*Burton Bank Quarry (Sandstone)*' approximately 750 metres from the site. To the south-south-east is '*Smithy Mill (Woollen)*' and '*Smithy Mill (Corn)*' approximately 160m and 200m respectively. '*Barnsley Water Works (Supply Reservoir)*' is located approximately 120 metres to the south. A small number of buildings marked as '*Gawber New Colliery*' are located 500m to the south-south-west of the site. Approximately 750m west-south-west of the site, is the '*Green Foot Bleach Works*'.

#### **1:10,560 Scale Ordnance Survey extract of 1890-1891**

- 3.4 An area of unspecified tipping or landfilling is located on the eastern boundary of the northern part of the site.
- 3.5 '*Wharncliffe Carlton Colliery*' is located immediately to the south-east of the site with one of the associated buildings being located just within the south-eastern corner of the site. Between 1854 and 1890, a railway line was constructed which runs alongside the north-eastern boundary of the site. The railway is marked as '*Barnsley Coal Railway Extension*'. Sometime between 1854 and 1890, the '*East Gawber Hall Colliery*' buildings and railway sidings were established approximately 400m to the north of the site. '*Primrose Main Colliery*' and associated buildings are located approximately 200m to the north-east of the site. Approximately 500m south-east of the site an unnamed '*Colliery*' is marked.
- 3.6 Sites marked '*Quarry*' are located approximately 370m east, 500m south-east and 750m south-east of the subject site.

#### **1:2,500 Scale Ordnance Survey extract of 1892**

- 3.7 The northern part of the site is predominantly open land, with the exception of the south-eastern corner which shows the area of tipping. The remainder of the site comprises low lying marshy land. The '*Wharncliffe Carlton Colliery*' buildings and rail sidings encroach upon the eastern boundary and extend up to 120m beyond the site.
- 3.8 The railway line lies within approximately 10m of the eastern boundary of the site with sidings present approximately 100m to the east. Two air shafts are apparent at '*Primrose Main Colliery*' approximately 170m north-east.

#### **1:10,560 Scale Ordnance Survey extract of 1904**

- 3.9 On the map extract from 1904, the site remains largely unchanged with '*Wharncliffe Carlton Colliery*' and rail sidings still present on site and adjacent.

- 3.10 The '*Barnsley Coal Railway Extension*' remains operational immediately to the east of the site. '*East Gawber Hall Colliery*' and '*Primrose Main Colliery*' have been further developed approximately 400m north and 200m north-east respectively. To the south-east of the site at approximately 500m, the previously unnamed '*Colliery*' is marked as '*Wallsend Main Colliery*'.
- 3.11 Approximately 350m to the south- south-east of the site, is a '*Paper Works*' and the '*Smithies Sewage Works (Monk Bretton UDC)*' at approximately 600m. '*Gawber New Colliery*' located approximately 500m south south-west of the site is now marked '*New Gawber*'. '*Old Shafts*' are present 510m to the south-west, and approximately 750m west south west of the site is the '*Green Foot Bleach Works*'.

#### **1:2,500 Scale Ordnance Survey extract of 1906**

- 3.12 The northern part of the site remains open land, with no material changes since the previous Ordnance Survey extract.
- 3.13 Marshy ground exists approximately 150m to the south-east. A small reservoir and tanks are now apparent at '*Primrose Main Colliery*' located approximately 150m north-east of the subject site.

#### **1:10,560 Scale Ordnance Survey extract of 1929-1930**

- 3.14 By 1929, there are no material changes to the subject site although the map extract no longer shows the main '*Wharnccliffe Carlton Colliery*' buildings and the railway sidings adjacent, although the buildings previously marked as '*Coke Ovens*' remain.
- 3.15 The railway line on the eastern border of the site is now marked as L.N.E.R Stairfoot and Nostell. To the north of the site at approximately 400m, the previously marked '*East Gawber Hall Colliery*' buildings are now '*Engineering Works*'. Approximately 500m to the north is the East Gawber Sewage Works (Barnsley RDC).

To the north-east of the site at 200m, the '*Primrose Main Colliery*' is no longer marked although an extensive area of tipping is apparent. In the north-easterly direction beyond the former '*Primrose Main Colliery*' at a distance of approximately 300m, a '*Drift Colliery*' is marked. Approximately 370m east of the site a quarry is also marked.

- 3.16 The previously named '*Smithies Sewage Works (Monk Bretton UDC)*' located approximately 600m south south-east of the site is now marked '*Old Sewage Works*'. At approximately 400m south-south-east of the site the '*Paper Works*' is now marked as disused.
- 3.17 To the south of the site at approximately 240m the '*Barnsley Water Works Supply Reservoir*' remains, as does '*New Gawber*' approximately 500m south south-west, and the '*Old Shafts*' located approximately 510m to the south-west of the site. Approximately 750m west-south-west of the site, the '*Green Foot Bleach Works*' buildings are no longer named as such.

#### **1:10,560 Scale Ordnance Survey extract of 1938**

- 3.18 There are no material changes to the subject site since the previous Ordnance Survey map extract.

3.19 The structures previously marked as '*Coke Ovens*', the '*L.N.E.R Stairfoot and Nostell*' railway line adjacent to the eastern perimeter, and other features such as the '*Engineering Works*' approximately 400m north and the '*East Gawber Sewage Works (Barnsley RDC)*' approximately 500m north all still remain.

3.20 To the south of the site at 240m the reservoir previously marked as 'Barnsley Water Works Supply Reservoir' is now named '*Reservoir (Barnsley C.W.W.)*'.

**1:10,560 Scale Ordnance Survey extract of 1948**

3.21 There are no material changes to the subject site or the immediate surrounding areas since the previous Ordnance Survey map extract.

3.22 The '*East Gawber Sewage Works (Barnsley RDC)*' previously located approximately 500m north is no longer present and a new area of housing named '*New Lodge*' has been developed beyond this to the north.

**1:10,560 Scale Ordnance Survey extract of 1955-1956**

3.23 A powerline mounted on pylons now traverses the south-western corner of the subject site although this is the only material change notable at this time.

3.24 To the south of the site at 240m the former '*Reservoir (Barnsley C.W.W.)*' is marked as '*disused*'.

**1:1,250 Scale Ordnance Survey extract of 1959**

3.25 The 1959 map extract indicates that the structures previously marked as '*Coke Ovens*' have been cleared, and linear embanked areas remain on the eastern boundary of the site extending land to the south-east where the structures once stood. The site has apparently been regraded and has a coverage of rough grassland which is marshy at the northern end. An access track traverses the site at the southern end.

3.26 To the east of the site at a distance of approximately 80m, unspecified '*Works*' buildings are identified on the map extract. Two further '*Works*' are marked on the map at approximately 150m and 200m east of the subject site.

3.27 Tipping remains apparent on land beyond the railway to the north-east, and immediately to the south-west. Two ponds are also present approximately 120m to the south-east, the largest of which first appearing as marshy ground on the 1906 map extract.

**1:2,500 Scale Ordnance Survey extract of 1961**

3.28 There are no material changes to the subject site or the surrounding area since the previous Ordnance Survey map extract.

**1:10,560 Scale Ordnance Survey extract of 1966**

3.29 There are no material changes to the subject site since the previous Ordnance Survey map extract.

3.30 A 'Depot' and a 'Works' are located beyond the railway approximately 500m south-east in the village of Smithies.



- 3.31 *'Burton Bank Quarry'* located approximately 750m to the south-east of the site is now marked as *'Disused'*. *'Croft Farm'* now exists approximately 750m west-south-west of the site, on the site of the former *'Green Foot Bleach Works'*.

