APPLICATION SITE CONDITION REPORT

HAZARDOUS WASTE TRANSFER STATION
UNIT B; TRAVELLERS LANE
WELHAM GREEN
HERTFORDSHIRE
AL9 7HF

Document Reference: BF5042/10.R0
July 2021

Project Quality Assurance
Information Sheet

APPLICATION SITE CONDITION REPORT
HAZARDOUS WASTE TRASNFER STATION, UNIT B; TRAVELLERS LANE, WELHAM GREEN, HERTFORDSHIRE

Report Status : Final

Report Reference : BF5042/10.R0

Report Date : July 2021

Prepared for : Biffa Waste Services Limited

Prepared by : Sirius Environmental Limited
The Beacon Centre for Enterprise
Dafen
Llanelli
SA14 8LQ

Written by :

Rhiannon Chapple BSc (Hons) MSc
Graduate Environmental Consultant

Reviewed by :

Dylan Thomas BSc (Hons) PGDip MCIWM
Principal Environmental Consultant

Approved by :

Mark Griffiths BSc (Hons) MSc CGeol MCIWM
Environmental Director

Revision	Date	Amendment Details	Author	Reviewer

This report is written for the sole use of Biffa Waste Services Limited and their appointed agents. No other third party may rely on or reproduce the contents of this report without the written approval of Sirius. If any unauthorised third party comes into possession of this report, they rely upon it entirely at their own risk and the authors do not owe them any Duty of Care or Skill.

HAZARDOUS WASTE TRANSFER STATION
UNIT B; TRAVELLERS LANE
WELHAM GREEN
HERTFORDSHIRE
AL9 7HF

APPLICATION SITE CONDITION REPORT

CONTENTS

EXECUTIVE SUMMARY I
1.0 SITE CONDITION REPORT CONTEXT 1
2.0 SITE DETAILS 1
3.0 CONDITION OF THE LAND AT PERMIT ISSUE 2
4.0 EVIDENCE OF HISTORIC CONTAMINATION 5
5.0 BASELINE SOIL AND GROUNDWATER REFERENCE DATA 5
6.0 PROPOSED PERMITTED ACTIVITIES 6
7.0 SUMMARY STATEMENT OF THE SITE CONDITION 9

LIST OF APPENDICES

Appendix SCR1 Environmental Search Report

LIST OF DRAWINGS *(Refer to Section E)*

BF5042/11/01 Site Location Plan
BF5042/11/02 Site Boundary Plan

LIST OF TABLES

Table 1: Assessment of the pollution potential of materials proposed to be stored and handled at the site 7

EXECUTIVE SUMMARY

Executive Summary	
Site Address	Welham Green Hazardous Waste Transfer Station Unit B; Travellers Lane, Welham Green, Hertfordshire, AL9 7HF
Site National Grid Reference (NGR)	TL 23410 05968
Site Operator	Biffa Waste Services Limited
Proposed Activity	Operation of a Waste Transfer Facility for both hazardous and non-hazardous waste streams for waste treatment, storage and / or transfer purposes. Hazardous waste will be accepted to the site for mixing, blending, bulking, re-packaging and storage pending onward transportation. Container washing will also be a permitted activity; however, it should be noted that this will be an infrequent process with extremely low volumes and resultantly, large quantities of effluent will not be produced. Non-hazardous waste treatment will be limited to sorting, separation and bulking. Empty non-hazardous containers that arise from the on-site bulking and re-packaging of non-hazardous waste will also be treated by washing. The hazardous and non-hazardous waste operation also extends to a range of clinical wastes, including offensive, hygiene and medicine wastes. Such wastes will be limited to the receipt, bulking and storage prior to dispatch off site for recovery. All operations will be conducted upon an impermeable surface with sealed drainage systems. The maximum tonnage of permitted wastes to be processed by the facility during any one year shall not exceed 5,000 tonnes.
Site History and Current Use	The development history of the application site has been limited to agriculture, horticulture and residential land uses prior to redevelopment as a 'depot', as the site is seen today. Potentially contaminating historical land uses surrounding the application site were largely restricted to a plating works (~15m south), the Marshmoor Sawmill (~250m south) and engineering works to the north. Due to the underlying clay-rich geology the likelihood of any contamination from these historic land uses having impacted on the condition of the application site soils is considered low.
Ground Conditions	The site is directly underlain by low permeability, seasonally wet, slightly acidic but base-rich loamy and clayey soil, with superficial deposits comprising Lowestoft Formation (Diamicton) and bedrock geology comprising the Lambeth Group (Clay, Silt and Sand). The site surfaces will consist of impermeable hardstanding.
Environmental Review	It is considered that site-specific baseline data is not required owing to the containment measures and pollution prevention controls to be installed and / or maintained at the site, such as an impermeable site surface and sealed drainage system, meaning the risk of contamination of soil and groundwater is very low. If contamination of the underling site soils is identified whilst improvement works to the engineered containment systems are being carried out, sampling of the exposed soils is recommended, and the Site Condition Report updated accordingly.
This summary should be read in conjunction with the main report and reflects an assessment of the Site based on the information available at the time.	

1.0 SITE CONDITION REPORT CONTEXT

1.1 Sirius Environmental Limited ('Sirius') has been commissioned by Biffa Waste Services Limited ('Biffa') to prepare and submit a Site Condition Report to support an Environmental Permit Application for the operation of a Hazardous Waste Transfer Station at Unit B, Travellers Lane, Welham Green, Hertfordshire, AL9 7HF. The relevant documentation is submitted in accordance with the Environmental Permitting (England & Wales) Regulations 2016 (referred to hereafter as the EP Regulations).

1.2 Biffa Waste Services Limited wish to operate a new Hazardous Waste Transfer Station located in Welham Green. This will essentially replace Biffa's current Hazardous Waste Transfer Station at Leyden Road, Stevenage, Hertfordshire SG1 2BW, operated under Environmental Permit number EPR/SP3103RY.

1.3 This Site Condition Report (SCR) has been compiled in accordance with the EP Regulations and with Horizonal Guidance Note 5, Site Condition Reports – Guidance and Templates (v2.0, 4th August 2008). Information has been gathered based on a desk study review of publicly available information, as well as an Environmental Search Report by Argyll Environmental (Report Reference: 276180298) produced in April 2021(included within **Appendix SCR1**).

1.4 The purpose of an Application Site Condition Report is to provide a factual statement of the condition of the site at the time of the Environmental Permit Application. The Site Condition Report must describe the nature and distribution of potentially polluting substances in the ground and groundwater at the site prior to the commencement of operations under the Environmental Permit, and those handled during the course of activities on the site. The potentially polluting substances of interest are those which are to be handled at the site under the Permit.

2.0 SITE DETAILS

Site Setting

2.1 The proposed site to which the application will relate is an existing industrial unit located on Travellers Lane, Welham Green, Hertfordshire, AL9 7HF. The National Grid Reference (NGR) for the site is TL 23410 05968. The site location has been depicted in **Drawing No. BF5042/11/01**.

2.2 The site itself currently comprises a two-storey industrial warehouse unit, with associated yard area to be utilised for storage and car parking. Entrance to the site is to be undertaken from Travellers Lane, which runs adjacent to the site's eastern boundary. Egress from the site will be via the south/ southwest, onto Travellers Close. The site entrance is gated and will be locked at all times other than during operational hours. Palisade fencing surrounds the site perimeter.

2.3 The proposed permitted boundary area is depicted in **Drawing No. BF5042/11/02**. The site is bounded to the north, west and south by an industrial unit, beyond which lies residential areas of Welham Green, situated c. 140m to the west of the proposed site boundary. A Biffa Waste Collection Services depot is located to the immediate west of the proposed application site. Travellers Lane as well as a railway line (Great Northern line to Kings Cross London) is located to the east of the site. The town of Hatfield is situated approximately 2.7km to the North and the city of St. Albans is located *c.* 7.5km to the west/northwest. The A1 (M) lies c. 1.4km to the west, which is a major road linking London with northern England and beyond.

2.4 The closest residential property to the site is situated c. 50m east of the site off Marshmoor Lane, as well as properties located *c*. 90m to the east, along Marshmoor Lane and Marshmoor Crescent (in the area denoted as Marshmoor) and along Pooleys Lane, *c*. 120m to the west/northwest, on the outskirts of Welham Green. The various towns, villages and infrastructure in the area are interspersed with areas of woodland, hedgerows and agricultural land.

2.5 As previously alluded to, the site is surrounded to the north, west and south by the wider extents of an industrial estate. This area is considered to represent a commercial/industrial site and includes a large number of places of work. Businesses located within closest proximity to the proposed application site include (but are not limited to), a waste depot (run by the operator), construction company, car garage services, plant and machinery hire, manufacturing companies, a property management company, fish wholesaler and electrical wholesalers.

2.6 Hatfield House Registered Park and Garden is situated *c*. 290m to the east of the site. This comprises an early seventeenth century country mansion surrounded by extensive and complex gardens and park, created from the medieval parks of Hatfield.

2.7 The nearest Public Right of Way (PRoW) is located *c*. 290m to the west of the site, which skirts around the periphery of the industrial park and through Welham Green village in a north south alignment. In addition to this, another "public access route" is situated *c*.80m to the east, along Marshmoor Lane. There are numerous PROW's situated to the west, south and east of Welham Green village, predominantly transecting open fields and woodlands.

3.0 CONDITION OF THE LAND AT PERMIT ISSUE

Environmental Setting

Made Ground

3.1 There are no published records relating to the presence of made ground at the site. However, the site has already been developed, with engineered concrete pavement present across the entire site area. These surfaces are likely to be underlain by fill/subgrade material, which may have included virgin or recycled aggregated (including non-degradable wastes).

Natural Soils

3.2 According to Landis Soilscapes map resource, the soil beneath the site is slowly permeable, seasonally wet, slightly acidic with base-rich loamy and clayey soils. Soils in this area typically have impeded drainage which goes to stream networks.

Geology

3.3 The British Geological Survey's (BGS) geological mapping shows the site to be underlain by superficial deposits comprising Diamicton, previously referred to locally as the Lowestoft Boulder Clay or Formation. BGS borehole records within the vicinity of the site indicate that the boulder clay is of variable thickness locally, with thicknesses of between ~5m and ~11m logged to the west and north of the site. These deposits are dominated by clay rich horizons with some potential laterally impersistent sand and gravel lenses present (2.7m logged ~570m north of the application site).

3.4 The BGS database describes the bedrock geology underlying the site as Lambeth Group – Clay, Silt and Sand, which overlies the Lewes Nodular Chalk Formation and Seaford Chalk Formation (Undifferentiated chalk formations). Locally BGS borehole records confirm that the thickness of the Lambeth is typically between 1.5m and 2m.

Hydrogeology

3.5 The Bedrock geology comprises a Secondary A Aquifer which are described as being 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. The superficial deposits are designated as a Secondary Undifferentiated aquifer, which are assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both a minor and a non-aquifer in different locations due to the variable characteristics of the rock type.

3.5.1 The site is situated within a Zone III 'Total Catchment' groundwater Source Protection Zone (SPZ) which is defined as the total area needed to support the abstraction or discharge from the protected groundwater source.

3.6 In terms of groundwater vulnerability, DEFRA's "Magic Map" indicates that the groundwater vulnerability is classed as 'medium', which is based on the likelihood of a pollutant reaching the groundwater, the types of aquifer present and the potential impact.

3.7 The site is not located within a Nitrate Vulnerable Zone (NVZ) for surface and ground water as designated by DEFRA. This site does lie within a Groundwater Drinking Water Safeguard Zone.

3.8 There are no water abstraction licences located within 500m of the site, although there are three historic records of water wells within 500m fo the site. This includes two from within the superficial deposits that were to support railway siding operations to the east. The third relates of a former nursery and abstraction groundwater from the deeper chalk aquifer. BGS records record each of these wells to be disused.

Surface Waters

3.9 There are no surface water features with 100m of the site. The closest surface water feature is a small drain/stream which lies approximately 245m east of the site and eventually drains to the Mimmshall Brook. There are also many other drains / streams and small ponds located within the surrounding fields / woodlands in all directions from the site. The 2021 Environmental Search Report also listed an underground river approximately 350m southeast of the site and a lake or reservoir approximately 485m north.

3.10 The site lies within a Surface Water Drinking Water Safeguard Zone.

3.10.1 With regard to flood risk, the site lies within a Flood Zone 1, with a low probability of flooding. The land has a less than 1 in 1,000 annual probability of flooding by the river or sea.

3.11 There are no water abstraction licences located within 500m of the site.

3.11.1 There are not currently any active licenced discharge consents to surface water or groundwater situated within 1km of the site boundary. Upon review of the

Environment Agency's 'Environmental Permitting Regulations – Discharges to Water and Groundwater' register, Thames Water Utilities Limited have previously had four discharge consents within 1km of the site, all of which have been for a pumping station on a sewage network (water company). Two of these consents were issued in 1989 and revoked in 2010, before new consents for the same two sites were issued in 2010 and revoked in 2014.

Pollution History

Pollution Incidents Which May Have Affected the Land

3.12 There are no records of pollution incidents having occurred at the site or within 500m of the site according to the Environmental Pollution Incidents (Category 1 and 2) 2001 – 2020 Database[1]. Furthermore, the Environmental Search Report (included within **Appendix SCR1**) did not list any incidents or enforcements in relation to pollution within 250m of the site boundary.

Historical Land-Uses and Associated Contaminants

3.13 Publicly available historical maps have been analysed to determine the historical land uses for the site and surrounding areas.

3.13.1 Based on historic Ordnance survey mapping and plans of the area dated from 1842 - 1883, the site location and surrounding areas were rural and primarily used for agriculture. The Great Northern Railway Line to Kings Cross London was present to the east, The only properties on the maps dated 1842 – 1883 within the vicinity of the site comprised scattered farmsteads as well as some further residential properties located ~120m to the west/north west of the site.

3.13.2 Historic Ordnance Survey maps dated between 1919 and 1925 illustrates the expansion of the village of Welham Green 300m to the south/southwest of the site, with additional residential properties, infrastructure and industry (including Marshmoor Sawmill which was located *c*.250m to the south of the site) denoted. By 1937-1939, while the site itself remains undeveloped, a nursery was depicted to the immediate west, with the larger "Marshmoor Nurseries" depicted beyond the railway line, ~130m to the northeast of the application site. The previously mentioned sawmill was no longer depicted. By the 1960's and the early 1970's, the nursery to the west had expanded and developed onto the application site. A small unknown structure was present along the southern boundary of the site and to the northwest.

