Site Condition Report – Devon Anaerobic Digestion (AD) Plant, Hide Market Road, Willand, Cullompton, EX15 2FP

On Behalf of:

Acorn Bioenergy Operations Limited

ETL981/2026

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Abbreviations

ABL	Acorn Bioenergy Operations Limited
AD	Anaerobic Digestion/er
BGS	British Geological Survey
BUU	Biogas upgrade unit
CHP	Combined heat and power
CO_2	Carbon dioxide
COMAH	The Control of Major Accident Hazards (COMAH) Regulations 2015
DSEAR	The Dangerous Substances and Explosive Atmospheres Regulations 2002
EVCS	Electric Vehicle Charging Station
EA	Environment Agency
EPR	Environmental Permitting Regulations
HAZOP	Hazard and Operability Study
m AOD	metres above Ordnance Datum
NVZ	Nitrate Vulnerable Zone
PHI	Priority Habitat Inventory
PVRV	Pressure and vacuum relief valve
SCR	Site Condition Report
TPA	Tonnes per annum
UV	Ultra violet

1 Introduction

This document prepared by Earthcare Technical Ltd on behalf of Acorn Bioenergy Operations Ltd, comprises a Site Condition Report (SCR) based upon the Environment Agency H5 Site Condition Report template and guidance[1] and includes an assessment as to whether a Baseline Report is required, prior to site activities taking place, in line with European Commission Guidance[2] given site activity involves the use, production or release of relevant hazardous substances, having regard to the possibility of soil and groundwater contamination.

The SCR is produced in support of an application for a new bespoke Installation Environmental Permit for an anaerobic digestion (AD) plant including the use of resultant biogas for Devon AD Plant, Hide Market Road, Willand, Cullompton, EX15 2FP (the site), centred on National Grid Reference (NGR): ST 02980 11201, herein termed 'the Site'.

The permit application (Permit ref: EPR/GP3825ML/P001), which this SCR supports, is for a bespoke permit based upon Standard Rules Permit SR2021 No 6: Anaerobic digestion facility, including use of the resultant biogas – installations[3]. For a Part A installation with an anaerobic digestion capacity of over 100 tonnes of waste, or a combination of waste and non-waste each day and accepting no more than 100,000 tonnes per year.

A permit was previously issued for the site to Willand O & M Limited 18/09/2017 Reference: EPR/WP3533AJ/A001. A Regulation 61 Notice was sent to Operator 19/07/2019 and an application was made to increase the annual throughput of waste from 55,000 to 75,000 tonnes (total throughput of 100,000 tonnes), addition of new site infrastructure and addition of storage and loading Area for solid wastes. The Environment Agency initiated a Statutory review of the permit occasioned by Waste Treatment BAT Conclusions published on 17 August 2018. A varied and consolidated permit was issued for V002 and V003 were issued as one notice 24/03/2021. The permit was disclaimed 04/07/2024 by the liquidator of Willand O & M Limited.

The AD Plant will treat around 100,780 tonnes per annum (TPA) of liquid and solid feedstocks comprising livestock waste (poultry litter, pig and cattle slurry), energy crops and crop residues; as well as dirty water to supplement process water use. The 3.3 ha of site area was previously developed brownfield and farmland. As outlined, an AD plant has been operated on site since 2018. The site lies within a mixed-use area on the edge of Willand, characterised by a combination of established industrial operations and surrounding agricultural land. Immediately to the south is the 2 Sisters Food Group (2SFG) poultry processing facility, with the2SFG effluent treatment works located directly to the north. To the east, the site is bounded by the main Bristol-Exeter railway line, with residential areas of Willand beyond, and the

[1] H5, Site condition report – guidance and templates, LIT8001 Version 3.0 April 2013. https://www.gov.uk/government/publications/environmental-permitting-h5-site-condition-report

[2] European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions (2014/C 136/03) https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0506(01)

[3] Standard Rules Permit SR2021 No 6: Anaerobic digestion facility, including use of the resultant biogas – installations https://www.gov.uk/government/publications/sr2021-no-6-anaerobic-digestion-facility-including-use-of-the-resultant-biogas-installations

M5 motorway located further east. Land to the west and parts of the north and south beyond the adjacent operational uses remains in agricultural use.

The site will produce 20.382.803Nm^3/y of biogas which will be used on site to generate heat and power and upgraded to biomethane for injection to the National Gas Grid via virtual pipeline and carbon dioxide captured for use or sequestration. In addition, around 39,631 TPA of solid fibre digestate and 54,488 TPA of liquid digestate will be produced to be used as a biofertiliser on local farms.

The Environmental Permitting Regulations Site Condition Report guidance for applicants H5,[4] defines a SCR as a document that describes and records the condition of the land and groundwater at a site at a point in time. When an operator applies to the Environment Agency (EA) to vary, surrender the environmental permit or decommission the Site the SCR can be used to demonstrate that the land and water within the vicinity have been protected during the lifetime of the regulated facility and that the land is in a satisfactory state.

This report describes the site condition at the time of the permit application. It is designed to be updated and retained throughout the operational phase of the regulated facility, for use as a reference at the end of the operational phase, when the operator makes an application to surrender the Environmental Permit.

The SCR comprises information gathered during a site walkover conducted 21 January 2026, prior to commencement of any remediation works on site, by Earthcare Technical Limited and a desk top study utilising:

- Publicly available information (accessed February 2026).
  - Magic Map Application[5]
  - British Geological Viewer[6]
  - Soilscape Viewer[7]
  - Public Registers Online[8]
- Enviro Geo Insight Report, Groundsure (obtained 5 February 2026).
- A1177 Geo-Environmental Report authored by AGS Ground Solutions Ltd (2014)
- A1625 Supplementary Geotechnical report authored by AGS Ground Solutions (2017)
- Willand Biogas Technical Due Diligence Report authored by SLR Consultancy (2024)

[5]Magic https://magic.defra.gov.uk/MagicMap.html, accessed February 2026
[6] British Geological Viewer, https://geologyviewer.bgs.ac.uk/ accessed February 2026
[7] Soilscapes Viewer https://www.landis.org.uk/soilscapes, accessed February 2026
[8] Public Registers Online https://environment.data.gov.uk/public-register/view/index accessed February 2026

2 Site Details

<table>
<tr><td>Name of applicant</td><td>Acorn Bioenergy Operations Limited</td></tr>
<tr><td>Activity address</td><td>Devon AD Plant, Hide Market Road, Willand, Cullompton, EX15 2FP</td></tr>
<tr><td>National grid reference</td><td>ST 02980 11201</td></tr>
<tr><td>Document reference at permit application</td><td>ETL981_DGPL_SCR_V1.0
July 2026</td></tr>
<tr><td>Document reference for site plans</td><td>Figure 1 : Site Location Plan (ETL981__DGPL_SiteLocation/EPR01)
Figure 2: Site Emissions Plan (Plan (DGP-ABE-LAY-111 E Site Emissions Plan)
Figure 3: Site Layout & Permit Plan (DGP-ABE-LAY-112 E Site Layout & Permit Plan)
Figure 4: Proposed Drainage Layout
Figure 5: Drainage Catchment Plan
Figure 6: Human Receptor Plan, Earthcare Technical (ETL981_DGPL_HumanReceptors)
(See Figures)</td></tr>
<tr><td>Site footprint</td><td>Site proposed permitted area is 3.3 hectares (8.15 acres) encompassing the existing AD plant area, an additional silage camp area to the east and Process Water lagoon.</td></tr>
<tr><td>Infrastructure</td><td>
<table>
<tr><th>Item.</th><th>Working capacity</th></tr>
<tr><td>1 No. Silage clamp</td><td>21,500 m³</td></tr>
<tr><td>1 No. Process water lagoon</td><td>1,150 m³</td></tr>
<tr><td>1 No. Manure Reception Building (MRB) with separation hall</td><td>Chicken manure reception building: 6,500 m³
Separation hall: 2,555 m³
Volume stored at any given time:
Manure reception building: 500 m3
Separation hall: 500 m³
(Length: 40m, width: 17.3m, height: 12.3m to eaves)</td></tr>
<tr><td>I-Grind Straw processing mobile plant</td><td>Approx. Capacity 4000 kg</td></tr>
<tr><td>3 No. Primary Digesters</td><td>Primary digester 1 = 4,618 m³
Primary digester 2 = 4,618 m³
Primary digester 3 = 4,455 m³
Gas storage volumes:
Digester 1: 1,738 m³
Digester 2: 1,738 m³
Digester 3: 1,642 m³</td></tr>
</table>
</td></tr>
</table>