**1:1,250 Scale Ordnance Survey extract of 1970**

- 3.32 By 1970, the western half of the site is marked as a *'Refuse Tip'*. The mounds existing since the demolition of the *'Coke Ovens'* within the eastern boundary and immediately to the south of the subject site are also marked as *'Tip (disused)'*. The previously established electricity pylons which carried electrical power lines over the south western part of the site have been relocated to the eastern boundary and the powerlines now traverse the northern part of the site. A pylon has been positioned on the eastern site boundary.
- 3.33 The railway line located within 5m of the eastern boundary of the site has been dismantled. The works buildings located 80m east of the site are now identified as *'Concrete'* and *'Tarmacadam Works'*. The two further *'Works'* marked on the map at approximately 150m and 200m to the east of the subject site are now marked as a *'Concrete Works'* and an *'Engineering Works'*.
- 3.34 The area immediately south-west of the site is also marked as *'Tip (disused)'*. A *"Highways Depot"* is now located approximately 100m south-east of the site.

**1:10,000 Scale Ordnance Survey extract of 1973-1974**

- 3.35 There are no material changes to the subject site or the surrounding area since the previous Ordnance Survey map extract other than the *'Refuse Tip'* occupying the western part of the site and beyond being marked as *'disused'*.
- 3.36 A second electricity powerline has been established approximately 35m north of the northern site boundary whilst the large building and associated land located approximately 100m south-east is now marked as a *'Depot'*. Buildings beyond the railway approximately 150m and 200m east are marked as *'Works'*.
- 3.37 Approximately 480m south-east of the site a *'Garage'*, a *'Works'* and a *'Warehouse'* are marked.

**1:1,250 Scale Ordnance Survey extract of 1976-1981**

- 3.38 The 1981 map extract shows no identifiable features on the site at this scale, with the exception of the pylon and powerlines traversing the site in a west-north-west to east-south-east orientation and a dotted boundary denoting the marshy area to the north.
- 3.39 The southern part of the site is now fully incorporated within the footprint of the *'Depot'* to the south-east due to its redevelopment and extension northwards.
- 3.40 Numerous buildings, tanks and a weighbridge, are now apparent within the *'Depot'*.
- 3.41 The *'Works'* buildings located approximately 80m east of the site have been fully redeveloped, as have the two sites located approximately 150m and 200m east, which are both marked as *'Depots'*. Tanks are apparent at the closest two of the three sites.

**1:10,000 Scale Ordnance Survey extract of 1982**

- 3.42 By 1982, the map extract denotes the entire northern area of the site as part of the larger 'Disused Tip'. Electricity powerlines still traverse the site with the pylon remaining located on the eastern boundary. There are no discernible changes to the southern area of the site located within the curtailment of the 'Depot' on this extract.
- 3.43 A small disused 'Tip' is apparent approximately 600m south-east. There are no other significant material changes to the area surrounding the site at this time.

**1:1,250 Scale Ordnance Survey extract of 1991-1993**

- 3.44 The map extract shows an oval platform having been constructed in the southern part of the site, now included within the 'Depot' located to the immediate south east of the site boundary. Storage bays are now also apparent along the western boundary.
- 3.45 Also, within the 'Depot' approximately 60m south-south-east of the subject site boundary, a 'Public Waste Disposal Site' has been established, and beyond the site boundary approximately 10m south-south-west a 'Gypsy Site' now exists.
- 3.46 East of the subject site at approximately 120m the site is now identified as a 'Builder's Yard'.

**1:10,000 Scale Ordnance Survey extract of 1992-1993**

- 3.47 There are no apparent changes to the subject site since the previous Ordnance Survey extract.
- 3.48 The land along the western boundary of the site is now designated as 'Disused Workings'.
- 3.49 The 'Depot' located 100m south south-east of the site remains a on this map extract. To the north of the site at approximately 400m, are 'Works' buildings and 300m to the north-north-east a 'Garage' is now present.
- 3.50 Numerous 'Depots', 'Garages' and 'Works' are now apparent within the village of Smithies between approximately 470m and 750m south-east.

**1:1,250 Scale Ordnance Survey extract of 1993**

- 3.51 There are no material changes to the subject site or the surrounding area since the previous Ordnance Survey extract.

**1:10,000 Scale Ordnance Survey extract of 2002**

- 3.52 There are no material changes to the subject site or the surrounding area since the previous Ordnance Survey extract except some further development of the 'Gypsy Site' located approximately 10m south-south-west.

**1:10,000 Scale Ordnance Survey extract of 2010**

- 3.53 The map extract from 2010 indicates that construction of an additional small building or structure has occurred on the northern boundary of the southern area of the site.

- 3.54 A '*Scrap Yard*' is located approximately 370m to the south-east of the site. The site previously identified as a '*Gypsy Site*' has been renamed '*Travellers Site*'. To the south-south-east of the site at approximately 60m, the previously named '*Public Waste Disposal Site*' is now named '*Recycling Centre*'.
- 3.55 There are no apparent material changes to the surrounding area since the previous Ordnance Survey extract.

**1:10,000 Scale Ordnance Survey extract of 2014**

- 3.56 The map extract shows no further information relating to the site or the surrounding area mainly due to the alteration in mapping styles now utilised.



## 4 Site Reconnaissance

- 4.1 A detailed inspection of the subject site was undertaken by representatives of AC Environment on 08 November 2017. The weather at the time of the inspection was sunny and cool.
- 4.2 A property observation checklist for commercial and industrial premises (source RICS), was completed during the course of the visit to record obvious potential for contamination and representative photographs were taken.
- 4.3 The observed uses within the property and in the site vicinity, are noted as follows:

### Observed use of the **subject property**:

Industry/manufacturing?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Waste disposal or waste processing?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Surface or underground mineral working?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Vehicle maintenance or refuelling?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

### Evidence seen of such uses having taken place **within the vicinity** of the subject property:

Industry/manufacturing?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Waste disposal or waste processing?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Surface or underground mineral working?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Vehicle maintenance or refuelling?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

### Evidence of **potential flooding issues** on or within the vicinity of the subject property:

Is the property near a river, stream or ditch?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the property in a hollow or at the bottom of a hill where flood water could collect?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Knowledge of any flood events affecting the property or immediate area?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

- 4.4 The site is located just off Smithies Lane and surrounding occupiers were observed to include residential properties, a household waste (civic amenity) recycling centre operated by BMBC, a pond to the south of the depot, and a designated traveller site to the south-west beyond which is a further pond to the west.
- 4.5 Entry and exit from the site is via a one-way system for vehicular traffic which passes through the lower part of the depot on route to the permitted facility.
- 4.6 The site was observed to comprise an existing Local Authority Street Scene, Neighbourhoods and Highways depot with associated workshops, storage and offices. Photographs that were taken on the day of the site inspection have been included at Appendix D.

- 4.7 The western, northern, eastern and southern site boundaries were observed to be delineated by triple point steel palisade fencing, up to 2.0 metres in height and topped with three strands of barbed wire along the western boundary where the site is more vulnerable to breaches of security. A metal gate, exists at the site's southern end, providing the main depot access which is controlled via a manned gatehouse and access barriers.
- 4.8 Within the depot a short distance to the south, (outside of), the proposed permit boundary, was a fuel station enclosure used for the refuelling of plant, highways and other council vehicles. The enclosure was observed to contain two fuel tanks within a substantial containment bund, surrounded by metal cladding for protection from physical damage and the elements. Also observed were two stand-alone fuel pumps, obviously used to fill the vehicles from the main tanks. These were located both directly adjacent to the containment bund and close by. Some minor staining with fuel was apparent, particularly around the pump located closest to the fuelling enclosure.
- 4.9 Separate to this, was a brick bunded gas oil tank showing some signs of deterioration to its integrity to effectively contain fuel leakage. Staining was also apparent from past minor seepage and spillages.
- 4.10 Further north from the fuelling area and just to the south-west of the southern boundary of the proposed permit area, a vehicle and bin wash bay was located. It is understood from the Depot Manager that the wash bay drainage system supporting this facility directly enters the foul sewer i.e. is entirely separate from the existing surface water drainage system on the site, to prevent the mobilisation of oils in surface drainage by detergents.
- 4.11 The wash bay, upon inspection appeared to be partially blocked with detritus and would benefit from maintenance and cleaning. It is considered unlikely however, that this facility would impact in any way upon the operations due to take place within permitted site area subsequent to the granting of a waste activity permit. As redevelopment of the depot is currently at the planning stage, movement or modification of the wash bay may ultimately be carried out as part of the depot redevelopment proposals.
- 4.12 The proposed permit area comprises two main site areas; the lower '*General Waste Transfer and Treatment Area*' to the south-west and the upper '*Inert Waste Storage and Treatment Area*' to the north. There is only one accessible external facing boundary, (the western boundary of the south-western Waste Transfer and Treatment Area). All the other boundaries are either within the depot or generally otherwise inaccessible which is helpful for site security.
- 4.13 The surface of the lower site area comprises concrete showing in places evidence of deterioration through vehicle movements and inclement weather, resulting in cracking, pot-holes and some ponded water.
- 4.14 Two green shipping containers believed to be used for storage purposes, several pallets of drainage pipework and apparatus for roadworks were being stored along the southernmost boundary of the proposed permit area. On the western boundary of the lower area, several storage bays of block construction, and in various states of disrepair, were being used to store highways barriers and various other street works equipment. Beyond the bays to the north, was a large pile of sawn tree stumps and smaller logs awaiting chipping.

