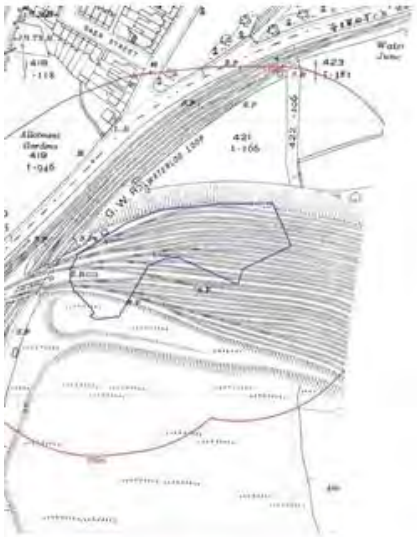

EARTH ENVIRONMENTAL
& GEOTECHNICAL

Phase 1 Geo-Environmental Desk Study Report

Aldi Store

Cardiff Road, Mon Bank

Newport

May 2020

On behalf of

Aldi Stores Ltd

Earth Environmental & Geotechnical Ltd
Kingsbury House
Kingsbury Square
Melksham
Nr Bath, SN12 6HL

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Email info@earthenvironmental.co.uk
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PHASE 1 GEO-ENVIRONMENTAL DESK STUDY REPORT

ALDI STORE

CARDIFF ROAD, MON BANK

NEWPORT

FOR

ALDI STORES LTD

Earth Environmental & Geotechnical (Southern) Ltd.
Kingsbury House
Kingsbury Square
Melksham
Nr Bath
SN12 6HL

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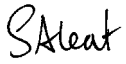
Report No. B1316/20/DTS May 2020

Report Title:	Phase 1 Geo-environmental Desk Study Report Aldi Store, Cardiff Road, Mon Bank, Newport	
Report Reference:	B1316/20/DTS	
Client:	Aldi Stores Ltd	
Issue Date:	14th May 2020	
Drafted By:	Rachael Lockyer Geo-Environmental Consultant	
Authorised By:	Simon Leat Director	

EARTH ENVIRONMENTAL & GEOTECHNICAL

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1.0 INTRODUCTION

Appointment

1.1 Earth Environmental & Geotechnical (Southern) Ltd (EEGSL) was commissioned by Craddys, acting on behalf of Aldi Stores Ltd (the Client) to undertake a Phase 1 Geo-Environmental Desk Study assessment at a site off Mon Bank in Newport, South Wales.

Terms of Reference

1.2 EEGSL was commissioned by the Client to undertake a Phase I Geo-Environmental Desk Study at the site in accordance with a proposal reference B1316 dated 19th December 2019.

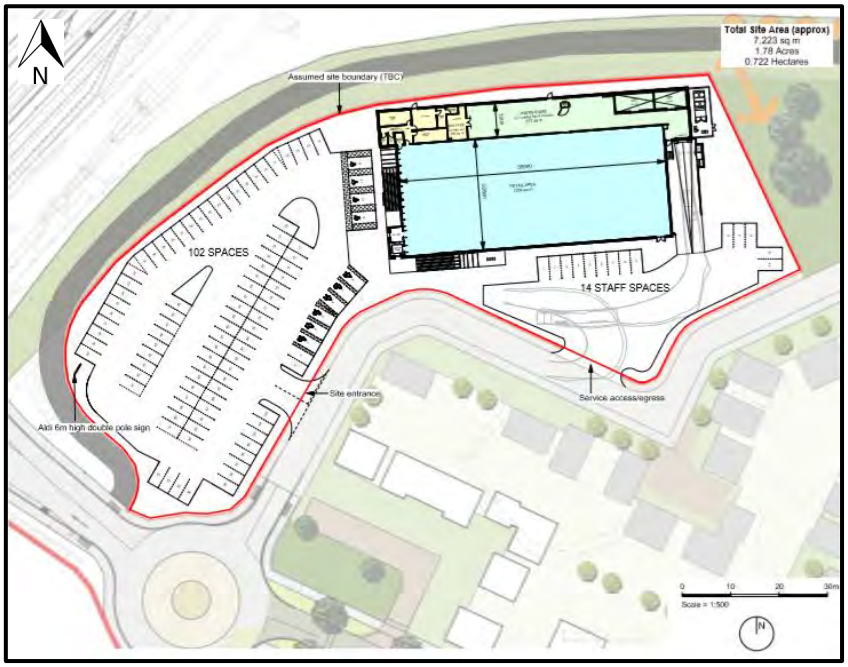
1.3 The objectives of this investigation are:

- *Undertake a desk-based review of the underlying geology of the site, including examination of geological plans, borehole records and geological memoirs to gain an understanding of the setting of the site.*
- *Review historical and environmental records to gain an understanding of the environmental setting of the site (incl. potential contamination) and associated implications on the future development of the site.*

Proposed Development

1.4 It is proposed to build a new Aldi Store on a piece of unoccupied land at Mon Bank, Newport . The proposed development layout details are shown in Figure 1 below.

Figure 1 – Proposed Development Layout Details



Sources of Information

1.5 The Phase 1 Desk Study comprises of a review of the following information sources:

- British Geological Survey online maps.
- Google Earth imagery.
- Environment Agency online data.
- Historical Ordnance Survey maps.
- The site and surrounding areas environmental and geological data presented in the site-specific Enviro+Geo Groundsure Report (Appendix 1).

Limitations of the Study

1.6 The report is written in the context of an agreed scope of work and budget and should not be used in a different context. New information, improved practices or changes in legislation may require a reinterpretation of the report in whole or in part. EEGSL reserve the right to amend either conclusions or recommendations in light of any further information that may become available. This report is provided for the sole use by the client and is confidential to them.

1.7 Recommendations within this report are also based on records produced by others. It is assumed this information is accurate and no liability can be accepted for the accuracy of this information.

2.0 THE SITE

Site Location and Description

2.1 The site is approximately 0.71ha and is located at Mon Bank, Newport at approximate National Grid Reference 330417 186814 with the nearest postcode being NP20 2PY.

2.2 An aerial photograph of the site is presented in Figure 2 below and a general site photograph in Figure 3, overleaf.

Figure 2 - Aerial Photograph of Site

2.3 At the time of writing this report the site was grassed covered and unoccupied. The site is bounded to the northwest by an existing railway line, to the north by a wooded area beyond which is Cardiff Road, to the east by an open soft landscaped area and the toe south and west by residential development and Mon Bank Road. A small tarmac covered track/lane is located along the northern and western boundary of the site.

Figure 3 - General Site Photograph Looking NE from Mon Bank Road

Site Utility Services

2.4 A site service plan has been not provided by the Client. The status of all services should be checked with the statutory providers prior to any development (including site investigation) commencing.

3.0 GEOLOGICAL SETTING

3.1 The geology of the site is covered by British Geological Survey (BGS) online data and the site-specific Groundsure Insight Report (Appendix 1).

3.2 The following sections are generally limited to locations within 250m of the site boundary unless it is considered that installations or activities beyond that range could potentially have an impact on the site or be affected by the redevelopment of the site.

Geology

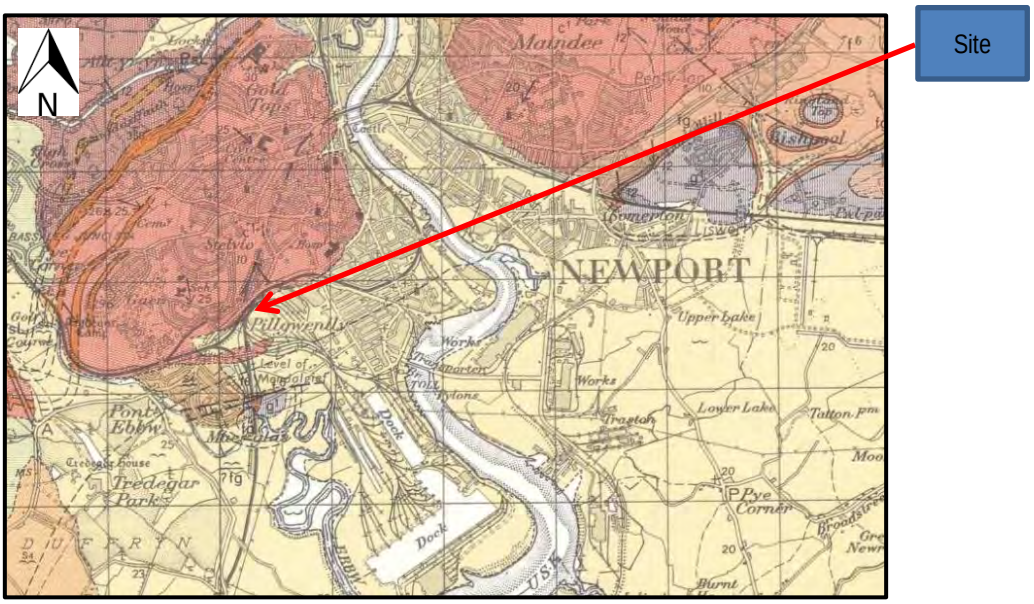
3.3 The BGS states that the site is not underlain by artificial ground (Made Ground).

3.4 According to the BGS the site is underlain by superficial Tidal Flat Deposits overlying the St Maughans Formation of Early Devonian age.

3.5 The Tidal Flats Deposits are described as being deposited on extensive nearly horizontal marshy land in the intertidal zone that is alternately covered and uncovered by the rise and fall of the tide. They are normally a consolidated soft silty clay, with layers of sand, gravel and peat.

3.6 The St Maughan's Formation is described as interbedded purple, brown and green sandstones and red mudstones with intraformational conglomerates containing calcrete clasts.

Figure 4 - Extract From Geological Map



3.7 There are no records of linear geological features within 500m of the site.

3.8 There are no records of any landslip activity within 500m of the site boundary.

3.9 There are 10 confidential boreholes within 250m of the site with the nearest located 1m to the south in relation to the Monbank Landfill. Details of ground conditions were not available with these records.

3.10 The site is in an area where the hazard rating is negligible regarding ground dissolution of rocks. A very low hazard rating exists for collapsible deposits. A low hazard rating exists for shrink swell clays and landslides. A moderate hazard rating exists for running sands and compressible deposits.

Mining, Ground Workings & Natural Cavities

3.11 According to the BGS database of British Pits, there are no recorded ground workings within 250m of the site.

3.12 There are 17 records of historical surface ground working features within 250m of the site. The nearest record is an unspecified pit dated 1922 and located 19m to the south.

3.13 There are 7 records of underground workings within 250m of the site. The nearest records refer to a railway tunnel located 149m-151m NW dated 1882-1973.

3.14 There are no records of mineral planning areas or non-coal mining activities within 250m of the site.

3.15 There are no natural cavitied within 250m of the site.

3.16 There is a record of non-coal related mining (vein mineral) of class A. Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered.

3.17 The site is not located within a coal mining area.

3.18 There are no areas of brine extraction, gypsum extraction, tin mining or clay mining within 1km of the site.

Radon Potential

3.19 The property is within a Radon Affected Area, where between 1% and 3% of properties are affected. Radon protection measures are not required as part of any new development on site.

Soil Chemistry

3.20 There are 2 estimated background soil chemistry record on site, recording levels of arsenic = 15mg/kg, cadmium = 1.8mg/kg, chromium = 60-90mg/kg, nickel = 15-30mg/kg and lead = 100mg/kg.

Railways & Tunnels

3.21 There is one record for an abandoned historical railway on-site. A further 9 records taken from within 250m of the site reference an abandoned railway.

3.22 There are 3 records for historical railway tunnels within 250m, the nearest being 17m NW.

3.23 There are 13 records of railway sidings located on-site dated between 1902 and 1985. A further 37 records within 250m of the site reference railway sidings or tunnels.

3.24 There are 39 records within 250m of the site for currently existing railways, with the nearest single track railway located 13m to the NW.

4.0 ENVIRONMENTAL SETTING

4.1 Environmental conditions are covered by Environment Agency (EA) and British Geological Survey (BGS) online data, and the site-specific Groundsure Insight Report (Appendix 1).

4.2 The following sections are generally limited to locations within 250m of the site boundary unless it is considered that installations or activities beyond that range could potentially have an impact on the site or be affected by the redevelopment of the site.

Industrial Land Use Information

4.3 There are 10 records of historical industrial usage on-site all relating to railway buildings and railway sidings (1920-1985).

4.4 Historical and current industrial land usage within 250m of the site is summarised in Table 2 below.

Table 1 - Summary of Industrial Land Use

Description	Records within 250m of site	Details
Historical Potentially Contaminative Uses	31	Closest are Railway Buildings 4m NW (1949) and 6m SE (1963-1981), Unspecified Works 10m N (1963-1985) and Steel Works 14-16m NW(1920-1949)
Historical Tanks	23	Nearest 83m SW: Unspecified Tank dated 1921-1955
Historical Energy Features	2	Nearest 72m N: Electricity Substation dated 1996
Historical Petrol Stations	0	-
Historical Garages	0	-
Historical Military Land	0	-
Current or Recent Industrial Sites	8	Nearest 90m N: Electricity Substation
Current or Recent Petrol Stations	0	
Electricity Cables	0	
Gas Pipelines	0	

Waste and Landfill Sites

4.5 There are no records of active or recent landfill sites within 250m of the site.

4.6 There is a record of a historical landfill on-site recorded as 'Land at Newport Sidings', started in 1979 by Network Rail. Another historical record is located 73m S at the Level of Mendalgief.

4.7 There are no historical waste sites within 250m of site.

4.8 There is a licensed waste site at the Level of Mendalgief Maesglas Recycling Ltd located 233m S of the site.

4.9 There are no records for waste exemptions located within 250m of the site.

Environmental Permits, Incidents and Registers

4.10 The Groundsure Insight Report includes records of environmental permits, incidents and registers within 250m of the site, which are summarised in Table 2 below.

Table 2 - Environmental Permits, Incidents and Registers

Sites Determined as Contaminated Land under Part 2A EPA1990	0	
Dangerous or Hazardous (COMAH and NIHHS) Sites	0	
Regulated Explosive Sites	0	
Hazardous Substance Storage/Usage	0	
Historical Licensed Industrial Activities (IPC)	0	
Licensed Industrial Activities Part A (1)	0	
Licensed Pollutant Release Part A (2) and Part B	1	244m SW Tesco Stores Filling Station
Radioactive Substance Authorisations	0	
Licensed Discharge to Controlled Waters	0	
Pollutant Release to surface waters (Red List)	0	
Pollutant Release to Public Sewer	0	
List 1 Dangerous Substances	0	
List 2 Dangerous Substances	0	
Pollution Incidents (EA/NRW)	1	48m N. 16/04/07. Sewage Materials. Water impact category 2 (significant), land and air impact category 4 (no impact).
Pollution Inventory Substances	0	
Pollution Inventory Waste Transfers	0	
Pollution Inventory Radioactive Waste	0	

Hydrogeology and Hydrology

4.11 The superficial deposits (Tidal Flat Deposits) are classified as unproductive by the Environment Agency (EA). The EA definition is given below:

> *'These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow'*

4.12 The underlying bedrock (St Maughans Formation) is classed as Secondary A by the Environment Agency (EA).The EA definition is given below:

> *'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'*

4.13 Soils on site are classified as having high leaching potential.

4.14 The site is not located within a source protection zone.

4.15 There are no recorded groundwater abstraction licenses, surface water abstraction licenses or potable water abstraction licenses within 1km of the site.

4.16 There are three inland rivers within 250m of the site with the nearest being located 119m W of the site, a small stream feature.

Potential Flood Risks

4.17 The site is not located within a floodplain.

4.18 The highest risk from surface water flooding on site is negligible. The risk from groundwater flooding on site is low.

Environmentally Sensitive Sites

4.19 The site is not located within an environmentally sensitive site. The site is recorded as being within a SSSI Impact Risk Zone.

Visual and Cultural Designations

4.20 There are no recorded world heritage sites within 250m of the site.

4.21 There is grade II listed building located 99m N at Gates and Gatepiers at SW corner of Belle Vue Park.

4.22 There is a conservation area 97m N of the site at Belle Vue, Newport.

4.23 Bellevue Park is a grade II registered park located 98m N of the site.

Habitat Designations

4.24 There are no Habitats of principal importance, habitat networks, open mosaic habitats or limestone pavement orders within 250m of the site.

Archaeology

4.25 An archaeological assessment falls outside the brief of this report. Where considered necessary, advice should be sought from an archaeological specialist.

5.0 SITE HISTORY

5.1 The historical development of the site has been determined by reference to historical plans and Google Earth imagery. The reviewed historical plans comprise only readily available records and may be limited; however, the information available to date indicates that additional searches are unlikely to add to our understanding of the site. The earliest available historical mapping covering the site dates to 1882.

5.2 The site history is summarised in the Table 3.

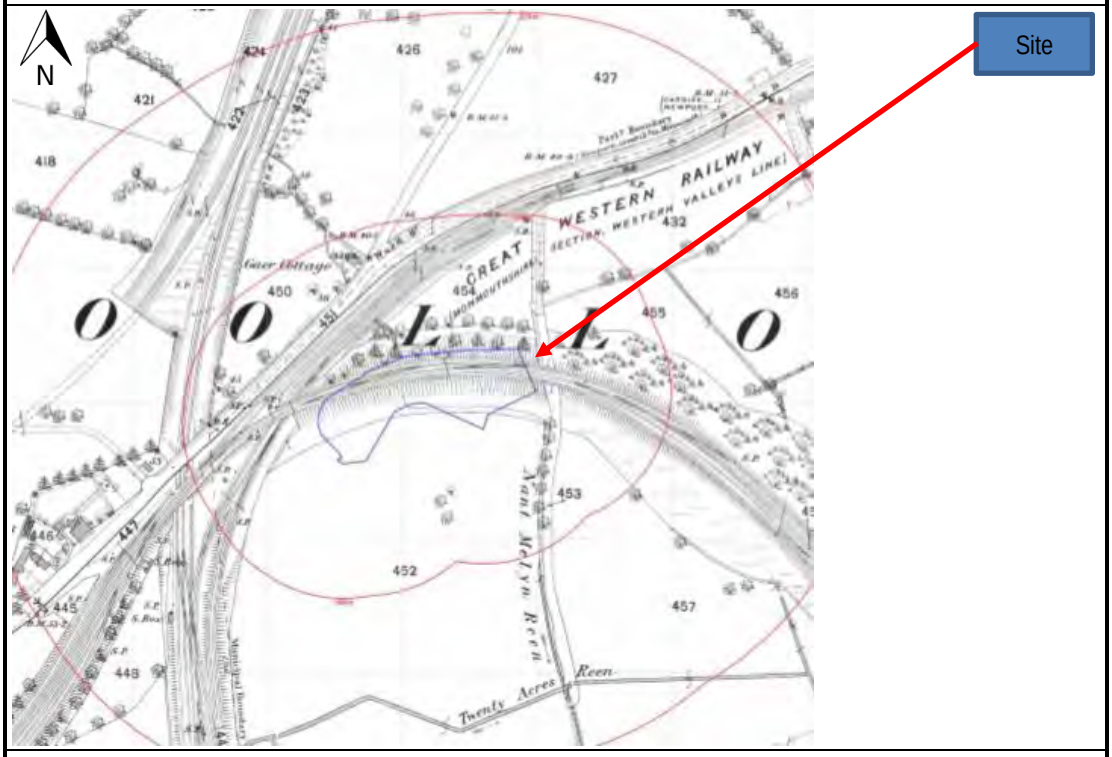
Table 3 - Summary of Site History

Date	Site	Surrounding Land Use
1882-1884	Alexandra Docks Railway traverses the site east to west across the northern section of the site.	Site surrounded by fields and a trainline system. The Maes-glas Junction and Alexandra Dock Junction is to the SW. Cardiff Road lies to the NW.
1921-1922	Additional railway lines located across the entire site.	Expansion of the railway system with additional lines. Workhouses and Bellevue park further to the N.
1938-1949	No significant change	Further expansion of the railway network. Addition of steel works close to the NW. Allotments directly to the S.
1964	No significant change	Train tunnels to the NW. Expansion of residential areas further to the NW and E.
1985-1990	Train tracks removed from site.	Tracks dismantled to the north and south. Warehouses and industrial estates to the S. The New and Low Level Sidings remain in the S.
2000 (aerial photograph)	Site appears to be covered in earthworks (possibly landfill)	Land to E and S appears to be covered by earthworks (possibly landfill)
2001	No significant change	Addition of a retail park in the SW.
2013	The site forms part of a construction site associated with the housing development to the SW.	Construction of houses directly to the SW.
2020	No significant change	Residential homes built to the SE.

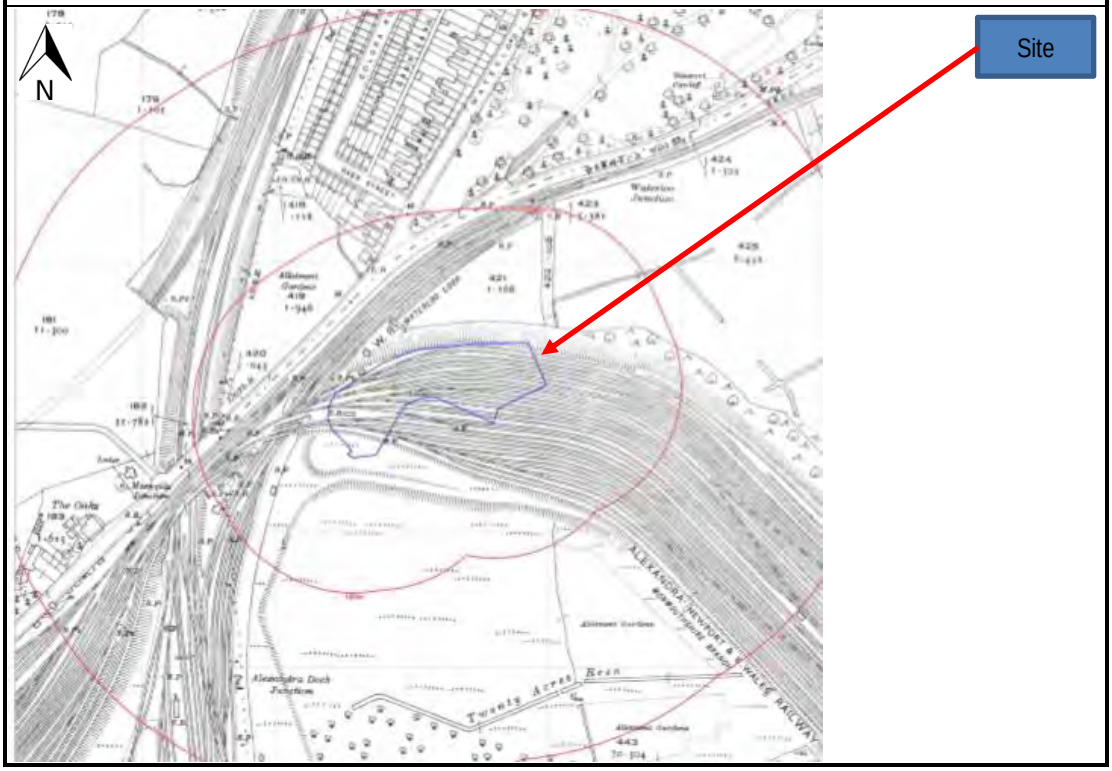
5.3 Selected extracts from historical maps are presented in Figure 5 overleaf, followed by selected aerial photographs, presented in Figure 6.