	2 No. Post Digesters each comprising an inner and outer ring (PowerRing technology)	Digester 4: Post Digester 1 (outer ring) - 2,172 m^3 Post Digester 2 (inner ring) - 1,508 m^3 Digester 5: Post Digester 3 (outer ring) – 2,172 m^3 Separated liquid storage tank (inner ring) 1,508 m^3
	Odour Abatement System	
	Oxygen injection	
	2 No. Digestate separators	2 x 75 m^3/hr
	1 No. Liquid feedstock tank 1	400m^3
	1 No. Liquid Feedstock tank 2	400 m^3
	1 No. Process water tank	100 m^3
	1 No. Existing Tank (redundant, with any accumulating rainwater used for contingency fire water storage)	600 m^3
	Pasteurisation tanks	TBC on installation
	3 No. Feed hoppers serving 3 No. feed systems (FS)	FS1 - 170 m^3 (external) FS2 - 115 m^3 (external) FS3 - 85 m^3 (inside MRB)
	1 No. Tietjen BMS 1500 biomass shredder mill / Wangen Biomix system associated with FS1	
	2 No. Vogelsang premix macerators associated with FS2 and FS3	
	1 No. Liquid feedstock loading area	
	1 No. Digestate offtake bay	
	Underground rainwater cellular storage crates	Area: 594 m^2, depth: 1.6 m, volume: 902 m^3 at 95% voids
	2 No. CHPs	CHP 1 – Quanto 1200, electrical output 1,200kWe natural gas (NG) (TEDOM) CHP 2 - Flexi 530, electrical output 499 kWe Dual Fuel biogas (BG)/ NG (TEDOM)
	1 No. emergency boiler	VITOPLEX 200 – 599 kWe Dual Fuel
	1 No. Emergency generator	770 kVA
	1 No. Emergency flare	2,500 Nm^3/hr (BG) and 1,300 Nm^3/hr (biomethane)
	Biogas upgrader (Bright BUU)	2,200 m^3/hr
	Bright CO_2 Liquefaction	14.774 t/a, designed capacity 2000 kg/hr
	2 No. CO_2 storage tanks	100 m^3 each
	1 No. Propane storage tank	24 (tonne)
	1x propane vaporiser	
	1x Grid Entry Unit	1,150 Nm^3/hr Propanated biomethane
	Dispensers	
	Pump room	
	Secondary containment bund	
	Parking area	
	Access road	
	SCADA Alarm monitoring system	
	Weighbridge	
	Site office / Site welfare	

	Site workshop	

3 Condition of the Land at Permit Issue

Environmental setting including: • **Topography** • **Geology** • **Hydrogeology** • **Surface waters** • **Groundwater** • **Flood risk**	**Topography** The Site lies surrounded by hills to the north, east and west. It is at an elevation Above Ordnance Datum (AOD) of approximately 70m. Within the 10km x 10km terrain domain, the terrain varied by just 172m from 45m south of the Site to 217m approximately 5km north of the Site. **Geology** Site soils are classified as slightly acid loamy and clayey soils with slightly impeded drainage over superficial geology of Head gravel of quaternary age with low to potentially very high permeability. Underlying bedrock geology is Aylesbeare Mudstone of early Triassic age. Bedrock permeability is low. The site has an Agricultural Land Classification of Grade 3/4[9]. Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. A proportion of the site sits at Grade 4 which is poor quality land with severe limitations which restrict the range of crops and or level of yields. **Hydrogeology** The site is underlain by a Secondary bedrock aquifer classified as having high vulnerability. The combined classification indicates the presence of both a productive superficial aquifer and a productive bedrock aquifer. This, together with the moderate to very high permeability of the superficial deposits, contributes to an overall high groundwater vulnerability. The site was historically located within Groundwater Source Protection Zones (SPZ1 and SPZ2) associated with the former Lloyd Maunder boreholes. However, the Environment Agency has confirmed during pre-application discussions that the abstraction licence associated with the four Lloyd Maunder boreholes is no longer active and that the associated SPZ designations will therefore be removed. The closest Abstraction is a historical surface water abstraction 234m north of the site (license no: 14/45/002/0514). There is an additional active surface water abstraction point at Slough Farm (license no: 14/14/45/002/2348). **Surface Water** The site is within the Clyst and Culm Catchment and there is a watercourse 4.5m northwest of the site boundary (Spratford stream)

[9] DEFRA (2026) *MAGiC Map Application*. Available at: MAGiC Map Application (Accessed: June 2026).

	which feeds into the Lower Culm Water Body which was classified as having a 'moderate' overall rating in terms of water quality under the Water Framework Directive. The site is not within a Drinking Water Safeguard Zone for Surface Water. **Groundwater** There is a high risk to groundwater given the moderate to high permeability of superficial deposits above the underlying bedrock aquifer. The site overlies the Central Devon and Exe - Aylesbeare Mudstone Groundwater body but is no longer within a Groundwater Source Protection Zone and is not within a Drinking Water Safeguard Zone (Groundwater) (England). The site is within the Mid Devon Nitrate Vulnerable Zone (NVZ), designated for groundwater. **Flood Risk** The site is situated within a Flood Risk Zone 1, which means it has low probability of flooding from rivers and the sea[10]. There is a high risk of flooding within 50m of the site (Flood Zone 2 and 3). There is 1 in 1000-year risk of flooding via surface water on site (0.3-1.0m). There is a low to negligible risk of flooding onsite from groundwater.
Pollution history including: • Pollution incidents that may have affected land. • Historical land uses and associated contaminants • Any visual/ olfactory evidence of existing contamination • Evidence of damage to pollution prevention measures	**Pollution incidents that may have affected land.** There are no reported pollution incidents that may have affected the land included in the Groundsure Geo Insight Report (obtained 05 02 2026). However, the site has a long history of industrial use with the latest being an AD operation. Previous land uses have included Railway Sidings (1906) and an Abattoir. A previous Geo-Environmental report authored by AGS Ground Solutions Ltd in 2014 included as Appendix B report eleven pollution incidents within 250m of the site, including one on site. “Pollutants include diesel, inorganic chemicals (heavy metal compounds, acids, asbestos, pharmaceutical compounds, infectious substances etc), biodegradable pollutants and other trade effluent. Given the uncertainty over some of the pollutants, and the number of pollution incidents, the site should be considered to be at moderate risk from past pollution incidents.” **Permitted activities that may have affected land.** Historically there has been an abattoir operating on site, there is no record of an environmental permit for these activities likely due to them operating before the permitting process was formalised however, the operation would have resulted in a significant generation of waste.

[10] Environment Agency (2026) *Flood Map for Planning*. Available at: Flood Map for Planning (Accessed: February 2026).