- 4.15 Situated along the northern boundary of the lower site area, was an open sided steel portal framed shed with concrete bays formed at the base and comprising steel profile sheeting to the upper part. The building roof sheets reportedly do not comprise asbestos cement. The sheds were being used to store woodchips, tarmac and road planings. Three additional temporary concrete bays along the frontage contained sand and road planings. Along the northern perimeter of the lower area additional storage of street furniture (lighting columns), was observed.
- 4.16 Along the eastern boundary of the lower permit area an elongated oval-shaped raised concrete platform was situated along the majority of the length of the boundary.
- 4.17 The platform incorporated a small concrete batching plant, a small cold process Tarmac coating facility (both of which are installations subject to PPC permits for Part B processes regulated by BMBC), a storage area for highways and other maintenance materials, and a small office cabin (Appendix A2). It has since been revealed that the concrete batching plant is to remain at this location, but the cold process Tarmac coating facility is to be removed as part of the phased depot redevelopment as it will be no longer required.
- 4.18 Outside the permitted area along the southern boundary of the upper site area a large fenced gas bottle storage area was located adjacent to the access ramp. A large water storage tank was situated opposite the bottle gas store adjacent to a highway's vehicle storage shed (described later in this Section).
- 4.19 The access ramp to the upper area was predominantly surfaced with concrete, much of which is in a reasonable state of repair although discrete areas were suffering from some minor damage and deterioration.
- 4.20 The surfacing within the upper site area appeared to comprise a hardstanding of hardcore and tarmac planings, having a veneer of mud due to the weather conditions, with some areas of minor damage and surface water ponding.
- 4.21 Within the upper area of the site along the western boundary, a mound of unprocessed biodegradable green wastes and a large stockpile of recovered soils was being stored. Beyond the stockpiles and the permit boundary to the west, a large road salt storage dome was situated. It is understood that the dome is used by the Borough Highways Team for additional storage of highways maintenance equipment as well as salt storage for winter road maintenance. The dome has its own dedicated access through the permitted area as shown on the Site Plan at Appendix B1.
- 4.22 The upper area contained a variety of stockpiles of aggregates and hard landscaping materials, including, secondary aggregates (6F2 etc), grits, soils, crushed concrete, paving slabs, lamp posts and stone. Mobile crushing and screening equipment was present although this was not operational during the visit.
- 4.23 Along the eastern boundary of the upper area, a large mound of mixed materials, mostly consisting of unprocessed soil-like materials with a small proportion of mixed secondary aggregate-type materials present. An electricity pylon protected on three sides by compacted earth bunds was situated directly adjacent to the mound to the south-east.



- 4.24 Adjacent to the south-eastern boundary of the upper area was a stockpile of shredded green waste, which appeared to have been subjected to composting although apparently not it was not fully composted or matured. A dedicated concrete pad with sealed drainage was originally proposed to be constructed to accommodate composting activities within the upper (inert) site area, however, it is now proposed that green waste will be accommodated in a dedicated bay within the General Waste Transfer and Treatment Area.
- 4.25 Along the southern boundary of the upper site was an area partially surrounded by 'A-frame' concrete blocks, apparently a de-watering facility for road sweepers to discharge their loads into. The liquid was being drained into a reed bed system however, no additional formal drainage was present. The gully sweepings are also to be accommodated within the General Waste Transfer and Treatment Area.
- 4.26 Further details of the proposed infrastructure and drainage improvements has been provided in Section 10 of this ASCR.
- 4.27 Adjacent to this area were two small shipping containers and storage area for approximately 30 no, 205 litre nominally empty fuel drums sitting on wooden pallets. These will need to be stored within a suitable area with sealed drainage in future.
- 4.28 Outside the upper permitted area to the south, the highways vehicle storage shed was seen to be of steel portal frame construction and clad with asbestos cement-bonded sheets. An open drain was located between the water tank and the north-western corner of the building.
- 4.29 A sunken weighbridge and associated building was observed some distance to the south of the entrance to the lower permitted area closer to the main depot entrance. It is understood that the weighbridge is to be replaced by a new surface mounted weighbridge as part of the proposed depot redevelopment (in progress August 2019).

## 5 Geology

- 5.1 An assessment of the geology relating to the site has been made from the web based British Geological Survey (BGS) Geology of Britain Viewer and the BGS lexicon of named rock units. Reference has also been made to web based BGS Geoindex information relating to artificial ground, faulting, mass movement and any borehole records for the locality.
- 5.2 From the above it is anticipated that the sequence of strata beneath the subject property and any foundations or hardstanding, in order of successive depth, is as set out in the following table:

<b>Artificial Ground</b>	
<b>Made Ground (undivided)</b>	Variable composition. Man-made superficial deposit (generic). Affects the entire proposed area to be permitted.
<b>Superficial Geology</b>	
<b>None identified</b>	There are no records of superficial geology underlying the site.
<b>Solid Geology (Bedrock)</b>	
<b>Pennine Middle Coal Measures Formation</b>	<p><b>Mudstone, Siltstone and Sandstone:</b> Sedimentary Bedrock formed approximately 310 to 318 million years ago in the Carboniferous Period. Local environment previously dominated by swamps, estuaries and deltas.</p> <p><b>Setting:</b> Swamps, estuaries and deltas These sedimentary rocks are fluvial, palustrine and shallow-marine in origin. They are detrital, forming deposits reflecting the channels, floodplains and deltas of a river in a coastal setting (with periodic inundation from the sea).</p>
<b>Pennine Middle Coal Measures Formation</b>	<p><b>Sandstone:</b> Sedimentary Bedrock formed approximately 310 to 318 million years ago in the Carboniferous Period. Local environment previously dominated by swamps, estuaries and deltas.</p> <p><b>Setting:</b> Swamps, estuaries and deltas. These sedimentary rocks are fluvial, palustrine and shallow-marine in origin. They are detrital, forming deposits reflecting the channels, floodplains and deltas of a river in a coastal setting (with periodic inundation from the sea).</p>

- 5.3 The BGS Geoindex identifies no faulting either on or in close proximity to the subject site.
- 5.4 The BGS Geoindex identifies no mass movement deposits or landslides have been identified either on or in close proximity to the subject site.
- 5.5 The BGS Geoindex identifies no pre-existing borehole data for the subject site.
- 5.6 The BGS Geoindex indicates that the site lies within an opencast coal prospecting site, 1940 to date which may have either been drilled and not worked or exploited.

## **6 Mining and Ground Stability**

### **Coal Mining**

- 6.1 Reference to the Coal Resources Map of Britain prepared by the British Geological Survey (BGS) and the Coal Authority and dated 1999, indicates that the site may have been surface mined or undermined in the past. The location has the potential for shallow coal with less than 50m overburden.