3.13.3 Notwithstanding the above, the 1:1,250 scale map dated 1969 indicates that there were two residential properties occupying the southern section of the site, which were denoted as Marsh End and Braddan. A storage depot was depicted to the immediate west with associated tracks which extended to occupy the northern extent of the application site. Immediately north of the application site boundary the 1969 map depicts an electrical substation as well as an engineering works and various 'depots'. To the immediate south of Travellers Lane, the land is also industrial in nature, with 'plating works' (the closest to the site, ~15m to the south), warehouses, 'works', storage depots, joinery works and wood turning works etc illustrated. In addition to this, by 1969 residential areas of Welham Green had expanded (to include further housing along Pooleys Lane) within ~120m of the application site's western boundary.

3.13.4 The two residential properties and trackway that occupied the site in 1969 remained present at the site throughout the early 1970's. However, by 1986

[1] *Source:* Environmental Pollution Incidents (category 1 and 2) (data.gov.uk) (Accessed February 2021)

they were no longer present and were replaced by a "works" in the northwest section of the application site, bringing it in line with its current layout.

3.13.5 The 1:10,000 scale map dated 1990 does not depict a significant change at the site. The immediate surrounding area is now denoted as a "Business Park". A caravan park is denoted 90m to the east/northeast, beyond the railway line to the east of Marshmoor Lane.

Visual / Olfactory Evidence of Existing Contamination

3.14 All internal and external areas of the site currently comprise engineered concrete pavement. No walkover survey of the site has been carried out of the site to support this, however available photographs across external areas of the site do not highlight any visual evidence of existing contamination at the site.

Evidence of Damage to Pollution Prevention Measures

3.15 Prior to commencing operations at the site, Biffa proposes to upgrade the existing containment measures within the building and external service yard areas. A full survey of the existing concrete pavement and any drainage infrastructure that is not proposed to be upgraded will be carried out and any existing defects remedied as part of the upgrade works.

4.0 EVIDENCE OF HISTORIC CONTAMINATION

4.1 A desk-based review of the environmental setting and development history of the application site and immediately surrounding areas have not identified any clear evidence of any historical contamination of the site. Previous land uses include a horticultural nursery and residential properties before being redeveloped into a 'depot' facility. The last occupant of the site was a builder's merchant, in which the site was fully engineered with concrete pavement installed across the entire site, with aerial imagery available from Google Earth indicating its presence since at least 2000.

4.2 Potentially contaminated land uses within 250m of the site until the 1960s was limited the railway lines to the east of the site and Marshmoor Sawmill located ~250m to the south. Post-1960s, engineering works and plating works occupied what is now the wider industrial estate. Whilst these industrial works could have contributed to the contaminated of land on which they were located, the low permeability of the underlying clay-rich diamicton is likely to have limited the migration of any contaminants into the soils beneath the site.

4.2.1 Moreover, according to the Environmental Pollution Incidents (Category 1 and 2) 2001 – 2020 Database[2], there have not been any Environmental Pollution Incidents to the air, land or water within 1km of the site boundary.

5.0 BASELINE SOIL AND GROUNDWATER REFERENCE DATA

5.1 No reference data has been collected to support the preparation of this Application Site Condition Report. Prior to the permitted waste operations commencing on site the existing engineered containment systems will be surveyed for defects and remedied alongside the upgrade works proposed for the site.

5.2 When any existing infrastructure is removed to support the upgrade or remedial works, if any evidence of contamination is identified, samples of the soils will be

[2] *Source:* Environmental Pollution Incidents (category 1 and 2) (data.gov.uk) (Accessed February 2021)

taken and issued for laboratory analysis. In such circumstances, this SCR will be updated accordingly, in line with EA guidance.

6.0 PROPOSED PERMITTED ACTIVITIES

Proposed Permitted Activities

6.1 The operator is proposing to accept a range of hazardous and non-hazardous waste streams for waste treatment, storage and / or transfer purposes. Treatment of these wastes will be limited to bulking, blending, sorting and repackaging only and will occur within the site building which has impermeable hardstanding and dedicated sealed drainage systems for each storage area in the form of drains and sumps from which any liquid resulting from leaks or spills will be pumped and transferred to an appropriate facility. The majority of waste will be stored internally within storage areas equipped with appropriate racking systems, upon which waste will be stored on pallets (baled / wrapped) and / or within containers (e.g. IBC's). External storage will be limited to asbestos waste which will be either wrapped in plastic or double bagged and stored within lockable containers, aerosol containers which will be stored within sealed containers and gas cannisters which will be kept in secured cages. Due to the level of containment at the site, the risk of fugitive emissions is very low. The external site areas will also comprise sealed drainage, with a drain located to the south of the building which will direct run off to an interceptor which will collect all run off and subsequently direct it to the north-eastern corner of the site to the discharge point which comprises a penstock valve. In normal conditions, this run off will primarily comprise runoff from rainfall and will be discharged to the public surface water sewer. However, in the event of a leakage or spillage of any potentially polluting substance that enters the surface water drainage network at the site, the discharge will be isolated via the penstock valve and an appropriate remedial strategy will be implemented.

6.2 The maximum tonnage of permitted wastes to be processed by the facility during any one year shall not exceed 5,000 tonnes.

6.3 The proposed Hazardous Waste Transfer Station will operate according to Biffa's written Standard Operating Procedures which includes waste pre-acceptance, acceptance, storage, non-conformance and rejection, bulking and laboratory smalls packaging. Furthermore, all elements associated with the operation of the Hazardous Waste Transfer Station will accord with the latest published BREF document for Waste Treatment (August 2018) and the associated Best Available Techniques (BAT) conclusions.

Proposed Non-Permitted Activities

6.4 Ancillary operations to support the daily running of the site will include:

- The operation of site offices and welfare facilities;
- Staff car parking;
- Discharges from the site's external drainage system to Public Surface Water Sewer; and
- Raw material storage and handling.

Pollution Potential

6.5 An assessment of the pollution potential of materials stored and handled at the site is presented in **Table 1**

Table 1: Assessment of the pollution potential of materials proposed to be stored and handled at the site

Substance	Chemical Composition	Quantity	Environmental Behaviour & Fate	Potential Environmental Impact	Storage Arrangements	Assessment of Alternatives
Hazardous and non-hazardous wastes (from various sources including some clinical wastes and asbestos)	Various	Up to 5,000 tonnes per annum	Contaminated land and water. Fugitive emissions of odour and dust. Health effects from airborne asbestos fibres	Contamination of land and controlled waters and health risk to end users (i.e. humans, wildlife). Nuisance to site workers, visitors and neighbouring land users from odour and dust. Harm to human health via inhalation and/or contaminated runoff. Dust causing nuisance to site workers, visitors and neighbouring land users.	Waste deliveries to be undertaken by enclosed or sheeted vehicles. Waste will arrive to site in packaging and / or sealed containers. All waste will be stored within containers or packaged (baled / wrapped) on pallets. The majority of the waste will be stored internally on racking systems. The only waste to be stored externally has low pollution potential (in terms of dust emissions, odour etc). This includes empty cannisters (stored in cages), aerosol containers (stored in containers) and asbestos waste (wrapped in plastic or double bagged and stored in a sealed, lockable container). All waste storage and treatment will occur on hardstanding (with sealed drainage) to ensure an easy to clean surface. Good housekeeping measures employed on site to limit dust accumulation. Daily inspections will ensure that waste storage areas are no giving rise to fugitive emissions or pollution of any kind.	None – waste material forms primary purpose of facility.
Ad Blue (vehicle exhaust treatment additive)	Urea (~33%) and distilled water	<1000 litres (1 tonne)	Water Soluble. Readily Biodegradable. Product is not classed as hazardous or dangerous.	Contamination of land and controlled waters and health risk to end users (i.e. humans, wildlife)	To be stored in original packing (e.g. IBC container), in cool dry location, over areas of impermeable pavement.	Essential for operation of vehicles transferring waste to/from site. No alternatives available

Substance	Chemical Composition	Quantity	Environmental Behaviour & Fate	Potential Environmental Impact	Storage Arrangements	Assessment of Alternatives
					Diesel exhaust fluid deployed to vehicles only upon areas of impermeable pavement. Spill kits to be located in strategic locations across the facility.	

7.0 SUMMARY STATEMENT OF THE SITE CONDITION

7.1 A desk-based study of the application site setting and development history has identified a low risk from historic contamination source having impacted the condition of the land. However, if the infrastructure improvement works that are proposed to be carried out at the site prior to the commencement of waste operations identify any evidence of contamination within the underlying soil, sampling and testing are recommended to be carried out.

7.2 During the operation of the proposed Hazardous Waste Transfer Station, all wastes will be fully characterised by the site chemist prior to acceptance at the site, with appropriate compliance / verification tests carried out by the operator. Appropriate pollution control measures will also be implemented to reduce the pollution potential of the site as well as support the storage and handling of raw materials (e.g. oils and fuels) required to support the proposed activities.

7.3 During the site's operation, records of all environmental incidents on and off site which are likely to have an impact on the condition of the land will be maintained for the life of the Permit, with appropriate investigations implemented to determine the extent of any such incidents.

7.4 The development history of the application site has been limited to agriculture, horticulture and residential land uses prior to redevelopment as an 'depot', as the site is seen today. Potential historical contaminated land uses surrounding the application site were largely restricted to a plating works (~15m south), the Marshmoor Sawmill (~250m south) and engineering works to the north. Due to the underlying clay-rich geology the likelihood of any contamination from these historic land uses having impacted on the condition of the soils at the proposed site is considered low.

7.5 Due to the engineered containment measures to be present and maintained at the site and proposed storage arrangements, the risk from the waste operations contaminating the site is low. On this basis, it is considered that the collection of reference data to determine the baseline condition of the site is not necessary. If contamination of the underling site soils is identified whilst improvement works to the engineered containment systems are being carried out, sampling of the exposed soils is recommended, and the Site Condition Report updated accordingly.

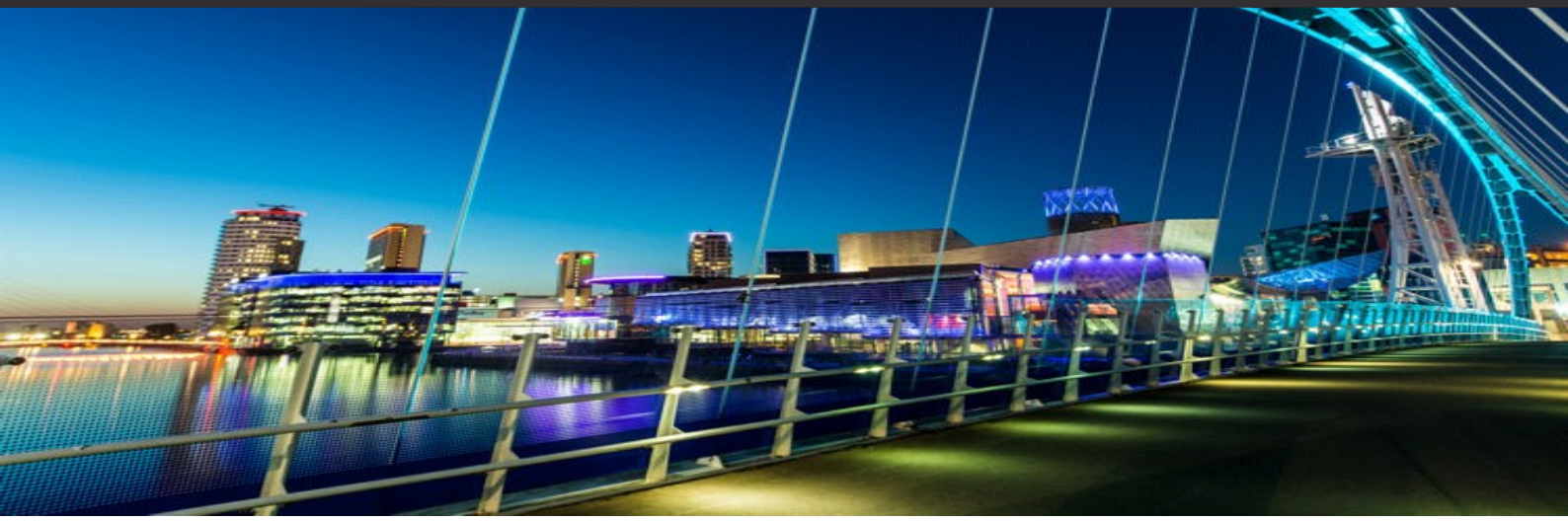
APPENDICES

APPENDIX SCR1

Environmental Search Report

Site Solutions Combined

argyll ENVIRONMENTAL



Unit B Travellers Lane, Welham Green, Hatfield, AL9 7HF

Report Prepared for: B P Collins LLP

Client Reference: 21820503_SSC

Report Reference: 276180298

Date: 7 April 2021

Contaminated Land

PASSED

Recommendations | SEE PAGE 1

CLICK HERE

Consultant Commentary | SEE PAGE 4

CLICK HERE

Flood Risk

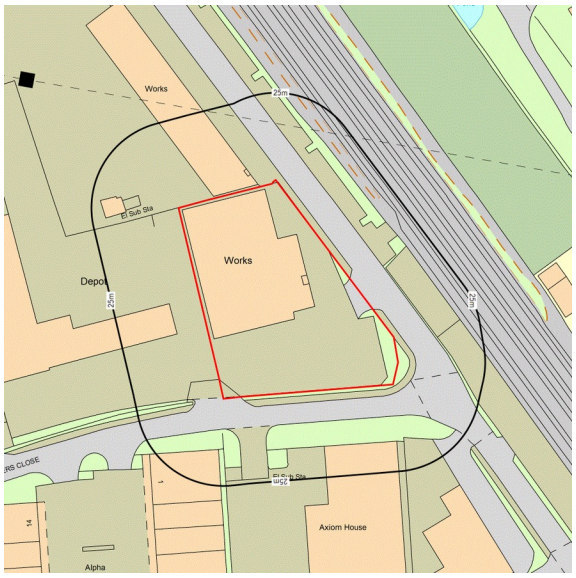
PASSED

Recommendations | SEE PAGE 2

CLICK HERE

Consultant Commentary | SEE PAGE 6

CLICK HERE



Contains Ordnance Survey data © Crown copyright and database right 2021.