	Wastes would likely be stored via tanks; there is one record noted in the earlier 2014 Geo Environmental Report (Appendix B) that states there was a Category 3 (minor pollution incident) of general biodegradable wastes (blood and offal) in 1999. An environmental permit was previously issued for the site to Willand O & M Limited on the 18/09/2017 Reference: EPR/WP3533AJ/A001. The permit was disclaimed 04/07/2024 by the liquidator of Willand O & M Limited. There are no records of pollution incidents from this operation. **Historical land uses** From 1888 the site is shown as a mixture of fields to the south, with a farm in the southeast corner 'East Burnrew'. To the west of the site is a feature marked as 'Old Clay Pit' with a river beyond. The northern boundary comprises a single-track railway running on an embankment from west to east. To the north of the site fields are shown with a river approximately 75 m beyond. To the south of the site, fields are shown with an orchard to the southeast of the site. To the east of the site are fields, with a railway approximately 30 m beyond. From 1904, a second railway track (siding) is shown to the south of the railway, sunning along the northern boundary of the site. A mill leat is shown running adjacent to the western boundary of the site. 1969-1970 – The eastern part of the site is shown as an abattoir. Four tanks are shown on the site. The railway crossing the northern part of the site is no longer shown, although the embankment is still in-situ. The railway passing to the east of the site is however, still shown. The abattoir is shown to extend to the southeast of the site. Ponds are shown beyond the disused railway to the northwest of the site. Immediately to the northwest of the proposed access road, a fellmongery is shown. Approximately 95 m to the northeast of the proposed access road, an oil storage depot is shown. 1972-1972 – Approximately 180m north of the site an electricity transfer station is shown. 1978 – the M5 motorway is shown around 180m to the east of the site. 1983-1989 – the old clay pit is no longer shown, and a sewage works and tanks are shown to the north of the site. 1996 – the sewage works to the north of the site is now expanded, an additional sewage works is shown around 80m to the north of the site. Inclusive of and within 500m of the 3.3 ha site boundary selected for the Groundsure Geo Insight Report there are several historical industrial operations in the area, the principal ones identified are: • Old Clay Pit (onsite) dating from 1906 • Railway Sidings (onsite) dating from 1887 • Abattoir (onsite) dating from 1979 • Sewage Works (1m north) from 1992 • Unspecified tank (19m north) from 1979 • Railways buildings (16m northeast) from 1958

	• No historical landfill identified. • 2 No. Electricity substations (on site) dating from 1983-1990 and 1996 respectively • No historical or recent landfill records • 3 No. Historical waste sites identified – Scrap Yard (51m east) from 1996, metal recycling site (180m northeast) and Willand Refrigerator Storage Facility (410m northeast) • No historical petrol stations or garages on site • There are no waste exemptions registered to the site itself but several within 500m of the site • No visual or cultural designations on site. **Current land uses** Inclusive of and within 500m of the 3.3 ha site boundary selected for the Groundsure Geo Insight Report the principal ones identified are: • Willand O&M Limited Willand AD (EPR/WP3533AJ) (onsite) this permit was disclaimed in 2024 but the majority of the infrastructure for the AD site remains. • Electricity Substation (38m north) • 4 No. Pylons (48m northwest, 124m northwest, 135m west and 238m southwest respectively) • 2 Sisters Food Group abattoir (51m south) (EPR/QP3633GP) issue date 05/09/2008 • Sewage Works (75m north) • T Junction Autospares Vehicle parts and accessories located (141m east) • A telecommunications mast (193m northeast) • H F Heard Ltd distribution and haulage business (225m northeast) **Potential contaminants associated with previous site use** The Geo- Environmental report authored by AGS Ground Solutions Ltd (2014) found the following on site within section 11 of the Contamination Risk Assessment: - One pollution incident to water 'Other trade effluent' recorded as a Category 2 (Significant Incident) in 1992 - Soil gas from the backfilled clay pit - Pollution from the abattoir "There was no evidence for ground contamination from any of these sources encountered during the site investigation at the site (2014)." The report concludes at the time of writing (2014) the site to be of 'moderate risk' from past pollution incidents. **Any visual / olfactory evidence of existing contamination** At the time of the site walkover carried out by Earthcare Technical Limited (21 January 2026), there was no visual evidence of land contamination within the proposed permitted area.

	Evidence of damage to pollution prevention measures At the time of the site walkover carried out by Earthcare Technical Limited (21 January 2026), the site infrastructure from the previous AD operation remained. There was no significant evidence of contamination seen on site at the time however, when the site was taken over, remediation was identified and this is being undertaken including emptying tanks and an overarching review of site drainage for example. Remediation works required are outlined in the Technical Due Diligence Report authored by SLR Consulting Ltd (October 2024).
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports	There is evidence indicating potential historical contamination of the site. A conceptual model and preliminary qualitative risk assessment is included within the Geo-Environmental Report authored by AGS Ground Solutions Ltd (2014) and included as Appendix B which states: "Three low-moderate or moderate potential sources of contamination were identified beneath the site in the conceptual site model. No evidence for ground contamination from any of these sources was encountered. Asbestos was encountered in one sample on site. Elevated concentrations of Petroleum Hydrocarbons (PH) and pH were found and risks to groundwater and plants were considered low."
Baseline soil and groundwater reference data	Please refer to section 20 of the Enviro Geo Insight Report (Appendix A), which contains information on BGS Estimated Background Soil Chemistry. The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. Samples were also taken as part of the Geo-Environmental Report carried out in 2014, please refer to Appendix B.
Supporting information	Appendix A - Enviro Geo Insight Report, Groundsure (obtained February 2026). Appendix C – Site Photographs (21st January 2026) Appendix D - Google Earth Images Appendix E – Geo-Environmental Report authored by AGS Ground Solutions Ltd (2014) Appendix F – A1625 Supplementary Geotechnical report authored by AGS Ground Solutions (2017) Appendix G – Willand Biogas Technical Due Diligence Report authored by SLR Consultancy (2024)

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4 Permitted Activities

Proposed Permitted activities	Schedule 1 5.4 A(1)(b)(i) - Biological Treatment (Anaerobic digestion / more than 100 tonnes per day treatment capacity) of the Environmental Permitting Regulations 2016 (as amended). Directly Associated Activities (DAAs): • Storage of waste pending recovery or disposal • Physical and chemical treatment of waste • Gas combustion to produce heat and power • Treating biogas and biomethane • Recovering, treating and storing cardon dioxide • Using an emergency flare • Storage of raw material and waste generated on site • Surface water collection, storage and discharge • Dirty water collection and storage • Air treatment and release
Non – permitted activities	Site office and welfare facilities.
Document references: • Plan showing activity layout; and • Environmental risk assessment	• Figure 3: Site Layout & Permit Plan (DGPL-LAY-ABE-011 Site Layout and Permit Plan) • Environmental Risk Assessment (ETL981_DGPL-ERA_V1.0)

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5 Baseline Report Assessment

This section comprises an assessment of whether a Baseline Report is required before permitted activities commence on site. The guidance[2] states that a Baseline Report should include:

- *'Information on the present use and, where available, on past uses of the site; and*
- *where available, existing information on soil and groundwater measurements that reflect the state at the time the report is drawn up or, alternatively, new soil and groundwater measurements having regard to the possibility of soil and groundwater contamination by those hazardous substances to be used, produced or released by the installation concerned.'*

The stages of the Baseline Report assessment are replicated below followed by the assessment of the proposed site and activities in line with the guidance.

Stage 1

Activity - Identify which hazardous substances are used, produced or released at the installation and produce a list of these hazardous substances.

Objective - Determine whether or not hazardous substances are used, produced or released in view of deciding on the need to prepare and submit a baseline report.

A Hazardous Substances Consent for the Site has been requested but has not yet been issued. The quantities provided in Table 1 below reflect those provided within the request.

Table 1 below show the hazardous substances/raw materials that may be stored on site, their use and storage arrangements including the maximum amount that may be stored at any one time.

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Table 1 – Hazardous Substances

Raw Material	Form	Use	Storage arrangements	Maximum amount stored at any one time	Tonnage or volume used per annum (estimated)
Sulphuric acid (50% H2SO4)	Liquid	Emissions abatement plant (Ammonia scrubber)	Tank with Bund	8000 litres	46.6 m3
Ferric oxides/hydroxides	Powder	Control of hydrogen sulphide in digesters	Reception building / chemical store	2 tonnes	10 tonnes
Ferric Chloride ($FeCl_3$ 40%)	Liquid	H2S control in the Digesters	Chemical Store (Drum in store)	TBC	Nominal
Diesel	Liquid	Emergency generator	Bunded integral tank with locked valves	950 litres	2,000 litres
Diesel	Liquid	On-site vehicles	Bunded on-site store	5,000 litres	20,000 litres
Ad-Blue	Liquid	On-site vehicles	Bunded on-site store	1,000 litres	Vehicle dependent
Glycol (Ethylene glycol + inhibitor)	Liquid	Heating	Reception building. Drums in store.	TBC	Nominal
Glycol (Ethylene glycol + inhibitor)	Liquid	Upgrading	Reception building. Drums in store.	TBC	Nominal
Anti-foam	Liquid	Preventative anti-foam treatment	Within chemical store	20 Liter drums	Nominal
Nutrient (EDTA, KOH)	Liquid	Preventing scales and deposits in digesters	Within chemical store	20 Liter drums	Nominal