### **Coal Authority Interactive Map Viewer**

- 6.2 A search of the site area has been made using the Coal Authority Interactive Map Viewer available on The Coal Authority website.
- 6.3 This has identified that no part of the site lies within a Coal Mining Development High Risk Area although the site lies within a Coal Mining Reporting Area.

### **Coal Authority Mining Report**

- 6.4 A CON29M non-residential Coal Authority Mining Report dated 01 November 2017 was obtained for the site, a copy of which is presented at Appendix E.
- 6.5 The report is based on and limited to the records held by the Coal Authority and the records of the Cheshire Brine Subsidence Compensation Board (as may be applicable) at the time the Coal Mining Report was issued.
- 6.6 The report indicates that the site is in a surface area that could be affected by past underground mining in 4 seams of coal at 90m to 300m depth, and last worked in 1965. Any movement in the ground due to coal mining activity should have stopped.
- 6.7 The property is not within a surface area that could be affected by present underground mining.
- 6.8 The property is not in an area where the Coal Authority has plans to grant a licence to remove coal using underground methods.
- 6.9 The site is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.
- 6.10 The site is not in an area likely to be affected from any planned future underground coal mining. However, reserves of coal exist in the local area which could be worked at some time in the future.
- 6.11 No notices have been given, under Section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.
- 6.12 The report indicates that there are no mine entries within, or within 20 metres of, the boundary of the property.
- 6.13 The report indicates that there are no known coal mine entries within, or within 20 metres of, the boundary of the property. There may however be mine entries/additional mine entries in the local area which the Coal Authority has no knowledge of.



- 6.14 The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.
- 6.15 The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.
- 6.16 The site does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.
- 6.17 There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.
- 6.18 The site is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.
- 6.19 The Coal Authority has not received a damage notice or claim for the subject site, or any property within 50 metres, since 31 October 1994.
- 6.20 There is no current Stop Notice delaying the start of remedial works or repairs to the property.
- 6.21 The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under Section 33 of the Coal Mining Subsidence Act 1991.
- 6.22 The Coal Authority has no record of a mine gas emission requiring action.
- 6.23 The site has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.
- 6.24 The property is in an area where a notice to withdraw support was given in 1951.
- 6.25 The property is not in an area where a notice has been given under Section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.
- 6.26 The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.
- 6.27 The site is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994 relating to payments to owners of former copyhold land.
- 6.28 The property lies outside the Cheshire Brine Compensation District.

### **Non-Coal Mining**

- 6.29 Information on non-coal mining areas is provided by the BGS and is included within the Groundsure report.
- 6.30 Two non-coal mining areas located within 50m of the study site boundary as follows:

Distance (m)	Direction	Name	Commodity	Assessment of Likelihood
0	On Site	Not Available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered.
0	On Site	Sheffield Area	Vein Mineral /Iron Ore	

### Natural Ground Hazards

- 6.31 The National Ground Subsidence rating is obtained through the six natural ground stability hazard datasets supplied by the BGS and the data for the site is included in the Groundsure report. The maximum hazard rating of natural subsidence within the site is **Low**.
- 6.32 **Shrink-Swell Clays** (Risk – **Very Low**). Ground conditions predominantly low plasticity. No special actions and no special ground investigation required to avoid problems due to shrink-swell clays and increased construction costs or financial risks are unlikely.
- 6.33 **Landslides** (Risk – **Low**). Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations takes place. Possible increase in construction cost to reduce potential slope stability problems. For existing property no increase in insurance risk likely due to natural slope instability problems.
- 6.34 **Ground Dissolution of Soluble Rocks** (Risk – **Negligible**). Soluble rocks present but unlikely to cause problems except under exceptional conditions. No special actions and no special ground investigation required to avoid problems due to soluble rocks and increased construction costs or financial risks are unlikely.
- 6.35 **Compressible Ground** (Risk – **Very Low**). Very low potential for compressible deposits to be present. No special actions and no special ground investigation required to avoid problems due to compressible deposits and increased construction costs or financial risks are unlikely.
- 6.36 **Collapsible Deposits** (Risk – **Very Low**). Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required to avoid problems due to collapsible deposits and increased construction costs or financial risks are unlikely.
- 6.37 **Running Sands** (Risk – **Low**). Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce the likelihood of problems. For new build consider the possibility of running sand into trenches or excavations if water table is high or sandy strata is exposed to water. Avoid concentrated water inputs into the site. No increase in construction costs likely due to the presence of running sand. For existing property no increase in insurance risk due to running sand.

### Radon

- 6.38 Reference to the Groundsure Enviro Insights report and the online interactive Indicative Atlas of Radon in England and Wales, available on the Public Health England website, indicates that the site is located in a Radon Affected Area.

- 6.39 This is where 1 to 3% of homes tested for radon within the 1.0 kilometre grid square in which the site is located, are anticipated to be above the Action Level for homes of 200 Bq m<sup>-3</sup>. (NB The Action Level for radon in the workplace is 400 Bq m<sup>-3</sup>).
- 6.40 The site is not located in an area where Radon Protection is required for new properties or extensions to existing ones as advised in BRE report BR 211 '*Radon: guidance on protective measures for new dwellings*' dated 1999.



## 7 Hydrology

- 7.1 The nearest surface water feature to the site is considered to be the tertiary open drain which is located approximately 16 metres north-west of the site. This flows in a general south-westerly direction into the large pond located approximately 120 m east and 145 m south-south-west of the subject site. It is considered likely that the River Dearne receives overflow from the pond.
- 7.2 The Environment Agency's Catchment Data Explorer indicates that the subject site forms part of the catchment of the River Dearne which is situated approximately 252 metres to the south-west of the site at its nearest point.
- 7.3 No biological river quality data is available for the River Dearne within 1.50 km of the site.
- 7.4 The current chemical quality of the catchment of the River Dearne is based on the General Quality Assessment Headline Indicators scheme (GQAH). In England, each chemical sample is measured for ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad'). The current quality has been classified as B and D at two points 653m west of the site.
- 7.5 The following chemical quality records are available within 1.5km of the site:

Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
653	W	433979 408458	River Dearne Cawthorne Dyke to New Lodge (End of Stretch)	B	B	B	B	B
653	W	433979 408458	River Dearne New Lodge to Old Mill (Start of Stretch)	D	B	C	C	D
1121	S	435100 407200	River Dearne New Lodge Old Mill Sample Point NGR	D	B	C	C	D

- 7.6 There are no Surface Water Abstraction Licences located within 1.0 km of the site.
- 7.7 There are no Potable Water Abstraction Licences located within 1.0 km of the site.
- 7.8 There are ten Environment Agency licensed discharge consents recorded within 500 metres of the site, the details of which are summarised in the following table:

Distance (m) Direction NGR	Address/Nature of Discharge	Receiving Waters	Issue Date	Status
255 SE 434840 408032	Undefined site/Sewage Discharges - Sewer Storm Overflow (Water Company)	Varies with outlet	Transferred from R(PP)A 1951- 1961 29/05/1963	Revoked 31/03/2005
273 SE 434790 407990	Smithies Lane CSO, Smithies Lane, Barnsley, South Yorkshire/ Sewage Discharges – Sewer Storm Overflow	Tributary of the River Dearne	New Consent (WRA 91, S88 & Sched 10 as amended by Env Act 1995) Issue date: 28/03/2003	Active