Operational Compliance

IDENTIFIED | SEE PAGE 1

While a permit has not been identified, the Site is engaged in activities that could present a risk or require permitting.

CLICK HERE

Natural and Mining Related Hazards

IDENTIFIED | SEE PAGE 5

We have identified potential ground stability issues.

CLICK HERE

Authored by:
Craig Mathieson BSc (Hons)
t: 0330 036 6115 **e:** Craig.Mathieson@landmark.co.uk

The Property Ombudsman Consumer Redress

Conveyancing Information Executive

All rights reserved. You must not reproduce, store or transmit any part of this document unless you have our written permission.

© 2021 Landmark Information Group Limited.

If you require further information or any assistance contact us on **0330 036 6115**

argyllenvironmental.com

Executive Summary

Contaminated Land

PASSED

Liability Assessment

Within the scope of this assessment no Liabilities have been identified. No further action is required.

What is the overall risk of contaminants from on Site activities?	**MODERATE**
What is the risk of contaminants from off-site activities impacting the Site?	**MODERATE**
What is the environmental sensitivity (pathways and receptors) rating?	**MODERATE**

Argyll's Recommendations

No Action Required

Operational Compliance

Argyll's Comment

The Site appears to be operational and does not hold an associated permit. We recommend finding out whether the operations on Site need a permit/licence to avoid enforcement action.

Executive Summary

Flood Risk

PASSED

Consultant's Comment

The Site is not considered to be at significant risk of flooding. However, it would be prudent to consider our recommendations below.

Would a Flood Risk Assessment be required if development is proposed?	**NO**
What is the risk of flooding in an undefended scenario or assuming defences fail?	**VERY LOW**
Are there existing flood defences within 500m of the Site?	**NO**

Insurance

The flood risk identified is unlikely to affect obtaining buildings and contents insurance at standard terms.

Recommendations

No action required - standard enquiries only

Standard Enquiries

- Ask the seller whether flooding has occurred in the area before. If it has, please contact us for advice.
- Establish the availability of buildings and contents insurance before exchanging contracts.

Report Scope

Report Prepared on:	**Unit B Travellers Lane, Welham Green, Hatfield, AL9 7HF**
Current Use:	**Depot**
Proposed Use:	**Depot**
Transaction Type:	
Site Area (m^2):	**2538.85**
National Grid Reference:	**523400 205970**

© Copyright Getmapping plc 2021.

Contaminated Land
Consultant Commentary

On-site Sources

MODERATE

A review of historical maps show the Site remained undeveloped from the the first map edition c.1873 until sometime between c.1939 and c.1969, where two residential buildings had been constructed in the centre of the property. The site remained in this use until c.1986 when the buildings had been removed and a works had been constructed in the north west, bringing the site in line with its current layout.

Off-site Sources

MODERATE

A review of historical maps dating from c.1873 show the following potentially contaminative uses within 100m of the Site: a depot and works adjacent to the west and north respectively since c.1969, with a number of of additional works, depots, railway lines and a nursery in the wider area.

We have identified the following permits in proximity to the Site:

A closed dry cleaning site with an associated environmental permit 34m south

We have identified the following recorded landfills/permits in proximity to the Site:

A metal recycling site 247m to the south east with a revoked environmental permit, operated by Sovchem Waste Solutions Ltd.

Pathways and Receptors

MODERATE

The general area appears to be in industrial use, with residential properties located 90m east.

The superficial and bedrock hydrogeology underlying the Site is classified as a Undifferentiated Secondary Aquifer and as a Secondary A Aquifer.

The Site lies within a Source Protection Zone III.

There are no abstraction licences located within 500m.

There are no surface water features within 100m.

Finally, no designated eco-receptors were identified within a 500m radius of the Site.

Additional Sources of Information

No additional sources of information have been used.

Natural and Mining Related Hazards

Natural and Mining Related Hazards: This section contains information on natural and mining related hazards which may affect the Site. These include subsidence, radon and mining. Hazards that may need further investigation are detailed here. This report is neither a guarantee of the physical condition of the subject Site nor a substitute for any physical investigation or inspection.

Ground Stability Considerations

Risk	Argyll's Summary	Suggested Action
Former Mining	Our search indicates that the Site is not within an area where a full coal mining report should be obtained.	No action required.
Natural Ground Instability	Information from the BGS indicates that the ground in the area is prone to changing shape or volume, usually because of varying amounts of water in the ground throughout the year. This means that there is a moderate potential that problems could occur in the area.	The Site is in an area where natural ground instability hazards could occur. You may wish to consult a local RICS accredited surveyor to carry out a survey to assess whether any active ground instability appears to be affecting your Site.
Coal Mining Subsidence Damage Claims	Our search indicates that the Site is not within an area where a full coal mining report should be obtained.	No action required.

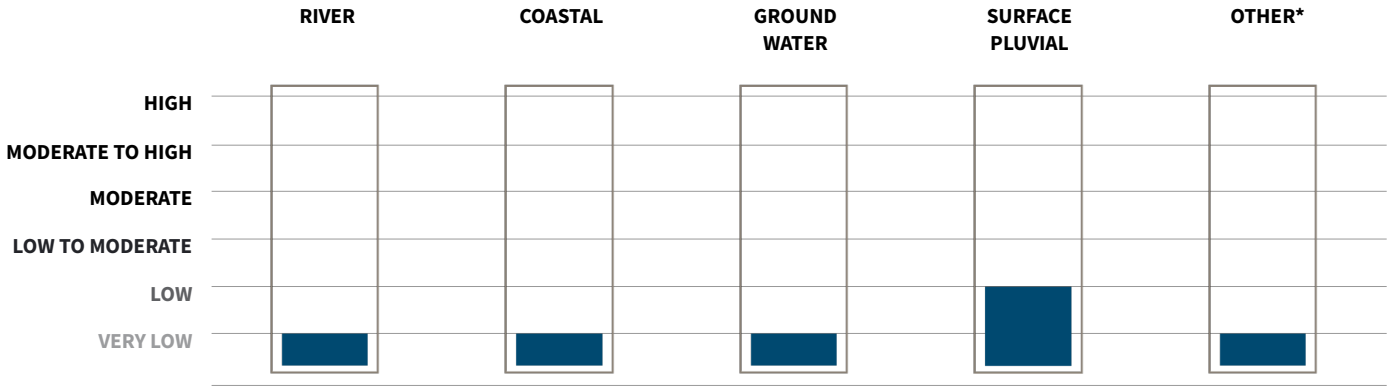
Radon

No Risk Identified.

Flood Risk
Consultant Commentary

Flood Analysis

Would a Flood Risk Assessment be required if development is proposed?	**NO**
What is the risk of flooding in an undefended scenario or assuming defences fail?	**VERY LOW**
Are there existing flood defences within 500m of the Site?	**NO**



* Other factors influencing flood risk include flood storage areas, historical floods, and proximity to water features.

Argyll's Comment

River	No commentary required.
Coastal	No commentary required.
Groundwater	No commentary required.
Surface Water	An area has been identified as being at moderate risk of surface water flooding. However, this corresponds to the road, and is not representative of the risk, which has been lowered.
Other Factors	No commentary required.

Flood Risk
Other Considerations

Flood Risk Considerations: In this section we highlight issues that may be relevant to your transaction. These issues fall outside of the flood risk analysis above, but still warrant consideration.

Additional Considerations

Risk	Summary	Suggested Action
Dam and Reservoir Failure **NOT IDENTIFIED**	This Site is not within an area that would be flooded in the event of a significant infrastructure failure.	Contact Canal and Rivers Trust
Sewer Flooding **NOT SEARCHED**	In times of extreme rainfall events sewers can overflow and cause local flooding. At Risk Registers are maintained by water and sewerage companies in England and Wales. These registers are not always complete so asking the seller is equally important.	Review Con29DW and send enquiries to the seller.

Flood Risk Management Options

Flood protection measures can help manage risk, while planning for a flood event is key to minimise impact and disruption. Where a risk has been identified, the best next step is to better understand the flood depths and likely extent. Refining the risk will then inform the right solution. Where property level protection is still required, a surveyor will be best placed to advise on the configuration.

Options	Summary
Resistance	Flood resistance measures are physical barriers designed to keep water out of the property and can either be mountable or passive. They include flood doors or guards, non return valves on plumbing and airbrick covers. If buying products, make sure they are kitemarked.
Resilience	Flood resilience measures are incorporated into building design to minimise damage. Once flood water subsides a resilient design avoids a major drying out spell or gutting.
Business Continuity Plan	A business continuity plan is a strategic plan of action to implement in an emergency (i.e. flood event). This plan ensures a business can continue to operate during emergency situations and reduces the risk of avoidable losses.
Flood Evacuation Plan	A flood evacuation plan sets out clear steps to ensure the safe evacuation of staff during a flood. It will form part of the Business Continuity Plan.

Contaminated Land
Data Section

Contaminated Land Data: This section details the data used as part of our Contaminated Land Risk analysis. Each key dataset is mapped with the detail outlined beneath. We only show section headers beyond the tabular summary where we have found data to report. The relevant data has been reviewed by the report writer, supplemented by a review of historical mapping.

contents

Tabular Summary	This section gives an overview of the data found at the Site and in the surrounding area. We present the data in three buffer zones, extending to a maximum of 500m. The search distances vary based on the scale of the activity and regulatory guidance. We display the number of records found in each database under the relevant heading. Where we have not searched a database, we will display the abbreviation N/A instead.
Authorised Industrial Processes	This section shows current and licensed activities relevant to contaminated land and environmental controls from a range of regulatory bodies. The search distances vary based on the scale of the activity.
Incidents and Enforcements	This section shows pollution incidents, licence enforcements and prosecutions. It also includes Contaminated Land Register Entries and Notices.
Landfill and Waste sites	This section presents detailed information on waste and landfill sites for the Site and surrounding area.
Current Land Use	This section shows contemporary trade directories and fuel stations. This information is indicative of operations at the Site and surrounding area, and may also relate to inactive or former land uses.
Historical Land Use	This section presents selected information on historical land use for the Site and surrounding area. The data shows historical land use information collected from 1:10,000 scale mapping, and for tanks and energy facilities 1:2,500 scale mapping. This includes polygon and point based land uses digitised by Landmark.
Groundwater Vulnerability	This section presents information relating to the aquifer designations beneath the Site. The aquifer designation of the Superficial and Bedrock geology are both mapped, followed by the detail. These aquifer designations are followed by information on the local geology. This information is considered in our Pathways and Receptors section.
Environmental Sensitivity	This section presents designated eco-receptors and sensitive area designations at the Site and in the surrounding area. This information is considered in our Pathways and Receptors section.
Natural and Mining Related Hazards	This section contains information on natural and mining related hazards, which may affect the Site. These include subsidence, radon and mining.

Contaminated Land: Tabular Summary

Authorised Industrial Processes

Authorisations	**On-site**	**1-100m**	**101-250m**
Local Authority Pollution Prevention and Controls	0	1	N/A
Local Authority Integrated Pollution Prevention And Control	0	0	N/A
Integrated Pollution Controls	0	0	N/A
Environmental Permitting Regulations - Industry	0	0	N/A
Radioactive Substances Register*	0	0	N/A

Discharges	**On-site**	**1-100m**	**101-250m**
Consented Discharges to Controlled Waters**	0	0	N/A
Referrals of Red List Discharges to Sewers (Corporate Entities)**	0	0	N/A

Hazardous Sites	**On-site**	**1-100m**	**101-250m**
Control of Major Accident Hazards Sites (COMAH)	0	0	0
Explosive Sites	0	0	0
Notification of Installations Handling Hazardous Substances (NIHHS)	0	0	0
Planning Hazardous Substance Consents	0	0	0

Incidents and Enforcements

Contraventions	**On-site**	**1-100m**	**101-250m**
Contaminated Land Register Entries and Notices	0	0	0
Local Authority Pollution Prevention and Control Enforcements	0	0	N/A
Enforcement and Prohibition Notices	0	0	N/A
Planning Hazardous Substance Enforcements	0	0	N/A
Environmental Pollution Incidents	0	0	N/A
Prosecutions (Post 2000)	0	0	N/A

Landfill and Waste Sites

Landfill and Waste	**On-site**	**1-100m**	**101-250m**
BGS Recorded Landfill Sites	0	0	0
Integrated Pollution Control Registered Waste Sites	0	0	0
Permitted Waste Sites - Authorised Landfill Site Boundaries	0	0	0
Environmental Permitting Regulations - Waste Sites	0	0	1
Local Authority Recorded Landfill Sites	0	0	0
Registered Landfill Sites	0	0	0
Registered Waste Transfer Sites	0	0	N/A
Registered Waste Treatment or Disposal Sites	0	0	N/A
Historic Landfill	0	0	0

Contaminated Land: Tabular Summary

Current Land Use

Current Potentially Contaminative Uses	**On-site**	**1-100m**	**101-250m**
Contemporary Trade Directory Entries**	0	0	N/A
Fuel Station Entries	0	0	N/A

Historical Land Use

Historical Potentially Contaminative Uses	**On-site**	**1-100m**	**101-250m**
Historical Tanks And Energy Facilities	0	4	N/A
Potentially Contaminative Industrial Uses (Past Land Use)	1	3	N/A

Potentially Infilled Land	**On-site**	**1-100m**	**101-250m**
Former Marshes	0	0	N/A
Potentially Infilled Land (Non-Water)	0	0	N/A
Potentially Infilled Land (Water)	0	0	N/A

Groundwater Vulnerability

Hydrogeology	**On-site**	**1-250m**	**251-500m**
Superficial Aquifer Designations	Yes	N/A	N/A
Bedrock Aquifer Designations	Yes	N/A	N/A

Geology

Geology	**On-site**	**1-250m**	**251-500m**
BGS 1:50,000 Bedrock Geology	Yes	N/A	N/A
BGS 1:50,000 Superficial Deposits	Yes	N/A	N/A
BGS 1:50,000 Geological Mapping Coverage	Yes	N/A	N/A

Contaminated Land: Tabular Summary

Environmental Sensitivity

Environmental Sensitivity	**On-site**	**1-250m**	**251-500m**
Areas of Outstanding Natural Beauty	0	0	0
Environmentally Sensitive Areas	0	0	0
Forest Parks	0	0	0
Local Nature Reserves	0	0	0
Marine Conservation Zones	0	0	0
National Nature Reserves	0	0	0
National Parks	0	0	0
Ramsar Sites	0	0	0
Sites of Special Scientific Interest	0	0	0
Special Areas of Conservation	0	0	0
Special Protection Areas	0	0	0
Water Abstractions	0	0	0
Source Protection Zones	1	0	0