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Activated carbon	Solid	CO2 Liquefaction	Storage Vessel (Planned to be exchanged and taken off site simultaneously)	1.3 m3	2.6 tonnes
Activated carbon	Solid	Biogas Upgrade Unit	Storage Vessel (A Planned to be exchanged and taken off site simultaneously)	15 m3	90 m3
Carbon (High grade 60 CTC 4 mm carbon pellets)	Solid	Odour Abatement System	Vessels in containers (Planned to be exchanged and taken off site simultaneously)	25.2 m3	25.2 m3
Desiccant for CO_2 dryer	Solid	CO2 Liquefaction	Vessel	TBC	TBC
Calibration Gases (50 ppm oxygen/ carbon dioxide)	Gas	CO2 Liquefaction	Gas Cylinder	50 L	TBC
Calibration Gases (2.6 ppm, benzene)	Gas	CO2 Liquefaction	Gas Cylinder	50 L	TBC
Calibration Gases (Carbon dioxide)	Gas	CO2 Liquefaction	Gas Cylinder	50 L	TBC
Calibration /standard gases (Nitrogen)	Gas	GEU Gas Quality Module	Gas Cylinder	50 L	TBC
Odorant (Mercaptan mixture)	Liquid	GEU Gas Quality Module	Drum in container	40 kg (net weight bottle)	TBC
Calibration/Standard gases (Helium)	Gas	GEU Gas Quality Module	Gas Cylinder	50 L	TBC
Calibration/Standard gases (Argon)	Gas	GEU Gas Quality Module	Gas Cylinder	50 L	TBC
Calibration/Standard gases (Methane)	Gas	GEU Gas Quality Module	Gas Cylinder	50 L	TBC

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Calibration/Standard gases (Gas standard 89 %mol Methane, alkanes, H2S, CO2, N2)	Gas	GEU Gas Quality Module	Gas Cylinder	50 L	TBC
Calibration/Standard gases (H2S 3.075 µmol/mol)	Gas	GEU Gas Quality Module	Gas Cylinder	50 L	TBC
Calibration/Standard gases (3 ppm H2S in methane)	Gas	GEU Gas Quality Module	Gas Cylinder	50 L	TBC
Natural gas	Gas	CHP + emergency boiler	Not applicable – used from grid	N/A	TBC
Oils and greases (Synthetic and mineral oils, lubricants)	Liquid	Maintenance	Within chemical store, Workshop	2000 litres	20000 litres
Fuel oil (Gas Oil)	Liquid	Maintenance	Bunded tank with locked valves	5000 Liters	TBC
Propane (C3H8)	Gas	Raise the calorific value of biomethane to the required level.	Horizontal pressure vessel.	24 Tonnes (nominally 85% full)	875 T
Refrigerant R407C	Gas	CO2 Liquefaction chiller	Piping	TBC	Nominal

Stage 2

Activity - Identify which of the hazardous substances from Stage 1 are 'relevant hazardous substances'. Discard those hazardous substances that are incapable of contaminating soil or groundwater. Justify and record the decisions taken to exclude certain hazardous substances.

Objective - To restrict further consideration to only the relevant hazardous substances in view of deciding on the need to prepare and submit a baseline report.

'Relevant hazardous substances' (Article 3(18) and Article 22(2), first subparagraph) are those substances or mixtures defined within Article 3 of Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) which, as a result of their hazardousness, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater and are used, produced and/or released by the installation.

An assessment of each substance in Table 1 has been made using the Classification and Labelling (C&L) Inventory Database[11] and the following substances in Table 2 are relevant hazardous substances.

[11] https://echa.europa.eu/information-on-chemicals/cl-inventory-database Accessed 29 June 2026

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Table 2 – Assessment of Relevant Hazardous Substances

Hazardous Substance	**EC: European Community number/ List no.: List number assigned by ECHA.**	**Chemical Abstract Service (CAS) Registry number**	**Classification**	**Relevant hazardous substance (Yes / No)**
Sulphuric acid (50% H2SO4)	231-639-5	7664-93-9	Skin Corrosive – sub-category 1A	Yes
Iron Oxides /hydroxides	243-746-4	20344-49-4	Not classified	No
Ferric Chloride (FeCl3 40%)	231-729-4	7705-08-0	Not classified	No
Diesel	269-822-7	68334-30-5	Carcinogenic – sub- category 2	Yes
Diesel exhaust fluid (AdBlue) – 32.2% urea and 67.5% deionised water	200-315-5	CAS Registry Number for urea 57-13-6	Not classified	No
Ethylene glycol	609-475-4	3775-85-7	Not classified	No
Fresh oil comprising: • distillates (petroleum), hydrotreated heavy paraffinic • distillates (petroleum), solvent dewaxed heavy paraffinic	265-157-1 265-169-7	64742-54-7 64742-65-0	Not classified Not classified	No No
Lubricating oils, used	274-635-9	70514-12-4	Aspiration Toxicity – sub-category 1	Yes
Anti-foam e.g. biodegradable oil	Not applicable	Not applicable	Not applicable	No

Hazardous Substance	EC: European Community number/ List no.: List number assigned by ECHA.	Chemical Abstract Service (CAS) Registry number	Classification	Relevant hazardous substance (Yes / No)
Nutrient (EDTA) **IF** Disodium dihydrogen ethylenediaminetetraacetate	205-358-3	139-33-3	• Harmful if inhaled – subcategory 4 • May cause damage to organs – subcategory 2	Yes
Nutrient Potassium Hydroxide (KOH)	215-181-3	1310-58-3	• Skin Corrosive – sub-category 1A • Acute toxicity (oral) – subcategory 4	Yes
Carbon (high grade 60 CTC 4mm carbon pellets)	931-328-0	7440-44-0	Not classifed	No
Dessicant for CO_2 dryer	215-691-6	1344-28-1	Not classified	No
Calibration gases (50ppm oxygen / carbon dioxide)	204-696-9	124-38-9	• Contains gas under pressure; may explode if heated	Assessment terminated as substance not capable of contaminating soil or groundwater.
Calibration Gases (2.6 ppm, benzene)	200-753-7	71-43-2	• Highly flammable liquid and vapour – subcategory 2 • May cause cancer • May cause genetic defects – subcategory 1b • May be fatal If swallowed and enters airways – subcategory 1	Assessment terminated as substance not capable of contaminating soil or groundwater.

Hazardous Substance	EC: European Community number/ List no.: List number assigned by ECHA.	Chemical Abstract Service (CAS) Registry number	Classification	Relevant hazardous substance (Yes / No)
			• Causes damage to organs – subcategory 1 • Causes skin irritation – sub category 2 Causes serious eye irritation – subcategory 2	
Calibration Gases (Carbon dioxide)	204-696-9	124-38-9	Contains gas under pressure; may explode if heated	Assessment terminated as substance not capable of contaminating soil or groundwater.
Calibration /standard gases (Nitrogen)	231-783-9	7727-37-9	Contains gas under pressure; may explode if heated	Assessment terminated as substance not capable of contaminating soil or groundwater.
Odorant (Mercaptan mixture) 2-methylpropane-2-thiol	200-890-2	75-66-1	• Highly flammable liquid and vapour – subcategory 2 • Causes serious eye irritation – subcategory 2 • May cause an allergic skin reaction – subcategory 1b • Toxic to aquatic life – subcategory 2	Yes
Calibration/Standard gases (Helium)	275-187-7	71086-78-7	Contains gas under pressure; may explode if heated	Assessment terminated as substance not capable of contaminating soil or groundwater.
Calibration/Standard gases (Argon)	231-147-0	7440-37-1	Contains gas under pressure; may explode if heated	Assessment terminated as substance not capable of contaminating soil or groundwater.