Distance (m) Direction NGR	Address/Nature of Discharge	Receiving Waters	Issue Date	Status
316 N 434775 408815	Undefined site/Sewage Discharges - Sewer Storm Overflow (Water Company)	Varies with outlet	Transferred from R(PP)A 1951- 1961 29/05/1963	Revoked 31/03/2005
355 N 434560 408840	Hill Top Farm CSO, Wakefield Road, East Gawber Farm, Barnsley, South Yorkshire Sewage Discharges - Sewer Storm Overflow	Ditch to the River Dearne	New Consent (WRA 91, S88 & Sched 10 as amended by Env Act 1995)	Revoked 03/06/2007
355 N 434560 408840	Hill Top Farm CSO, Wakefield Road, East Gawber Farm, Barnsley, South Yorkshire Sewage Discharges - Sewer Storm Overflow	Ditch to the River Dearne	Modified (WRA 91, S88 & Sched 10 as amended by Env Act 1995) Issue date: 04/06/2007	Active
438 N 434614 408934	Undefined site/Sewage Discharges - Sewer Storm Overflow (Water Company)	Varies with outlet	Transferred from R(PP)A 1951- 1961 29/05/1963	Revoked 31/03/2005
464 NW 434300 408800	Tankersley Sewage Treatment Works, Lidgett Lane, Near Worsborough, Barnsley, South Yorkshire, S75 3BS Sewage discharges – Final/treated effluent	Birdwell Dyke	Modified (WRA 91, S88 & Sched 10 as amended by Env Act 1995) Issue date: 24/03/2004	Revoked 31/03/2009
464 NW 434300 408800	Tankersley Sewage Treatment Works, Lidgett Lane, Near Worsborough, Barnsley, South Yorkshire, S75 3BS Sewage discharges – Final/treated effluent	Birdwell Dyke	Modified (WRA 91, S88 & Sched 10 as amended by Env Act 1995) Issue date: 24/03/2004	Revoked 31/03/2009
464 NW 434300 408800	Tankersley Sewage Treatment Works, Lidgett Lane, Near Worsborough, Barnsley, South Yorkshire, S75 3BS Sewage discharges – Final/treated effluent	Birdwell Dyke	Transferred from R(PP)A 1951- 1961 16/11/1981	Revoked 23/03/2004
464 NW 434300 408800	Tankersley Sewage Treatment Works, Lidgett Lane, Near Worsborough, Barnsley, South Yorkshire, S75 3BS Sewage discharges – Final/treated effluent	Birdwell Dyke	Transferred from R(PP)A 1951- 1961 16/11/1981	Revoked 23/03/2004

- 7.9 Reference to the Environment Agency map of Drinking Water Protection Areas shows that no 'Surface Water Safeguard Zones' have been identified in the locality.
- 7.10 There are no Environment Agency recorded Water Industry Act Referrals relating to potentially harmful discharges to the public sewer within 500 metres of the site.
- 7.11 There are no Environment Agency recorded Red List discharge consents relating to potentially harmful discharges to controlled waters within 500 metres of the site.

- 7.12 There are no Environment Agency licensed surface water abstractions recorded within a 1-kilometre radius of the site.

## 8 Flooding

- 8.1 In respect of flooding, the Environment Agency Flood Map has been consulted which identifies the extent of the natural floodplain, if there were no flood defences as well as the location of any flood defences constructed in the last 5 years.
- 8.2 Long term flood risk information from the Environment Agency's National Flood Information Service has been consulted. According to the online mapping system there is no risk of flooding of the site from rivers or the sea, although there is a very low risk area identified along the western boundary of the site.
- 8.3 There is a low to high risk of some small parts of the northern part of the site being affected by surface water flooding due to the presence of a ditch drain.
- 8.4 There is no risk of flooding from reservoirs.
- 8.5 The Environment Agency's Flood Risk for Planning (Rivers and Sea) mapping system has also been consulted for the site location. The maps indicate that the site is located within Flood Zone 1. Land and property in flood zone 1 have a low probability of flooding. Flood zones refer to the probability of river and sea flooding ignoring the presence of defences. It should be noted however, that the flood zones on the Environment Agency's mapping system do not take account of the possible impacts of climate change, and consequent changes in the future probability of flooding.
- 8.6 The Environment Agency's Historical Flood Map has been consulted which indicates that the site has not suffered from historical flooding in the past.
- 8.7 There are no Flood Defences within 250m of the site.
- 8.8 There are no areas benefiting from Flood Defences within 250m of the site.
- 8.9 There is an area used for Flood Storage within 250m of the site.
- 8.10 Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding). The site is located within 50 metres of an area defined as having a potential for groundwater flooding based on the underlying geological conditions, relating to clearwater flooding.
- 8.11 Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded. The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding.
- 8.12 The BGS confidence rating is MODERATE, based on the amount and precision of the information used in the assessment.



## 9 Hydrogeology

- 9.1 From 1 April 2010, the Environment Agency/Natural Resources Wales adopted a Groundwater Protection Policy using aquifer designations consistent with the Water Framework Directive.
- 9.2 The site is not directly underlain by superficial deposits; however, the Groundsure Enviro Insights Report designates the aquifer within superficial geology as Secondary A Aquifer (formerly a minor aquifer) at a location 124 metres south-west of the site.
- 9.3 The bedrock aquifer designation directly beneath the site is Secondary A Aquifer.
- 9.4 Secondary aquifers include a wide range of rock layers or drift deposits with an equally wide range of water permeability and storage capabilities. Secondary A aquifers have 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.
- 9.5 There are no Groundwater Abstraction Licences within 1 km of the site.
- 9.6 There are no Source Protection Zones within 500m of the site.
- 9.7 There are no Source Protection Zones within the Confined Aquifer within 500m of the site.
- 9.8 Environment Agency information on groundwater vulnerability and soil leaching potential within 500 metres of the site the details of which are summarised in the following table:

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On site	Minor Aquifer / High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
0	On site	Minor Aquifer / High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
0	On site	Minor Aquifer / Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.

- 9.9 Reference to the Environment Agency map of Drinking Water Protection Areas shows that no '*Groundwater Safeguard Zones*' have been identified in the locality.
- 9.10 The Environment Agency website reveals that the property is not located within any of the nearly 2000 Groundwater Source Protection Zones which have been identified in England and Wales as major groundwater sources (wells, boreholes or springs) used for public drinking water supply.

- 9.11 There are no recorded Environment Agency licensed groundwater abstractions within a 1-kilometre radius of the site.
- 9.12 Based on the above information, it is considered that the site is not located in a highly sensitive area in terms of groundwater resources.

## 10 Proposed Drainage and Infrastructure Improvements

- 10.1 This Section describes new or upgraded drainage and infrastructure improvements proposed for the new waste facility, all of which are to be in place and functional prior to site opening.

### Sealed Drainage

- 10.2 The existing drainage arrangements within the proposed area to be permitted have been described briefly in Section 4 – Site Reconnaissance where they could be identified and are generally not relevant to the current/future proposals for the permitted waste facility.
- 10.3 Some pre-application discussions took place with the Environment Agency during 2017/early 2018 which included requirements for sealed drainage at the facility. Drainage design work for the purposes of the permit has subsequently been carried out by the Highways Department at BMBC.
- 10.4 There are no drainage alterations proposed within the upper Inert Waste Storage and Treatment Area. The existing surfacing in this area comprises a substantial hardstanding of hardcore, sub-base and tarmac planings and only '*specified wastes*' as listed in Table 2.2 and defined in Section 4.4 of the SR2015 No 6 are to be stored and treated in this location. Whilst small quantities of compost and gully sweepings have been dealt with within this area in the past, and storage of nominally empty fuel drums on drip trays was taking place, these waste types and activities are to be moved to the lower General Waste Transfer and Treatment Area which is to have formal sealed drainage arrangements.
- 10.5 Whilst the initial design proposal indicated that a dedicated concrete composting pad with sealed drainage would be built in the upper site area to deal with green waste, Defra's policy on the matter in their December 2018 '*Our waste, our resources: a strategy for England*' document was unclear, and consultations relating to charging for green waste by local authorities are still to be concluded nationally. The composting pad has therefore not been included in the design at this stage but may be added at a later date if required, subject to variation of the permit. Green waste will be accommodated within one of the new bays in the lower operational area.
- 10.6 Sealed drainage is required in the lower General Waste Transfer and Treatment Area. YW were initially consulted in the early stages of the project at the same time as the pre-application discussions with the EA. YW Statutory Sewer Plans indicate the presence of a 225mmØ combined sewer which traverses the site in a general NNW to SSE orientation. This is marked in red on both the BMBC Sealed Drainage Strategy Detail Plan [HS-SLD-LBA-500-03] at Appendix F1 and the YW correspondence at Appendix F5 which confirms that permission has been granted by YW for a single connection to the combined sewer for disposal of trade effluent under Section 106 of the Water Industry Act 1991.
- 10.7 Drawing [HS-SLD-LBA-500-03] at Appendix F1 shows the drainage detail and Appendix F2 comprises the Sealed Drainage Design Output Sheets from the Micro-drainage programme. The sealed drainage design provides for the lower area of the site to be resurfaced partly with concrete, retaining the natural fall to the south-west towards the new concrete waste bays.