Natural and Mining Related Hazards

Former Mining	**On-site**	**1-100m**	**101-250m**
Coalfield Consultation Areas	0	N/A	N/A
Potentially Contaminative Land Uses (1950-1980) from large scale historical mapping	0	N/A	N/A
Potentially Contaminative Land Uses (1855-1909) from large scale historical mapping*	0	0	N/A
Potentially Contaminative Land Uses (1893-1915) from large scale historical mapping	0	N/A	N/A
Potentially Contaminative Land Uses (1906-1937) from large scale historical mapping	0	N/A	N/A
Potentially Contaminative Land Uses (1924-1949) from large scale historical mapping	0	N/A	N/A
Potentially Contaminative Industrial Uses (Past Land Use)	0	N/A	N/A
Man-Made Mining Cavities	0	0	0
BGS Recorded Mineral Sites	0	0	N/A
Mining Instability	0	N/A	N/A
Non Coal Mining Areas of Great Britain*	0	0	N/A
Potential Mining Areas	0	N/A	N/A

Salt and Brine	**On-site**	**1-100m**	**101-250m**
Brine Compensation Area	0	N/A	N/A
Brine Pumping Related Features	0	N/A	N/A
Brine Subsidence Solution Area	0	N/A	N/A
Salt Mining Related Features	0	N/A	N/A

Contaminated Land: Tabular Summary

Landfill Sites and Infilled Land	**On-site**	**1-100m**	**101-250m**
Former Marshes	0	N/A	N/A
Potentially Infilled Land (Non-Water)	0	N/A	N/A
Potentially Infilled Land (Water)	0	N/A	N/A
Potentially Contaminative Industrial Uses (Past Land Use)	0	N/A	N/A
BGS Recorded Landfill Sites	0	N/A	N/A
Permitted Waste Sites - Authorised Landfill Site Boundaries	0	N/A	N/A
Registered Landfill Sites	0	N/A	N/A
Local Authority Recorded Landfill Sites	0	N/A	N/A
Historic Landfill	0	N/A	N/A

Natural Ground Instability	**On-site**	**1-100m**	**101-250m**
Natural Cavities	0	0	0
Potential for Landslide Ground Stability Hazards*	0	0	N/A
Potential for Ground Dissolution Stability Hazards*	0	0	N/A
Potential for Compressible Ground Stability Hazards*	0	0	N/A
Potential for Shrinking or Swelling Clay Ground Stability Hazards*	1	0	N/A
Potential for Running Sand Ground Stability Hazards*	0	0	N/A
Potential for Collapsible Ground Stability Hazards*	0	0	N/A

Coal Mining Subsidence Damage Claims	**On-site**	**1-100m**	**101-250m**
Coal Mining Subsidence Damage Claims*	0	0	N/A

Insurance Claims from Subsidence	**On-site**	**1-100m**	**101-250m**
Postcode Unit Insurance Claims Rating - Subsidence	0	N/A	N/A

Radon	**On-site**	**1-100m**	**101-250m**
Radon Potential	0	N/A	N/A

**dataset searched to 25m
*dataset searched to 50m

Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Multiple Features Present
- Local Authority Pollution Prevention and Controls
- Local Authority Integrated Pollution Prevention And Control
- Integrated Pollution Controls
- Environmental Permitting Regulations - Industry
- Radioactive Substances Register
- Consented Discharges to Controlled Waters
- Referrals of Red List Discharges to Sewers (Corporate Entities)
- Control of Major Accident Hazards Sites (COMAH)
- Explosive Sites
- Notification of Installations Handling Hazardous Substances (NIHHS)
- Planning Hazardous Substance Consents

Authorisations

Local Authority Pollution Prevention and Controls

Map ID	Details	Distance	Direction	Contact
7	**Name:** Sovchem Specialist Cleaners Ltd **Reference:** DC39149 **Date of Issue:** 1st May 2007 **Location:** Unit 2 Alpha Business Park, Travellers Lane, Welham Green, Hatfield, Al9 7nt **Description:** PG6/46 Dry cleaning **Status:** Site Closed	34m	S	3

Local Authority Integrated Pollution Prevention And Control

No features identified.

Integrated Pollution Controls

No features identified.

Environmental Permitting Regulations - Industry

No features identified.

Radioactive Substances Register

No features identified.

Discharges

Consented Discharges to Controlled Waters

No features identified.

Referrals of Red List Discharges to Sewers (Corporate Entities)

No features identified.

Hazardous Sites

Control of Major Accident Hazards Sites (COMAH)

No features identified.

Explosive Sites

No features identified.

Notification of Installations Handling Hazardous Substances (NIHHS)

No features identified.

Planning Hazardous Substance Consents

No features identified.

Contains Ordnance Survey data © Crown copyright and database right 2021.

Site	Enforcement and Prohibition Notices
Multiple Features Present	Planning Hazardous Substance Enforcements
Contaminated Land Register Entries and Notices	Environmental Pollution Incidents
Local Authority Pollution Prevention and Control Enforcements	Prosections (Post 2000)

Contraventions

Contaminated Land Register Entries and Notices

No features identified.

Local Authority Pollution Prevention and Control Enforcements

No features identified.

Enforcement and Prohibition Notices

No features identified.

Planning Hazardous Substance Enforcements

No features identified.

Environmental Pollution Incidents

No features identified.

Prosecutions (Post 2000)

No features identified.

Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Multiple Features Present
- BGS Recorded Landfill Sites
- Integrated Pollution Control Registered Waste Sites
- Permitted Waste Sites - Authorised Landfill Site Boundaries
- Environmental Permitting Regulations - Waste Sites
- Local Authority Recorded Landfill Sites
- Registered Landfill Sites
- Registered Waste Transfer Sites
- Registered Waste Treatment or Disposal Sites
- Historic Landfill

Landfill and Waste

BGS Recorded Landfill Sites

No features identified.

Integrated Pollution Control Registered Waste Sites

No features identified.

Permitted Waste Sites - Authorised Landfill Site Boundaries

No features identified.

Environmental Permitting Regulations - Waste Sites

Map ID	Details	Distance	Direction	Contact
6	Licenced Waste Type: Metal recycling site Status: Revoked Date of Issue: 25th June 2010 Reference: 101740 Location: Iron Sidings, Travellers Lane, Welham Green, Hatfield, Hertfordshire, AL9 7HF Operator Name: Sovchem Waste Solutions Ltd	247m	SE	4

Local Authority Recorded Landfill Sites

No features identified.

Registered Landfill Sites

No features identified.

Registered Waste Transfer Sites

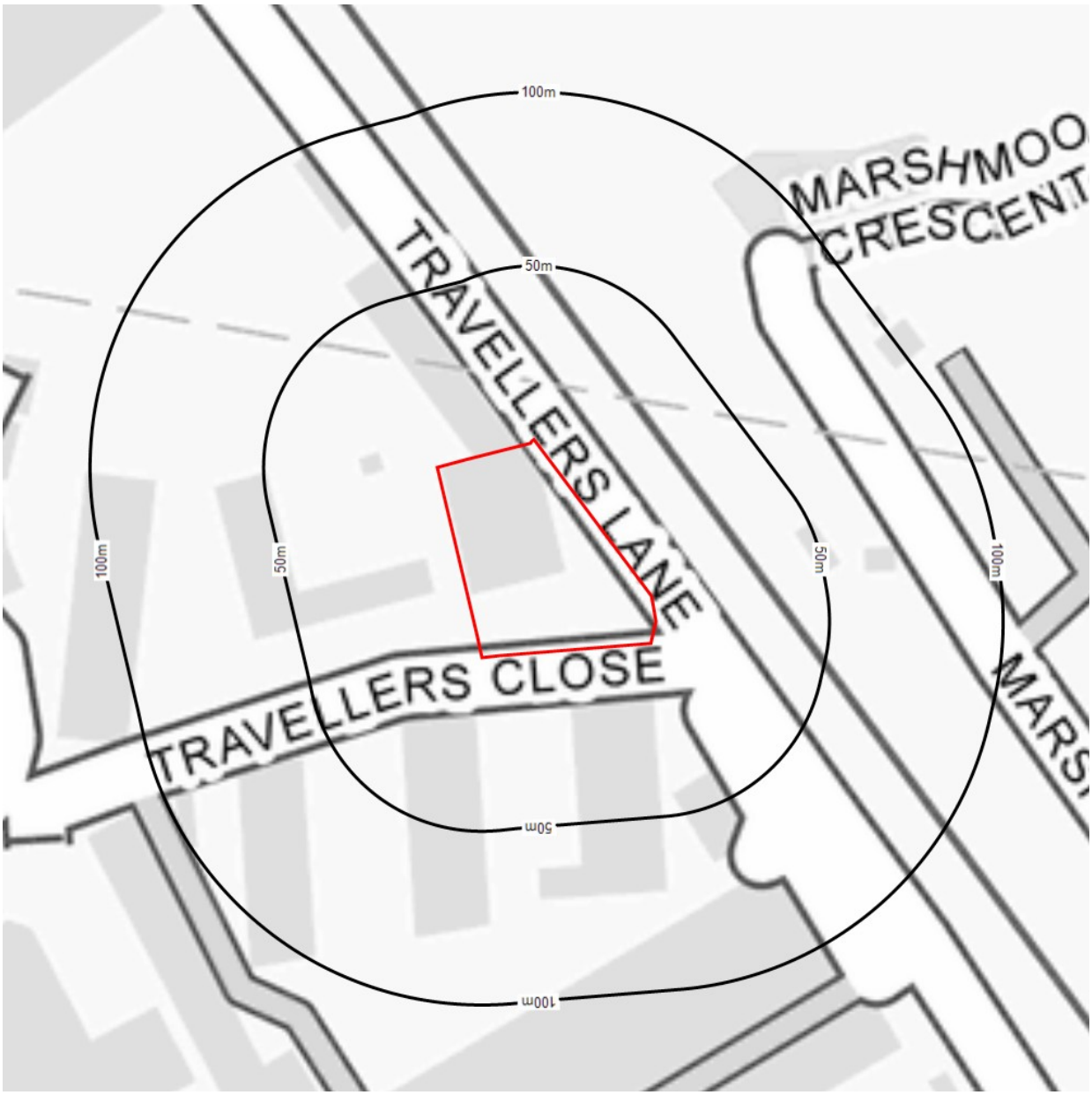
No features identified.

Registered Waste Treatment or Disposal Sites

No features identified.

Historic Landfill

No features identified.



Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Multiple Features Present
- Contemporary Trade Directory Entries
- Fuel Station Entries

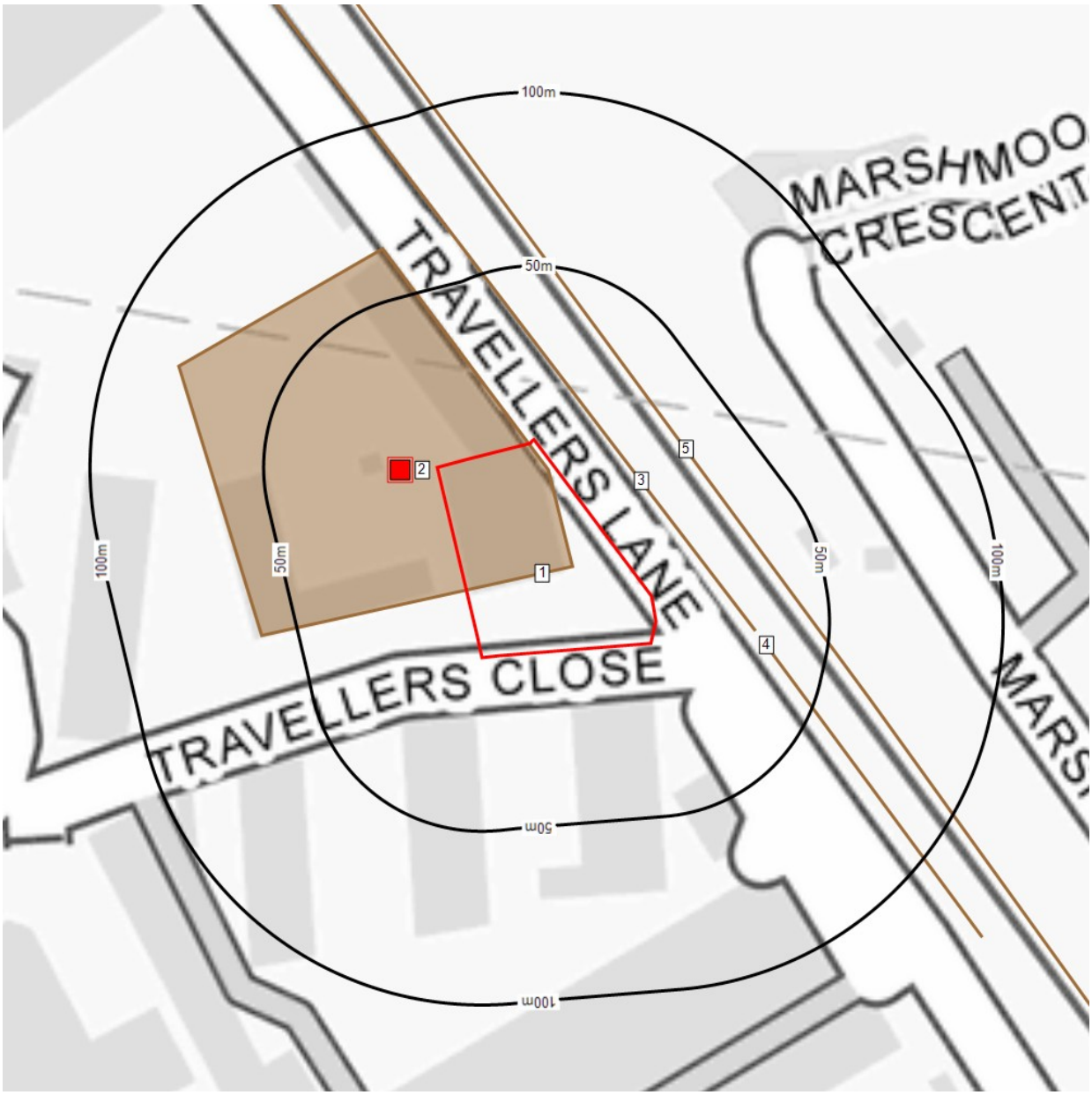
Current Potentially Contaminative Uses

Contemporary Trade Directory Entries

No features identified.