Hazardous Substance	EC: European Community number/ List no.: List number assigned by ECHA.	Chemical Abstract Service (CAS) Registry number	Classification	Relevant hazardous substance (Yes / No)
Calibration/Standard gases (Methane)	200-812-7	74-82-8	Extremely flammable gas – subcategory 1	Assessment terminated as substance not capable of contaminating soil or groundwater.
Calibration/Standard gases (Gas standard 89 %mol Methane, alkanes, H2S, CO2, N2)	200-812-7 231-977-3 204-696-9 231-783-9	74-82-8 7783-06-4 124-38-9 7727-37-9	• Extremely flammable gas – subcategory 1 • Flammable gas – subcategory 1a • Fatal if inhaled – subcategory 2 (inhalation) • Very toxic to aquatic life – subcategory 1 • Contains gas under pressure; may explode if heated	Assessment terminated as substance not capable of contaminating soil or groundwater.
Calibration/Standard gases (H2S 3.075 µmol/mol)	231-977-3	7783-06-4	• Flammable gas – subcategory 1a • Fatal if inhaled – subcategory 2 (inhalation) • Very toxic to aquatic life – subcategory 1	Assessment terminated as substance not capable of contaminating soil or groundwater.
Calibration/Standard gases (3 ppm H2S in methane)	231-977-3 200-812-7	7783-06-4 74-82-8	• Flammable gas – subcategory 1a • Fatal if inhaled – subcategory 2 (inhalation) • Very toxic to aquatic life – subcategory 1 • Extremely flammable gas – subcategory 1	Assessment terminated as substance not capable of contaminating soil or groundwater.
Fuel oil (Gas Oil)	939-540-5	Not classified	Not classified	Yes

Hazardous Substance	EC: European Community number/ List no.: List number assigned by ECHA.	Chemical Abstract Service (CAS) Registry number	Classification	Relevant hazardous substance (Yes / No)
Propane (C3H8)	200-827-9	74-98-6	Flammable Gas – subcategory 1	Assessment terminated as substance not capable of contaminating soil or groundwater.
Refrigerant R407C	Not classified	Not classified	2A	Assessment terminated as substance not capable of contaminating soil or groundwater.
Activated carbon / High Density Skeleton	931-328-0	7440-44-0	Not classified	No
Natural gas	270-085-9	68410-63-9	Flammable Gas – sub-category 1	Assessment terminated as substance not capable of contaminating soil or groundwater.
Raw biogas mixture*	938-355-7	Not listed	• Flammable Gas – subcategory 1 • Gases under pressure: Compressed gas.	Assessment terminated as substance not capable of contaminating soil or groundwater.

* The only entry on the CL Inventory for biogas ‘Biogas product of anaerobic degradation of sewage sludge in the dairy industry’ which can be equated in terms of hazardous properties.

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Stage 3

Activity - For each relevant hazardous substance brought forward from Stage 2, identify the actual possibility for soil or groundwater contamination at the site of the installation, including the probability of releases and their consequences, and taking particular account of:

- *the quantities of each hazardous substance or groups of similar hazardous substances concerned;*
- *how and where hazardous substances are stored, used and to be transported around the installation;*
- *where they pose a risk to be released;*

In case of existing installations also the measures that have been adopted to ensure that it is impossible in practice that contamination of soil or groundwater takes place.

Objective - To identify which of the relevant hazardous substances represent a potential pollution risk at the site based on the likelihood of releases of such substances occurring. For these substances, information must be included in the baseline report.

Table 3 below lists the relevant hazardous substances identified through Stage 2 and provides a risk assessment regarding the potential for causing soil or groundwater contamination on the site.

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Table 3- Soil and Groundwater Risk Assessment with Respect to Relevant Hazardous Substances

Relevant Hazardous Substance	Classification	Form	Maximum stored at any one time	Potential risk to soil or groundwater	Use and storage arrangements	Further control measures	Residual risk to soil or groundwater
Sulphuric acid	Skin Corrosive – sub-category 1A	Liquid	8,000 litres	Yes	Stored within the chemical store within a bunded tank and used within the odour abatement plant (vehicle impact protected)	• Stored in bunded chemical store. • Use in accordance with safe working procedures. • Chemical spill kits will be in place. • Staff trained in Spill Control Procedure in accordance with the Emergency Scenarios document: Spill Control / Use of Spill Kit Procedure (WI 008b) including refresher training.	Low
Diesel	Carcinogenic – sub- category 2	Liquid	5,950 litres	Yes	• Emergency generator (Bunded integral tank with locked valves) • On-site vehicles (Bunded on-site store)	• In accordance with the drainage strategy, Water collecting within the secondary containment area is quality assessed daily in accordance with the Work Instruction: Secondary Containment Checking & Emptying (**WI 011d**). • Surface water from hardstanding areas is discharged into a Klargester Full Retention Separator to ensure oils are removed.	Low

Relevant Hazardous Substance	Classification	Form	Maximum stored at any one time	Potential risk to soil or groundwater	Use and storage arrangements	Further control measures	Residual risk to soil or groundwater
						• Penstocks are incorporated within the clean surface water drainage system to enable runoff to be isolated in the event of an accidental spill prior to discharge from site. o Before the full retention interceptor. o Downstream of the full retention interceptor on the sealed cellular crate system • Filling and offtake from diesel stores are carried out in accordance with safe working procedures. • Provision of spill kits. • Staff trained on Emergency Scenarios document: Spill Control / Use of Spill Kit Procedure (WI 008b), including refresher training.	
Lubricating oils, used	Aspiration Toxicity – sub-category 1	Liquid	2,000 litres	Yes	Bunded within chemical store: workshop	• In accordance with the drainage strategy, Water collecting within the secondary containment area is quality assessed	Low

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Relevant Hazardous Substance	Classification	Form	Maximum stored at any one time	Potential risk to soil or groundwater	Use and storage arrangements	Further control measures	Residual risk to soil or groundwater
						daily in accordance with the Work Instruction: Secondary Containment Checking & Emptying (**WI 011d**). • Surface water from hardstanding areas is discharged into a Klargester Full Retention Separator to ensure oils are removed. • Penstocks are incorporated within the clean surface water drainage system to enable runoff to be isolated in the event of an accidental spill prior to discharge from site. o Before the full retention interceptor. o Downstream of the full retention interceptor on the sealed cellular crate system • Provision of spill kits. • Collections are overseen by site operatives who have training in the Emergency Scenarios	

Relevant Hazardous Substance	Classification	Form	Maximum stored at any one time	Potential risk to soil or groundwater	Use and storage arrangements	Further control measures	Residual risk to soil or groundwater
						document: Spill Control / Use of Spill Kit Procedure (WI 008b), including refresher training.	
Nutrient (KOH) Potassium Hydroxide	Skin Corrosive – sub-category 1A Acute toxicity (oral) – sub-category 4	Liquid	20 litre drums	Yes	Bunded within chemical store	• Stored in bunded chemical store. • Use in accordance with safe working procedures. • Chemical spill kits will be in place. • Staff trained in Spill Control Procedure in accordance with the Emergency Scenarios document: Spill Control / Use of Spill Kit Procedure (WI 008b) including refresher training.	Low
Nutrient (EDTA) **IF** Disodium dihydrogen ethylenediaminetetraacetate	• Harmful if inhaled – subcategory 4 • May cause damage to organs – subcategory 2	Liquid	20 litre drum	Yes	Bunded within chemical store	• Stored in bunded chemical store. • Use in accordance with safe working procedures. • Chemical spill kits will be in place. • Staff trained in Spill Control Procedure in accordance with the Emergency Scenarios document: Spill Control / Use of Spill Kit Procedure (WI 004a) including refresher training.	