Figures 5 – OS Map Extracts

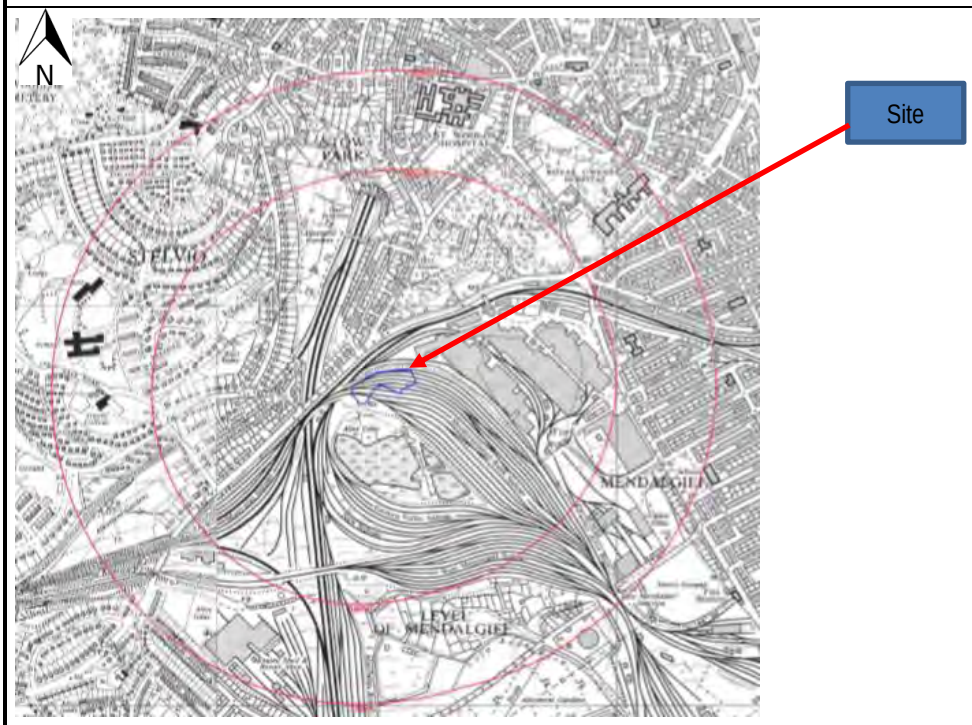
OS Map Extract 1884



OS Map Extract 1921



OS Map Extract 1964-1965



OS Map Extract 1985-1990

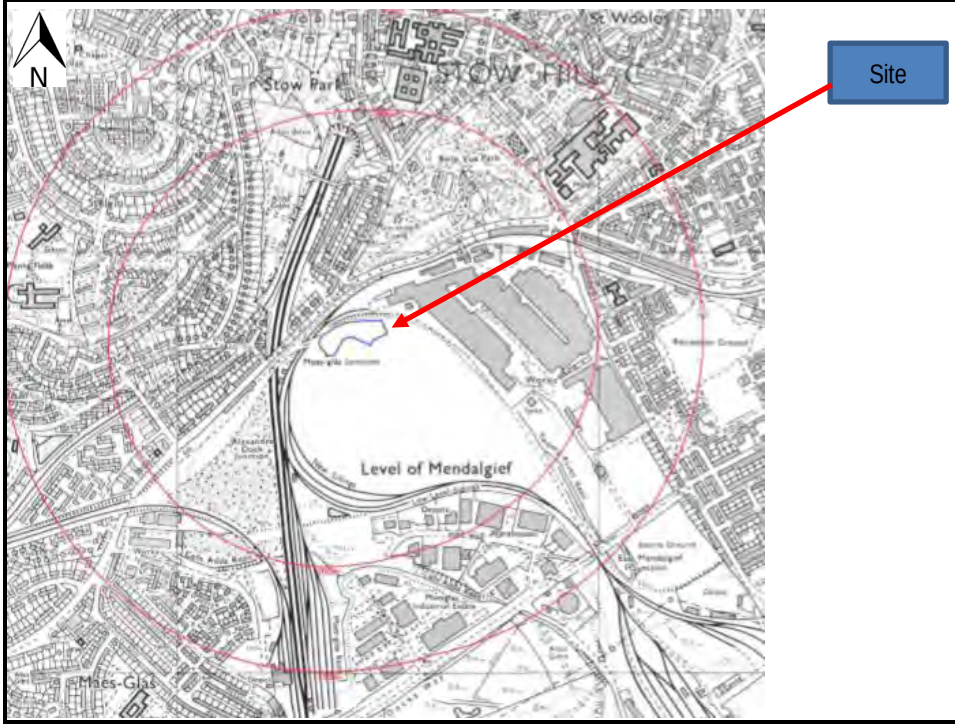
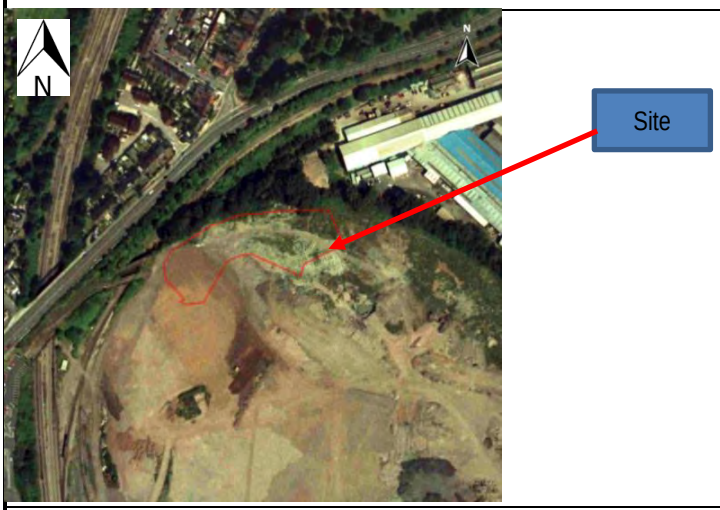
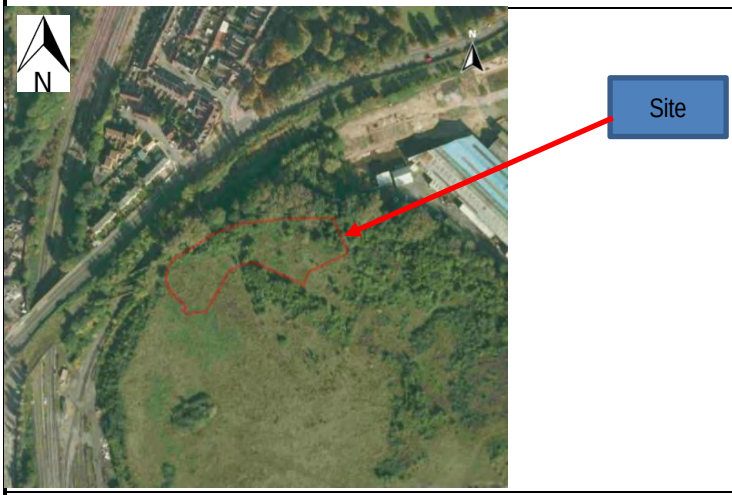


Figure 6 – Historical Aerial Photographs

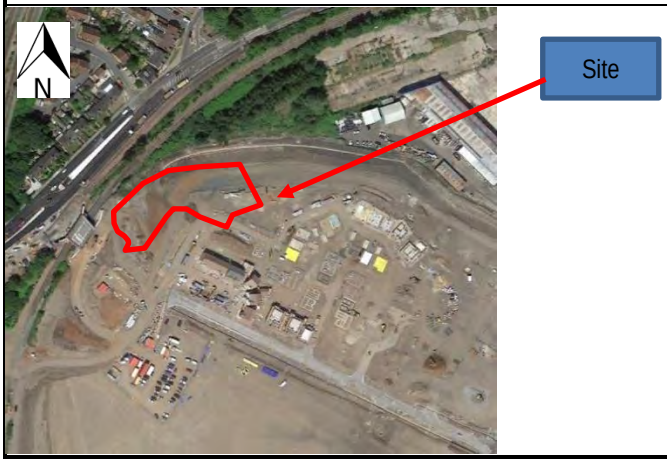
2000 Aerial Photograph



2009 Aerial Photograph



2013 Aerial Photograph



6.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

Introduction

6.1 The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site based on the above desk study information as defined by DEFRA and the EA Model Procedures for the Management of Land Contamination, CLR11(2004).

6.2 Table 6 provides a Preliminary Conceptual Model (PCM) which considers the source-pathway-receptor linkages present alongside the likelihood, severity and risk level as defined within Table 4 and Table 5 below. The assessment of probability, a modified risk table, and certain consequence definitions are based on CIRIA C552 and CLR11.

6.3 Table 6 considers whether a pollution linkage is potentially present and provides a preliminary qualitative assessment of risk based on the information currently available. Where a possible linkage is identified, it does not necessarily mean that a significant risk exists but indicates that further information is required through appropriate site investigation to substantiate the conceptual model.

6.4 The PCM/PRA is based on a commercial end use.

Table 4 - Consequence, Probability and Risk

Probability	Consequence,	Risk
High Likelihood- There is a pollution linkage and an event either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution	Very High – acute risk to the human health likely to result in significant harm. Risk of severe or irreversible effect on ground/surface water quality. Catastrophic damage to buildings / property.	Very High – there is a high potential that the source-pathway-receptor scenarios may give rise to harm to human health or the environment and remedial action is likely to be required.
Likely – there is a pollution linkage and all the elements are present, which means that it is probable an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.	High – Severe or irreversible effect on human health. Temporary severe or irreversible effect on ground/surface water quality. Reduction of water quality rendering groundwater or surface water unfit to drink and/or substantial adverse impact on groundwater dependant environmental receptors.	High – it is likely that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, which may require remediation and/or control measures to mitigate risks
Low likelihood– there is a pollutant linkage and circumstances are possible for an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term	Moderate – Long term or short term moderate effect on human health. Moderate effect on ground/surface water quality, reversible with time. Reduced reliability of a supply at a groundwater or surface water abstraction source	Moderate – it is possible that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, however it is either relatively unlikely that such are would be severe, or if any harm were to occur it is more likely that harm would be mild.
Unlikely – there is a pollution linkage, but circumstances are such that it is doubtful that an event would occur even in the very long term.	Low – Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc.) Slight effect on ground/surface water quality, reversible with time. Marginal reduced reliability of a supply at a groundwater or surface water abstraction source.	Low – it is possible that harm could arise at the source, however it is likely that they would at worst be mild.
		Very Low – it is unlikely that the source-pathway-receptor scenarios will give rise to an impact on human health or the environment.

Table 5 - Estimation of Level of Risk by Comparison of Consequence and Probability

		Consequence			
		High	Moderate	Low	Very low
Probability	High Likelihood	Very High	High risk	Moderate risk	Moderate to low risk
	Likely	High risk	Moderate risk	Moderate to low risk	Low risk
	Low Likelihood	Moderate risk	Moderate to low risk	Low risk	Very low risk
	Unlikely	Moderate to low risk	Low risk	Very low risk	Very low risk

Potential Sources

6.5 The following potential sources have been identified in the previous sections:

- The underlying natural geology could contain organic rich deposits (incl. peat) which could be a potential source of ground gas (methane, carbon dioxide).
- The site was historically occupied by railways sidings which potentially could be a source of contamination.
- The site was historically used as a landfill which could be a potential source of ground contamination and landfill gas.

Potential Pathways

6.6 The following pathways have been considered as part of this assessment.

- Direct / dermal contact, ingestion, inhalation pathways of potentially contaminated soils.
- Vertical or lateral migration of contamination on and off site.

Potential Receptors

6.7 The following receptors have been considered as part of this assessment.

- Current land users.
- Adjacent land users.
- Future land users.
- Construction workers during site development works.
- Groundwater/surface water features.

Table 6 - Preliminary Conceptual Model

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
Contamination of the ground beneath site due to current and historical use.	Dermal contact, ingestion and inhalation of soils	Current Site Users	Unlikely	Low	Very Low	The risk to current site users from potential contamination within the ground beneath site due to current and historical site use is VERY LOW. The site is unoccupied and disused.
		Future Site Users (soft landscaped areas)	Likley	High	High	Given the previous on-site and surrounding site usage, and the presence of Made Ground/Fill across the site it is considered the risk to future site users will be HIGH where exposed to soft landscaped areas.
		Future Site users (hard cover development)	Likely	Very Low	Low	The source-pathway-receptor pollutant linkage will be broken in areas of hardcover development, so the risk to future site users in these areas is considered LOW.
		Construction Workers	Likely	Low	Moderate to Low	It is considered that a moderate risk is likely to be present to construction workers during the construction phase of development. However, it is expected that exposure duration will be short-term only, and assuming appropriate health and safety measures are adopted (in line with CDM and other relevant health and safety guidance) LOW risk to construction workers is anticipated.
	Vertical or lateral migration of contamination (including ground gas) on and off site	Current Site Users	Low	Low	Low	Based on anticipated ground conditions beneath the site the risk to current users from migrating contamination at the assessment site is considered LOW. The site is unoccupied and disused.
		Adjacent land users	Low	Moderate	Moderate to Low	Given the previous usage of the site and presence of fill, the risk to adjacent site users from migrating contamination (including ground gas) is considered MODERATE TO LOW.
		Future land users	Likely	High	High	The risk to future site users from migrating contamination (including ground gas) at the assessment site is considered HIGH (without ground investigation data). There is the potential for mobile contamination to be present on site due to natural ground conditions and the sites historical industrial use. The risk to future site users cannot be dismissed without site investigation data being available.
		Controlled Waters	Unlikely	Very Low	Very Low	The current risk to controlled waters from contamination at the assessment site is considered VERY LOW, with the closest surface water body being 119m from the site.

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
		Groundwater	Low	Moderate	Moderate to Low	Given the previous usage of the site and presence of fill, and anticipated ground conditions at depth, the risk to groundwater at the assessment site is considered MODERATE TO LOW.
		Construction Workers	Likely	Moderate	Moderate	The risk to construction workers from mobile contamination and ground gas is considered MODERATE.

Preliminary Risk Assessment

6.8 From review of historical and current day information, there is evidence to suggest the presence of made ground on site in association with a historical railway, landfill and recent construction site may form a significant source of contamination.

6.9 Overall the site can be given a MODERATE to HIGH risk rating.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 The desk study report has identified a moderate to high risk from ground contamination to future site users, in the absence of any investigation data.

7.2 It is recommended an intrusive investigation is undertaken on site to determine risk from ground contamination to construction workers and future site users. The investigation should include gas/groundwater monitoring and also an assessment of risk from contamination to groundwater and surface water features.

7.3 As part of the investigation representative soil samples should be taken and tested for a general suite of contaminants including asbestos, metals, hydrocarbons and inorganics. In this instance we would recommend the following suite is used, based on DoE Industry Profile ' Railway Land'(1995):

Asbestos Screen, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Vanadium, Zinc, Cyanide, Thiocyanate, Sulphate (SO_4), Sulphide, pH, Sulphur, Soil Organic Matter, Phenol, Total Petroleum Hydrocarbons (TPH) and speciated Polyaromatic Hydrocarbons (PAH).

7.4 In addition some exploratory holes will be required to confirm ground conditions to allow design of suitable foundations. Based on anticipated ground conditions it is likely conventional shallow depth foundations will not be suitable and alternative foundation options such as ground improvement and piles will need consideration.

APPENDIX 1

ENVIRO+GEO INSIGHT REPORT

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

SITE AT MON BANK, NEWPORT, NP20 2PY

Order Details

Date: 03/05/2020

Your ref: B1316

Our Ref: GS-6754255

Client: Earth Environmental & Geotechnical Ltd

Site Details

Location: 330417 186814

Area: 0.71 ha

Authority: Casnewydd - Newport City Council

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	10	11	20	56	-
17	1.2	Historical tanks	0	0	23	72	-
21	1.3	Historical energy features	0	0	2	7	-
22	1.4	Historical petrol stations	0	0	0	0	-
22	1.5	Historical garages	0	0	0	3	-
22	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
23	2.1	Historical industrial land uses	10	15	29	82	-
28	2.2	Historical tanks	0	0	36	115	-
34	2.3	Historical energy features	0	0	3	11	-
35	2.4	Historical petrol stations	0	0	0	0	-
35	2.5	Historical garages	0	0	0	10	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
37	3.1	Active or recent landfill	0	0	0	0	-
37	3.2	Historical landfill (BGS records)	0	0	0	0	-
38	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
38	3.4	Historical landfill (EA/NRW records)	1	0	1	3	-
39	3.5	Historical waste sites	0	0	0	0	-
39	3.6	Licensed waste sites	0	0	1	0	-
40	3.7	Waste exemptions	0	0	0	1	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
41	4.1	Recent industrial land uses	0	0	8	-	-
42	4.2	Current or recent petrol stations	0	0	0	2	-
42	4.3	Electricity cables	0	0	0	0	-
43	4.4	Gas pipelines	0	0	0	0	-
43	4.5	Sites determined as Contaminated Land	0	0	0	0	-

43	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
43	4.7	Regulated explosive sites	0	0	0	0	-
43	**4.8**	**Hazardous substance storage/usage**	0	0	0	1	-
44	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
44	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
44	**4.11**	**Licensed pollutant release (Part A(2)/B)**	0	0	1	3	-
45	4.12	Radioactive Substance Authorisations	0	0	0	0	-
45	**4.13**	**Licensed Discharges to controlled waters**	0	0	0	8	-
47	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
47	4.15	Pollutant release to public sewer	0	0	0	0	-
47	4.16	List 1 Dangerous Substances	0	0	0	0	-
47	**4.17**	**List 2 Dangerous Substances**	0	0	0	1	-
47	**4.18**	**Pollution Incidents (EA/NRW)**	0	1	0	2	-
48	4.19	Pollution inventory substances	0	0	0	0	-
48	4.20	Pollution inventory waste transfers	0	0	0	0	-
48	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
49	**5.1**	**Superficial aquifer**	Identified (within 500m)				
50	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
52	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
53	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
53	5.5	Groundwater vulnerability- local information	None (within 0m)				
54	5.6	Groundwater abstractions	0	0	0	0	0
55	**5.7**	**Surface water abstractions**	0	0	0	0	3
56	5.8	Potable abstractions	0	0	0	0	0
56	5.9	Source Protection Zones	0	0	0	0	-
56	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
57	**6.1**	**Water Network (OS MasterMap)**	0	0	3	-	-

58	6.2	Surface water features	0	0	0	-	-
58	**6.3**	**WFD Surface water body catchments**	1	-	-	-	-
58	6.4	WFD Surface water bodies	0	0	0	-	-
59	**6.5**	**WFD Groundwater bodies**	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
60	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
60	7.2	Historical Flood Events	0	0	0	-	-
60	7.3	Flood Defences	0	0	0	-	-
60	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
61	7.5	Flood Storage Areas	0	0	0	-	-
62	7.6	Flood Zone 2	None (within 50m)				
62	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
63	**8.1**	**Surface water flooding**	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
65	**9.1**	**Groundwater flooding**	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
66	**10.1**	**Sites of Special Scientific Interest (SSSI)**	0	0	0	0	2
67	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
67	**10.3**	**Special Areas of Conservation (SAC)**	0	0	0	0	1
68	10.4	Special Protection Areas (SPA)	0	0	0	0	0
68	10.5	National Nature Reserves (NNR)	0	0	0	0	0
68	**10.6**	**Local Nature Reserves (LNR)**	0	0	0	0	1
68	**10.7**	**Designated Ancient Woodland**	0	0	0	0	18
69	10.8	Biosphere Reserves	0	0	0	0	0
70	10.9	Forest Parks	0	0	0	0	0
70	10.10	Marine Conservation Zones	0	0	0	0	0
70	10.11	Green Belt	0	0	0	0	0
70	10.12	Proposed Ramsar sites	0	0	0	0	0

70	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
71	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
71	10.15	Nitrate Sensitive Areas	0	0	0	0	0
71	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
72	10.17	SSSI Impact Risk Zones	0	-	-	-	-
72	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
73	11.1	World Heritage Sites	0	0	0	-	-
74	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
74	11.3	National Parks	0	0	0	-	-
74	**11.4**	**Listed Buildings**	0	0	1	-	-
75	**11.5**	**Conservation Areas**	0	0	1	-	-
75	11.6	Scheduled Ancient Monuments	0	0	0	-	-
75	**11.7**	**Registered Parks and Gardens**	0	0	1	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
76	12.1	Agricultural Land Classification	None (within 250m)				
76	12.2	Open Access Land	0	0	0	-	-
76	12.3	Tree Felling Licences	0	0	0	-	-
76	12.4	Environmental Stewardship Schemes	0	0	0	-	-
77	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
78	13.1	Priority Habitat Inventory	0	0	0	-	-
78	13.2	Habitat Networks	0	0	0	-	-
78	13.3	Open Mosaic Habitat	0	0	0	-	-
78	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
79	**14.1**	**10k Availability**	Identified (within 500m)				
80	14.2	Artificial and made ground (10k)	0	0	0	0	-
81	**14.3**	**Superficial geology (10k)**	1	0	0	1	-