Fuel Station Entries

No features identified.



Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Multiple Features Present
- Historical Tanks And Energy Facilities
- Potentially Contaminative Industrial Uses (Past Land Use)
- Former Marshes
- Potentially Infilled Land (Non-Water)
- Potentially Infilled Land (Water)

Historical Potentially Contaminative Uses

Historical Tanks And Energy Facilities

Map ID	Details	Distance	Direction	Contact
2	**Type:** Electrical Sub Station Facilities **Date of Mapping:** 1971	11m	NW	1
2	**Type:** Electrical Sub Station Facilities **Date of Mapping:** 1969-1986	8m	NW	1
2	**Type:** Electrical Sub Station Facilities **Date of Mapping:** 1972	6m	NW	1
2	**Type:** Electrical Sub Station Facilities **Date of Mapping:** 1969	6m	NW	1

Potentially Contaminative Industrial Uses (Past Land Use)

Map ID	Details	Distance	Direction	Contact
1	**Class:** Factory or works - use not specified **Map Published Date:** 1990	0m	N	1
3	**Class:** Railways **Map Published Date:** 1971	18m	NE	1
4	**Class:** Railways **Map Published Date:** 1925-1971	33m	E	1
5	**Class:** Railways **Map Published Date:** 1883-1990	34m	NE	1

Potentially Infilled Land

Former Marshes

No features identified.

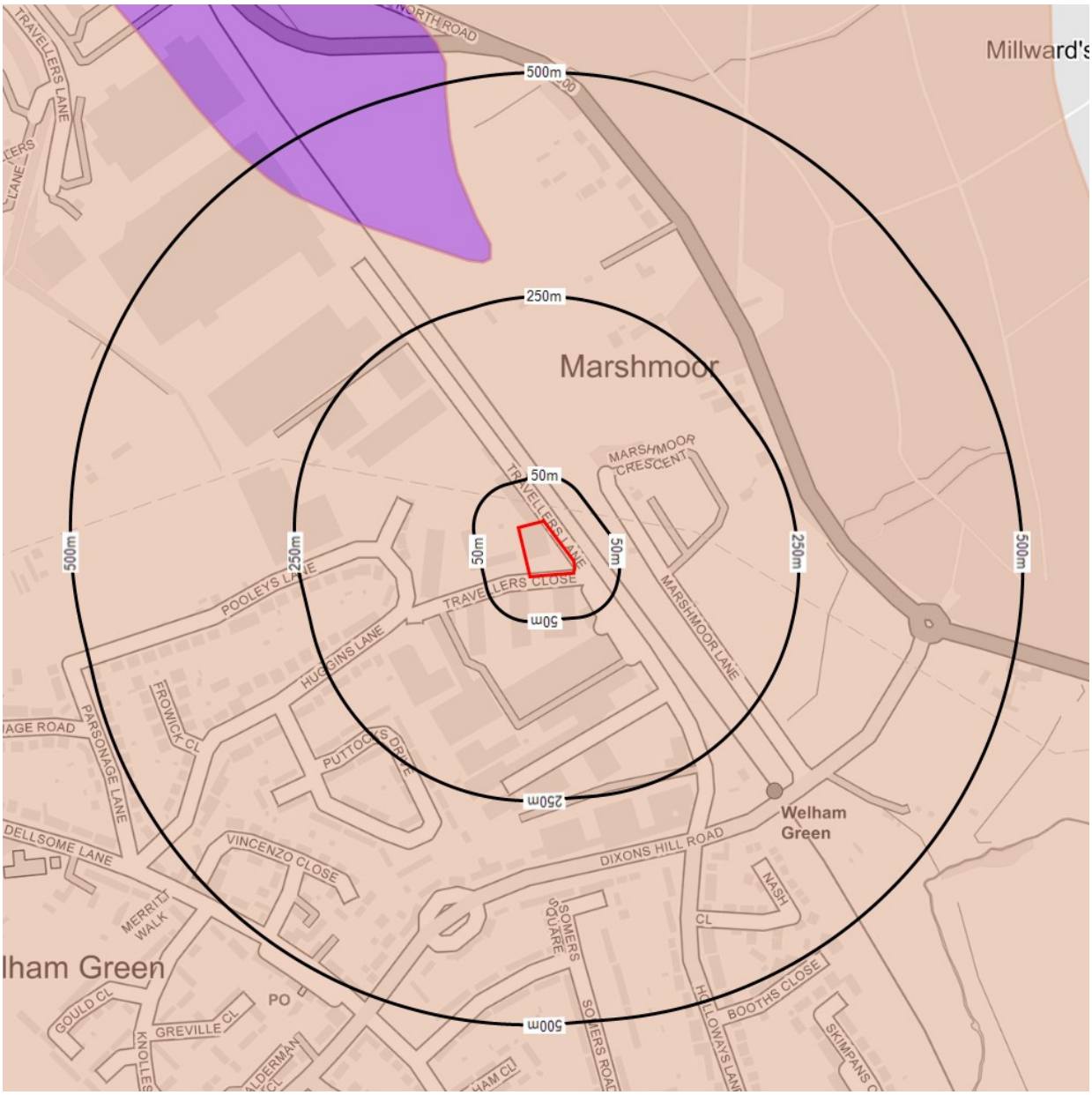
Potentially Infilled Land (Non-Water)

No features identified.

Potentially Infilled Land (Water)

No features identified.

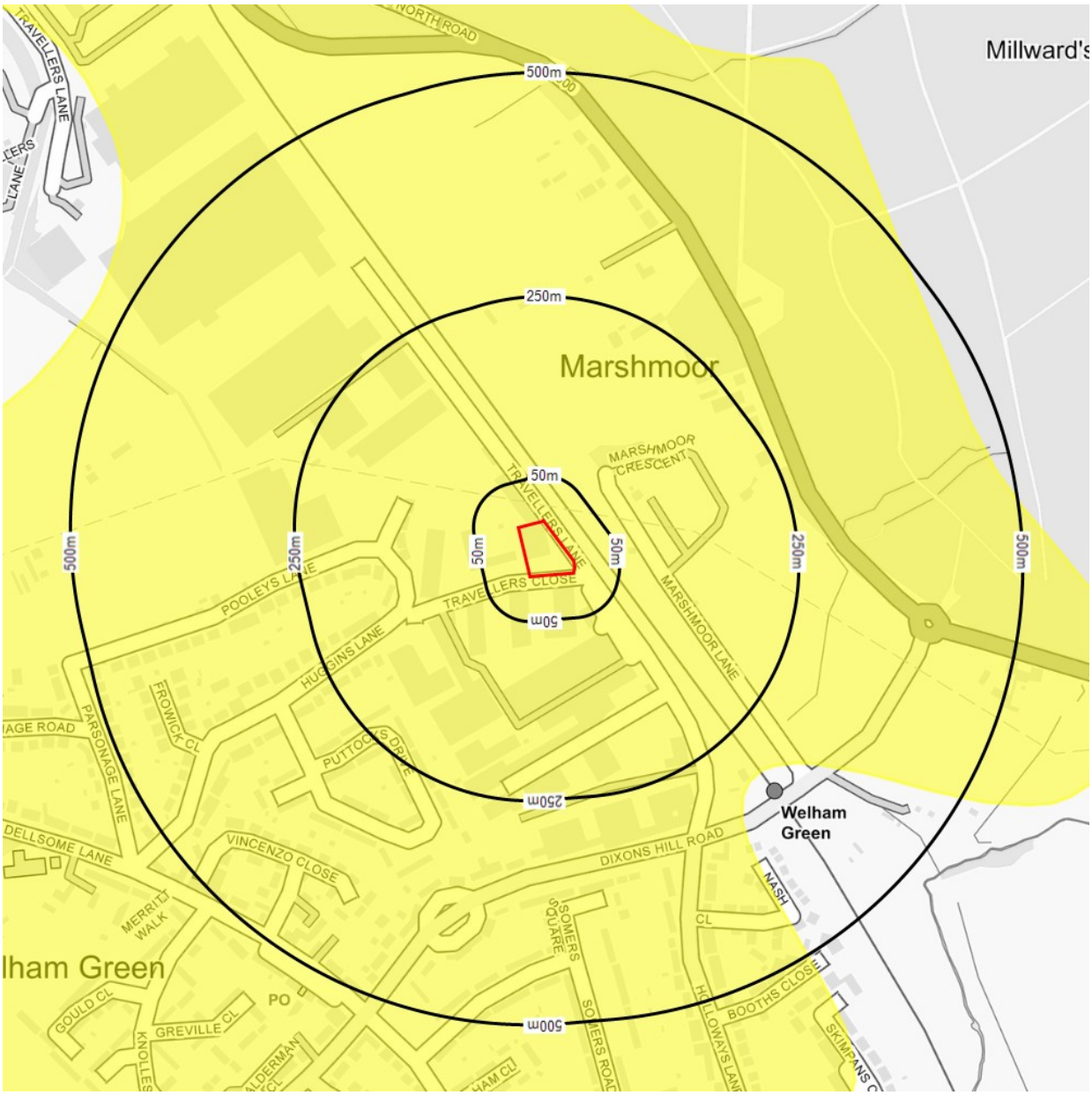
Bedrock



Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Principal Aquifer
- Secondary Aquifer A
- Secondary Aquifer B
- Secondary Aquifer Undifferentiated
- Unproductive Strata
- Unknown

Superficial



Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Principal Aquifer
- Secondary Aquifer A
- Secondary Aquifer B
- Secondary Aquifer Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (lakes and Landslips)

Hydrogeology

Bedrock Aquifer Designations

Details	Distance	Direction	Contact
Aquifer Designation: Secondary Aquifer - A	0m	N	5

Superficial Aquifer Designations

Details	Distance	Direction	Contact
Aquifer Designation: Secondary Aquifer - Undifferentiated	0m	N	5

Geology

BGS 1:50,000 Bedrock Geology

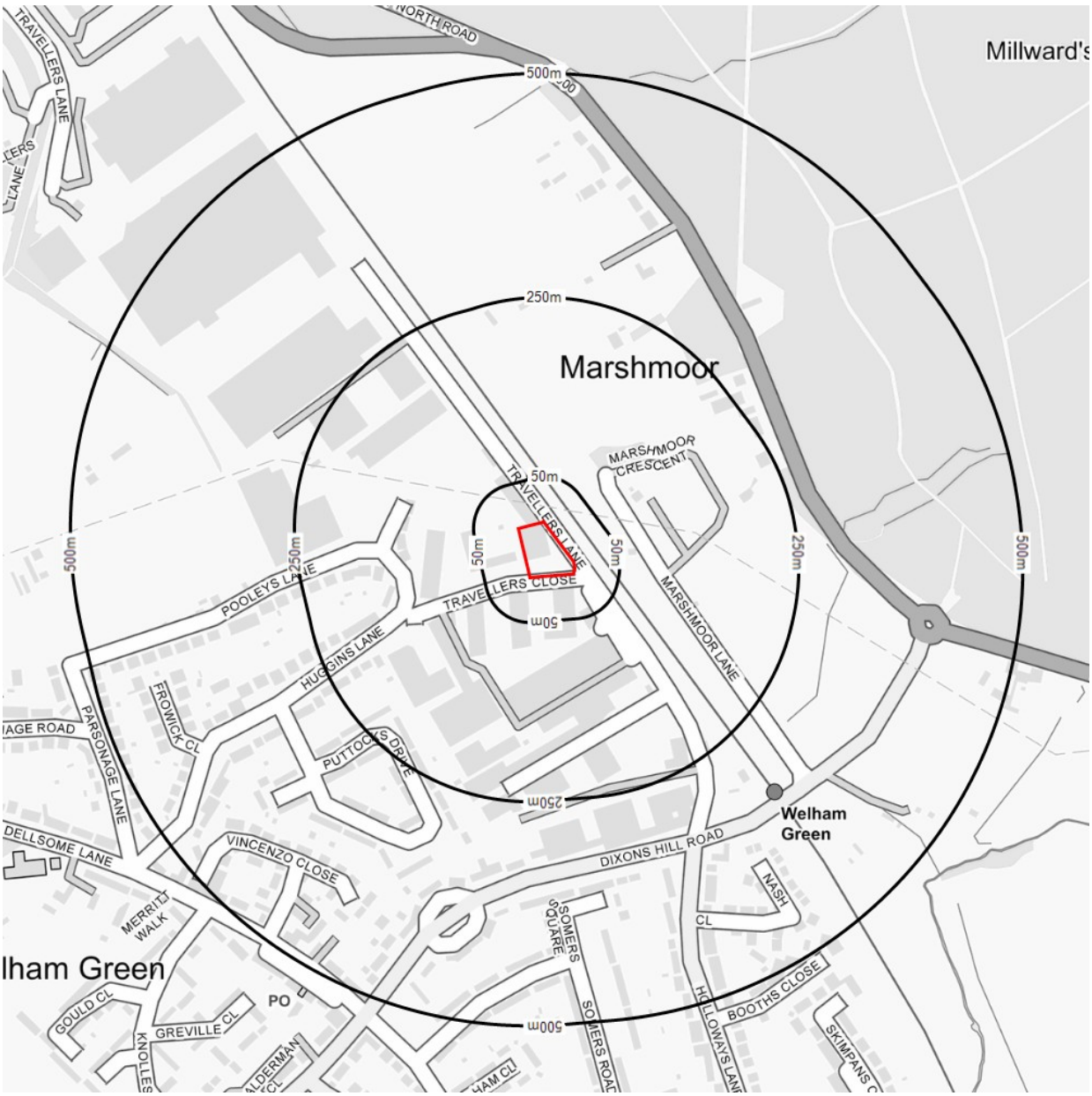
Details	Distance	Direction	Contact
Lex Code: LMBE Rock Name: Lambeth Group Rock Type: Clay, Silt and Sand Min Age: Not Supplied Max Age: Thanetian	0m	N	6

BGS 1:50,000 Superficial Deposits

Details	Distance	Direction	Contact
Lex Code: LOFT Rock Name: Lowestoft Formation Rock Type: Diamicton Min Age: Not Supplied Max Age: Anglian	0m	N	6