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Relevant Hazardous Substance	Classification	Form	Maximum stored at any one time	Potential risk to soil or groundwater	Use and storage arrangements	Further control measures	Residual risk to soil or groundwater
Odorant (Mercaptan mixture)	• Highly flammable liquid and vapour – subcategory 2 • Causes serious eye irritation – subcategory 2 • May cause an allergic skin reaction – subcategory 1b Toxic to aquatic life – subcategory 2	Liquid	40 kg (net weight bottle)	Yes	Drum in container	• Stored in bunded chemical store. • Use in accordance with safe working procedures. • Chemical spill kits will be in place. • Staff trained in Spill Control Procedure in accordance with the Emergency Scenarios document: Spill Control / Use of Spill Kit Procedure (WI 008b) including refresher training.	Low

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6 Conclusion of Baseline Report Assessment

The site hydrogeology is of medium vulnerability to pollutants released at ground level across the entire site for the following reasons:

- The site is underlain by a Secondary bedrock aquifer classified as having high vulnerability. The combined classification indicates the presence of both a productive superficial aquifer and a productive bedrock aquifer. This, together with the moderate to very high permeability of the superficial deposits, contributes to an overall high groundwater vulnerability.
- The site was historically located within Groundwater Source Protection Zones (SPZ1 and SPZ2) associated with the former Lloyd Maunder boreholes. However, the Environment Agency has confirmed during pre-application discussions that the abstraction licence associated with the four Lloyd Maunder boreholes is no longer active and that the associated SPZ designations will therefore be removed.
- The closest Abstraction is a historical surface water abstraction 234m north of the site (license no: 14/45/002/0514). There is an additional active surface water abstraction point at Slough Farm (license no: 14/14/45/002/2348).
- However, overlying site soils are classified as slightly acid loamy and clayey soils with slightly impeded drainage over superficial geology of Head gravel of quaternary age with low to potentially very high permeability. Underlying bedrock geology is Aylesbeare Mudstone of early Triassic age. Bedrock permeability is low.

Despite the high groundwater vulnerability, it is apparent that there is no significant possibility for contamination of soil or groundwater due to:

- The relatively low quantities of the hazardous substances used and produced at the installation.
- The robust site engineering and drainage design
- The robust method of storage with secondary containment; and
- The management control measures in place.

Therefore, it is deemed that a baseline report is not required for this installation.

Figures

Figure 1: Site Location Plan

Figure 2: Site Emissions Plan

Figure 3: Site Layout & Permit Plan

Figure 4: Proposed Drainage Layout

Figure 5: Drainage Catchment Plan

Figure 6: Human Receptor Plan, Earthcare Technical (ETL981-982_DGPL_HumanReceptors _EPR02)

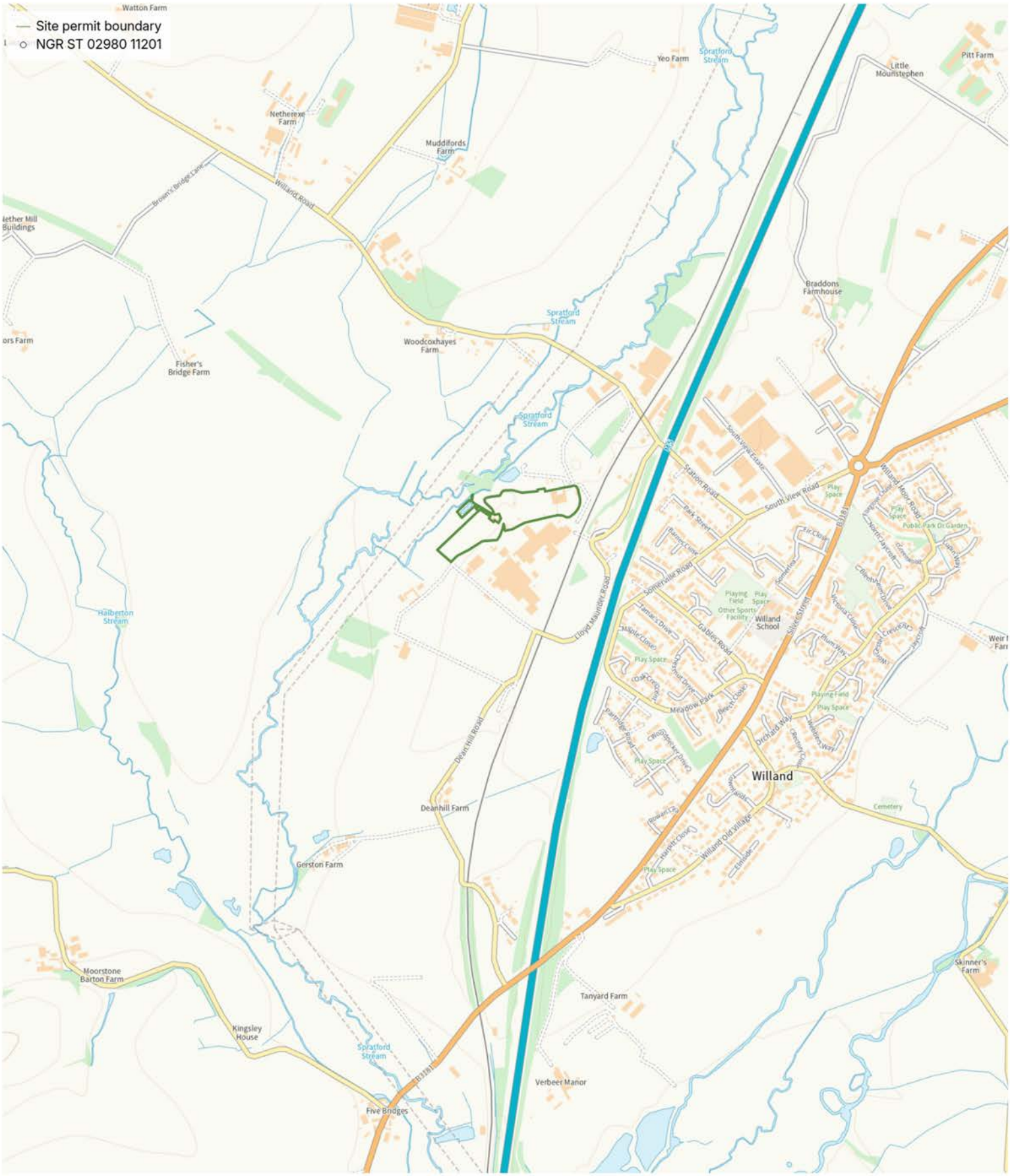
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Figure 1: Site Location Plan

(ETL981-DGP_Site Location_EPR01)

Earthcare TECHNICAL

Site Location Plan
ETL981_DGPL_Site Location Plan_EPR01



Produced on Land App, Jul 8, 2026.

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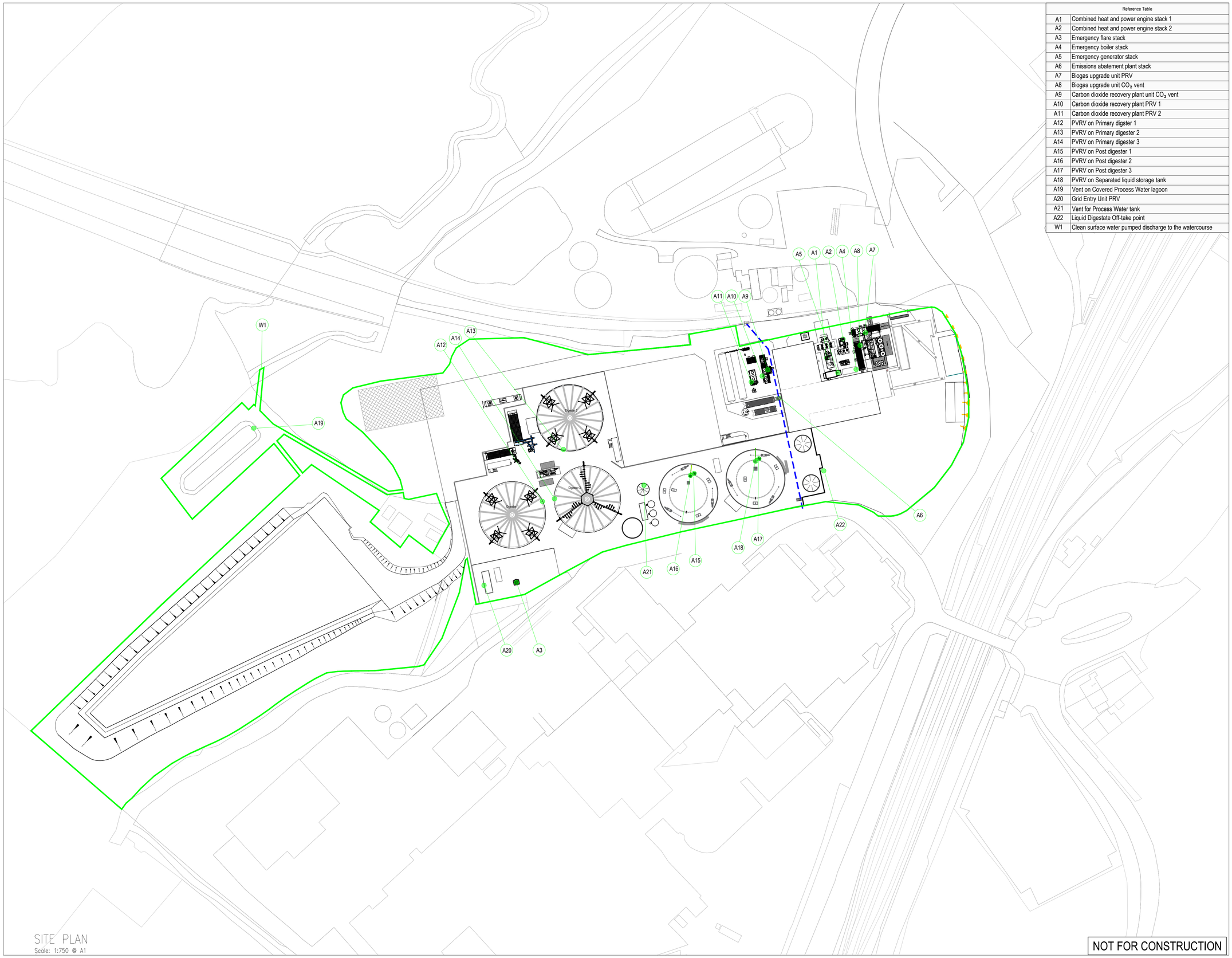
500 m
Scale 1:14000 (at A4)