82	14.4	Landslip (10k)	0	0	0	0	-
83	**14.5**	**Bedrock geology (10k)**	1	0	0	2	-
84	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
85	**15.1**	**50k Availability**	Identified (within 500m)				
86	15.2	Artificial and made ground (50k)	0	0	0	0	-
86	15.3	Artificial ground permeability (50k)	0	0	-	-	-
87	**15.4**	**Superficial geology (50k)**	1	0	0	0	-
88	**15.5**	**Superficial permeability (50k)**	Identified (within 50m)				
88	15.6	Landslip (50k)	0	0	0	0	-
88	15.7	Landslip permeability (50k)	None (within 50m)				
89	**15.8**	**Bedrock geology (50k)**	1	0	0	1	-
90	**15.9**	**Bedrock permeability (50k)**	Identified (within 50m)				
90	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
91	**16.1**	**BGS Boreholes**	0	1	9	-	-
Page	Section	Natural ground subsidence					
93	**17.1**	**Shrink swell clays**	Low (within 50m)				
94	**17.2**	**Running sands**	Moderate (within 50m)				
96	**17.3**	**Compressible deposits**	Moderate (within 50m)				
98	**17.4**	**Collapsible deposits**	Very low (within 50m)				
99	**17.5**	**Landslides**	Low (within 50m)				
101	**17.6**	**Ground dissolution of soluble rocks**	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
103	18.1	Natural cavities	0	0	0	0	-
104	**18.2**	**BritPits**	0	0	0	1	-
104	**18.3**	**Surface ground workings**	0	1	16	-	-
105	**18.4**	**Underground workings**	0	0	7	13	0
106	18.5	Historical Mineral Planning Areas	0	0	0	0	-

106	**18.6**	**Non-coal mining**	1	0	0	1	0
107	18.7	Mining cavities	0	0	0	0	0
107	18.8	JPB mining areas	None (within 0m)				
107	18.9	Coal mining	None (within 0m)				
107	18.10	Brine areas	None (within 0m)				
107	18.11	Gypsum areas	None (within 0m)				
108	18.12	Tin mining	None (within 0m)				
108	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
109	**19.1**	**Radon**	Between 1% and 3% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
110	**20.1**	**BGS Estimated Background Soil Chemistry**	2	2	-	-	-
110	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
110	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-

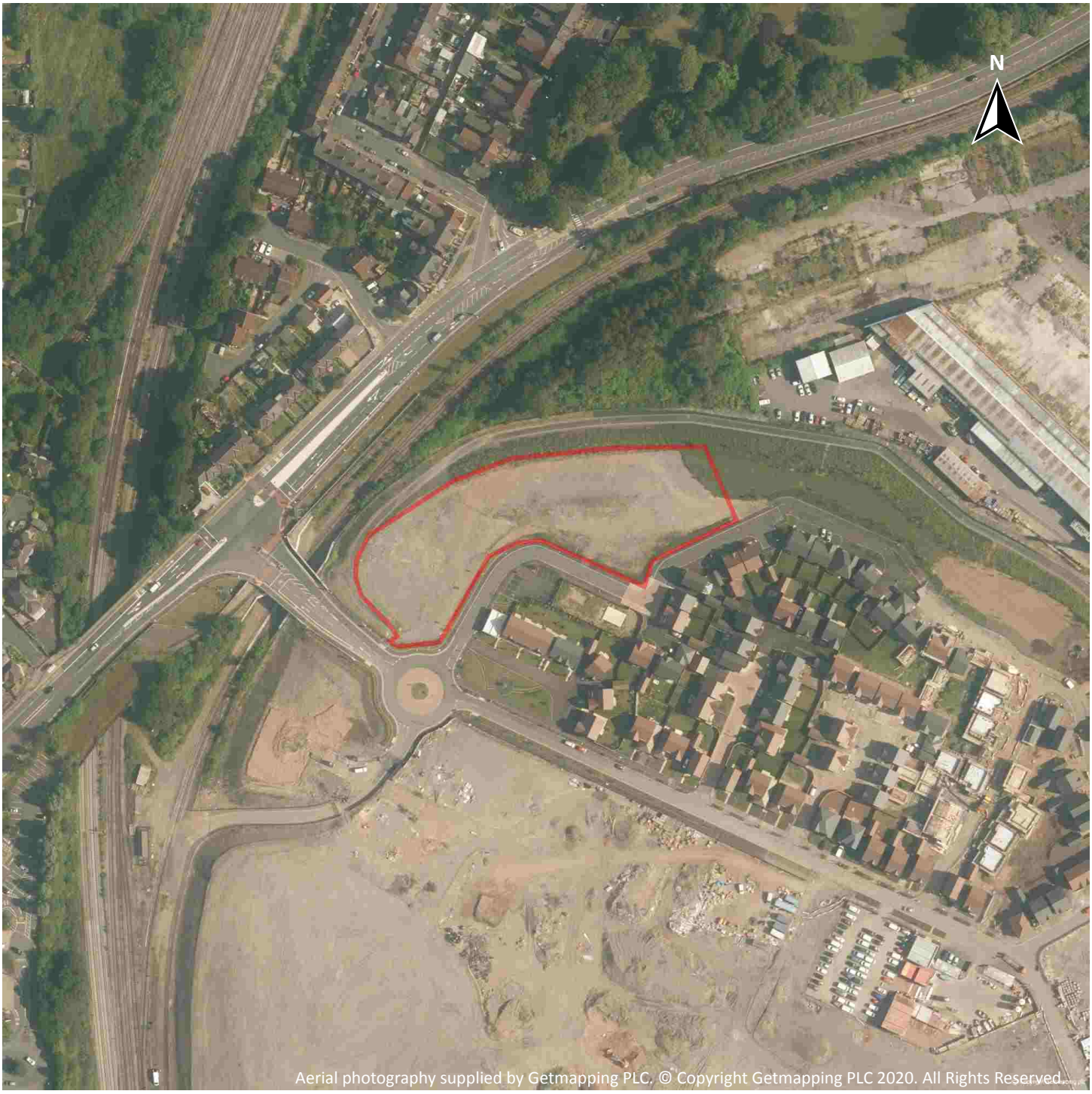
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
111	21.1	Underground railways (London)	0	0	0	-	-
111	21.2	Underground railways (Non-London)	0	0	0	-	-
112	**21.3**	**Railway tunnels**	0	1	2	-	-
112	**21.4**	**Historical railway and tunnel features**	13	10	27	-	-
114	21.5	Royal Mail tunnels	0	0	0	-	-
114	**21.6**	**Historical railways**	1	4	5	-	-
115	**21.7**	**Railways**	0	5	34	-	-
117	21.8	Crossrail 1	0	0	0	0	-
117	21.9	Crossrail 2	0	0	0	0	-
117	21.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 25/05/2017

Site Area: 0.71ha

Recent site history - 2014 aerial photograph



Capture Date: 23/07/2014

Site Area: 0.71ha

Recent site history - 2009 aerial photograph

Capture Date: 12/10/2009

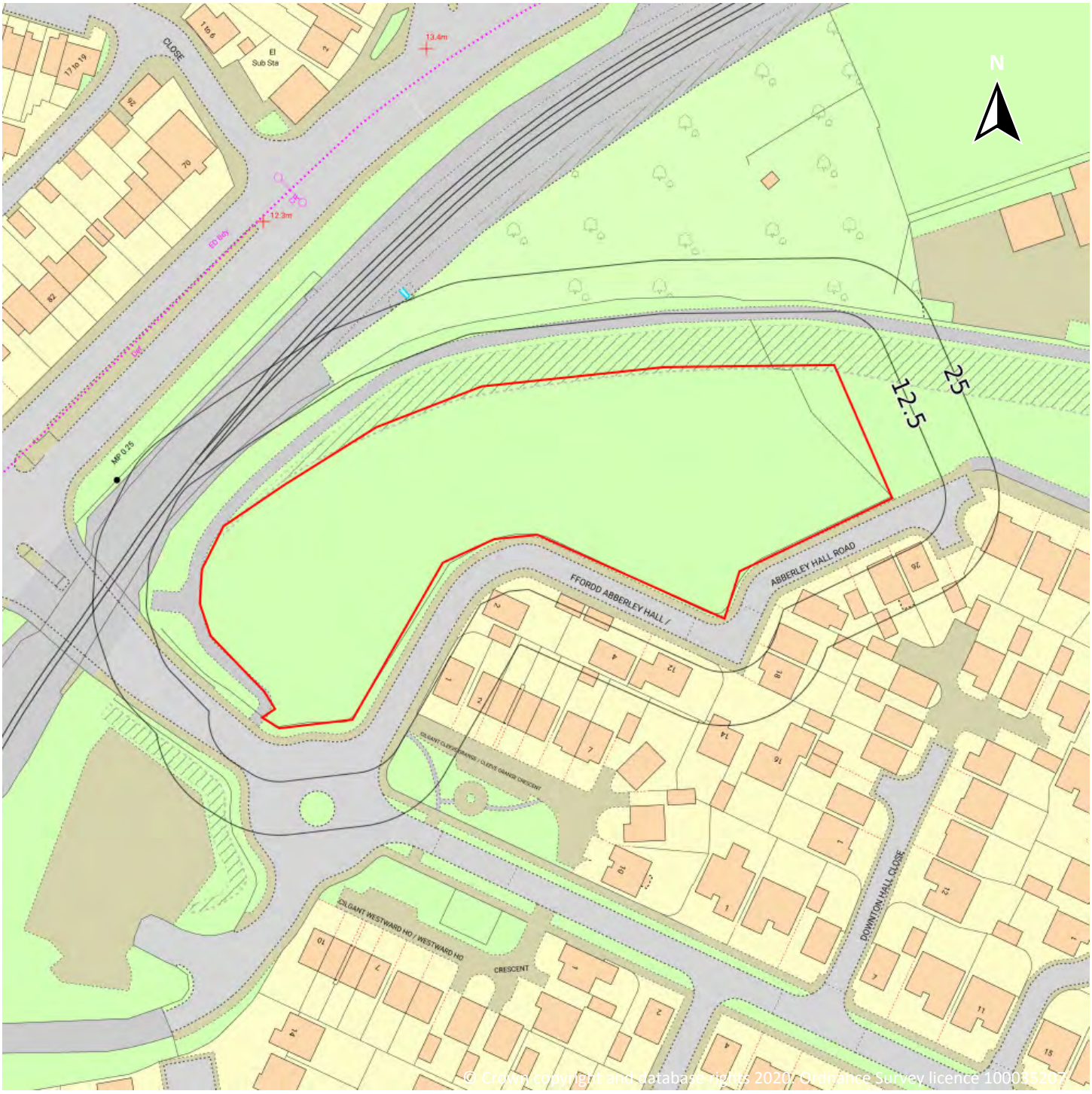
Site Area: 0.71ha

Recent site history - 2000 aerial photograph

Capture Date: 21/07/2000

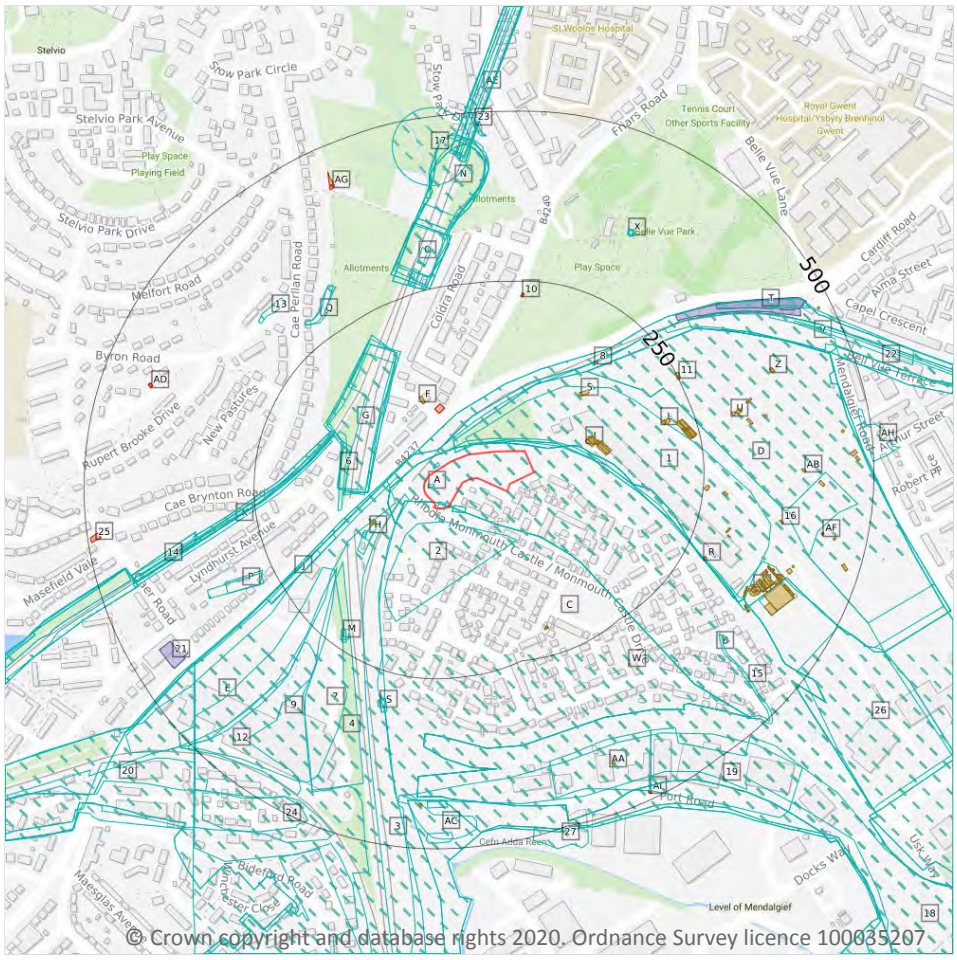
Site Area: 0.71ha

OS MasterMap site plan



Site Area: 0.71ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

1.1 Historical industrial land uses

Records within 500m	97

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

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

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Railway Building**	**1949**	**1172459**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Railway Building**	**1973 - 1981**	**1238286**
B	**On site**	**Railway Sidings**	**1922**	**1190018**
B	**On site**	**Railway Sidings**	**1922**	**1190019**
B	**On site**	**Railway Sidings**	**1922**	**1190020**
B	**On site**	**Railway Sidings**	**1922**	**1190021**
C	**On site**	**Railway Sidings**	**1970 - 1985**	**1209979**
C	**On site**	**Railway Sidings**	**1963**	**1212723**
C	**On site**	**Railway Sidings**	**1949**	**1233464**
C	**On site**	**Railway Sidings**	**1920**	**1256077**
A	4m NW	Railway Building	1949	1172458
A	6m SE	Railway Building	1973 - 1981	1228648
A	6m SE	Railway Building	1963	1240214
D	10m N	Unspecified Works	1973 - 1985	1222838
D	10m N	Unspecified Works	1963	1244355
1	14m N	Steel Works	1920	1201950
D	16m NW	Steel Works	1949	1221277
2	19m S	Unspecified Pit	1922	1186032
3	26m W	Railway Sidings	1900	1198613
E	34m W	Railway Sidings	1882 - 1990	1198610
4	50m W	Railway Sidings	1922	1238101
G	79m W	Cuttings	1882	1245988
G	79m W	Cuttings	1900	1202762
G	80m W	Cuttings	1920	1217765
H	81m SW	Railway Buildings	1963	1181803
G	83m W	Cuttings	1949	1221879
G	84m W	Cuttings	1922	1252205
H	94m SW	Railway Building	1985	1232783
H	104m SW	Railway Building	1922	1249570

ID	Location	Land use	Dates present	Group ID
6	118m W	Unspecified Heap	1981 - 1985	1250324
J	147m SW	Railway Buildings	1963	1181804
K	149m NW	Railway Tunnel	1900 - 1920	1206044
K	150m NW	Tunnel	1922	1211373
K	151m NW	Tunnel	1882	1191429
K	151m NW	Tunnel	1961 - 1963	1197961
K	151m NW	Tunnel	1970 - 1981	1210469
7	156m SW	Railway Sidings	1920	1198611
9	173m SW	Refuse Heap	1973 - 1985	1202100
J	178m SW	Railway Building	1973 - 1985	1206313
M	219m SW	Railway Building	1949 - 1963	1219447
M	222m SW	Railway Building	1920	1233064
N	250m N	Cuttings	1920	1222979
N	250m N	Cuttings	1900	1230247
O	251m N	Cuttings	1973 - 1985	1231241
O	251m N	Cuttings	1963	1248876
O	256m N	Cuttings	1922	1198654
O	258m N	Railway Building	1985	1172435
O	260m N	Railway Building	1973 - 1981	1264586
O	265m N	Railway Building	1949	1211311
P	265m SW	Cuttings	1922	1248024
N	267m N	Cuttings	1882	1254620
P	268m SW	Cuttings	1882	1230046
N	269m N	Cuttings	1949	1232400
12	273m SW	Unspecified Pit	1920	1186031
Q	276m NW	Unspecified Ground Workings	1920	1263312
Q	279m NW	Unspecified Ground Workings	1949	1202834
O	286m N	Railway Building	1985	1172434

ID	Location	Land use	Dates present	Group ID
S	289m S	Railway Building	1973 - 1981	1217363
S	289m S	Railway Building	1963	1240007
S	293m S	Railway Building	1949	1240984
V	305m NE	Railway Sidings	1920	1218023
13	330m NW	Unspecified Ground Workings	1920	1160901
N	332m N	Cuttings	1973 - 1985	1216325
N	332m N	Cuttings	1963	1226851
14	342m W	Tunnel	1990	1237685
N	349m N	Cuttings	1922	1212108
T	352m NE	Railway Building	1973 - 1981	1260506
X	352m NE	Unspecified Tank	1963	1190296
X	352m NE	Unspecified Tank	1973 - 1981	1193713
X	353m NE	Unspecified Tank	1920	1213009
15	362m SE	Unspecified Ground Workings	1882	1160906
Y	363m SE	Unspecified Tank	1963	1175988
Y	368m SE	Unspecified Tanks	1985	1168703
Y	381m SE	Unspecified Tanks	1973 - 1981	1257119
AA	393m S	Unspecified Depots	1985	1181975
17	399m N	Tunnel	1882	1210918
18	402m S	Engineering and Ship Repairing Works	1900	1222520
19	410m SE	Unspecified Warehouses	1985	1167737
V	410m NE	Railway Sidings	1882	1198755
20	419m SW	Railway Building	1961 - 1963	1262647
AC	422m S	Unspecified Ground Workings	1973 - 1985	1214369
AE	428m N	Tunnels	1920	1202919
AE	428m N	Tunnels	1949	1242187
AE	428m N	Tunnel	1882 - 1900	1260055
AC	430m S	Railway Buildings	1963	1181810

ID	Location	Land use	Dates present	Group ID
AE	434m N	Tunnels	1922	1198932
AE	437m N	Tunnel	1963	1232029
AE	437m N	Tunnel	1973 - 1985	1251629
22	438m NE	Railway Sidings	1900	1251186
AE	440m N	Tunnels	1922	1189966
23	465m N	Unspecified Ground Workings	1882	1160898
24	474m SW	Refuse Heap	1973 - 1985	1247990
AC	476m S	Unspecified Ground Workings	1920	1254528
E	477m SW	Refuse Heap	1990	1208880
AH	484m E	Unspecified Pit	1882	1186033
26	485m SE	Timber Yard	1949	1158972
27	487m S	Cuttings	1973 - 1981	1198322

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**95**

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

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

ID	Location	Land use	Dates present	Group ID
H	83m SW	Unspecified Tank	1921 - 1955	193028
I	87m NE	Unspecified Tank	1937	184470
I	92m NE	Unspecified Tank	1955 - 1966	182773
I	92m NE	Unspecified Tank	1978	190245
F	94m NW	Unspecified Tank	1955	173424
I	99m NE	Unspecified Tank	1955	188997

ID	Location	Land use	Dates present	Group ID
I	100m E	Tanks	1937	179716
I	102m NE	Tanks	1955	189309
I	105m NE	Unspecified Tank	1955	173425
5	114m NE	Tanks	1966 - 1978	187898
8	167m NE	Unspecified Tank	1937	173365
L	202m E	Unspecified Tank	1937	182243
L	205m E	Unspecified Tank	1955	186514
C	207m S	Tanks	1978	188920
C	207m S	Tanks	1955 - 1966	184371
L	221m E	Unspecified Tank	1937	186209
L	225m E	Unspecified Tank	1955 - 1966	190788
L	226m E	Unspecified Tank	1955	182102
L	227m E	Tanks	1955 - 1966	190064
L	227m E	Tanks	1955	192152
L	228m E	Unspecified Tank	1937	173423
L	234m E	Tanks	1978	183720
11	248m NE	Tanks	1966 - 1978	184214
D	252m E	Unspecified Tank	1955	184762
D	280m E	Unspecified Tank	1978	173422
R	280m SE	Unspecified Tank	1955	182596
R	295m E	Tanks	1966	169395
R	299m E	Tanks	1966	169397
U	303m E	Tanks	1955 - 1966	193627
U	308m E	Tanks	1966	187740
W	310m SE	Unspecified Tank	1955	193175
W	310m SE	Unspecified Tank	1955	182975
U	316m E	Tanks	1955	192198
U	322m E	Unspecified Tank	1955 - 1978	183399