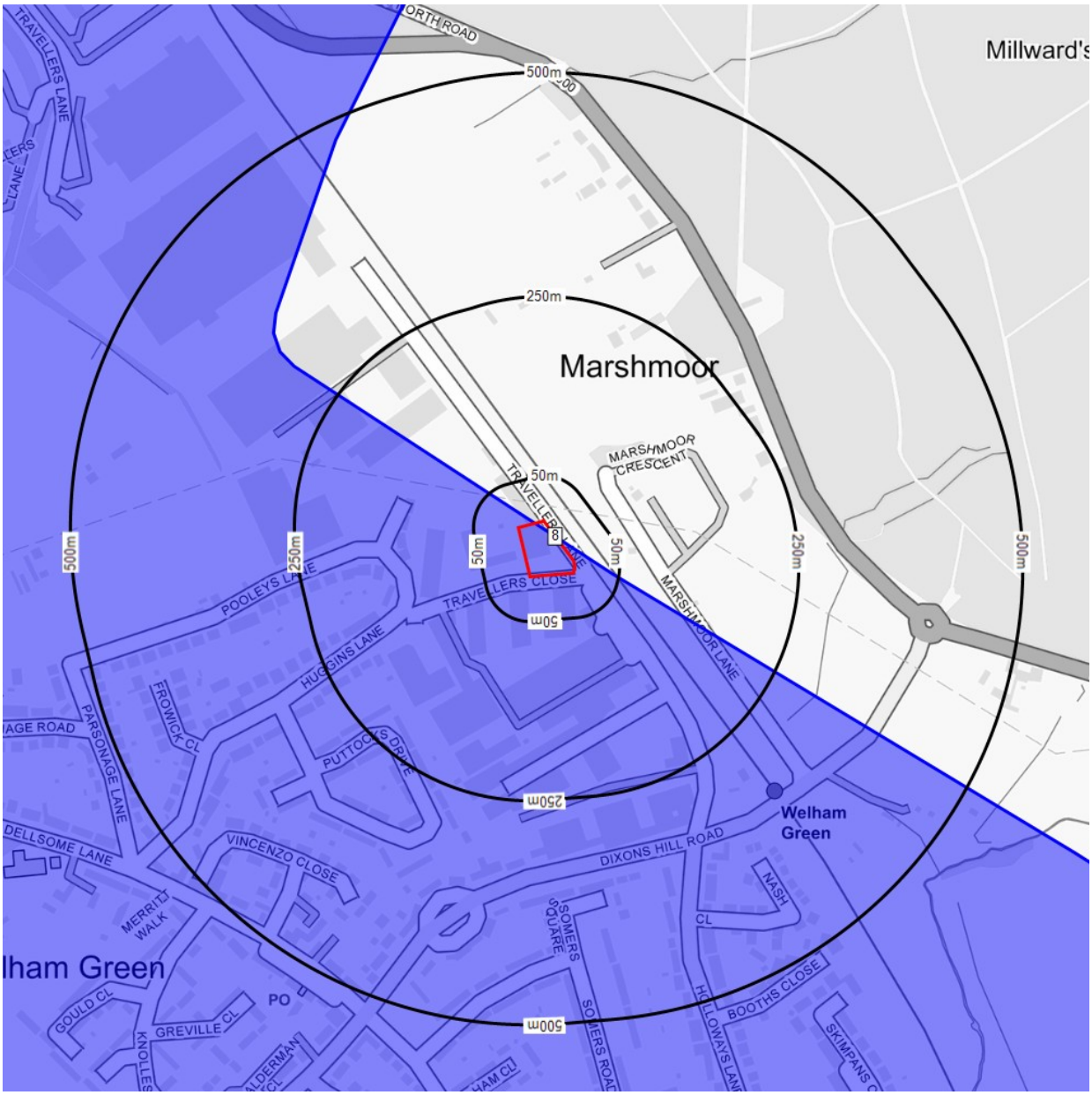
BGS 1:50,000 Geological Mapping Coverage

Details	Distance	Direction	Contact
Map Sheet No: 239 Map Name: Hertford Bedrock Geology: Available Superficial Geology: Available	0m	N	6



Contains Ordnance Survey data © Crown copyright and database right 2021.

Site	Local Nature Reserves	RAMSAR Sites
Multiple Features Present	Marine Nature Reserves	Sites of Special Scientific Interest
Areas of Outstanding Natural Beauty	National Nature Reserves	Special Areas of Conservation
Environmentally Sensitive Areas	National Parks	Special Protection Areas
Forest Parks	National Scenic Areas	



Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Multiple Features Present
- Inner Zone (zone 1)
- Inner Zone (zone 1c)
- Outer Zone (Zone 2)
- Outer Zone (Zone 2c)
- Total Catchment (Zone 3)
- Total Catchment (Zone 3c)
- Special Interest (Zone 4)
- Water Abstractions

Environmental Sensitivity

Areas of Outstanding Natural Beauty

No features identified.

Environmentally Sensitive Areas

No features identified.

Forest Parks

No features identified.

Local Nature Reserves

No features identified.

Marine Conservation Zones

No features identified.

National Nature Reserves

No features identified.

National Parks

No features identified.

Ramsar Sites

No features identified.

Sites of Special Scientific Interest

No features identified.

Special Areas of Conservation

No features identified.

Special Protection Areas

No features identified.

Water Abstractions

No features identified.

Source Protection Zones

Map ID	Details	Distance	Direction	Contact
8	Name: Not Supplied Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	0m	N	4

Former Mining

Coalfield Consultation Areas

No features identified.

Potentially Contaminative Land Uses (1950-1980) from large scale historical mapping

No features identified.

Potentially Contaminative Land Uses (1855-1909) from large scale historical mapping

No features identified.

Potentially Contaminative Land Uses (1893-1915) from large scale historical mapping

No features identified.

Potentially Contaminative Land Uses (1906-1937) from large scale historical mapping

No features identified.

Potentially Contaminative Land Uses (1924-1949) from large scale historical mapping

No features identified.

Potentially Contaminative Industrial Uses (Past Land Use)

No features identified.

Man-Made Mining Cavities

No features identified.

BGS Recorded Mineral Sites

No features identified.

Mining Instability

No features identified.

Non Coal Mining Areas of Great Britain

No features identified.

Potential Mining Areas

No features identified.

Salt and Brine

Brine Compensation Area

No features identified.

Brine Pumping Related Features

No features identified.

Brine Subsidence Solution Area

No features identified.

Salt Mining Related Features

No features identified.

Landfill Sites and Infilled Land

Former Marshes

No features identified.

Potentially Infilled Land (Non-Water)

No features identified.

Potentially Infilled Land (Water)

No features identified.

Potentially Contaminative Industrial Uses (Past Land Use)

No features identified.

BGS Recorded Landfill Sites

No features identified.

Permitted Waste Sites - Authorised Landfill Site Boundaries

No features identified.

Registered Landfill Sites

No features identified.

Local Authority Recorded Landfill Sites

No features identified.

Historic Landfill

No features identified.

Natural Ground Instability

Natural Cavities

No features identified.

Potential for Landslide Ground Stability Hazards

No features identified.

Potential for Ground Dissolution Stability Hazards

No features identified.

Potential for Compressible Ground Stability Hazards

No features identified.

Potential for Shrinking or Swelling Clay Ground Stability Hazards

Details	Distance	Direction	Contact
Hazard Potential: Moderate Hazard Description: Ground conditions predominantly high plasticity. Hazard Guidance: Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management.	0m	N	6

Potential for Running Sand Ground Stability Hazards

No features identified.

Potential for Collapsible Ground Stability Hazards

No features identified.

Coal Mining Subsidence Claims

Coal Mining Subsidence Damage Claims

No features identified.

Insurance Claims

Postcode Unit Insurance Claims Rating - Subsidence

No features identified.

Radon

Radon Potential

No features identified.

Flood Risk
Data Section

Flood Risk Data: This section details the data used as part of our Flood Risk analysis. Each key source of flooding has the data mapped with the detail outlined beneath. All relevant data in this section has been reviewed by the report writer and taken into account in the overall analysis. As a result, the individual risks in the data below may vary from our overall opinion.

contents

Tabular Summary	This section gives an overview of the data at the Site and in the surrounding area. We present the data in three buffer zones, extending to a maximum of 500m. Where we have not been able to search a database, we will display the abbreviation N/A instead.
River and Coastal Flooding	The data used to form our river and coastal flood risk analysis includes: • Flood Zones: Created for land-use planning, Flood Zones map the likelihood of flooding assuming no defences are present, fail or are over-topped. This data is presented as FZ1, FZ2 or FZ3. • Risk of Flooding from Rivers and Seas (RoFRS): Provides an indication of flood risk taking into account the presence of defences and the level of protection they offer. • Flood Defences: Recorded by the regulatory body, and includes defence type and standard of protection. • Areas Benefiting from Flood Defences: Areas defined as having protection of at least 1 in 100 for river and 1 in 200 for coastal. • Flood Storage Areas: Areas that store floodwater during flood events.
Surface Water Flooding	We present the risk of surface water flooding in three separate return periods: • 1:75 • 1:200 • 1:1000 Each map will show the likely flood depth bandings within each of these return periods.
Groundwater Flooding	The data takes into account the two key mechanisms of groundwater flooding; clearwater and permeable superficial deposits.
Other Factors	This section accounts for risk that is not tied to modelled data. It includes historical floods, proximity to water features and elevation above both of these features.

Flood Risk: Tabular Summary

Flooding

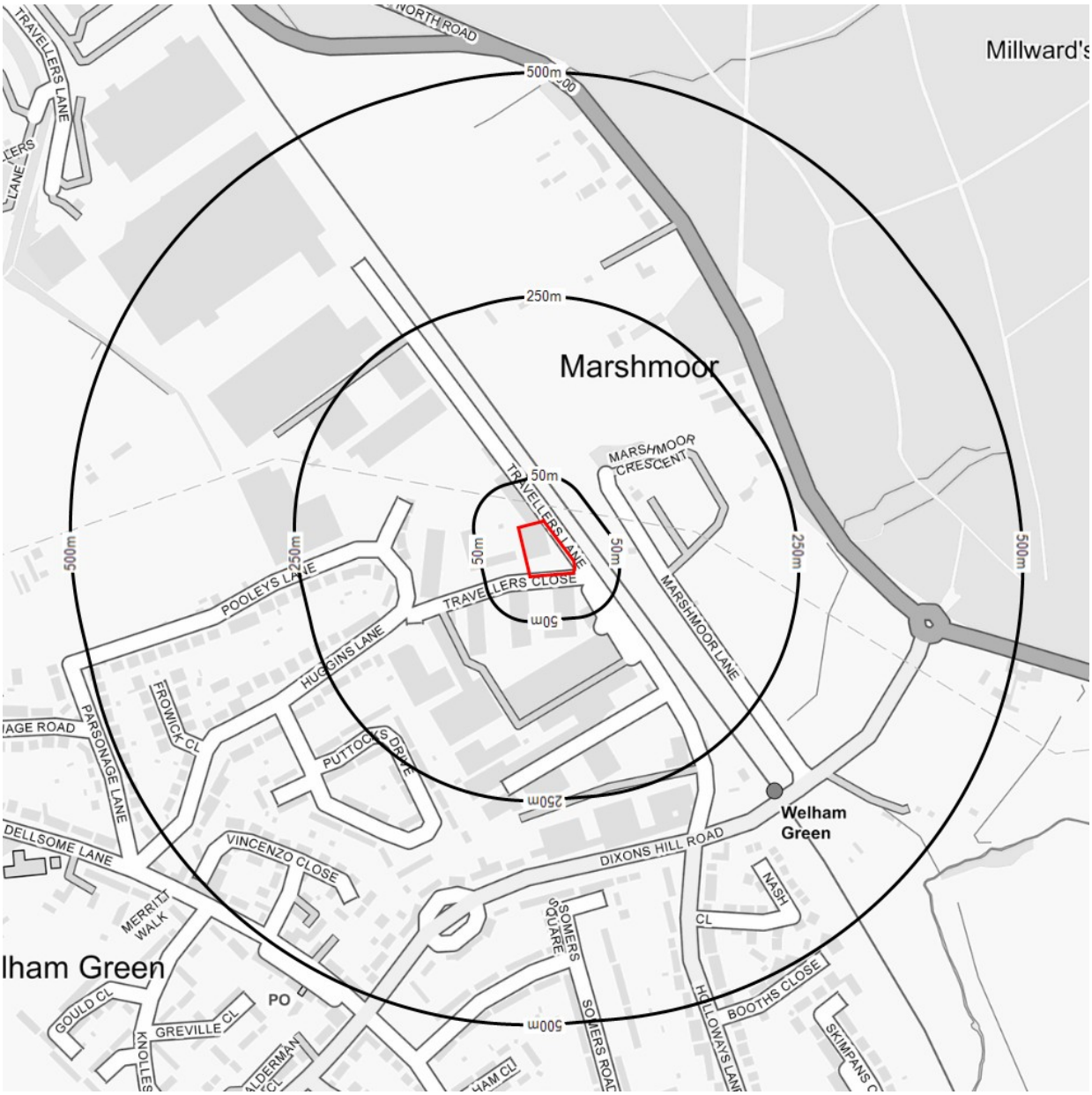
River and Coastal Flooding	On-site	1-250m	251-500m
Flooding from Rivers or Sea without Defences (Flood Zone 3)	No	No	No
Extreme Flooding from Rivers or Sea without Defences (Flood Zone 2)	No	No	No
Areas Benefitting from Flood Defences	No	No	No
Spatial Flood Defences (with attributes)	No	No	No
Risk of Flooding from Rivers and Sea (RoFRS)	No	No	No

Surface Water Flooding	On-site	1-250m	251-500m
JBA Pluvial 75 Depths	Yes	Yes	Yes
JBA Pluvial 200 Depths	Yes	Yes	Yes
JBA Pluvial 1000 Depths	Yes	Yes	Yes

Groundwater Flooding	On-site	1-250m	251-500m
Groundwater Flood Risk 5m	Yes	No	Yes

Other Factors	On-site	1-250m	251-500m
Flood Storage Areas	No	No	No
Recorded Flood Outlines	No	No	No
OS VectorMap District - Water Features	No	No	No
OS MasterMap Water Network	No	Yes	Yes