- 10.8 Along the full length of the front of the bays is a linear 200mm wide Birco channel drain, (BCKD1 northern end / BCKD2 southern end). (See also Appendix D – Photographs 38, 39, and 40). Surveyed cover and invert levels and pipe dimensions are indicated in the table '*Pipe Network and Manhole Schedule*'.
- 10.9 The channel drain will join MH1 in the south west corner which in turn will feed into a SPEL Class 2 oil/water or similar approved separator (technical information provided at Appendix F3). From the separator and via MH2, drainage waters will enter a box culvert (with two surface entry points), at least 0.8m below ground, and sized to provide storage attenuation of 120m<sup>3</sup> for a return period of 1 in 100 years with an additional 30% climate change allowance. The attenuation is to comprise 8 no. box units with internal dimensions of 2.1m x 4.2m with a depth of 2.1m.
- 10.10 MH3 is to incorporate a Hydro International MD-SCL-0078-4100-2100-4100 Hydrobrake flow control chamber to limit the discharge into the combined sewer to 5 l/s. The Hydrobrake technical information is provided at Appendix F4 and the junction connection detail to the combined sewer is shown on the drawing at F1.
- 10.11 Surface water not intercepted via the Birco channel drain, would be collected within the Firefighting Water Holding Area, draining via MH4 at its lowest point and into the system via MH1. In the event of a fire, the drain can be blocked off if necessary if fire-fighting water needed be stored and held until laboratory analysis is completed; then it can either be subsequently released to the combined sewer system subject to YW agreement, or removed by BMBCs vacuum tanker for off-site disposal to a specialist treatment plant. This is described in further in the Fire Prevention Plan (FPP) [Doc Ref: AC00165/BMBC/Smithies/FPP V1.0].

### **Other Infrastructure Improvements and Features**

- 10.12 Other infrastructure improvements and features which are considered potentially material to the ASCR include the concrete loading bays, concrete pavements and floodlighting ducting, the fitting of a sprinkler system to the full length of the existing barn, the location of an existing gas bottle store, and the location of waste oil and battery storage.
- 10.13 Construction detail for the concrete retaining walls and pavements forming the loading bays and the floodlighting ducting detail is shown on two drawings, reference HS/SLD/LBA/900/01 and HS/SLD/LBA/500/02, also supplied with the permit application. The concourse area is to be surfaced with an impermeable bituminous binder above sub-base and surfacing materials (Appendix D – Photograph 41). The proposed schematic layout of the two operating areas within the permit boundary are included at Appendix B1 and B2.
- 10.14 The existing barns located at the northern end of the lower area, where waste sorting is to take place, are to have a sprinkler system fitted. In the event of a fire, drainage would be captured and contained by the sealed drainage system. (Please see NTS and FPP for further details).
- 10.15 An existing gas bottle store located immediately to the east of the entrance to the inert recycling area is to be included within the permitted area (Appendix D – Photograph 19). Also, BMBC have requested that the waste oil tank and the battery store (located to the east and to the south of Fleet Services Garage respectively), be included within the permit (Appendix D – Photographs 36 and 37). These are shown outlined in green on the Depot Plan [HS/SLD/LBA/1100/05] which accompanies the permit application.

- 10.16 It should also be noted that the installation of a new surface mounted weighbridge suitable to accommodate articulated vehicles has already taken place prior to the submission of this application. It is located adjacent to the Stores, part way up the access road central to the main depot (a short distance to the south of the area to be permitted). Other non-material improvements include marking and signing of the site and the wider depot to formalise a one way system to facilitate safer movement of traffic.

## 11 Other Environmental Information

### Waste

- 11.1 The influencing distance of a gassing landfill is dependent on a number of variables, including the type of waste, geology, hydrogeology, site engineering etc. Therefore, owing to the specific nature of each of these factors, it is not possible to guarantee that a site is not within the influencing distance of a known landfill site. However, it is normal practice to consider the 250-metre consultation zone around the site.
- 11.2 Where records without plans identify landfilling operations within a 500-metre radius of the site, these have been considered as they may encroach within the adopted 250 metre radius consultation zone.
- 11.3 There is one record of a BGS/DoE landfill site within a 500-metre radius of the site (Smithy Green Tip, located onsite, no risk to aquifer, waste types not stated). The BGS database of landfill sites for England and Wales was prepared as part of the survey carried out on behalf of the DoE (now DEFRA) in 1973.
- 11.4 Three Local Authority/Historical Mapping Recorded Landfill Sites have been identified within a 500-metre radius of the site. These are located onsite (Refuse Tip – 1970 mapping), 76m East (Refuse Tip – 1970 mapping), and 307m South (Refuse Tip 1970 mapping).
- 11.5 There are six Environment Agency recorded historic landfill sites identified within a 500 metre radius of the subject site, the details of which are given below:

Operator, Site Name, Address (& Licence No.)	Accepted Waste Types	First Waste Received	Last Waste Received	Location
Unknown Operator Smithies Tip, off Smithies Lane, Barnsley Site ref: 4400/(141)	Unknown	Not given	Not given	2m SW
Unknown operator Land adjacent to Wakefield Road, Barnsley	Unknown	01/06/1987	30/11/1987	41m NE
Dalestone Works Wakefield Road, Barnsley  Site Ref: 4400/(142)	Unknown	Not given	Not given	49m E
Booth Excavations Ltd Wakefield Road, Barnsley Site ref: 20B320(79), WD20 B320, 4400/B320	Industrial / Commercial	28/07/1981	09/05/1988	272m SE



Operator, Site Name, Address (& Licence No.)	Accepted Waste Types	First Waste Received	Last Waste Received	Location
Barnsley County Borough Council Smithy Green Tip, Smithies Lane, Barnsley	Industrial	31/12/1948	Not given	314m S
Star Paper Ltd Old Mill Lane, Barnsley Site ref: WD20 B4(i), 4400/B4	Inert  Liquid sludge	31/01/1978	25/02/1982	409m SE

- 11.6 There are four registered Environment Agency Permitted waste sites within 250 metres radius of the site, however, only one has been identified within a 100 metre radius and is summarised below:

Operator, Site Name, Address (& Licence No.)	Type	Issue Date	Surrendered By	Location
FCC Recycling (UK) Limited	Household Waste Amenity Site	23/11/2012	N/A (Site active)	92m SE

### Pollution Prevention and Control

- 11.7 There are no records of Environment Agency recorded Part A(1) and Integrated Pollution Prevention and Control (IPPC) Authorisations within 500 metres of the site.

### Historic Integrated Pollution Control

- 11.8 There are no records of historic Integrated Pollution Control (IPC) Authorisations identified within 500 metres of the site.

### List 1 and 2 Dangerous Substances Inventory Sites

- 11.9 There are no recorded List 1 Dangerous Substance Inventory Sites within 500 metres of the subject site.
- 11.10 There are no recorded List 2 Dangerous Substance Inventory Sites within 500 metres of the subject site.