ID	Location	Land use	Dates present	Group ID
U	329m E	Unspecified Tank	1955	183089
U	348m E	Unspecified Tank	1955	183910
Y	355m SE	Tanks	1955 - 1966	183334
Y	355m SE	Tanks	1955	185924
Y	359m SE	Unspecified Tank	1955	178522
Y	360m SE	Unspecified Tank	1955	179092
Y	362m SE	Unspecified Tank	1937 - 1955	182324
Y	363m SE	Unspecified Tank	1978	184081
Y	364m SE	Unspecified Tank	1955 - 1966	185621
Y	364m SE	Unspecified Tank	1955	181305
Y	366m SE	Unspecified Tank	1955	179056
Y	366m SE	Tanks	1978	184052
Y	366m SE	Unspecified Tank	1955	185245
Y	367m SE	Unspecified Tank	1955	173431
Y	367m SE	Tanks	1955 - 1966	193774
16	368m E	Unspecified Tank	1955	193916
Y	368m SE	Unspecified Tank	1955	186077
Y	369m SE	Unspecified Tank	1955 - 1978	183457
Y	369m SE	Unspecified Tank	1955	185071
Y	371m E	Tanks	1978	179081
Y	371m SE	Tanks	1955	188898
Y	371m SE	Unspecified Tank	1978	186250
Y	372m E	Tanks	1966	185343
Y	372m E	Tanks	1955	183820
Y	372m SE	Tanks	1955	190842
Y	374m SE	Unspecified Tank	1955	173430
Y	374m SE	Tanks	1955 - 1966	179220
Z	378m NE	Unspecified Tank	1955 - 1978	183738

ID	Location	Land use	Dates present	Group ID
Y	378m E	Unspecified Tank	1955	190710
Z	378m NE	Unspecified Tank	1955	184525
Y	379m E	Unspecified Tank	1955	191835
Y	379m SE	Unspecified Tank	1955	183294
Y	379m SE	Unspecified Tank	1966	187084
Y	383m SE	Unspecified Tank	1966 - 1978	179048
Y	383m SE	Tanks	1966	188283
Y	384m SE	Unspecified Tank	1955	181951
Y	388m SE	Tanks	1955	190131
Y	389m SE	Unspecified Tank	1955	188492
Y	391m SE	Tanks	1955	180790
Y	391m SE	Tanks	1955	181059
Y	392m SE	Unspecified Tank	1955	181531
Y	393m SE	Unspecified Tank	1955	173432
Y	393m SE	Unspecified Tank	1966 - 1978	181999
AB	394m E	Unspecified Tank	1955 - 1966	182520
Y	395m SE	Tanks	1955	169399
Y	398m E	Tanks	1955	188967
Y	402m SE	Unspecified Tank	1978	189769
Y	404m SE	Unspecified Tank	1966	185927
Y	404m E	Unspecified Tank	1955	192493
Y	411m SE	Unspecified Tank	1978	180736
Y	413m SE	Unspecified Tank	1966	187556
AB	419m E	Unspecified Tank	1966 - 1978	185779
AA	425m S	Unspecified Tank	1987	173429
AF	432m E	Unspecified Tank	1955 - 1978	181277
AC	434m S	Unspecified Tank	1955	184533
AF	450m E	Unspecified Tank	1966 - 1978	190791

ID	Location	Land use	Dates present	Group ID
AH	456m E	Unspecified Tank	1978	173421
AH	466m E	Tanks	1978	169394
AF	473m E	Unspecified Tank	1955	182711
AH	473m E	Tanks	1966	169396
V	479m NE	Unspecified Tank	1884 - 1921	179388

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**9**

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

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

ID	Location	Land use	Dates present	Group ID
F	72m N	Electricity Substation	1996	97637
10	227m N	Electricity Substation	1973 - 1995	111643
AD	424m W	Electricity Transformer	1973	99585
AD	424m W	Electricity Substation	1955	107600
AG	437m NW	Electricity Substation	1995	104513
AG	440m NW	Electricity Substation	1973	110594
25	481m W	Electricity Substation	1955	105340
AI	487m SE	Electricity Substation	1982 - 1987	105137
AI	489m SE	Electricity Substation	1993	110123

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	3

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

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

ID	Location	Land use	Dates present	Group ID
T	296m NE	Garage	1991 - 1993	35257
T	351m NE	Garage	1955 - 1968	35835
21	420m SW	Garage	1955 - 1967	35164

This data is sourced from Ordnance Survey / Groundsure.

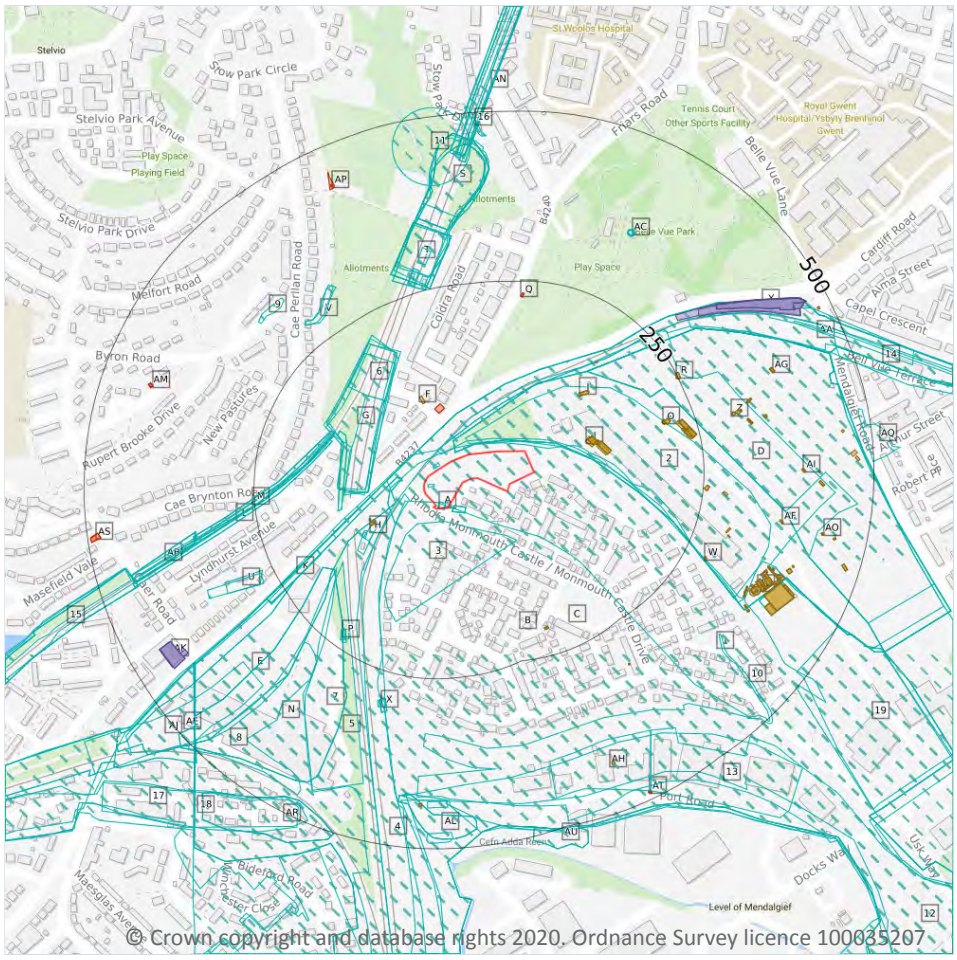
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



2.1 Historical industrial land uses

Records within 500m	136

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

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

ID	Location	Land Use	Date	Group ID
1	**On site**	**Railway Sidings**	**1922**	**1190018**
A	**On site**	**Railway Building**	**1981**	**1238286**
A	**On site**	**Railway Building**	**1973**	**1238286**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Railway Building**	**1949**	**1172459**
B	**On site**	**Railway Sidings**	**1985**	**1209979**
B	**On site**	**Railway Sidings**	**1981**	**1209979**
B	**On site**	**Railway Sidings**	**1963**	**1212723**
B	**On site**	**Railway Sidings**	**1973**	**1209979**
B	**On site**	**Railway Sidings**	**1949**	**1233464**
C	**On site**	**Railway Sidings**	**1920**	**1256077**
A	4m NW	Railway Building	1949	1172458
A	6m SE	Railway Building	1981	1228648
A	6m SE	Railway Building	1963	1240214
A	6m SE	Railway Building	1973	1228648
D	10m N	Unspecified Works	1985	1222838
D	10m N	Unspecified Works	1981	1222838
D	10m N	Unspecified Works	1963	1244355
D	10m N	Unspecified Works	1973	1222838
2	14m N	Steel Works	1920	1201950
D	16m NW	Steel Works	1949	1221277
3	19m S	Unspecified Pit	1922	1186032
4	26m W	Railway Sidings	1900	1198613
E	34m W	Railway Sidings	1900	1198610
E	34m W	Railway Sidings	1920	1198610
5	50m W	Railway Sidings	1922	1238101
G	79m W	Cuttings	1882	1245988
G	79m W	Cuttings	1900	1202762
G	80m W	Cuttings	1920	1217765
H	81m SW	Railway Buildings	1963	1181803
G	83m W	Cuttings	1949	1221879
G	84m W	Cuttings	1922	1252205

ID	Location	Land Use	Date	Group ID
H	94m SW	Railway Building	1985	1232783
H	104m SW	Railway Building	1922	1249570
G	118m W	Unspecified Heap	1985	1250324
G	118m W	Unspecified Heap	1981	1250324
6	127m NW	Cuttings	1900	1202762
K	147m SW	Railway Buildings	1963	1181804
L	149m NW	Railway Tunnel	1900	1206044
L	149m NW	Railway Tunnel	1920	1206044
L	150m NW	Tunnel	1922	1211373
L	151m NW	Tunnel	1882	1191429
M	151m NW	Tunnel	1981	1210469
M	151m NW	Tunnel	1963	1197961
M	151m NW	Tunnel	1973	1210469
7	156m SW	Railway Sidings	1920	1198611
N	173m SW	Refuse Heap	1985	1202100
N	173m SW	Refuse Heap	1981	1202100
N	173m SW	Refuse Heap	1973	1202100
K	178m SW	Railway Building	1985	1206313
K	178m SW	Railway Building	1981	1206313
K	178m SW	Railway Building	1973	1206313
P	219m SW	Railway Building	1963	1219447
P	222m SW	Railway Building	1949	1219447
P	222m SW	Railway Building	1920	1233064
S	250m N	Cuttings	1900	1230247
S	250m N	Cuttings	1920	1222979
T	251m N	Cuttings	1985	1231241
T	251m N	Cuttings	1981	1231241
T	251m N	Cuttings	1963	1248876

ID	Location	Land Use	Date	Group ID
T	251m N	Cuttings	1973	1231241
T	256m N	Cuttings	1922	1198654
T	258m N	Railway Building	1985	1172435
T	260m N	Railway Building	1981	1264586
T	260m N	Railway Building	1973	1264586
T	265m N	Railway Building	1949	1211311
U	265m SW	Cuttings	1922	1248024
S	267m N	Cuttings	1882	1254620
U	268m SW	Cuttings	1882	1230046
S	269m N	Cuttings	1949	1232400
8	273m SW	Unspecified Pit	1920	1186031
V	276m NW	Unspecified Ground Workings	1920	1263312
V	279m NW	Unspecified Ground Workings	1949	1202834
T	286m N	Railway Building	1985	1172434
X	289m S	Railway Building	1981	1217363
X	289m S	Railway Building	1963	1240007
X	289m S	Railway Building	1973	1217363
X	293m S	Railway Building	1949	1240984
AA	305m NE	Railway Sidings	1920	1218023
9	330m NW	Unspecified Ground Workings	1920	1160901
S	332m N	Cuttings	1985	1216325
S	332m N	Cuttings	1981	1216325
S	332m N	Cuttings	1963	1226851
S	332m N	Cuttings	1973	1216325
AB	342m W	Tunnel	1990	1237685
AB	342m W	Tunnel	1981	1210469
AB	342m W	Tunnel	1970	1210469
AB	343m W	Tunnel	1961	1197961

ID	Location	Land Use	Date	Group ID
S	349m N	Cuttings	1922	1212108
Y	352m NE	Railway Building	1981	1260506
Y	352m NE	Railway Building	1973	1260506
AC	352m NE	Unspecified Tank	1981	1193713
AC	352m NE	Unspecified Tank	1963	1190296
AC	352m NE	Unspecified Tank	1973	1193713
AC	353m NE	Unspecified Tank	1920	1213009
AE	361m SW	Railway Sidings	1882	1198610
10	362m SE	Unspecified Ground Workings	1882	1160906
AD	363m SE	Unspecified Tank	1963	1175988
AD	368m SE	Unspecified Tanks	1985	1168703
AD	381m SE	Unspecified Tanks	1981	1257119
AD	381m SE	Unspecified Tanks	1973	1257119
AH	393m S	Unspecified Depots	1985	1181975
11	399m N	Tunnel	1882	1210918
12	402m S	Engineering and Ship Repairing Works	1900	1222520
13	410m SE	Unspecified Warehouses	1985	1167737
AA	410m NE	Railway Sidings	1882	1198755
AJ	418m SW	Railway Sidings	1981	1209979
AJ	418m SW	Railway Sidings	1970	1209979
AJ	419m SW	Railway Building	1961	1262647
AL	422m S	Unspecified Ground Workings	1985	1214369
AL	422m S	Unspecified Ground Workings	1981	1214369
AL	422m S	Unspecified Ground Workings	1973	1214369
AN	428m N	Tunnel	1900	1260055
AN	428m N	Tunnels	1920	1202919
AL	430m S	Railway Buildings	1963	1181810
AN	434m N	Tunnels	1922	1198932

ID	Location	Land Use	Date	Group ID
AN	437m N	Tunnel	1985	1251629
AN	437m N	Tunnel	1981	1251629
AN	437m N	Tunnel	1963	1232029
AN	437m N	Tunnel	1973	1251629
14	438m NE	Railway Sidings	1900	1251186
AN	439m N	Tunnels	1949	1242187
AN	440m N	Tunnels	1922	1189966
15	443m W	Railway Sidings	1990	1198610
16	465m N	Unspecified Ground Workings	1882	1160898
AR	474m SW	Refuse Heap	1985	1247990
AR	474m SW	Refuse Heap	1981	1247990
AR	474m SW	Refuse Heap	1973	1247990
AL	476m S	Unspecified Ground Workings	1920	1254528
AE	477m SW	Refuse Heap	1990	1208880
AE	477m SW	Refuse Heap	1981	1202100
17	479m SW	Railway Sidings	1920	1198610
18	480m SW	Railway Sidings	1922	1198610
AQ	484m E	Unspecified Pit	1882	1186033
19	485m SE	Timber Yard	1949	1158972
AU	487m S	Cuttings	1981	1198322
AU	487m S	Cuttings	1973	1198322

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**151**

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

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

ID	Location	Land Use	Date	Group ID
H	83m SW	Unspecified Tank	1955	193028
H	83m SW	Unspecified Tank	1955	193028
H	86m SW	Unspecified Tank	1921	193028
H	86m SW	Unspecified Tank	1937	193028
I	87m NE	Unspecified Tank	1937	184470
I	92m NE	Unspecified Tank	1966	182773
I	92m NE	Unspecified Tank	1955	182773
I	92m NE	Unspecified Tank	1978	190245
I	92m NE	Unspecified Tank	1955	182773
F	94m NW	Unspecified Tank	1955	173424
I	99m NE	Unspecified Tank	1955	188997
I	100m E	Tanks	1937	179716
I	102m NE	Tanks	1955	189309
I	102m NE	Tanks	1955	189309
I	105m NE	Unspecified Tank	1955	173425
J	114m NE	Tanks	1978	187898
J	114m NE	Tanks	1966	187898
J	167m NE	Unspecified Tank	1937	173365
O	202m E	Unspecified Tank	1937	182243
O	205m E	Unspecified Tank	1955	186514
O	206m E	Unspecified Tank	1955	186514
B	207m S	Tanks	1978	188920
B	207m S	Tanks	1955	184371
B	207m S	Tanks	1966	184371
B	207m S	Tanks	1955	184371
O	221m E	Unspecified Tank	1937	186209
O	225m E	Unspecified Tank	1966	190788
O	225m E	Unspecified Tank	1955	190788

ID	Location	Land Use	Date	Group ID
O	226m E	Unspecified Tank	1955	182102
O	227m E	Tanks	1966	190064
O	227m E	Tanks	1955	190064
O	227m E	Tanks	1955	192152
O	228m E	Unspecified Tank	1937	173423
O	234m E	Tanks	1978	183720
R	248m NE	Tanks	1978	184214
R	249m NE	Tanks	1966	184214
D	252m E	Unspecified Tank	1955	184762
D	252m E	Unspecified Tank	1955	184762
D	280m E	Unspecified Tank	1978	173422
W	280m SE	Unspecified Tank	1955	182596
W	280m SE	Unspecified Tank	1955	182596
W	295m E	Tanks	1966	169395
W	299m E	Tanks	1966	169397
Z	303m E	Tanks	1955	193627
Z	304m E	Tanks	1966	193627
Z	304m E	Tanks	1955	193627
Z	308m E	Tanks	1966	187740
C	310m SE	Unspecified Tank	1955	193175
C	310m SE	Unspecified Tank	1955	182975
Z	316m E	Tanks	1955	192198
Z	316m E	Tanks	1955	192198
Z	322m E	Unspecified Tank	1978	183399
Z	323m E	Unspecified Tank	1955	183399
Z	324m E	Unspecified Tank	1966	183399
Z	324m E	Unspecified Tank	1955	183399
Z	329m E	Unspecified Tank	1955	183089

ID	Location	Land Use	Date	Group ID
Z	329m E	Unspecified Tank	1955	183089
Z	348m E	Unspecified Tank	1955	183910
Z	349m E	Unspecified Tank	1955	183910
AD	355m SE	Tanks	1966	183334
AD	355m SE	Tanks	1955	183334
AD	355m SE	Tanks	1955	185924
AD	359m SE	Unspecified Tank	1955	178522
AD	360m SE	Unspecified Tank	1955	179092
AD	360m SE	Unspecified Tank	1955	179092
AD	362m SE	Unspecified Tank	1937	182324
AD	363m SE	Unspecified Tank	1955	182324
AD	363m SE	Unspecified Tank	1978	184081
AD	364m SE	Unspecified Tank	1966	185621
AD	364m SE	Unspecified Tank	1955	185621
AD	364m SE	Unspecified Tank	1955	185621
AD	364m SE	Unspecified Tank	1955	181305
AD	366m SE	Unspecified Tank	1955	179056
AD	366m SE	Unspecified Tank	1966	185621
AD	366m SE	Unspecified Tank	1955	185621
AD	366m SE	Unspecified Tank	1955	179056
AD	366m SE	Tanks	1978	184052
AD	366m SE	Unspecified Tank	1955	185245
AD	367m SE	Unspecified Tank	1955	173431
AD	367m SE	Tanks	1966	193774
AD	367m SE	Tanks	1955	193774
AF	368m E	Unspecified Tank	1955	193916
AF	368m E	Unspecified Tank	1955	193916
AD	368m SE	Unspecified Tank	1955	186077

ID	Location	Land Use	Date	Group ID
AD	369m SE	Unspecified Tank	1955	183457
AD	369m SE	Unspecified Tank	1955	185071
AD	371m E	Tanks	1978	179081
AD	371m SE	Unspecified Tank	1955	183457
AD	371m SE	Tanks	1955	188898
AD	371m SE	Unspecified Tank	1955	183457
AD	371m SE	Unspecified Tank	1978	186250
AD	372m E	Tanks	1966	185343
AD	372m E	Tanks	1955	183820
AD	372m SE	Tanks	1955	190842
AD	373m E	Tanks	1955	183820
AD	374m SE	Unspecified Tank	1955	173430
AD	374m SE	Tanks	1966	179220
AD	374m SE	Tanks	1955	179220
AD	375m SE	Unspecified Tank	1978	183457
AG	378m NE	Unspecified Tank	1978	183738
AD	378m E	Unspecified Tank	1955	190710
AG	378m NE	Unspecified Tank	1955	184525
AG	378m NE	Unspecified Tank	1966	183738
AG	378m NE	Unspecified Tank	1955	183738
AD	379m E	Unspecified Tank	1955	191835
AD	379m SE	Unspecified Tank	1955	183294
AD	379m SE	Unspecified Tank	1966	187084
AD	379m SE	Unspecified Tank	1955	183294
AD	383m SE	Unspecified Tank	1978	179048
AD	383m SE	Tanks	1966	188283
AD	384m SE	Unspecified Tank	1955	181951
AD	384m SE	Unspecified Tank	1966	179048

ID	Location	Land Use	Date	Group ID
AD	388m SE	Tanks	1955	190131
AD	389m SE	Unspecified Tank	1955	188492
AD	391m SE	Tanks	1955	180790
AD	391m SE	Tanks	1955	181059
AD	391m SE	Tanks	1955	181059
AD	392m SE	Unspecified Tank	1955	181531
AD	393m SE	Unspecified Tank	1955	173432
AD	393m SE	Unspecified Tank	1978	181999
AD	393m SE	Unspecified Tank	1966	181999
AI	394m E	Unspecified Tank	1966	182520
AI	394m E	Unspecified Tank	1955	182520
AI	394m E	Unspecified Tank	1955	182520
AD	395m SE	Tanks	1955	169399
AD	398m E	Tanks	1955	188967
AD	399m E	Tanks	1955	188967
AD	402m SE	Unspecified Tank	1978	189769
AD	404m SE	Unspecified Tank	1966	185927
AD	404m E	Unspecified Tank	1955	192493
AD	404m E	Unspecified Tank	1955	192493
AD	411m SE	Unspecified Tank	1978	180736
AD	413m SE	Unspecified Tank	1966	187556
AI	419m E	Unspecified Tank	1978	185779
AI	420m E	Unspecified Tank	1966	185779
AH	425m S	Unspecified Tank	1987	173429
AO	432m E	Unspecified Tank	1978	181277
AO	432m E	Unspecified Tank	1966	181277
AO	432m E	Unspecified Tank	1955	181277
AO	432m E	Unspecified Tank	1955	181277