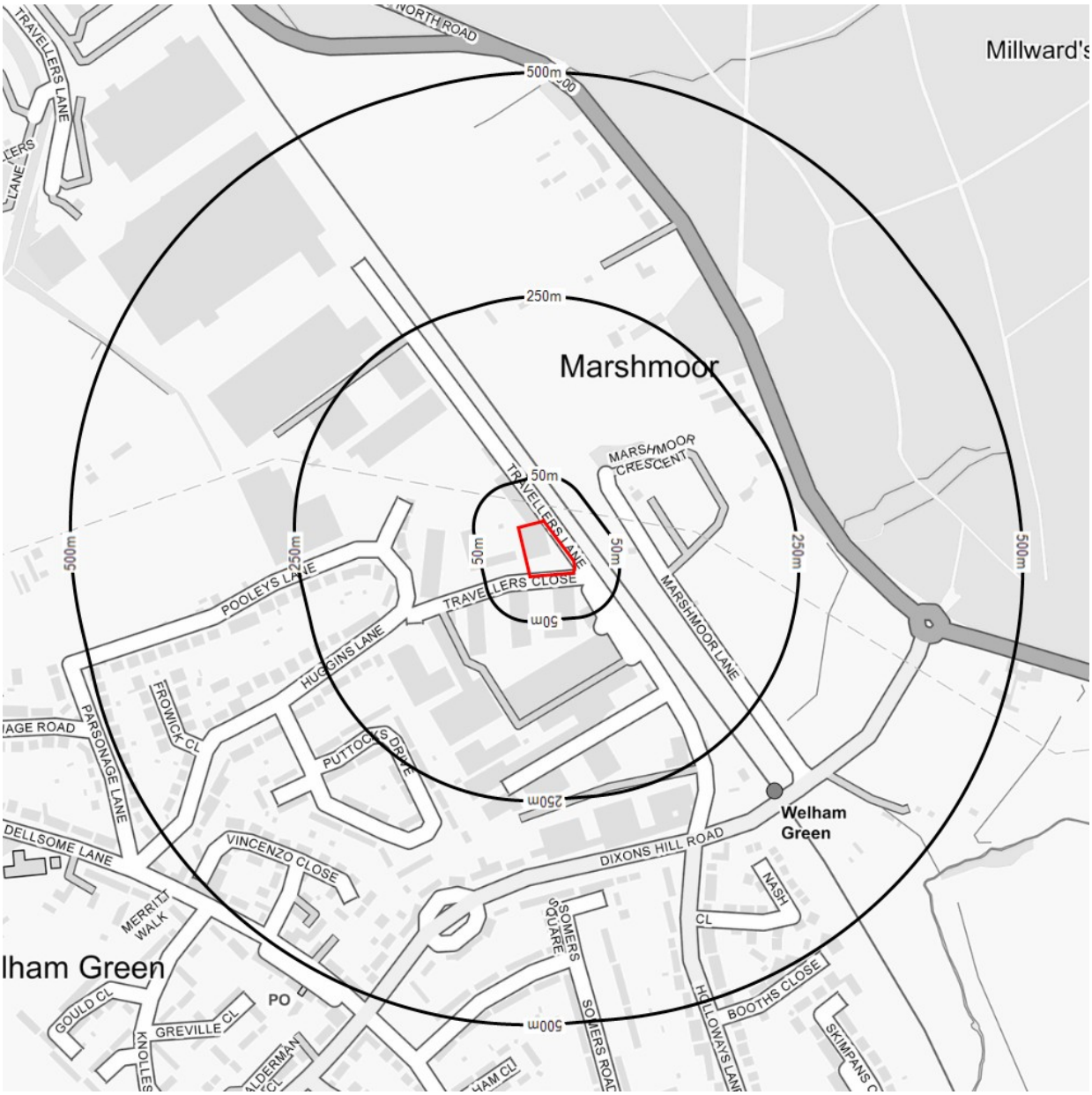
Flood Risk: River and Coastal (map 1)



Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Flood Zone 2
- Flood Zone 3
- Areas Benefiting from Flood Defences
- Flood Defences

Flood Risk: River and Coastal (map 2)



Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- RoFRS - Very Low
- RoFRS - Low
- RoFRS - Medium
- RoFRS - High

Flooding from Rivers or Sea without Defences (Flood Zone 3)

No features identified.

Extreme Flooding from Rivers or Sea without Defences (Flood Zone 2)

No features identified.

Areas Benefitting from Flood Defences

No features identified.

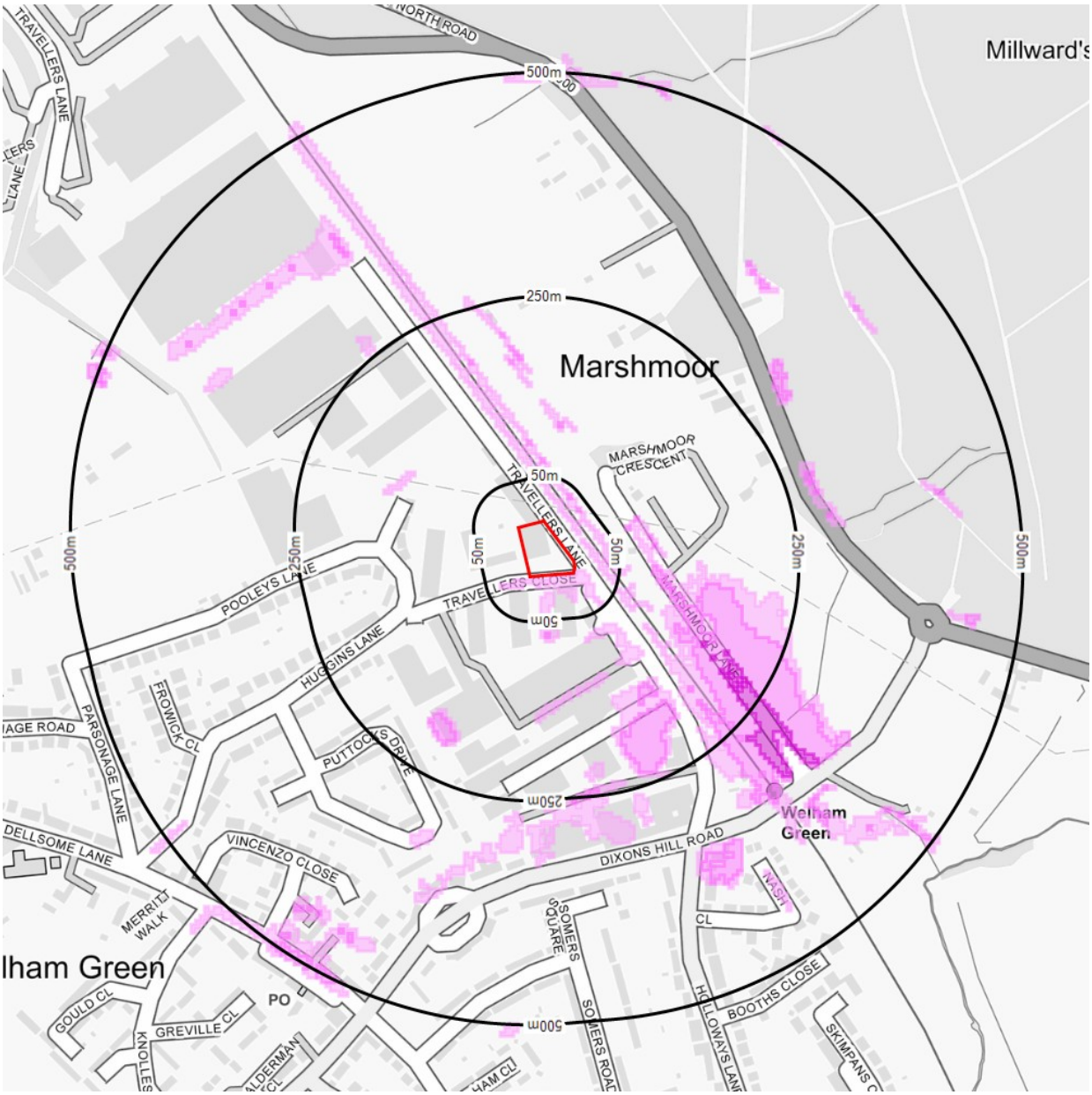
Spatial Flood Defences (with attributes)

No features identified.

Risk of Flooding from Rivers and Sea (RoFRS)

No features identified.

Flood Risk: Surface Water (1:75 year event)



Contains Ordnance Survey data © Crown copyright and database right 2021.

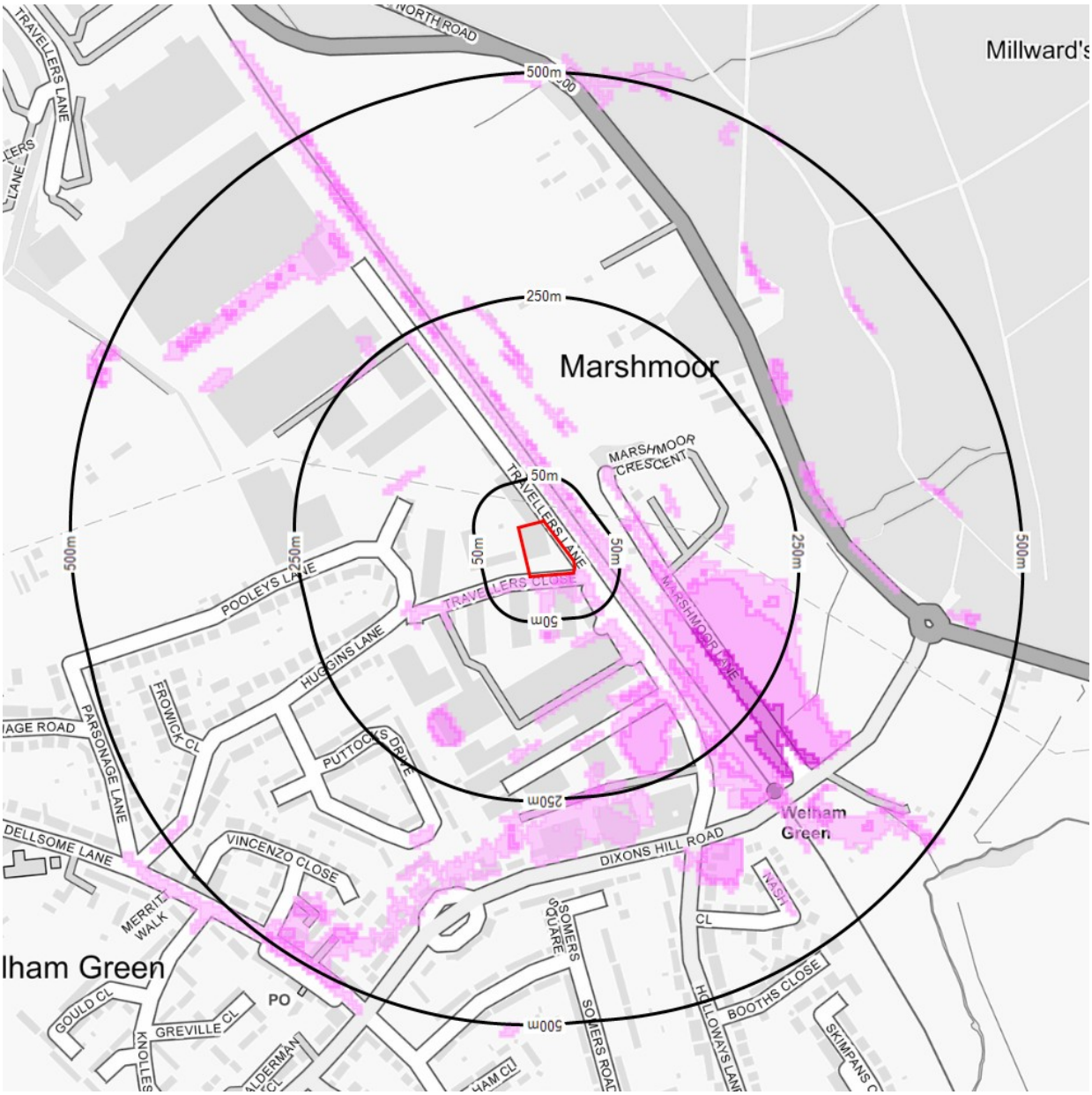
Site

10cm – 30cm depth

30cm – 1m depth

1m + depth

Flood Risk: Surface Water (1:200 year event)



Contains Ordnance Survey data © Crown copyright and database right 2021.

Site

10cm – 30cm depth

30cm – 1m depth

1m + depth

Flood Risk: Surface Water (1:1000 year event)

Contains Ordnance Survey data © Crown copyright and database right 2021.