N

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Figure 2: Site Emissions Plan

AS NOTED ON A1 FRAME



Reference Table	
A1	Combined heat and power engine stack 1
A2	Combined heat and power engine stack 2
A3	Emergency flare stack
A4	Emergency boiler stack
A5	Emergency generator stack
A6	Emissions abatement plant stack
A7	Biogas upgrade unit PRV
A8	Biogas upgrade unit CO_2 vent
A9	Carbon dioxide recovery plant unit CO_2 vent
A10	Carbon dioxide recovery plant PRV 1
A11	Carbon dioxide recovery plant PRV 2
A12	PVRV on Primary digster 1
A13	PVRV on Primary digester 2
A14	PVRV on Primary digester 3
A15	PVRV on Post digester 1
A16	PVRV on Post digester 2
A17	PVRV on Post digester 3
A18	PVRV on Separated liquid storage tank
A19	Vent on Covered Process Water lagoon
A20	Grid Entry Unit PRV
A21	Vent for Process Water tank
A22	Liquid Digestate Off-take point
W1	Clean surface water pumped discharge to the watercourse

SITE PLAN
Scale: 1:750 @ A1

NOT FOR CONSTRUCTION

NOTES:-

Permitted Area Boundary (3.34ha)

Emission Release Location

Two Sisters Food Group effluent discharge pipe

N

Rev	Date	Description	DR	CH
E	09/07/26	Issue for Permit	SJC	–
D	26/06/26	Issue for Permit	SJC	–
C	03/06/26	Revised Layout	SJC	–
B	01/05/26	Revised Layout	HG	SJC
A	11/03/26	Preliminary Issue	SJC	–

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Job Title
AD Plant.
Devon AD Plant

Drawing Title
Devon AD Plant
Site Emissions Plan

Status: Approval

Scale: As Shown | Date: Mar '26

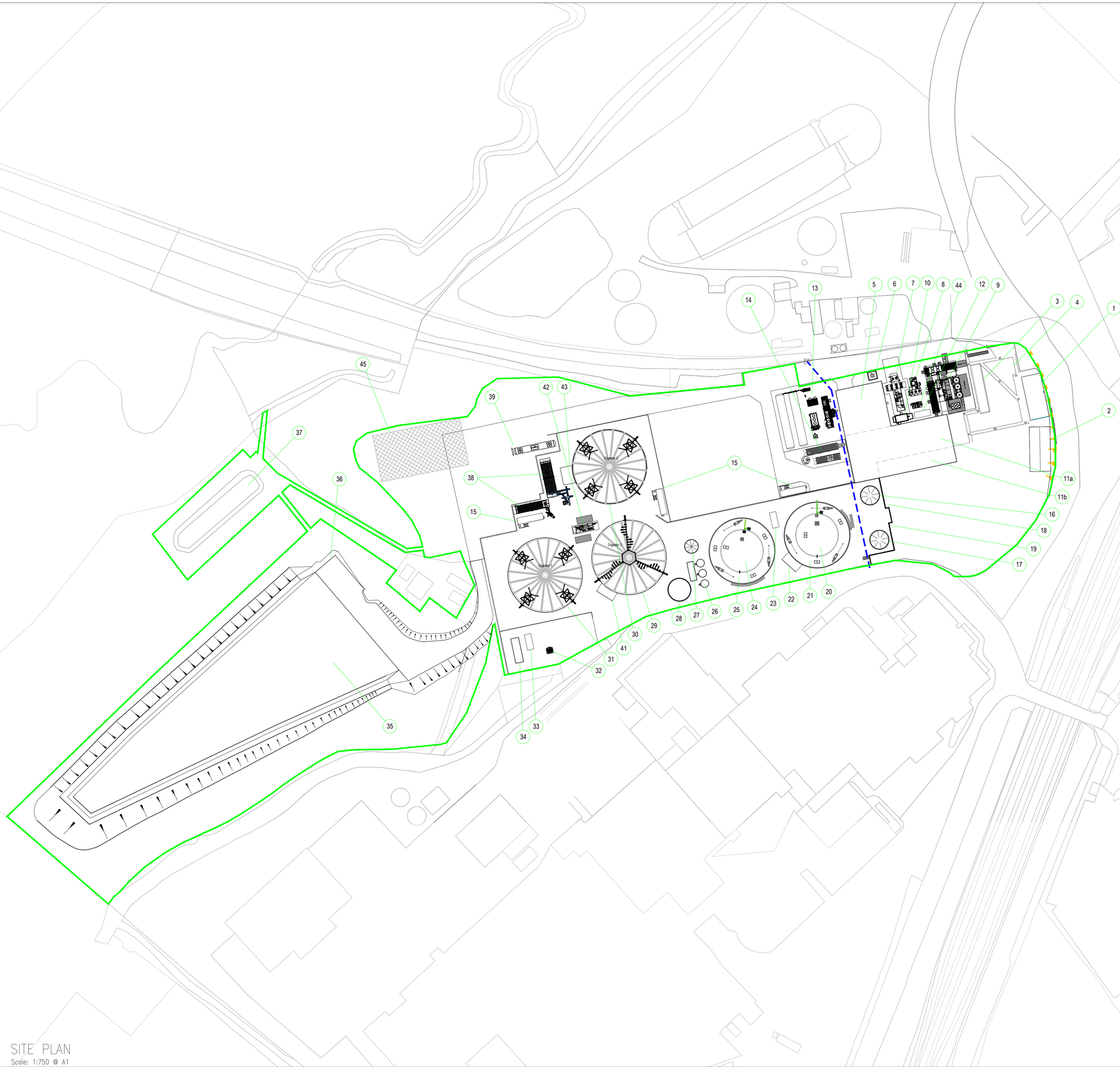
Drawn By: HGS | Checked: SJC | Approved: –

Drg. No.: DGP–ABE–LAY–111 | Rev: E

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Figure 3: Site Layout & Permit Plan