ID	Location	Land Use	Date	Group ID
AL	434m S	Unspecified Tank	1955	184533
AL	434m S	Unspecified Tank	1955	184533
AO	450m E	Unspecified Tank	1978	190791
AO	451m E	Unspecified Tank	1966	190791
AQ	456m E	Unspecified Tank	1978	173421
AQ	466m E	Tanks	1978	169394
AO	473m E	Unspecified Tank	1955	182711
AO	473m E	Unspecified Tank	1955	182711
AQ	473m E	Tanks	1966	169396
AA	479m NE	Unspecified Tank	1884	179388
AA	479m NE	Unspecified Tank	1921	179388

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**14**

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

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

ID	Location	Land Use	Date	Group ID
F	72m N	Electricity Substation	1996	97637
Q	227m N	Electricity Substation	1995	111643
Q	227m N	Electricity Substation	1973	111643
AM	424m W	Electricity Transformer	1973	99585
AM	424m W	Electricity Substation	1955	107600
AM	424m W	Electricity Substation	1955	107600
AP	437m NW	Electricity Substation	1995	104513
AP	440m NW	Electricity Substation	1973	110594
AS	481m W	Electricity Substation	1955	105340

ID	Location	Land Use	Date	Group ID
AS	481m W	Electricity Substation	1955	105340
AT	487m SE	Electricity Substation	1982	105137
AT	487m SE	Electricity Substation	1982	105137
AT	487m SE	Electricity Substation	1987	105137
AT	489m SE	Electricity Substation	1993	110123

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	**0**

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	**10**

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

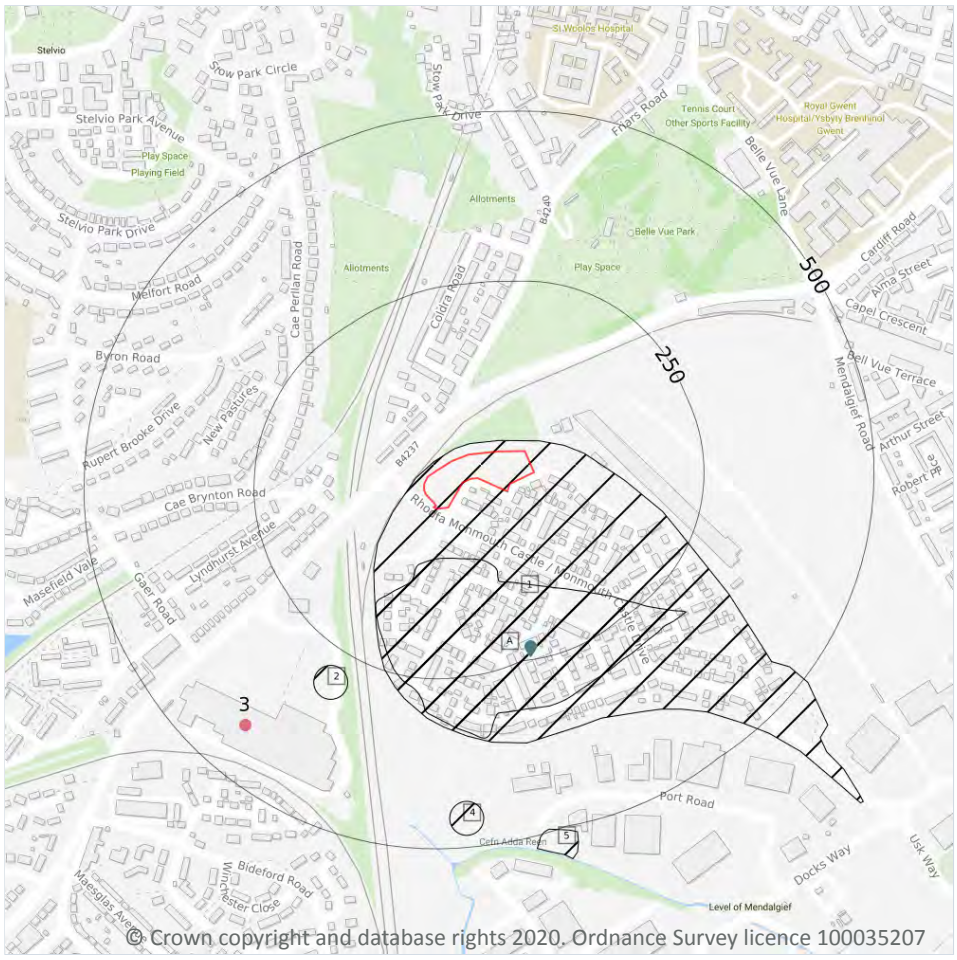
Features are displayed on the Past land use - un-grouped map on **page 23**

ID	Location	Land Use	Date	Group ID
Y	296m NE	Garage	1991	35257
Y	324m NE	Garage	1993	35257
Y	351m NE	Garage	1968	35835
Y	351m NE	Garage	1955	35835
Y	352m NE	Garage	1955	35835
Y	352m NE	Garage	1967	35835
AK	420m SW	Garage	1955	35164
AK	420m SW	Garage	1966	35164

ID	Location	Land Use	Date	Group ID
AK	428m SW	Garage	1955	35164
AK	428m SW	Garage	1967	35164

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	5

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

Features are displayed on the Waste and landfill map on **page 37**

ID	Location	Details		
1	**On site**	**Site Address: Land at Newport Sidings** **Licence Holder Address: 40 Melton Street, London**	**Waste Licence: Yes** **Site Reference: -** **Waste Type: -** **Environmental Permitting Regulations (Waste) Reference: WU1/L/RAI001** **Licence Issue: 04/07/1979** **Licence Surrender: -**	**Operator: Network Rail Infrastructure Ltd** **Licence Holder: Network Rail Infrastructure Ltd** **First Recorded -** **Last Recorded: -**
A	73m S	Site Address: Level of Mendalgief Licence Holder Address: -	Waste Licence: Yes Site Reference: 025/92, 025/76 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 07/10/1976 Licence Surrender: -	Operator: - Licence Holder: British Rail First Recorded 31/12/1976 Last Recorded: -
2	273m SW	Site Address: Alexandra Dock Junction Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

ID	Location	Details		
4	432m S	Site Address: Maesglas Sidings South Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -
5	495m S	Site Address: The Dingles Licence Holder Address: -	Waste Licence: Yes Site Reference: 48/88 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 22/11/1988 Licence Surrender: 10/04/1990	Operator: - Licence Holder: D J Litt First Recorded 31/12/1988 Last Recorded: 10/04/1990

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

3.5 Historical waste sites

Records within 500m	**0**

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

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

3.6 Licensed waste sites

Records within 500m	**1**

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

Features are displayed on the Waste and landfill map on **page 37**

ID	Location	Details		
A	233m S	Site Name: Level Of Mendalgief Maesglas Recycling Ltd Site Address: Level Of Mendalgief Landfill, Maesglas, Newport, CF27 9NR Correspondence Address: -	Type of Site: Landfill taking other wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RAI001 EPR reference: - Operator: Network Rail Infrastructure Ltd Waste Management licence No: 30010 Annual Tonnage: 0	Issue Date: 04/07/1979 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

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

3.7 Waste exemptions

Records within 500m	**1**

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

Features are displayed on the Waste and landfill map on **page 37**

ID	Location	Site	Reference	Category	Sub-Category	Description
3	425m SW	Tesco Stores Limited, Tesco Pharmacy, Unit 6, Harlech Retail Park, Cardiff Road, Newport, Gwent, NP20 3BA	NRW-WME041968	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

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

4 Current industrial land use

4.1 Recent industrial land uses

Records within 250m	8

Current potentially contaminative industrial sites.

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

ID	Location	Company	Address	Activity	Category
2	90m N	Electricity Sub Station	Gwent, NP20	Electrical Features	Infrastructure and Facilities
3	98m SE	Ryde	5, Gwenddwr Grange Close, Newport, Gwent, NP20 2QA	Vehicle Hire and Rental	Hire Services
4	147m SW	Electricity Sub Station	Gwent, NP20	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
A	173m SE	Electricity Sub Station	Gwent, NP20	Electrical Features	Infrastructure and Facilities
5	174m N	Honeybunch Cake Co	15, Waterloo Road, Newport, Gwent, NP20 4FB	Baking and Confectionery	Foodstuffs
A	198m E	Electricity Sub Station	Gwent, NP20	Electrical Features	Infrastructure and Facilities
6	230m N	Electricity Sub Station	Gwent, NP20	Electrical Features	Infrastructure and Facilities
B	244m SW	Tesco Petrol Station	Harlech Retail Park, Cardiff Road, Newport, Gwent, NP20 3BA	Petrol and Fuel Stations	Road and Rail

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	**2**

Open, closed, under development and obsolete petrol stations.

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

ID	Location	Company	Address	LPG	Status
B	259m SW	TESCO EXTRA	Cardiff Road, Harlech Retail Park, Newport, Newport, NP20 3BA	No	Open
12	469m NE	TEXACO	71, Cardiff Road, Newport, Newport, NP20 2EN	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	1

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

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

ID	Location	Details	
9	424m S	Application reference number: No Details Application status: Approved Application date: No Details Address: Gas On Ltd pka Calor Gas Ltd, Newport Calor Centre, Maesglas Industrial Estate, Newport, Gwent, Wales, NP20 2XF	Details: No Details Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	**0**

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	**0**

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

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

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

Records within 500m	**4**

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

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

ID	Location	Address	Details	
B	244m SW	Tesco Stores Ltd Filling Station, Harlech Retail Park, Cardiff Road, Newport, South Wales, NP20 3BA	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Location	Address	Details	
7	386m NE	Belle Vue Service Station, 71 Cardiff Road, Newport, South Wales, Gwent, NP20 2EN	Process: Petrol Vapour Recovery Status: Historical Permit Permit Type: Part A2 & B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
13	472m SW	Johnsons Cleaners UK Ltd, 156 – 160 Cardiff Road, Newport, South Wales, NP20 3AE	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
15	478m E	Coilcolor Ltd, Whitehead Estate, Docks Way, Newport, South Wales, NP20 2NW	Process: Coating Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	**0**

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	**8**

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

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

ID	Location	Address	Details	
C	388m SE	BRITISH STEEL LTD WHITEHEAD WORKS, BRITISH STEEL LTD WHITEHEAD WRKS, MENDELGEIF ROAD, NEWPORT, WALES, NP20 2NF	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: AC0130201 Permit Version: 3 Receiving Water: THE 20 ACRE REEN	Status: Effective Issue date: 03/06/2004 Effective Date: 04/06/2004 Revocation Date: -

ID	Location	Address	Details	
C	430m SE	WHITEHEAD WORKS NEWPORT, WHITEHEAD WORKS, NEWPORT	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: AD0012101 Permit Version: 1 Receiving Water: TWENTY ACRE REEN	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 10/03/1972 Effective Date: 10/03/1972 Revocation Date: 28/05/1993
10	431m SE	WHITEHEAD NARROW STRIP MENDALGIEF R, WHITEHEAD NARROW STRIP MENDALGIE, MENDALGIEF RD, NEWPORT ,	Effluent Type: UNSPECIFIED Permit Number: AN0054701 Permit Version: 1 Receiving Water: STREAM	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 14/12/1987 Effective Date: 14/12/1987 Revocation Date: 07/02/1994
11	444m NW	BYRON ROAD NEWPORT , NEWPORT	Effluent Type: UNSPECIFIED Permit Number: AN0159101 Permit Version: 1 Receiving Water: GAER POND	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV Issue date: 13/12/1991 Effective Date: 13/12/1991 Revocation Date: 02/02/1999
E	467m SE	20 ACRE REEN MENDALGIEF ROAD NEWPO, 20 ACRE REEN MENDALGIEF ROAD NE, MENDALGIEF ROAD NEWPORT , NEWPORT	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: AC0130201 Permit Version: 1 Receiving Water: THE 20 ACRE REEN	Status: REVOKED - UNSPECIFIED Issue date: 30/04/1981 Effective Date: 30/04/1981 Revocation Date: 30/03/1995
E	467m SE	20 ACRE REEN MENDALGIEF ROAD NEWPO, 20 ACRE REEN MENDALGIEF ROAD NE, MENDALGIEF ROAD NEWPORT , NEWPORT	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: AC0130201 Permit Version: 2 Receiving Water: THE 20 ACRE REEN	Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 31/03/1995 Effective Date: 31/03/1995 Revocation Date: 03/06/2004
14	475m W	MEREDITH CLOSE/GLASLLWCH LANE NEW, MEREDITH CLOSE/GLASLLWCH LANE, NEWPORT	Effluent Type: UNSPECIFIED Permit Number: AN0159201 Permit Version: 1 Receiving Water: GAER POND	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV Issue date: 13/12/1991 Effective Date: 13/12/1991 Revocation Date: 02/02/1999
D	486m SW	NEWPORT CAE BRYNTON RELIEF SEW	Effluent Type: UNSPECIFIED Permit Number: AA0030801 Permit Version: 1 Receiving Water: CEFN ADDA REEN	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV Issue date: 08/03/1962 Effective Date: 08/03/1962 Revocation Date: 16/05/2006

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	1

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

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

ID	Location	Name	Status	Receiving Water	Authorised Substances
E	468m SE	Bsc Whiteheads	Active	20 Acre Reen	Iron, Zinc

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	3

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

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

ID	Location	Details	
1	48m N	Incident Date: 16/04/2007 Incident Identification: 486306 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
8	397m SW	Incident Date: 14/07/2002 Incident Identification: 91404 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
D	449m SW	Incident Date: 22/07/2002 Incident Identification: 93469 Pollutant: Sewage Materials Pollutant Description: Process Effluent	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

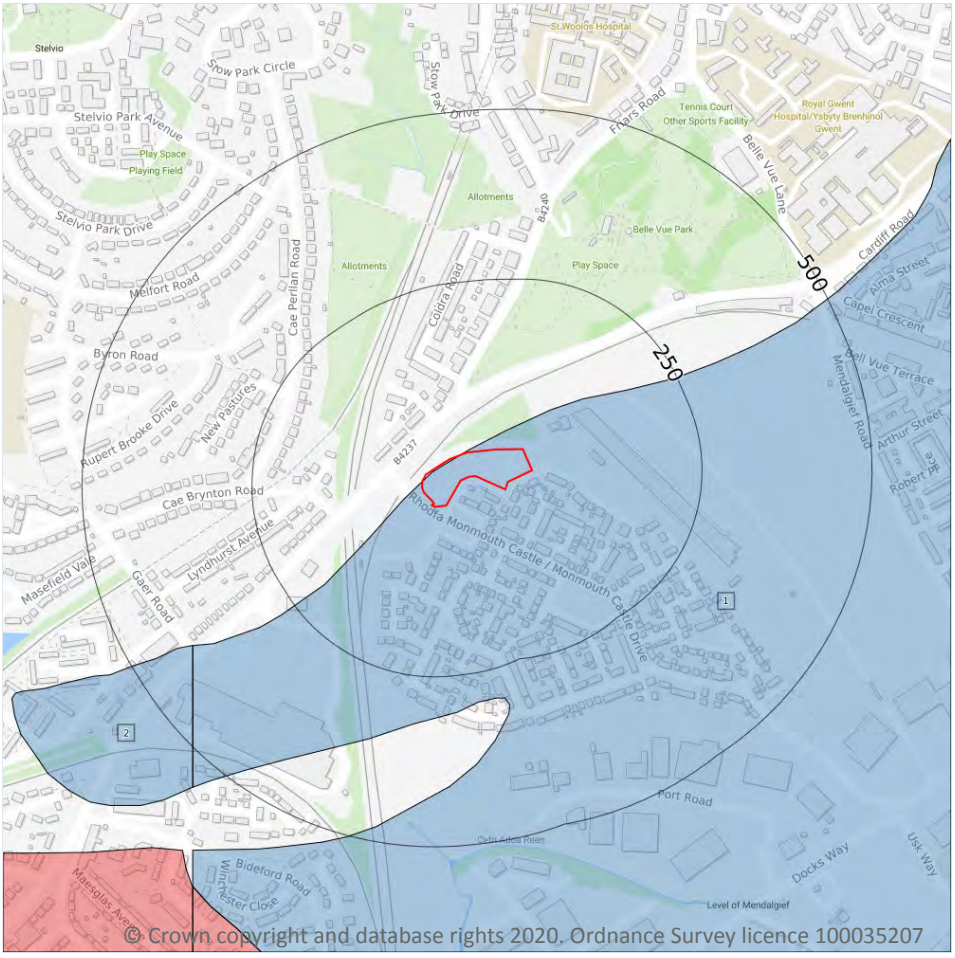
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m	2

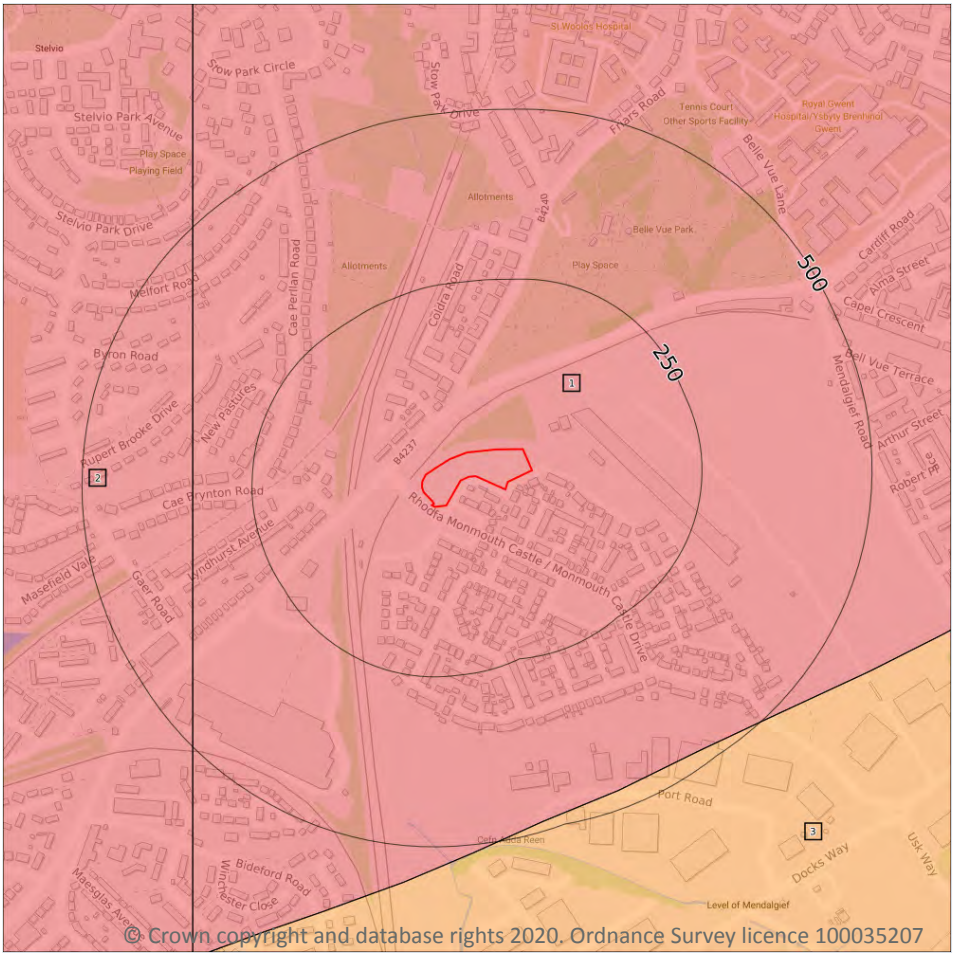
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 49**

ID	Location	Designation	Description
1	**On site**	**Unproductive**	**These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow**
2	408m SW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m	3

Aquifer status of groundwater held within bedrock geology.