### Part A(2) and Part B Activities and Enforcements

- 11.11 There are five Local Authority recorded Part A(2) / Part B Activities within 250 metres of the site, the details of which are summarised in the following table:

Operator Address	Process	Enforcement	Status	Location
Barnsley MBC Smithies Lane Depot, Smithies Lane, Smithies, Barnsley S71 1NL	Crushing and screening designated material	None Notified	Current Part B	88m E

Operator Address	Process	Enforcement	Status	Location
Engineering Services DLO Smithies Lane Depot, Smithies Lane, Smithies, Barnsley S71 1NL	Use of bulk cement	None Notified	Current Part B	88m E
Hope Construction Materials Ltd Wakefield Road, Barnsley S71 1NU	Use of bulk cement	None Notified	Current	153m NE
Tilcon Ltd Wakefield Road, Barnsley S71 1NU	Cement/lime/mortar process	None Notified	Current Part B	171m SE
DC Cook Ltd Wakefield Road, Barnsley S71 1NJ	Respraying motor vehicles	None Notified	Current Part B	229m E

### Radioactive Substance Licences

- 11.12 There are no Environment Agency recorded Category 3 or 4 Radioactive Substance Licences within 500 metres of the site.

### Hazardous Substances

- 11.13 There are no Control of Major Accident Hazards (COMAH) sites within a 500-metre radius of the site.
- 11.14 There are no Notifications of Installations Handling Hazardous Substances (NIHHS) sites within a 500-metre radius of the site.
- 11.15 There are no Planning Hazardous Substance Consents (or enforcements) identified within a 250-metre radius of the site.

### Pollution Incidents

- 11.16 There have been nine pollution incidents with an impact on land recorded on the Environment Agency National Incidents Recording System (NIRS) within 500 metres of the site, the details of which are summarised in the following table:

Incident Date	Nature of Incident	Severity	Location
04/09/2003	Pollutant not identified	Water Impact Category 3 (Minor)	268m S
14/01/2002	Crude sewage	Category 3 (Minor)	288m SE
26/11/2002	Natural Organic Materials	Land Impact Category 2 (Significant)	416m NE
26/11/2002	Commercial Waste	Land Impact Category 2 (Significant)	416m NE
26/11/2002	Natural Organic Materials Commercial Waste, Household Waste Tyres	Land Impact Category 2 (Significant)	416m NE

Incident Date	Nature of Incident	Severity	Location
26/11/2002	Natural Organic Materials Commercial Waste, Household Waste Tyres	Land Impact Category 2 (Significant)	416m NE
26/11/2002	Commercial Waste, Household Waste, Tyres	Land Impact Category 2 (Significant)	416m NE
26/11/2002	Tyres	Land Impact Category 2 (Significant)	416m NE
26/11/2002	Household Waste	Land Impact Category 2 (Significant)	416m NE

## Part 2A Contaminated Land Designations

- 11.17 There are no records of sites determined as contaminated land by the Local Authority under Section 78R, Part 2A of the Environmental Protection Act 1990 within a 500m radius of the site.

## Commercial and Industrial Land Uses

- 11.18 The following table lists the current uses, which have been identified as potentially contaminative industrial sites within a 100 metre radius:

Use	Address	Activity	Category	Location
Pylon	S71	Electrical Features	Infrastructure and Facilities	On Site
Depot	S71	Container and Storage	Transport, Storage and Delivery	62m E
Tank	S71	Tanks (Generic)	Industrial Features	74m SE
Tank	S71	Tanks (Generic)	Industrial Features	77m SE
Blok N Mesh South West Ltd	Unit 2, The Recovery Centre, Wakefield Road, Barnsley S71 1NU	Fences, Gates and Railings	Industrial Products	88m NE
Pylon	S71	Electrical Features	Infrastructure and Facilities	96m SE
Barnsley MBC Waste Management Services	Smithies Lane, Smithies, Barnsley S71 1NL	Waste Storage, Processing and Disposal	Infrastructure & Facilities	100m E
Barnsley MBC Fleet Services	Smithies Lane, Smithies, Barnsley S71 1NL	Vehicle Repair, Testing and Servicing	Repair and Servicing	100m E



### Petrol and Fuel Sites

- 11.19 The following table lists the recorded petrol or fuel sites within 500 metres of the subject site.

Use	Address	Activity	Category	Location
Service Station	Wakefield Road, Smithies, Barnsley, South Yorkshire S71 3LR	Obsolete	Commercial Services	416m SE

### National Grid High Voltage Underground Electricity Transmission Cables

- 11.20 Records identify no high voltage underground electricity transmission cables within 500 metres of the subject site.

### National Grid High Pressure Gas Transmission Pipelines

- 11.21 Records identify no high-pressure gas transmission pipelines within 500 metres of the subject site.

### Designated Environmentally Sensitive Areas

- 11.22 Two designated environmentally sensitive areas have been identified within a 1 kilometre radius of the subject site, the details of which are summarised in the following table:

Designation	Name	Data Source	Location
Nitrate Vulnerable Zones	Existing	DEFRA	On Site
Green Belt	Liverpool, Manchester and West Yorks Greenbelt	Barnsley District (B)	On Site

- 11.23 There are no Sites of Specific Scientific Interest, National Nature Reserves, Special Areas of Conservation, Special Protection Areas, Ramsar Sites, Ancient Woodland, World Heritage Sites, Environmentally Sensitive Areas, Areas of Outstanding Natural Beauty, National Parks or Nitrate Sensitive Areas located within a 1 kilometre of the site.

## 12 Planning History

- 12.1 A review of Barnsley Metropolitan Borough Council's online planning records has been made to determine the planning history of the Smithies Lane Depot site which has highlighted the following:

Planning Reference	Date Approved	Development Proposals & Notes
2012/0024	10/01/2012	<p>Applicant: Mr J Graham, Highways &amp; Engineering, BMBC</p> <p>Erection of single storey rear extension to existing changing rooms &amp; refurbishments.</p> <p><b>Approve with conditions</b></p> <p>The application provides for a small extension to the depot building located immediately to the south of the proposed lower Waste Transfer and Treatment area of the site. Supplementary information provided with the application includes a Mineral Report by P. James, Principal Mining Engineer. The report identifies local landfills associated with the Wharnccliffe Carlton Colliery. Where identified, the waste types associated with the landfills include construction, excavation, demolition and subsoil. The report states that the site may contain contamination associated with the former coke works.</p> <p>Boreholes undertaken in 1976 on the adjacent Itinerant campsite indicated approximately 7.5m of ash, clinker and traces of brick and pottery and evidence of burning. Further investigations were undertaken in 1978 and mid 1990s prior to the site being reworked, with the coal and combustible content removed, capped with hardcore and concrete pads to form a developable platform. The latter investigation identified made ground between 4.15m and 5.8m overlying approximately 1.5m of alluvium.</p> <p>Conclusions were that the site was stable from the mining subsidence aspect and that prior to any construction project the material should be adequately investigated, the fill removed as may be appropriate and the foundations designed accordingly. Information on the presence of fugitive gas was 'inconclusive', therefore, could not be ruled out so gas protection measures were recommended for the extension.</p>
2019/0113	04/02/2019	<p>BMBC Westgate Plaza, PO Box 634, Barnsley S70 9GG</p> <p>Erection of 2.4m high security fence.</p> <p><b>Approve with conditions</b></p> <p>Application for the erection of a straight section of security fencing along the western boundary of the depot between the north-western corner of the public waste disposal site and the boundary with the drain to the north-western end of the salt dome.</p>

- 12.2 BMBC Department of Planning have deemed that the development of the waste facility constitutes '*Permitted Development*' under the Town and Country Planning (General Permitted Development) (England) Order 2015; Part 12; Class B; Part B:
- B. The deposit by a local authority of waste material on any land comprised in a site which was used from that purpose on 1 July 1948 whether or not the superficial area or the height of the deposit is extended as a result.*

## 13 Preliminary Conceptual Site Model

- 13.1 The conceptual site model (CSM) is based on the concept that for there to be an environmental risk, particularly the risk of contamination, there must be a link between a source of contamination, a pathway by which it can migrate and a receptor or target. It has been used as a preliminary screening exercise to identify potential source-pathway-receptor linkages in order to establish the '*perceived*' baseline condition of the site at the time when the permit application is made. The potential sources, pathways and receptors identified in the CSM have also been considered with respect to the future proposed use of the subject site as a Local Authority '*Council and Trade Waste Transfer and Treatment Facility*' in Section 14.