Site

10cm – 30cm depth

30cm – 1m depth

1m + depth

JBA Pluvial 75 Depths

Details	Distance	Direction	Contact
Type: Greater than 0.1m and Less than or equal to 0.3m	0m	S	1
Type: Greater than 0.3m and Less than or equal to 1.0m	36m	NE	1
Type: Equal to 0.1m	136m	SE	1
Type: Greater than 1.0m	163m	SE	1

JBA Pluvial 200 Depths

Details	Distance	Direction	Contact
Type: Greater than 0.1m and Less than or equal to 0.3m	0m	S	1
Type: Greater than 0.3m and Less than or equal to 1.0m	2m	SE	1
Type: Equal to 0.1m	68m	SW	1
Type: Greater than 1.0m	147m	SE	1

JBA Pluvial 1000 Depths

Details	Distance	Direction	Contact
Type: Greater than 0.1m and Less than or equal to 0.3m	0m	S	1
Type: Greater than 0.3m and Less than or equal to 1.0m	2m	S	1
Type: Equal to 0.1m	41m	S	1
Type: Greater than 1.0m	87m	E	1

Flood data provided by JBA Risk Management Limited. © Copyright JBA Risk Management Limited 2008-2021

Flood Risk: Groundwater

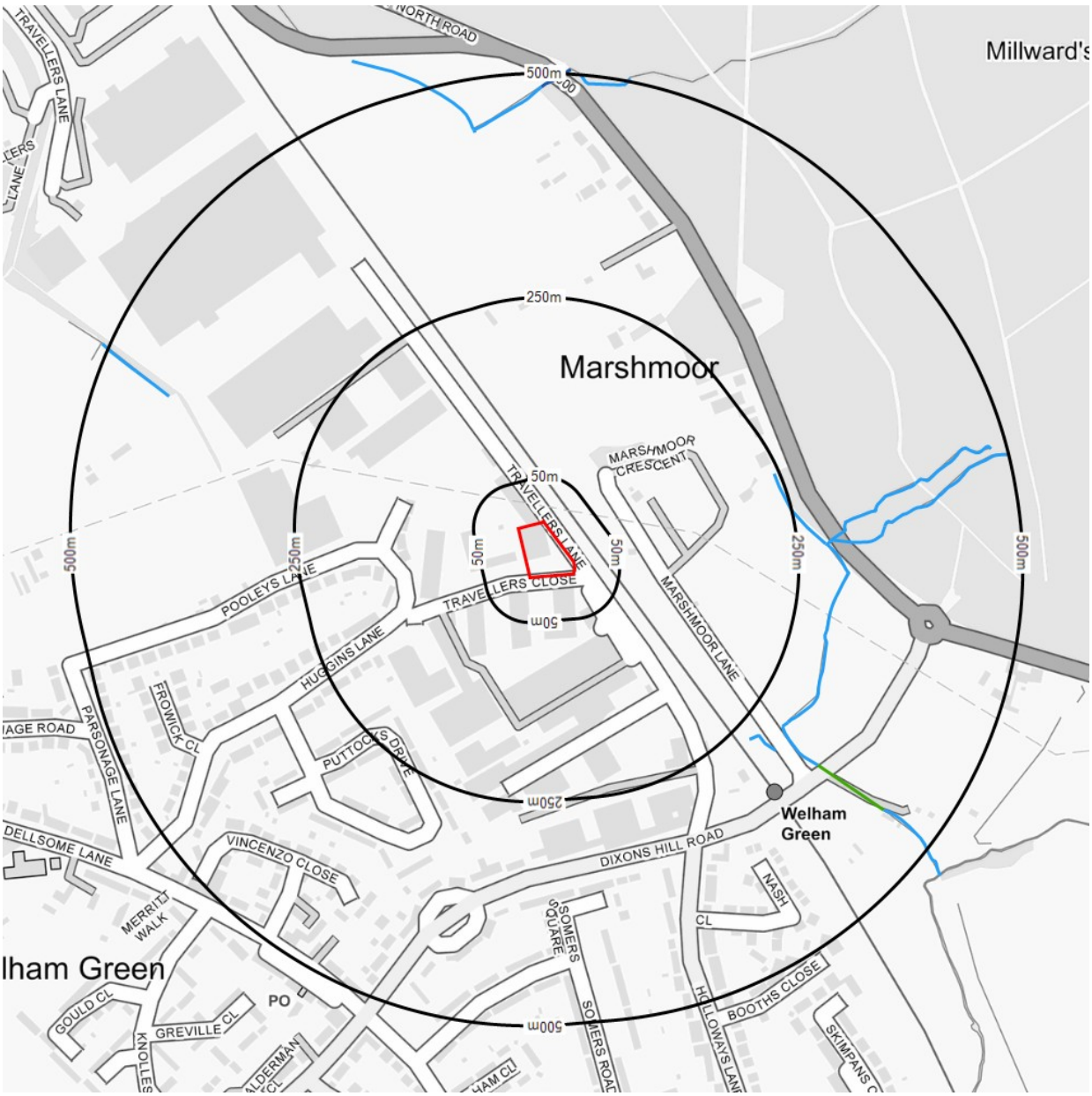
Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- High Risk
- Moderate Risk
- Low Risk
- Negligible Risk

Groundwater Flood Risk 5m

Details	Distance	Direction	Contact
Type: Negligible	0m	N	1
Type: Moderate	296m	N	1
Type: Low	463m	N	1

Flood Risk: Other



Contains Ordnance Survey data © Crown copyright and database right 2021.

- Site
- Water Feature
- Flood Storage Areas
- Recorded Flood Outlines
- Primary Flow (named)
- Primary Flow (un-named)
- Seconday Flow
- Tidal River
- Lake or Reservoir
- Forshore and Sea
- Underground River
- Marsh
- Canal, Lock or Transfer

Flood Risk: Other

Flood Storage Areas

No features identified.

Recorded Flood Outlines

No features identified.

OS VectorMap District - Water Features

No features identified.

OS MasterMap Water Network

Details	Distance	Direction	Contact
Name: Type: Primary Flow (un-named)	245m	E	2
Name: Type: Underground River	347m	SE	2
Name: Type: Lake or Reservoir	485m	N	2

Site Solutions Combined
About this report

Site Solutions Combined Limitations

Site Solutions Combined reports help you and your clients make informed property decisions. Our reports are 'desktop' assessments, written and quality checked by our team of expert consultants. We carry out the work in our Brighton office using data, maps and our expertise. We do not carry out a physical inspection of the property nor do we contact any regulator. This means that we cannot guarantee that we will have identified all issues of concern.

In the Data Section of the report we list the data sources that we have used. Most of these data sets come from third party sources such as the Environment Agency. We cannot guarantee the accuracy of this data and are not responsible for any inaccuracies in third party data.

All **Site Solutions** reports are covered by our terms and conditions, a copy of which is available on our website, www.argyllenvironmental.com. If you need any further information please contact us on 0330 036 6115.

Contaminated Land Risk Analysis Methodology

For this section of the report we assess the condition of the land. We see whether the land could be 'Contaminated Land' under the relevant legislation. This section of the report meets the requirements for an independent site report. This is the recommendation of the Law Society Practice Note on Contaminated Land.

The main legislation is Part 2A of the Environmental Protection Act 1990. We also assess whether similar requirements could arise under the Water Resources Act 1991. The Contaminated Land legislation asks whether a 'plausible contaminant-pathway-receptor relationship' exists. If we identify a relationship, then our consultants will assess the potential significance. We define Liabilities as the potential for remedial works under Part 2A of the Environmental Protection Act 1990 and/or the Water Resources Act 1991.

If the Site is to have a change of use, then we also consider relevant requirements under the Planning Regime. It may be that the level of contamination will only become an issue if the Site is to be redeveloped. An example of this is when former industrial land is redeveloped for housing. If the Site is to be redeveloped then it could also include remedial works required under the planning regime. These remedial works may be the responsibility of the Site owner or occupier.

We will issue one of the following Liability statements, in line with Defra's recommended four stage test.

Assessment	Liability Statement	Defra Category
PASSED	Within the scope of this assessment no Liabilities have been identified. No further action is required.	3 or 4
PASSED – PRUDENT ACTION	Within the scope of this assessment no Liabilities have been identified. However, your attention is drawn to the prudent action suggested below.	3 or 4
FURTHER ACTION	We have identified potential soil and/or groundwater liabilities. To quantify these we recommend you undertake the action outlined below.	Potentially 1 or 2

Flood Risk Analysis Methodology

For this section of the report, we assess the risk of flooding at the Site. A Consultant will analyse the data within the report, and take into account factors such as source of flooding, extent, and which part of the Site is at risk (is it operationally sensitive).

Three key areas are addressed:

- the overall risk of flooding (taking into account defences)
- how flood risk affects the availability of insurance
- how flood risk affects the potential to redevelop

We report the overall risk in a summary statement, with the three outcomes listed below:

Assessment	Risk Statement
PASSED	**Negligible, Low & Low-Moderate Risk:** The Site is not considered to be at significant risk of flooding. No further action is deemed necessary. **Recommendations:** Some simple advice may be provided. **Insurability:** Insurance should be readily available.
PASSED – PRUDENT ACTION	**Moderate Risk:** Data indicates some risk exists to the Site and its occupants. However, this is expected to be associated with an 'extreme' event. **Recommendations:** Practical advice will be provided. This may be to obtain further information or to write a flood preparation plan. **Insurance:** In most cases insurance should be readily available.
FURTHER ACTION	**Moderate to High and High:** This report reveals a significant risk of flooding which should be addressed. **Recommendations:** Further assessment is recommended to clarify the risk of flooding at the Site. This will inform whether flood protection measures should be installed. **Insurance:** Insurance may not be available without a higher premium or excess.

The flood risk gauges provide an analysis of each of the four main types of flooding: river, coastal, groundwater and surface water. A fifth gauge provides analysis of 'other factors'. This includes historical floods, proximity to water features and elevation above both of these features. The purpose of this gauge is to account for risk that is not tied to modelled data.

Environment Agency defences protect large areas of England and Wales from river and coastal flooding. Our analysis of flood risk from these sources takes defences into account. Where defences are present we will report both defended and undefended risk to present the full risk profile. However, our overall assessment and recommendations will be based on the defended risk.

In Scotland, we not do not have access to data from the Scottish Environmental Protection Agency (SEPA). As a result, we are unable to take into account defences. Consequently, in Scotland our assessment is always based on the undefended risk.

An Argyll Consultant will write Site-specific commentary to summarise the risk. The purpose of this is to explain the drivers of the risk, and where possible, the extent and impact. This will be a non-technical account, explaining our assessment in simple terms. Our Consultants generate the risk assessment using several sources. This means the gauges in the front of the report will supersede any risk reported in the data section. We also consider the implications of flood risk under the National Planning Policy Framework (NPPF). We always provide a view on whether a Flood Risk Assessment would be required if development is proposed. Where the client lets us know that the Site is to be redeveloped, we provide recommendations on the most appropriate next step.

Useful Contacts

Please see below the contact details of the suppliers referred to within this report. For all queries please contact:

Argyll Environmental Ltd
1st Floor
98-99 Queens Road
Brighton
BN1 3XF

If you require assistance please contact our customer services team on:

0330 036 6115

Or by email at:
orders@argyllenviro.com

Contact	Name	Address	Contact Details
	Public Health England	Centre for Radiation Chemical and Environmental Hazards Chilton Didcot Oxon OX11 0RQ	**T:** 01235 822622 **F:** 01235 833891 **E:** radon@phe.gov.uk **W:** www.ukradon.org
1	**Landmark Information Group Limited**	Imperium Imperial Way Reading Berkshire RG2 0TD	**T:** 0844 844 9966 **E:** helpdesk@landmark.co.uk **W:** www.landmark.co.uk
2	**Ordnance Survey**	Adanac Drive Southampton Hampshire SO16 0AS	**T:** 03456 05 05 05 **E:** customerservices@ordnancesurvey.co.uk **W:** www.ordnancesurvey.gov.uk
3	**Welwyn Hatfield District Council, Environmental Health Department**	Council Offices Campus East Welwyn Garden City Hertfordshire AL8 6AE	**T:** 01707 357000 **W:** www.welhat.gov.uk
4	**Environment Agency, National Customer Contact Centre (NCCC)**	PO Box 544 Templeborough Rotherham S60 1BY	**T:** 03708 506 506 **E:** enquiries@environment-agency.gov.uk

Useful Contacts

Contact	Name	Address	Contact Details
5	**Environment Agency, Head Office**	Rio House Waterside Drive Aztec West, Almondsbury Bristol Avon BS32 4UD	**T:** 01454 624400
6	**British Geological Survey, Enquiry Service**	British Geological Survey Environmental Science Centre Keyworth Nottingham Nottinghamshire NG12 5GG	**T:** 0115 936 3143 **E:** enquiries@bgs.ac.uk **W:** www.bgs.ac.uk

Please note that if you choose to contact any of the above organisations, they may have a charging policy in place for enquiries.

Copyright Statement

The data supplied for this Site Solutions Combined report falls under the following copyrights: © GeoSmart Information Ltd; Ordnance Survey © Crown copyright and/or Database Right. All rights reserved. Licence 100022432 ; © Environment Agency and database right 2021 ; Contains public sector information licensed under the Open Government Licence v3.0; ©Landmark Information Group and/or its Data Suppliers 2021; © Thomson Directories Ltd 2021; © Experian Ltd 2021; © Crown Copyright and Landmark Information Group Limited 2021. All rights reserved; Some of the responses contained in this section are based on data and information provided by the Natural Environment Research Council (NERC) or its component bodies the British Geological Survey (BGS). Your use of any information contained in this report which is derived from or based upon such data and information is at your own risk. Neither NERC, BGS nor Public Health England where applicable, gives any warranty, condition or representation as to the quality, accuracy or completeness of such information and all liability (including liability for negligence) arising from its use is excluded to the fullest extent permitted by law; Contains, or is based on, information supplied by the Forestry Commission. © Crown copyright and database right 2021 Ordnance Survey [100021242] ; © Environment Agency & United Kingdom Research and Innovation 2021; © The Coal Authority 2021. All rights reserved; © Stantec UK Limited 2021; The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data; The brine subsidence data relating to the Droitwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data; © Crown copyright 2021 Ordnance Survey Licence number 100020315; © Crawford and Company Limited.

This report contains Data provided by the Coal Authority. Any and all analysis and interpretation of Coal Authority Data in this report is made by Argyll Environmental Ltd, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Argyll Environmental Ltd prior to any re-use.

Argyll works in association with:

British Geological Survey

Crawford

Cyfoeth Naturiol Cymru Natural Resources Wales

Cyngor Cefn Gwlad Cymru Countryside Council for Wales

Environment Agency

JBA risk management

Johnson Poole & Bloomer Consultants
GEO-ENVIRONMENTAL & MINERALS

Map data

NATURAL ENGLAND

Scottish Natural Heritage
All of nature for all of Scotland

wardell armstrong
your earth our world

Important Consumer Protection Information

This search has been produced by Argyll Environmental Ltd, 1st Floor, 98 - 99 Queens Road, Brighton, BN1 3XF.

Tel: 03300 366 115

Email: orders@argyllenviro.com

Argyll adheres to the Conveyancing Information Executive (CIE) standards.

The Standards:

- Conveyancing Information Executive Members shall act in a professional and honest manner at all times in line with the Conveyancing Information Executive Standards and carry out the delivery of the Search with integrity and due care and skill.
- Compliance with the Conveyancing Information Executive Standards will be a condition within the Conveyancing Information Executive Member's Terms and Conditions.
- Conveyancing Information Executive Members will promote the benefits of and deliver the Search to the agreed standards and in the best interests of the customer and associated parties.
- The standards can be seen here: http://www.conveyinfoexec.com

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £25,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPO.

TPOs Contact Details:

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP

Tel: 01722 333306
Fax: 01722 332296
Website: www.tpos.co.uk
Email: admin@tpos.co.uk

Argyll Environmental Complaints Procedure

If you want to make a complaint to Argyll Environmental, we will:

- Acknowledge it within 5 working days of receipt
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time
- Provide a final response, in writing, at the latest within 40 working days of receipt
- Liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:

Legal Director
Argyll Environmental Ltd
1st Floor
98 - 99 Queens Road
Brighton
BN1 3XF

Tel: 03300 366 115
Email: orders@argyllenviro.com

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs):
Tel: 01722 333306,
Email: admin@tpos.co.uk

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.