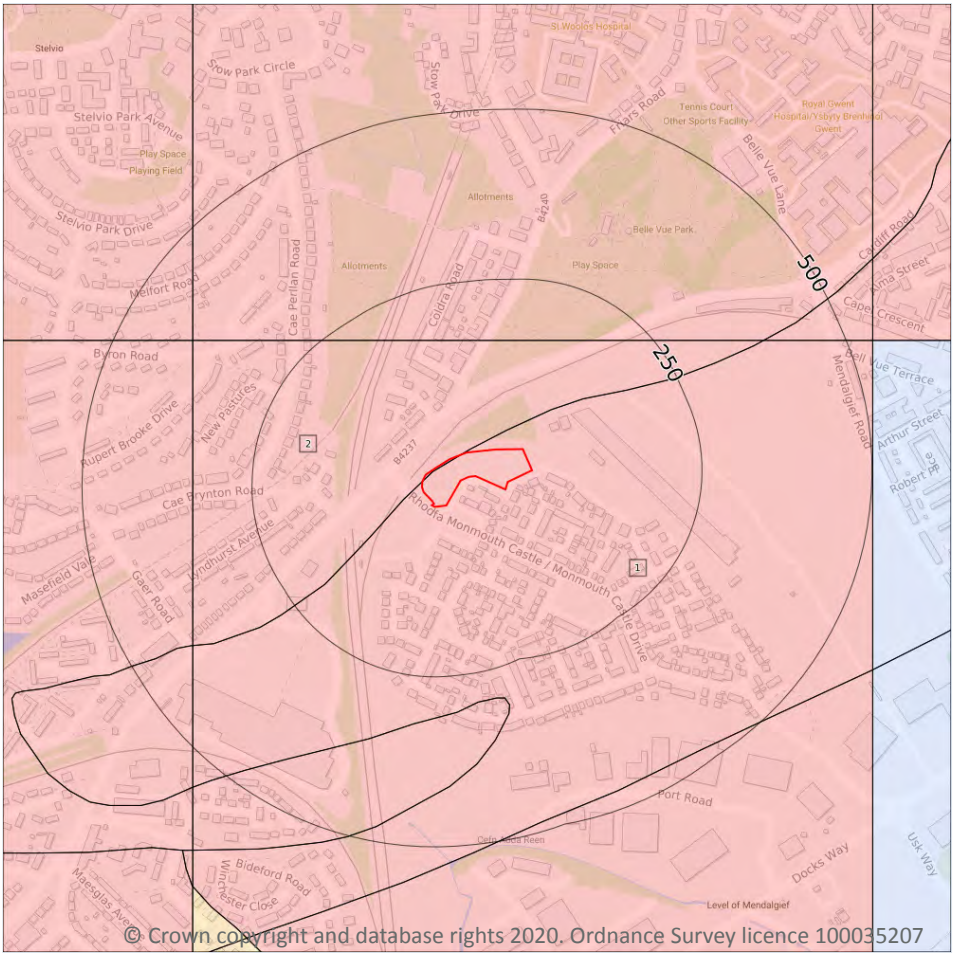
Features are displayed on the Bedrock aquifer map on **page 50**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
2	337m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	471m SE	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

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

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

Features are displayed on the Groundwater vulnerability map on **page 52**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Unproductive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: Unproductive Aquifer type: Unproductive Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0

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

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

5.5 Groundwater vulnerability- local information

Records on site	0

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

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

Abstractions and Source Protection Zones

Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	0

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

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

5.7 Surface water abstractions

Records within 2000m	**3**

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 54**

ID	Location	Details	
-	761m SE	Status: Historical Licence No: 20/56/11/0013 Details: General use relating to Secondary Category (Medium Loss) Direct Source: EAW Surface Water Point: DOCK FEEDER AT PILLGWENLLY TO WHITEHEAD Data Type: Point Name: Corus UK Ltd Easting: 330800 Northing: 186100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/10/1973 Expiry Date: - Issue No: 102 Version Start Date: 17/04/2000 Version End Date: -
-	1817m W	Status: Historical Licence No: 20/56/61/0017 Details: Spray Irrigation - Direct Direct Source: EAW Surface Water Point: STREAM IN ROGERSTONE Data Type: Point Name: Newbridge Construction Ltd Easting: 328520 Northing: 186820	Annual Volume (m^3): 3410 Max Daily Volume (m^3): 82 Original Application No: - Original Start Date: 17/08/1976 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1817m W	Status: Active Licence No: 20/56/61/0017 Details: Spray Irrigation - Direct - High Direct Source: - Point: - Data Type: Point Name: - Easting: 328520 Northing: 186820	Annual Volume (m^3): 3,410 Max Daily Volume (m^3): 106.92 Original Application No: - Original Start Date: Apr 1 2008 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	0

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

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

5.9 Source Protection Zones

Records within 500m	0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology

Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	3

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

Features are displayed on the Hydrology map on **page 57**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	119m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
2	156m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	210m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	0

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

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

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

Features are displayed on the Hydrology map on **page 57**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**Coastal catchment**	**Not part of a river WB catchment**	**142**	**Ebbw Sirhowy**	**South East Valleys**

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

6.4 WFD Surface water bodies

Records identified	0

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is

detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site.

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

6.5 WFD Groundwater bodies

Records on site	**1**

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place.

Features are displayed on the Hydrology map on **page 57**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**SE Valleys Eastern Devonian Old Red Sandstone**	**GB40902G204700**	**Good**	**Good**	**Good**	**2016**

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

7 River and coastal flooding

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance).

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

7.2 Historical Flood Events

Records within 250m	0

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

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding

Site Outline

Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

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

Features are displayed on the Surface water flooding map on **page 63**

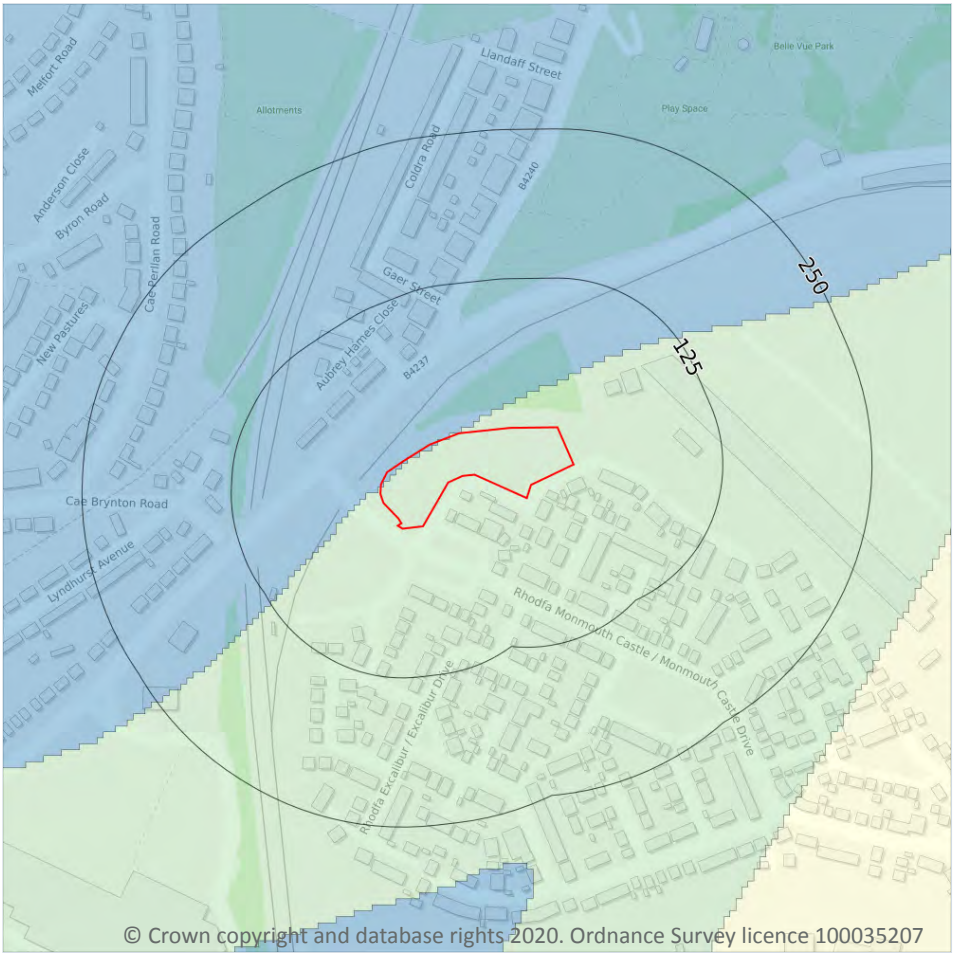
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

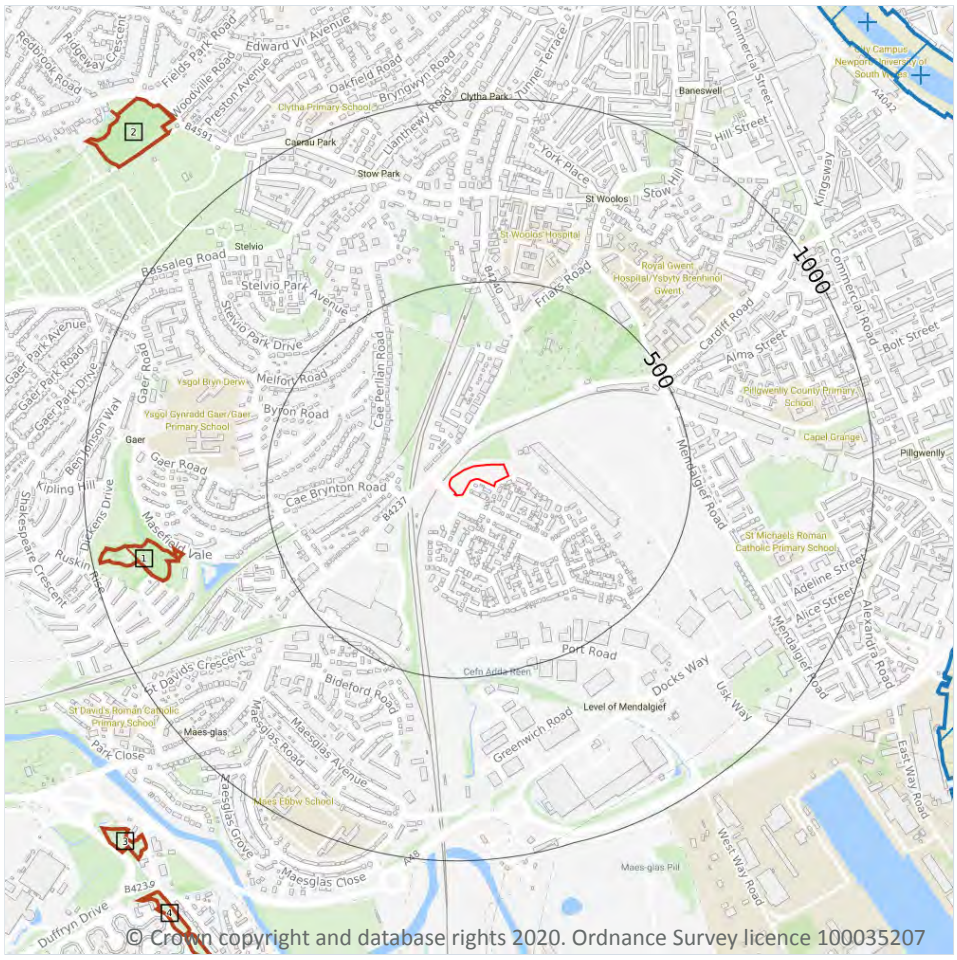
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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

Features are displayed on the Groundwater flooding map on **page 65**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	2

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

Features are displayed on the Environmental designations map on **page 66**

ID	Location	Name	Data source
A	1305m E	River Usk (Lower Usk)/afon Wysg (Wysg Isaf)	Natural Resources Wales

ID	Location	Name	Data source
-	1466m S	Gwent Levels - St. Brides	Natural Resources Wales

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	**1**

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

Features are displayed on the Environmental designations map on **page 66**

ID	Location	Name	Features of interest	Habitat description	Data source
A	1305m E	River Usk / Afon Wysg	Estuaries; Intertidal mudflats and sandflats; Atlantic salt meadows; Rivers with floating vegetation often dominated by water-crowfoot; Beech forests on neutral to rich soils; Mixed woodland on base-rich soils associated with rocky slopes; Western acidic oak woodland; Bog woodland; Alder woodland on floodplains; Sea lamprey; Brook lamprey; River lamprey; Allis shad; Twaite shad; Atlantic salmon; Bullhead; Freshwater pearl mussel; White-clawed (or Atlantic stream) crayfish; Lesser horseshoe bat; Otter.	Improved grassland; Dry grassland, Steppes; Inland water bodies (Standing water, Running water); Broad-leaved deciduous woodland; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Salt marshes, Salt pastures, Salt steppes; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Bogs, Marshes, Water fringed vegetation, Fens; Heath, Scrub, Maquis and Garrigue, Phygrana; Humid grassland, Mesophile grassland	Natural Resources Wales

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 66**

ID	Location	Name	Data source
-	1882m N	ALLT-YR-YN	Natural Resources Wales

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

10.7 Designated Ancient Woodland

Records within 2000m	18

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

Features are displayed on the Environmental designations map on **page 66**

ID	Location	Name	Woodland Type
1	754m W	Unknown	Ancient Semi Natural Woodland
2	1221m NW	Unknown	Ancient Semi Natural Woodland
3	1265m SW	Unknown	Restored Ancient Woodland Site
4	1356m SW	Unknown	Ancient Semi Natural Woodland
-	1385m SW	Unknown	Ancient Semi Natural Woodland
6	1400m SW	Unknown	Restored Ancient Woodland Site
-	1600m SW	Unknown	Ancient Semi Natural Woodland
-	1710m S	Unknown	Restored Ancient Woodland Site
-	1796m NW	Unknown	Ancient Semi Natural Woodland
-	1804m NW	Unknown	Ancient Semi Natural Woodland
-	1813m SW	Unknown	Restored Ancient Woodland Site
-	1815m NW	Unknown	Plantation on Ancient Woodland Site
-	1821m NW	Unknown	Plantation on Ancient Woodland Site
-	1920m NW	Unknown	Ancient Semi Natural Woodland
-	1936m NW	Unknown	Ancient Semi Natural Woodland
-	1940m SW	Unknown	Ancient Semi Natural Woodland
-	1950m NW	Unknown	Ancient Semi Natural Woodland
-	1967m NW	Unknown	Ancient Semi Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m	**0**

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	0

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

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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

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

SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0

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

This data is sourced from Natural England.

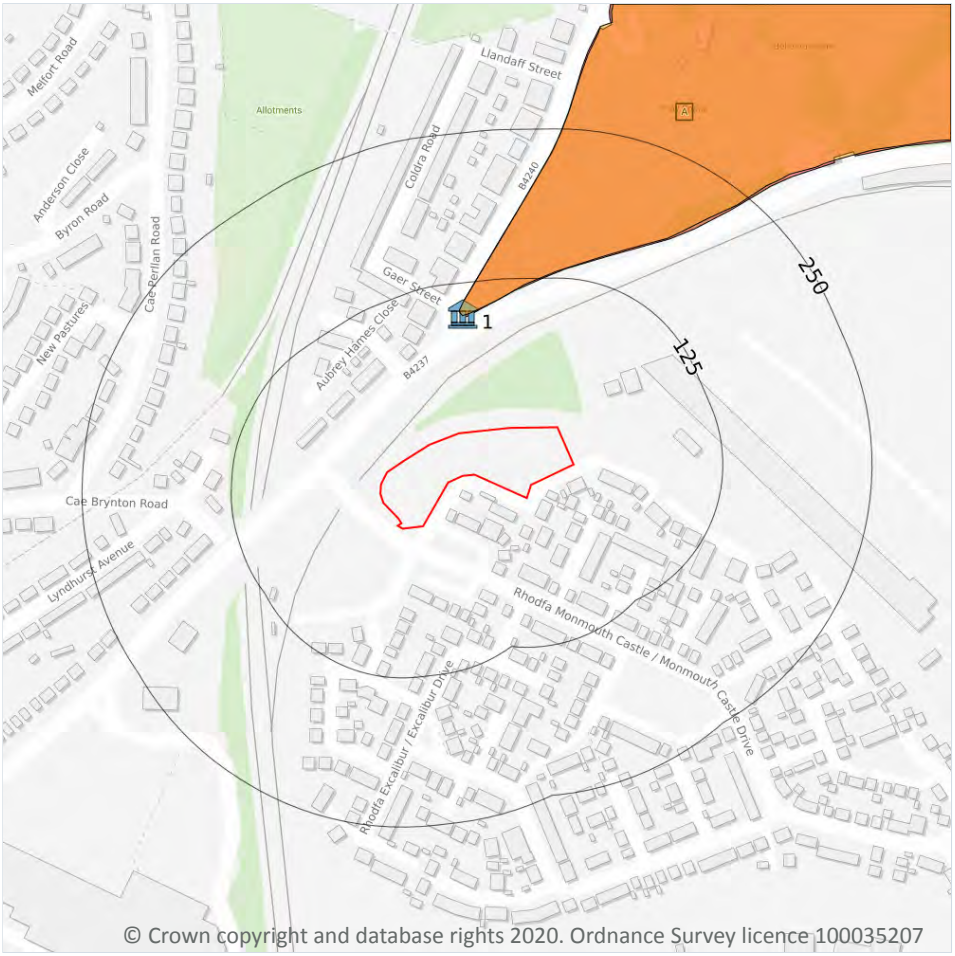
10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations



Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	1

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

Features are displayed on the Visual and cultural designations map on **page 73**

ID	Location	Name	Grade	Reference Number	Listed date
1	99m N	Gates And Gatepiers At SW Corner Of Belle Vue Park, At SW Entrance To Belle Vue Park	II	23149	31/03/2000

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

11.5 Conservation Areas

Records within 250m	1

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

Features are displayed on the Visual and cultural designations map on **page 73**

ID	Location	Name	District	Date of designation
A	97m N	Belle Vue	NEWPORT	1994-04-07

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

11.7 Registered Parks and Gardens

Records within 250m	1

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

Features are displayed on the Visual and cultural designations map on **page 73**

ID	Location	Name	Grade
A	98m N	Newport: Bellevue Park	II

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

12 Agricultural designations

12.1 Agricultural Land Classification

Records within 250m	0

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

This data is sourced from Natural Resources Wales.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

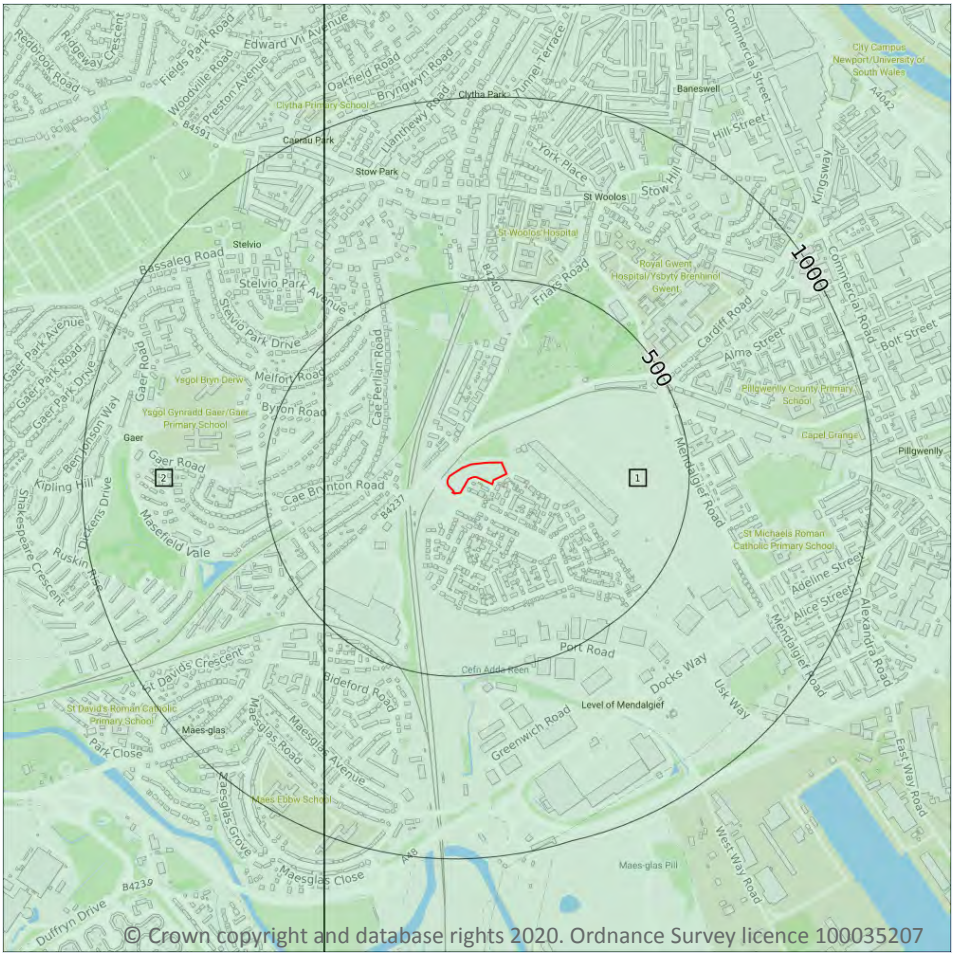
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	2

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 79**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**No coverage**	**ST38NW**
2	337m W	No coverage	Full	Full	No coverage	ST28NE

This data is sourced from the British Geological Survey.

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

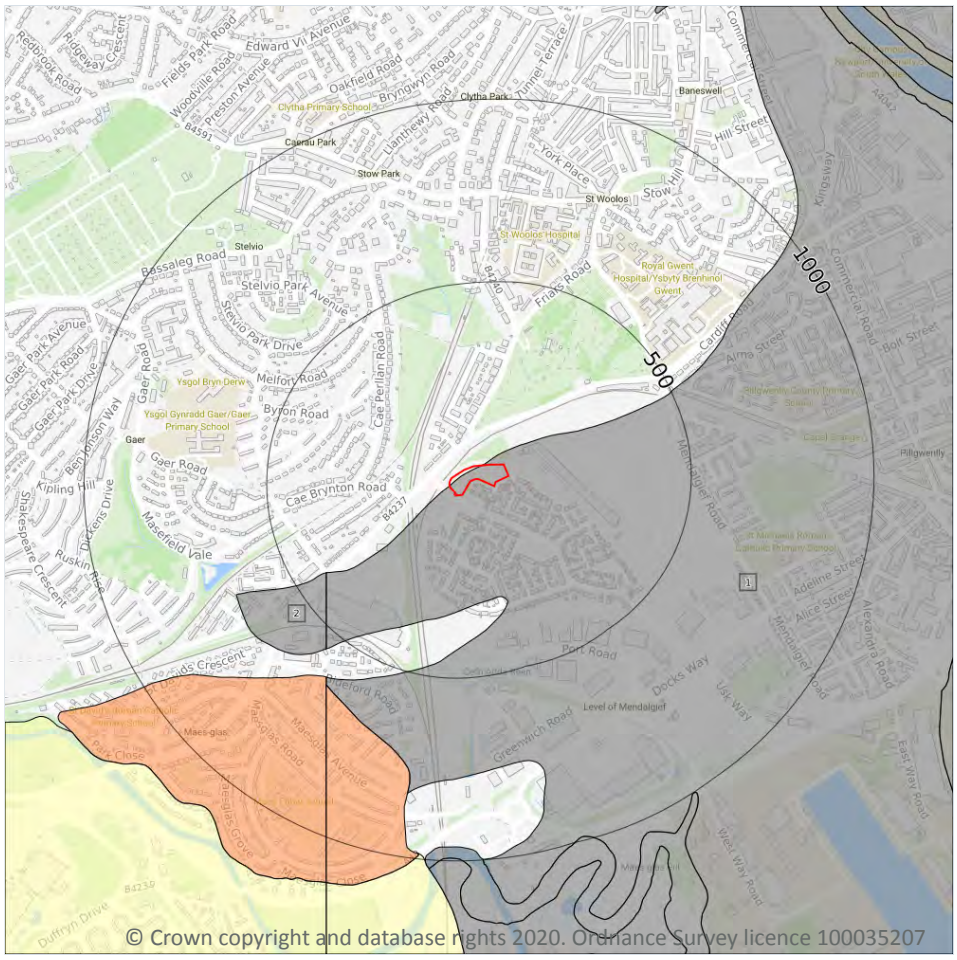
14.2 Artificial and made ground (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m **2**

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 81**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TFD-CZ**	**Tidal Flat Deposits - Clay, Silty (unlithified Deposits Coding Scheme)**	**Clay, Silty**
2	412m SW	TFD-CZ	Tidal Flat Deposits - Clay, Silty (unlithified Deposits Coding Scheme)	Clay, Silty

This data is sourced from the British Geological Survey.