### **Sources (potential sources from historical and existing uses of the subject site and surrounding area)**

#### **On-site**

- Historical use of the site as railway and colliery land with colliery and refuse tipping;
- Ground gases (principally methane and carbon dioxide) from Coal Measures rocks/colliery land and refuse tipping;
- Previous onsite waste storage and treatment, albeit either low risk or on a relatively minor scale including draining of gully sweepings, composting, storage of drums and other depot uses and activities;

#### **Off-site**

- Historical uses within the surrounding area including railway and colliery land and refuse tipping;
- Ground gases (principally methane and carbon dioxide) from Coal Measures rocks/colliery land and refuse tipping;
- Other depot uses and activities / tanks, refuelling waste oil, batteries, small quantities of miscellaneous chemicals and other depot uses and activities;
- Other historical landfill sites;
- Historical colliery buildings and Coke Ovens;
- Historical mills, depots and water treatment works.

### **Pathways (based on the historical and existing use of the subject site and surrounding area)**

- Broken concrete / soils.
- Contaminant transport by vertical percolation of rainwater via drift deposits, tipped materials or otherwise Made Ground to groundwater in the Secondary A Aquifer;
- Possible defective drainage;
- Ingress into buildings of soil vapours and gases (principally methane and carbon dioxide);
- Ingestion and inhalation from direct human contact with soil, water and gas (principally methane and carbon dioxide);
- Wind (airborne particles);
- Volatilisation of contaminants to indoor or outdoor air;
- Diffusion through inadequate service pipes.



**Receptors (targets)**

- Soils beneath the site;
- Groundwater in the Secondary A Aquifer;
- Surface watercourses e.g. adjacent drain and/or nearby ponds;
- On site drinking water supply pipes (if aggressive chemical environment);
- Site workers;
- Building structures;
- Neighbouring domestic and commercial properties and their occupants and other assets such as vehicles.

- 13.2 In respect of the baseline condition of the site, it is considered highly likely that potential pollution linkages exist as a result of historical and current uses on and off the site. It is possible that they might still present, some degree of potential risk to the identified receptors, although it would be reasonable to assume that the risk would not be significant, and no material impact would occur in the absence of major development or disturbance of the ground. Existing activities on site are generally fairly minor in terms of the level of risk and are localised.
- 13.3 Whilst a potential risk from ground gases has been identified from underlying Coal Measures and various historical tipping and landfilling operations, the level of risk is difficult to assess without further information. However, the depot has existed at its current location for many years, many depot functions occur out in the open air and operational buildings appear to be naturally well ventilated owing to their open design.
- 13.4 For existing buildings on the depot, it may be prudent to introduce precautionary ventilation measures to confined spaces including small partitioned offices. It is anticipated that a precautionary approach to design would be taken with regard to any future development of the depot, particularly as a result of the recent master planning. Passive venting of ground gases, provision of an appropriate gas impermeable membrane and sealing gaps in floor joints and around service entry points is recommended. Further advice would be available from BMBC Building Control.
- 13.5 There is currently no evidence to suggest that there is significant possibility of the significant pollution of controlled waters from the site, despite the suspected existence of surface water drainage into the nearby pond. The introduction of sealed drainage to the lower part of the waste facility in future will ensure there is no occurrence of drainage to the surface water.
- 13.6 There may also be a small potential risk to on site drinking water supply pipes due to the unknown soil conditions and unknown type(s) of water supply pipes. The water provider can be asked to check the quality of drinking water from existing kitchen taps to ensure it is suitable for consumption if there are any doubts.

## 14 Risk Assessment and Recommendations

- 14.1 Potential pollution linkages have been identified due to historical and existing uses of the site, as detailed in the previous Section. However, in the context of the proposed future use of the subject site as a '*Council Waste Transfer and Treatment Facility*', it is considered fairly unlikely that the identified contamination will have a material impact on this intended future use. Additionally, upon cessation of the proposed activities the applicant should not be held responsible for the clean-up of any pre-existing contamination associated with historical uses of the site.
- 14.2 The new operational pavement area, concrete bays and sealed drainage proposed for the lower south-western site area has been designed in accordance with Highways Series specifications.
- 14.3 It should be noted that there are no major ground excavations due to take place as part of the development, except for the relatively minor works associated with the installation of the sealed drainage. Should any obvious contamination be encountered at this point, the development works should cease until an assessment has been made by experienced persons as may be appropriate.
- 14.4 The remainder of these works are mainly confined to the casting of concrete at the ground surface (and importation of pre-cast sections), ultimately preventing the risk of any further contamination from site operations entering the ground and controlled waters. No other major structures are to be built which would contribute to contamination being increased or becoming released as a result of ground disturbance.
- 14.5 Whilst no formal drainage has been proposed for the '*Inert Waste Storage and Treatment Area*', the area, unlike previously, under the permit it will be used exclusively for storage (and processing including some crushing and screening) of inert materials or '*specified wastes*' in accordance with robust acceptance procedures. The fuel tank located within this part of the site is a static double banded steel tank of substantial construction.
- 14.6 The waste oil store, remote from the two main operational areas is appropriately banded and the battery store comprises specialist containment located on hardstanding. These areas have been added to the permit at the request of the Depot Manager to increase awareness of environmental performance amongst Council staff, to promote improvement and emphasise the importance of compliance.
- 14.7 As required by, and in support of, the other conditions within the permit a Bespoke Environmental Risk Assessment has been prepared, and a Management System (MS) and Fire Prevention Plan (FPP) is to be implemented to mitigate potential environmental impacts from all areas of the operation. BMBC are also in the process of preparing job roles and staff training for the facility.
- 14.8 It is anticipated that the overall impact of the facility, once operational, should not cause the occupation, serviceability and the overall environmental risk level to alter significantly, if at all, particularly if the infrastructure is regularly inspected and fully maintained and an excellent compliance record is achieved throughout its operational life.

14.9 Given the information presented in this ASCR, is considered that the site currently presents a perceived **Medium to Low** overall level of environmental risk in relation to historical uses, and a potential **Low to Medium** environmental risk in relation to future management of the waste facility, reducing to **Low** with excellent compliance performance.

14.10 This may be set in the following hierarchy of risk as follows:

- HIGH:** Significant risk of contamination or other environmental risks given the environmental setting resulting from either poor housekeeping, other unfulfilled permit compliance obligations, or inadequate security with significant potential for environmental pollution. Historical uses could present a potential for significant environmental damage. Significant improvements in on-site risk management arrangements required in the immediate to short-term.
- MEDIUM:** Moderate risk of contamination or environmental risk given the environmental setting, resulting from some unfulfilled site management obligations under the permit. History of past contaminative uses may present a moderate environmental risk. Some improvement of on-site risk management arrangements required in the short to medium term.
- LOW:** Little risk of contamination given the environmental setting with low potential for contamination resulting from activities of the permit holder and limited presence of historical contamination. Site generally very well managed with all basic site management issues addressed and few or no remedial measures necessary.



## **Appendix A1**

### Location Plan

## **Appendix A2**

Smithies Depot - Existing Layout / Permit Boundary

## **Appendix B1**

Schematic Layout Plan [HS-SLD-LBA-100-04]

Inert Waste Storage & Treatment Area



## **Appendix B2**

Schematic Layout Plan [HS-SLD-LBA-100-05]  
General Waste Transfer & Treatment Area

## **Appendix C**

### Historical Maps

## **Appendix D**

### Site Photographs



**Appendix E**  
Coal Authority Mining Report

## **Appendix F1**

Sealed Drainage Strategy Detail [HS-SLD-LBA-500-03]  
General Waste Transfer & Treatment Area

## **Appendix F2**

### Micro-drainage Sealed Drainage Design Modelling Output Sheets



## **Appendix F3**

### SPEL Stormceptor Class 2 Oil/Water Separator - Technical Information

## **Appendix F4**

Hydrobrake SCL-0078-4100-2100-4100 Design Detail

## **Appendix F5**

Yorkshire Water plc – Permission to Make Sewer Connection (Trade Effluent)



**Appendix G**  
Groundsure Environmental Data