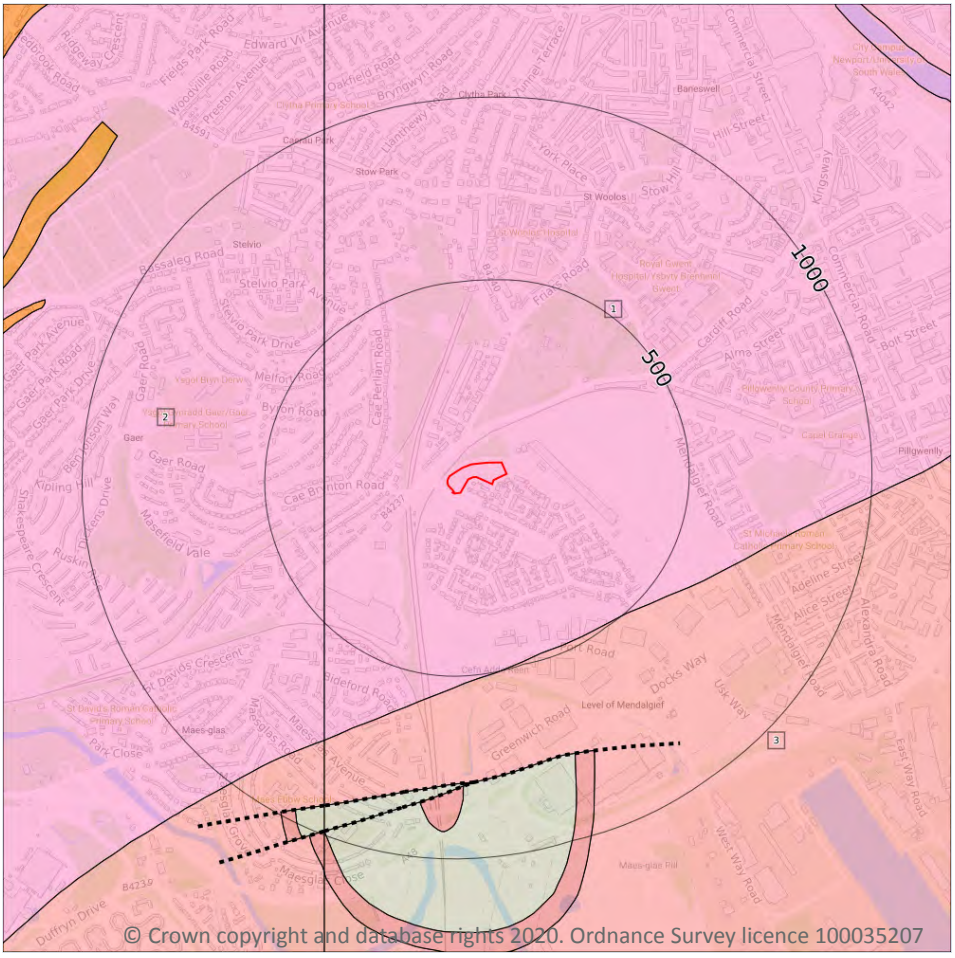
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m **3**

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 83**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**SMG-ARSD**	**St Maughans Formation - Interbedded Argillaceous Rocks And [subequal/subordinate] Sandstone**	**Early Devonian Epoch**
2	337m W	SMG-ARSD	St Maughans Formation - Interbedded Argillaceous Rocks And [subequal/subordinate] Sandstone	Early Devonian Epoch
3	480m S	MMG-MDST	Mercia Mudstone Group - Mudstone	Rhaetian Age - Early Triassic Epoch

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability

Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme. Where 50k data is not available, this area has been filled in with 625k scale data.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 85**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW249_newport_v4**

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

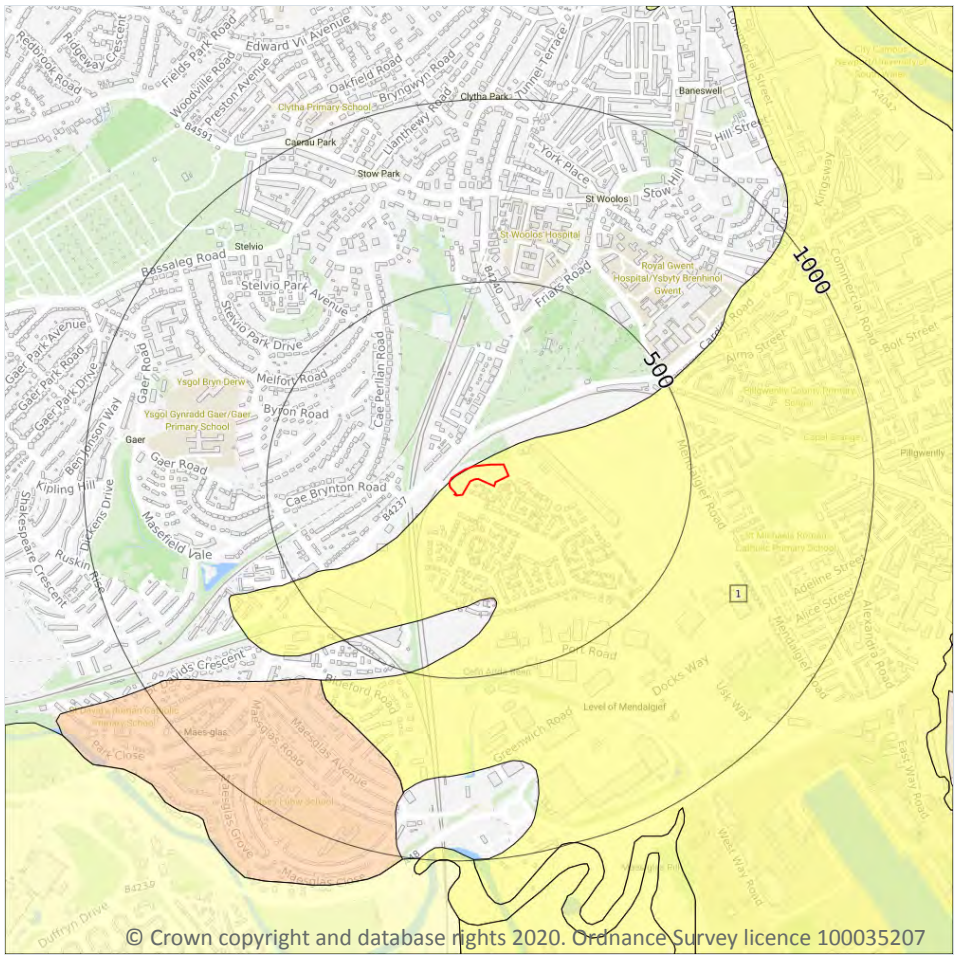
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 87**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TFD-XCZ**	**TIDAL FLAT DEPOSITS**	**CLAY AND SILT**

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Low**	**Very Low**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

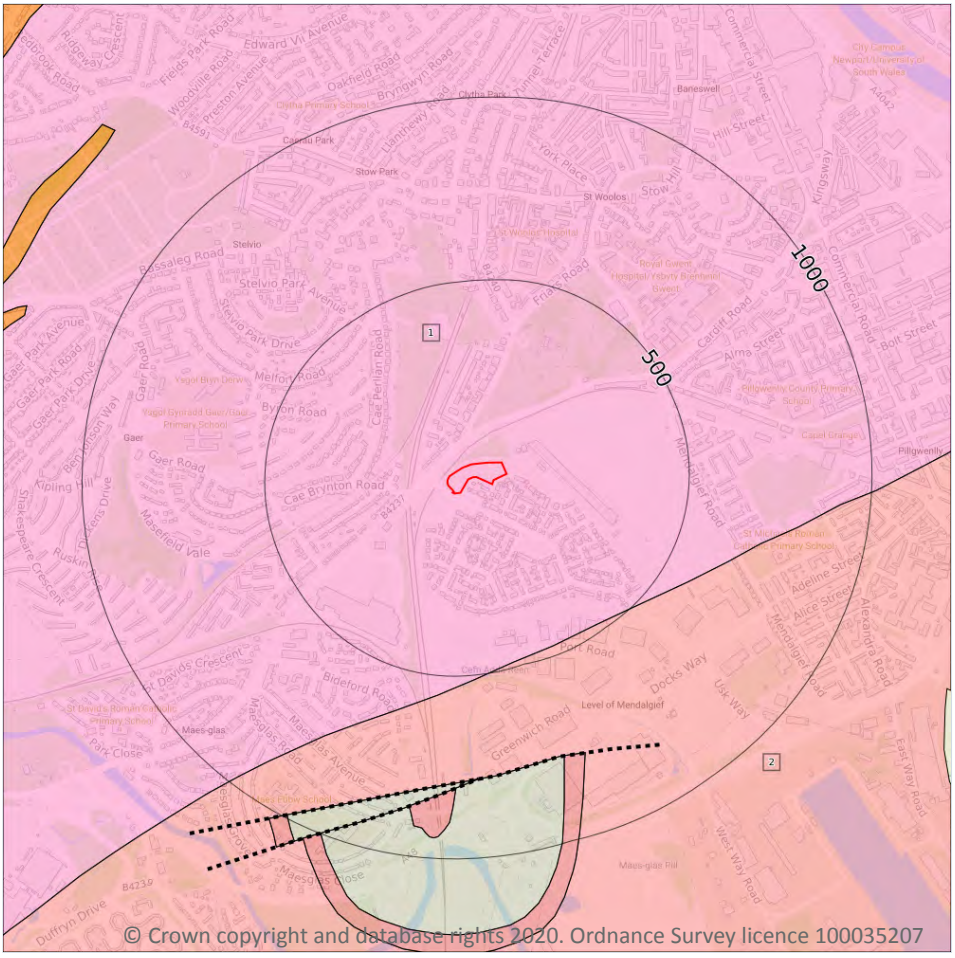
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	2

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 89**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**SMG-ARSD**	**ST MAUGHANS FORMATION - ARGILLACEOUS ROCKS AND [SUBEQUAL/SUBORDINATE] SANDSTONE, INTERBEDDED**	**-**
2	471m SE	MMG-MDST	MERCIA MUDSTONE GROUP - MUDSTONE	-

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Moderate**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

16 Boreholes

Site Outline

Search buffers in metres (m)

Confidential

0 - 10m

10 - 30m

30m+

Unknown

16.1 BGS Boreholes

Records within 250m	10

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

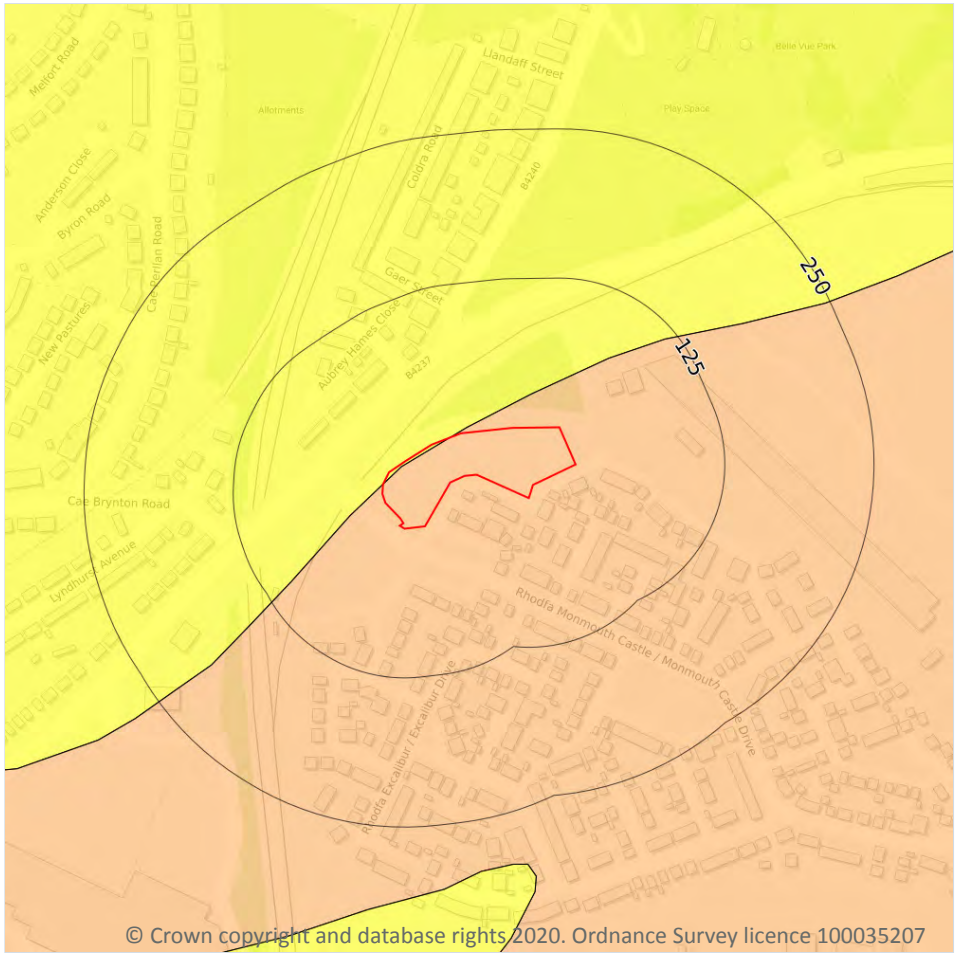
Features are displayed on the Boreholes map on **page 91**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	1m S	330460 186780	MONBANK LANDFILL (2) NEWPORT 12	-	Y	N/A
2	60m S	330390 186700	MONBANK LANDFILL (2) NEWPORT 11	-	Y	N/A
3	100m SW	330270 186700	NEWPORT LANDFILL 1	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
4	121m SE	330540 186690	MONBANK LANDFILL (2) NEWPORT 13	-	Y	N/A
5	121m SE	330610 186760	NEWPORT LANDFILL 2	-	Y	N/A
6	149m SE	330430 186620	NEWPORT LANDFILL 9	-	Y	N/A
7	157m S	330330 186600	MONBANK LANDFILL (2) NEWPORT 10	-	Y	N/A
8	205m S	330430 186560	MONBANK LANDFILL (2) NEWPORT 14	-	Y	N/A
9	220m SE	330690 186700	NEWPORT LANDFILL 3	-	Y	N/A
10	248m SE	330670 186630	MONBANK LANDFILL (2) NEWPORT 15	-	Y	N/A

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m	2

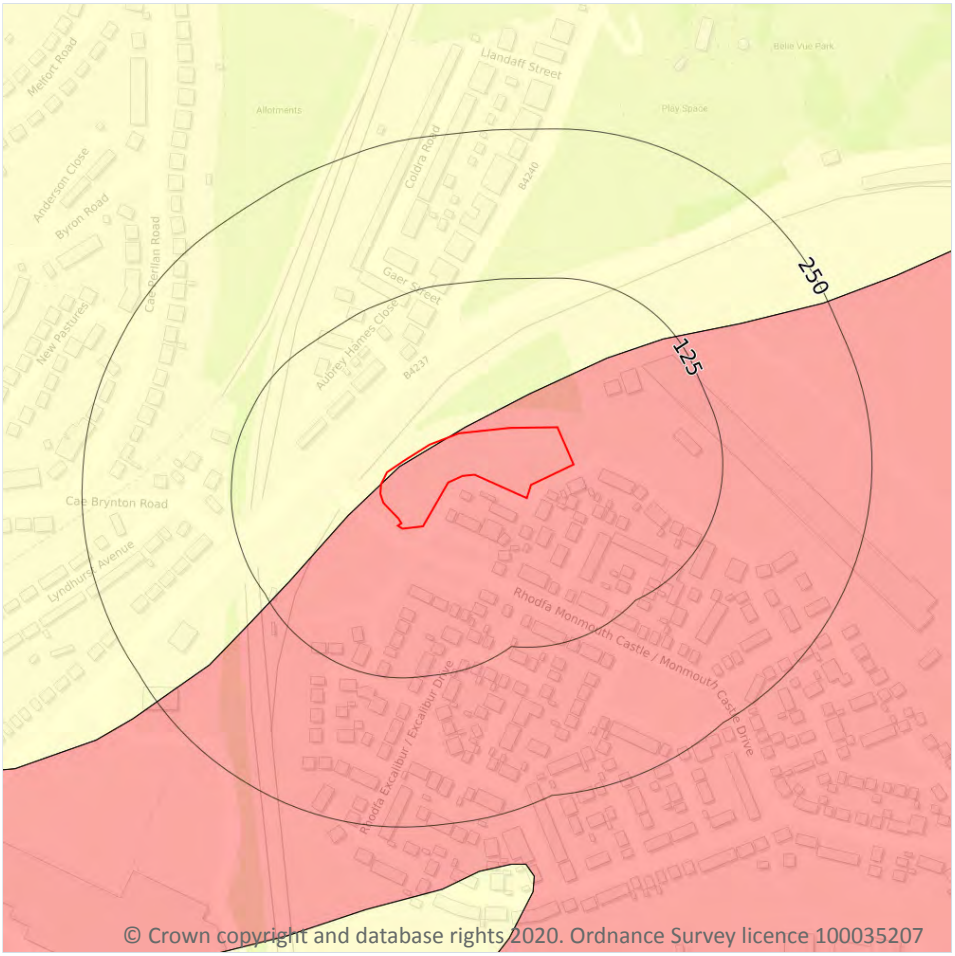
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 93**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	2

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

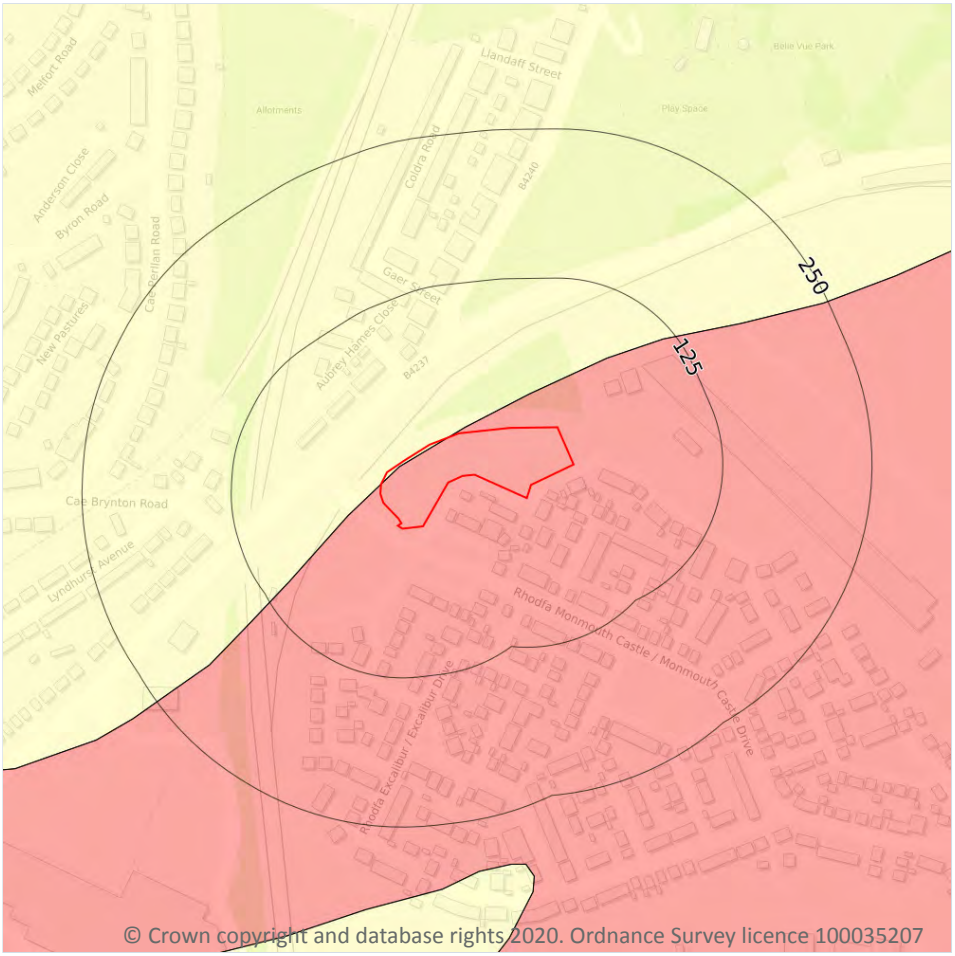
Features are displayed on the Natural ground subsidence - Running sands map on **page 94**

Location	Hazard rating	Details
On site	**Negligible**	**Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.**

Location	Hazard rating	Details
On site	**Moderate**	**Running sand conditions are probably present. Constraints may apply to land uses involving excavation or the addition or removal of water.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	2

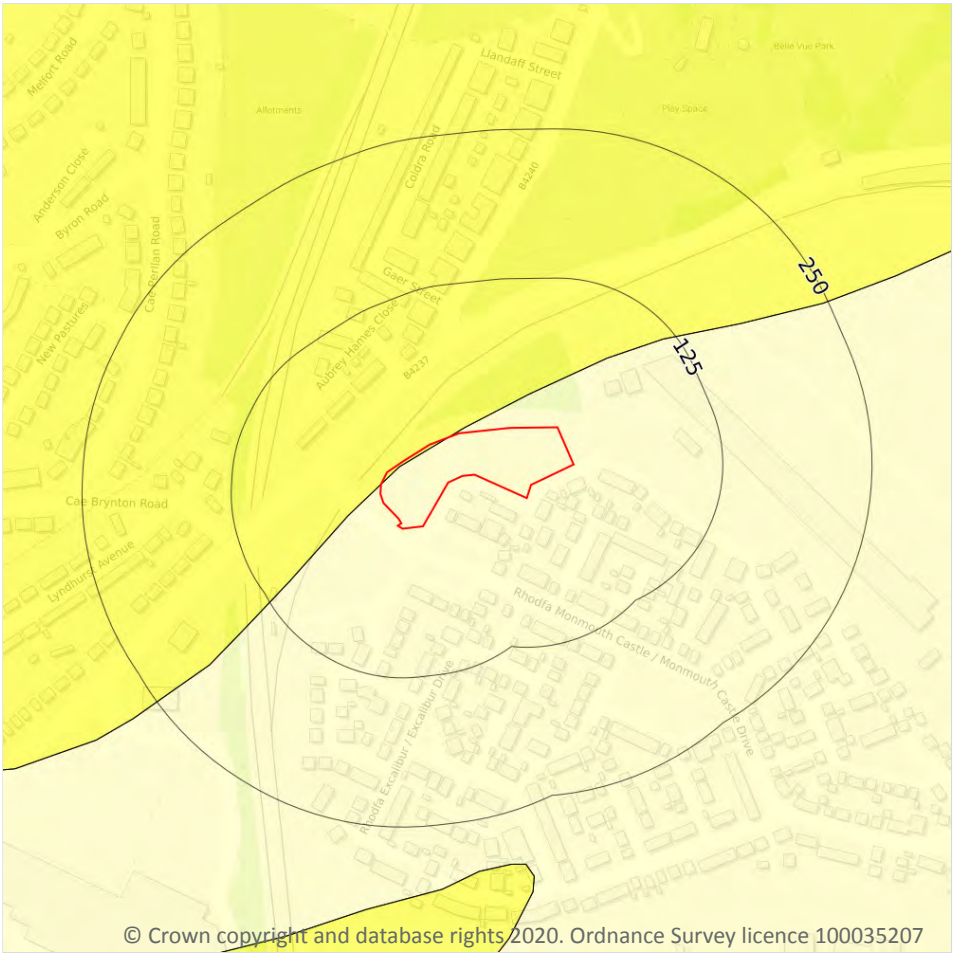
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 96**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Moderate**	**Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m	2

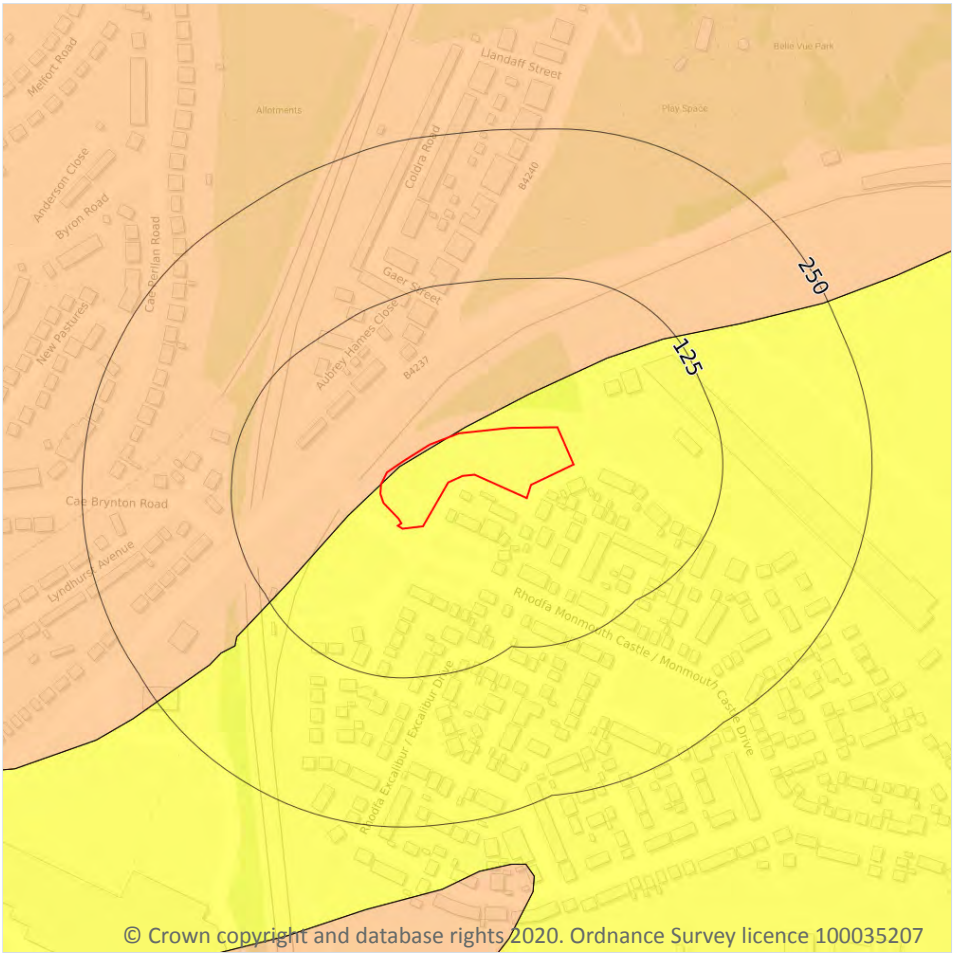
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 98**

Location	Hazard rating	Details
On site	**Negligible**	**Deposits with potential to collapse when loaded and saturated are believed not to be present.**
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	2

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

Features are displayed on the Natural ground subsidence - Landslides map on **page 99**

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

Location	Hazard rating	Details
On site	**Low**	**Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks

Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

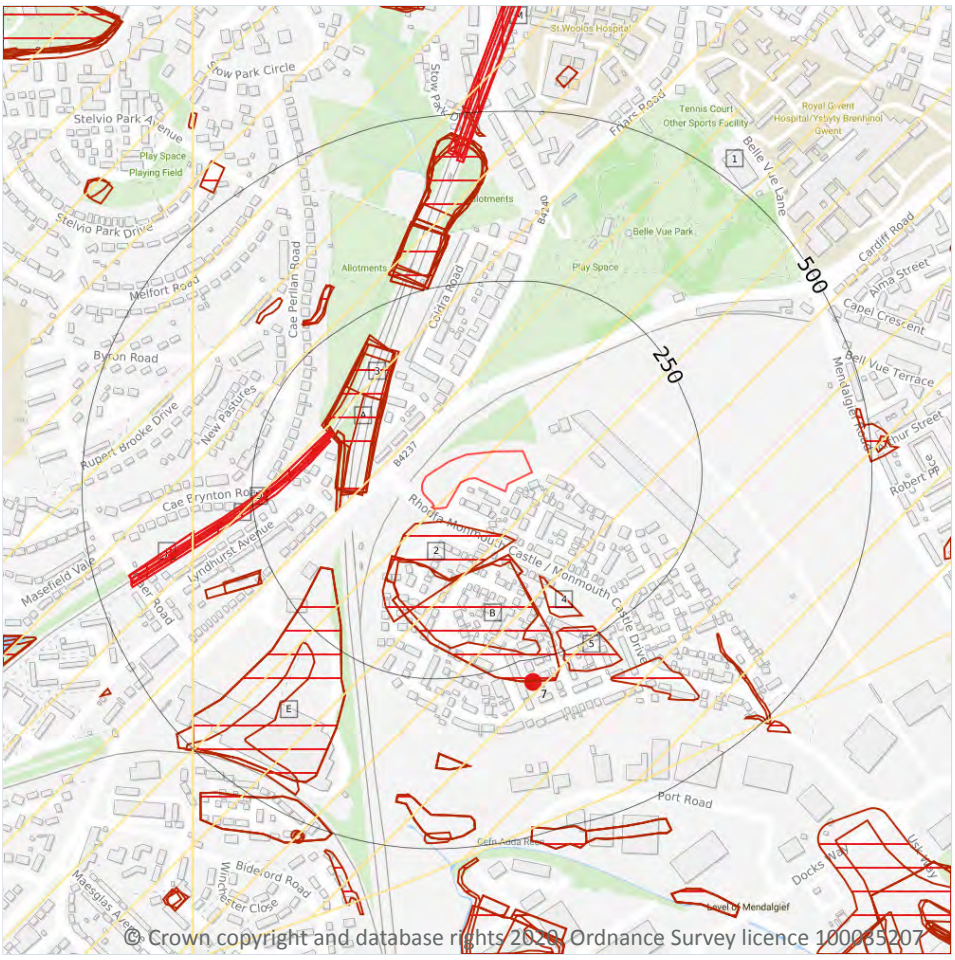
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 101**

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

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



- Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

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

This data is sourced from Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m	1

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

ID	Location	Details	Description
7	283m S	Name: Mon Bank Sidings Address: NEWPORT, Gwent Commodity: Secondary Status: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	17

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

ID	Location	Land Use	Year of mapping	Mapping scale
2	19m S	Unspecified Pit	1922	1:10560
A	79m W	Cuttings	1882	1:10560
A	79m W	Cuttings	1900	1:10560
A	80m W	Cuttings	1920	1:10560
A	83m W	Cuttings	1949	1:10560
A	84m W	Cuttings	1922	1:10560
B	84m S	Pond	1981	1:10000
B	84m S	Pond	1973	1:10000
B	84m S	Pond	1963	1:10560
A	118m W	Unspecified Heap	1985	1:10000
A	118m W	Unspecified Heap	1981	1:10000

ID	Location	Land Use	Year of mapping	Mapping scale
3	127m NW	Cuttings	1900	1:10560
4	135m S	Pond	1963	1:10560
E	173m SW	Refuse Heap	1985	1:10000
E	173m SW	Refuse Heap	1981	1:10000
E	173m SW	Refuse Heap	1973	1:10000
5	218m SE	Pond	1963	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	**20**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

ID	Location	Land Use	Year of mapping	Mapping scale
C	149m NW	Railway Tunnel	1900	1:10560
C	149m NW	Railway Tunnel	1920	1:10560
C	150m NW	Tunnel	1922	1:10560
C	151m NW	Tunnel	1882	1:10560
D	151m NW	Tunnel	1981	1:10000
D	151m NW	Tunnel	1949	1:10560
D	151m NW	Tunnel	1973	1:10000
J	342m W	Tunnel	1990	1:10000
J	342m W	Tunnel	1981	1:10000
J	342m W	Tunnel	1970	1:10000
J	343m W	Tunnel	1961	1:10560
M	428m N	Tunnel	1900	1:10560
M	428m N	Tunnels	1920	1:10560
M	434m N	Tunnels	1922	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
M	437m N	Tunnel	1985	1:10000
M	437m N	Tunnel	1981	1:10000
M	437m N	Tunnel	1949	1:10560
M	437m N	Tunnel	1973	1:10000
M	439m N	Tunnels	1949	1:10560
M	440m N	Tunnels	1922	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	**2**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Vein Mineral**	**A**	**Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered**
10	337m W	Not available	Vein Mineral	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Peter Brett Associates (PBA).

18.8 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

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

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

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

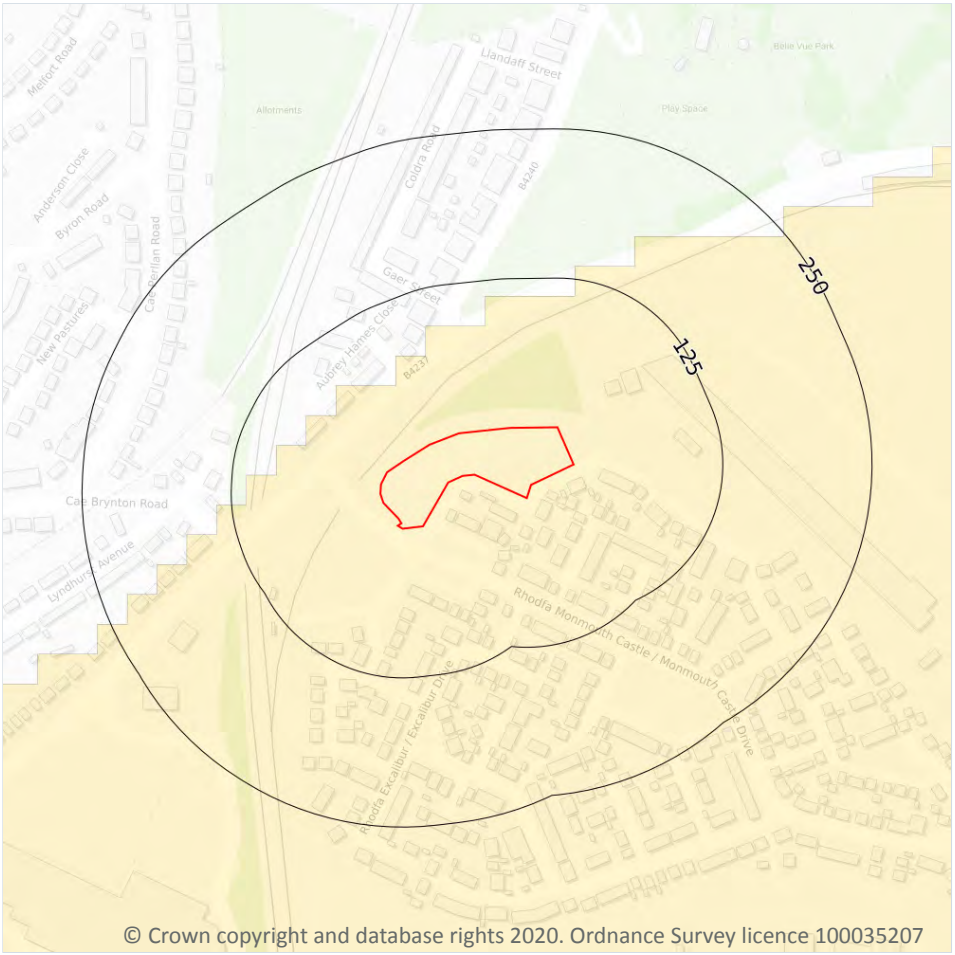
18.13 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

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

19 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 109**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 1% and 3%**	**None**

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

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	4

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
1m E	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
48m NE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

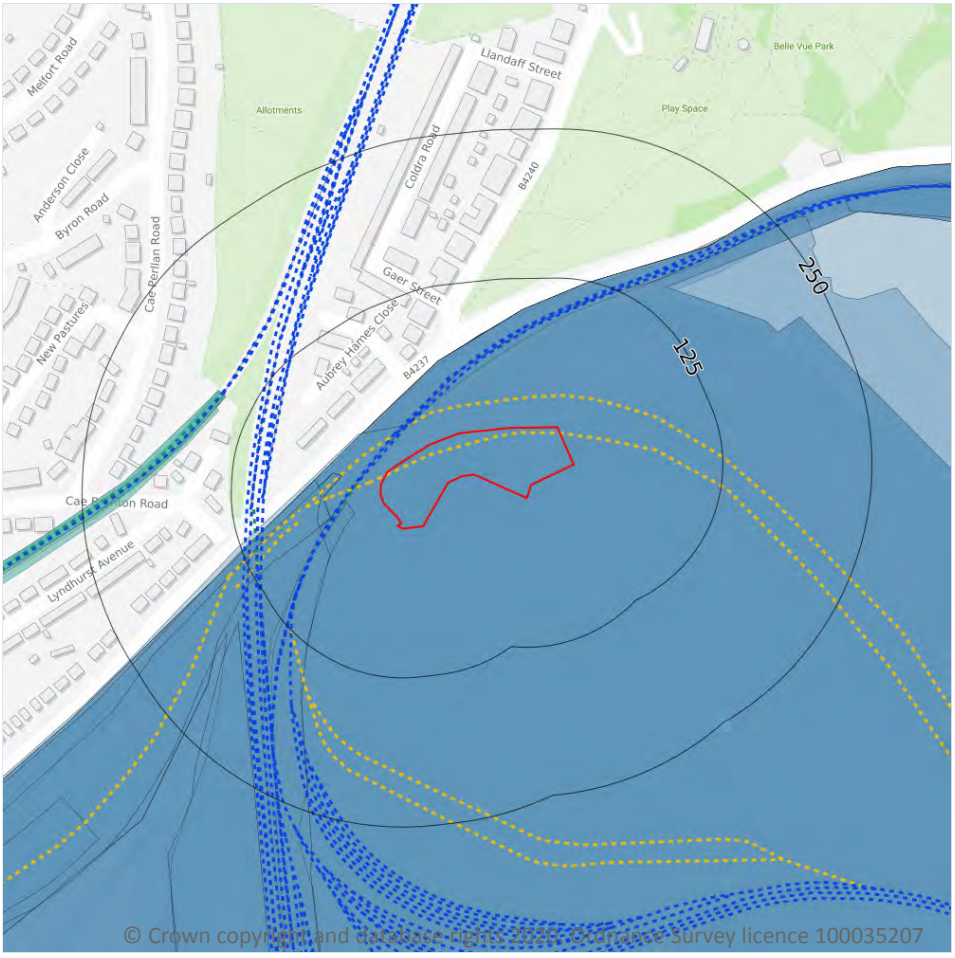
20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects



Site Outline

Search buffers in metres (m)

- Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 1 Worksites
- Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	3

Railway tunnels taken from contemporary Ordnance Survey mapping.

Features are displayed on the Railway infrastructure and projects map on **page 111**

Location	Type
17m NW	Railway Tunnel
107m W	Railway Tunnel
152m NW	Railway Tunnel

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	50

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

Features are displayed on the Railway infrastructure and projects map on **page 111**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1902**	**2500**
On site	**Railway Sidings**	**1921**	**2500**
On site	**Railway Sidings**	**1937**	**2500**
On site	**Railway Sidings**	**1971**	**1250**
On site	**Railway Sidings**	**1955**	**1250**
On site	**Railway Sidings**	**1955**	**2500**
On site	**Railway Sidings**	**1922**	**10560**
On site	**Railway Sidings**	**1981**	**10000**
On site	**Railway Sidings**	**1985**	**10000**
On site	**Railway Sidings**	**1963**	**10560**
On site	**Railway Sidings**	**1973**	**10000**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1949**	**10560**
On site	**Railway Sidings**	**1920**	**10560**
1m E	Railway Sidings	1966	1250
1m E	Railway Sidings	1955	1250
1m E	Railway Sidings	1978	1250
17m SE	Railway	1882	-
22m NE	Railway Sidings	1978	1250
26m W	Railway Sidings	1900	10560
27m W	Railway Sidings	1884	2500
34m W	Railway Sidings	1900	10560
34m W	Railway Sidings	1920	10560
50m W	Railway Sidings	1922	10560
92m SW	Railway Sidings	1996	1250
115m SW	Railway Sidings	1884	2500
122m SW	Railway Sidings	1884	2500
149m NW	Tunnel	1971	1250
149m NW	Tunnel	1955	1250
149m NW	Railway Tunnel	1900	10560
149m NW	Railway Tunnel	1920	10560
150m NW	Tunnel	1955	2500
150m NW	Tunnel	1996	1250
150m NW	Tunnel	1922	10560
151m NW	Tunnel	1882	10560
151m NW	Tunnel	1981	10000
151m NW	Tunnel	1963	10560
151m NW	Tunnel	1973	10000
152m NW	Tunnel	1884	2500
152m NW	Tunnel	1902	2500

Location	Land Use	Year of mapping	Mapping scale
152m NW	Tunnel	1921	2500
152m NW	Tunnel	1937	2500
152m SW	Railway	1917	-
156m SW	Railway Sidings	1920	10560
163m NE	Railway Sidings	1966	1250
173m E	Railway	1882	-
181m SW	Railway Sidings	1884	2500
201m NE	Railway Sidings	1966	1250
214m NE	Railway Sidings	1955	2500
217m SW	Railway Sidings	1996	1250
220m NE	Railway Sidings	1967	2500

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	**0**

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

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	**10**

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

Features are displayed on the Railway infrastructure and projects map on **page 111**

Location	Description
On site	**Abandoned**
10m W	Abandoned

Location	Description
22m N	Abandoned
23m NW	Abandoned
43m W	Abandoned
69m W	Abandoned
69m W	Abandoned
126m SW	Abandoned
143m SW	Abandoned
161m SW	Abandoned

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	**39**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

Features are displayed on the Railway infrastructure and projects map on **page 111**

Location	Name	Type
13m NW	Not given	Single Track
15m NW	-	rail
23m NW	Ebbw Valley Line	rail
23m NW	-	rail
37m W	Not given	Single Track
70m SW	Not given	Single Track
84m N	Not given	Single Track
92m SW	New Sidings	rail
95m W	Not given	Multi Track
96m W	-	rail
97m W	South Wales Main Line	rail
100m W	South Wales Main Line	rail
104m SW	Not given	Single Track

Location	Name	Type
106m W	South Wales Main Line	rail
106m W	Not given	Multi Track
110m W	-	rail
110m NW	Not given	Multi Track
112m NW	Not given	Multi Track
118m SW	Not given	Multi Track
134m SW	Not given	Multi Track
136m SW	-	rail
144m NW	Not given	Multi Track
149m SW	Not given	Multi Track
150m NW	Ebbw Valley Line	rail
151m NW	Not given	Single Track
153m NW	Ebbw Valley Line	rail
155m SW	Not given	Single Track
159m SW	Not given	Multi Track
173m NW	South Wales Main Line	rail
174m SW	-	rail
180m NW	South Wales Main Line	rail
188m SW	-	rail
200m SW	Not given	Multi Track
200m SW	Not given	Multi Track
211m S	-	rail
213m SW	Not given	Multi Track
216m SW	-	rail
218m S	-	rail
232m S	-	rail

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-jan-2020/.

APPENDIX 2

REPORT LIMITATIONS

LIMITATIONS

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

Other than that expressly contained in the above paragraph, Earth Environmental & Geotechnical Ltd provides no other representation or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Earth Environmental & Geotechnical Ltd.

If a third party relies on this report, it does so wholly at its own and sole risk and Earth Environmental & Geotechnical Ltd disclaims any liability to such parties.

It is Earth Environmental & Geotechnical Ltd understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was an important factor in determining the scope and level of the services. Should the purpose for which the report is used, or the proposed use of the site change, this report will no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without Earth Environmental & Geotechnical Ltd review and advice shall be at the client's sole and own risk.

The report was written in 2020 and should be read in light of any subsequent changes in legislation, statutory requirements and industry best practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.

Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features on, and surrounding, the site.