AS NOTED ON A1 FRAME



Reference Table	
1	Site Office / Staff Welfare
2	Site Workshop
3	Weighbridge
4	Site Parking
5	Switchgear and site storage section of building
6	DNO Transformer Kiosk
7	CHP No1
8	CHP No2
9	Biogas Upgrade Unit
10	Emergency Generator
11	(a) Manure Reception Building with (b) Separation Hall
12	Emergency Boiler container
13	CO2 Recovery Unit and CO2 tanks
14	Odour Abatement
15	E-Comm containers
16	Liquid Feedstock Tank 1 - Volume 400m³
17	Liquid Feedstock Tank 2 - Volume 400m³
18	Liquid Feedstock Loading area
19	Digestate offtake area
20	Separated Liquid Storage Tank - Volume 1508m³
21	Post Digester 3 - Volume 2172m³
22	Pump Room
23	Pump Room
24	Post Digester 2 - Volume 1508m³
25	Post Digester 1 - Volume 2172m³
26	3 No. Pasteurisation tanks (25m³ each)
27	Process Water Tank - Volume 100m³
28	Existing tank Not in Use
29	Primary Digester 3 Tank - Volume 4455m³
30	Primary Digester 2 Tank - Volume 4618m³
31	Primary Digester 1 Tank - Volume 4618m³
32	Emergency Flare
33	Control Panel Kiosk
34	Grid Entry Unit Kiosk
35	Covered Storage Clamp - Volume 21,500m³
36	Silage Leachate catchment sump
37	Process Water Lagoon - Volume 1150m³
38	Feed Hoppers - 170m³ Volume and 115m³ Volume
39	Propane Tank - Volume 24tonne
40	Oxygen dosing Unit
41	Pump Room
42	Biogas Booster and Chiller
43	Pump Room
44	Gas Treatment System
45	Underground Cellular Storage Crates

SITE PLAN
Scale: 1:750 @ A1

NOT FOR CONSTRUCTION

NOTES:-

Permitted Area Boundary (3.34ha)

Two Sisters Food Group effluent discharge pipe

N

Rev	Date	Description	DR	CH
E	09/07/26	Issue for Permit	SJC	
D	26/06/26	Issue for Permit	SJC	
C	03/06/26	Revised Layout	SJC	
B	01/05/26	Revised Layout	HG	SJC
A	11/03/26	Preliminary Issue	SJC	–

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Job Title
AD Plant.
Devon AD Plant

Drawing Title
Devon AD Plant
Site Layout & Permit Plan

Status: Approval

Scale: As Shown | Date: Mar '26

Drawn By: HG | Checked: SJC | Approved: –

Drg. No.: DGP-ABE-LAY-112 | Rev: E

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Figure 4: Proposed Drainage Layout

A1

N

Storage Tank
CL: 69.150
TOP OF TANK: 67.970
BOTTOM OF TANK: 66.370
IL(IN) A: 67.570
IL(IN) B: 67.570
IL(OUT): 66.370
AREA: 594m²
DEPTH: 1.6m
VOLUME: 902m³ @ 95% VOIDS

SWMH.07
Pump Chamber
CL: 69.230
IL: 66.300
1500Ø PCC
FLOW: 2.8l/s

SWMH.04
CL: 69.060
IL: 67.750
1500Ø PCC

SWMH.03
CL: 69.050
IL: 67.845
1500Ø PCC

SWMH.04a
CL: 69.100
IL: 67.720
1500Ø PCC

SWMH.05
CL: 69.100
IL: 67.695
1500Ø PCC

SWMH.06
CL: 69.200
IL: 67.585
1500Ø PCC

Existing Manhole Downstream of pond outfall

New manhole built over existing pipe inlet to the lagoon

Proposed Rising Main connected into existing Main Plant Dirty Tank & Re-Circulated To CONMH.01
Pump Rate: 1.5l/s
Designed By Process Manufacturer

New Pump Main to downstream lagoon chamber

PETROL INTERCEPTOR
CL: 69.150
IL(IN): 67.690
IL(OUT): 67.590
KLARGESTER NSFA150
FULL RETENTION SEPARATOR
FITTED WITH HIGH LEVEL SIGNAL & ALARM

CONMH.01
CL: 65.365
IL: 64.235
1200Ø PCC
OPEN MESH LID

GULLY 1
CL: 65.365

Diverted Gas Main Route

EXSWMH
CL: 69.100
IL: 66.120
Proposed Sampling Point & Package Pump Station Installed Within Existing Manhole.
Clean pumped Upstream of The Northwestern Storage Tank During Emergency With Water Tested Prior to Release.
Lift: Circa 4.4m
Length: Circa 32.1m
Discharge: T.B.C By Process Contractor (l/s)
Contaminated pumped to holding tanks.
Lift: Circa 11.38m
Length: Circa 156.6m
Pump design by specialist.
Provision to be made for kiosk.

PRMH.01
CL: 68.950
IL: 67.950
1200Ø PCC
Contaminated pumped to 2no. holding tanks.
Lift: Circa 9.55m
Length: Circa 138.9m
Pump design by specialist.
Provision to be made for kiosk.

600Ø @ 1:600 – PVC-U – 1.005
600Ø @ 1:600 – PVC-U – 1.004
600Ø @ 1:600 – PVC-U – 1.003
600Ø @ 1:600
300Ø @ 1: TO SUIT GROUND
225Ø @ 1:225

RISING MAIN
TARMAC FORMED SILAGE CLAMP CHANNEL

Digester 1

Notes

1. All dimensions must be checked on site and not scaled from this drawing.
2. The Contractor shall make a survey of the site and shall be responsible for obtaining all dimensions and levels necessary for the proper fabrication of the structure as indicated.
3. All levels shown on this drawing are relative to Agreed Datum
4. This drawing is to be read in conjunction with 60273 Series Drawings.
5. All existing invert levels are to be confirmed by contractor prior to construction. Connection subject to approval.

- Denotes Road Boundary
- Denotes Approved Planning Boundary
- Denotes Clamp Boundary
- Clean Surface Water Sewer
- Clean Surface Water Chamber
- Contaminated Surface Water Sewer
- Contaminated Surface Water Chamber
- Existing Surface Water Sewer
- Existing Surface Water Chamber
- Match Line 1
- Proposed Rainwater Pipe

All pipes to be encased in concrete.

Existing surface water system shown indicatively.

REV	DATE	BY	DESCRIPTION	APPD
P02	24.06.2026	TN	STAGE 3 - ISSUED FOR APPROVAL	JHC
P01	05.06.2026	JH	STAGE 3 - ISSUED FOR APPROVAL	JHC

Suitability
S3 - SUITABLE FOR APPROVAL

Client
acorn BIOENERGY

GGP CONSULT
HULL | YORK | ROTHERHAM
www.ggpconsult.co.uk
info@ggpconsult.co.uk
(01482) 627963

Project
Willand AD Plant
Devon Green Power

Title
PROPOSED DRAINAGE PLAN SHEET 1 OF 2

Scale	AS SHOWN @ A1	Date	JUNE 2026	Revision
Drawn	JH	Checked	JHC	Approved JHC	P02

Drawing No.
60273-GGP-XX-XX-DR-C-9101

PROPOSED DRAINAGE PLAN SHEET 1 OF 2
Scale: 1:250 @ A1

NOT FOR CONSTRUCTION

A1



PROPOSED DRAINAGE PLAN SHEET 2 OF 2
Scale: 1:250 @ A1

NOT FOR CONSTRUCTION

Notes

1. All dimensions must be checked on site and not scaled from this drawing.
2. The Contractor shall make a survey of the site and shall be responsible for obtaining all dimensions and levels necessary for the proper fabrication of the structure as indicated.
3. All levels shown on this drawing are relative to Agreed Datum
4. This drawing is to be read in conjunction with 60273 Series Drawings.
5. All existing invert levels are to be confirmed by contractor prior to construction. Connection subject to approval.

- Denotes Road Boundary
- Denotes Approved Planning Boundary
- Denotes Clamp Boundary
- Clean Surface Water Sewer
- Clean Surface Water Chamber
- Contaminated Surface Water Sewer
- Contaminated Surface Water Chamber
- Existing Surface Water Sewer
- Existing Surface Water Chamber
- Match Line 1
- Proposed Rainwater Pipe

All pipes to be encased in concrete.

Existing surface water system shown indicatively.

REV	DATE	BY	DESCRIPTION	APPD
P02	24.06.2026	TN	STAGE 3 - ISSUED FOR APPROVAL	JHC
P01	05.06.2026	JH	STAGE 3 - ISSUED FOR APPROVAL	JHC

Suitability
S3 - SUITABLE FOR APPROVAL

Client
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Project
Willand AD Plant
Devon Green Power

Title
PROPOSED DRAINAGE PLAN SHEET 2 OF 2

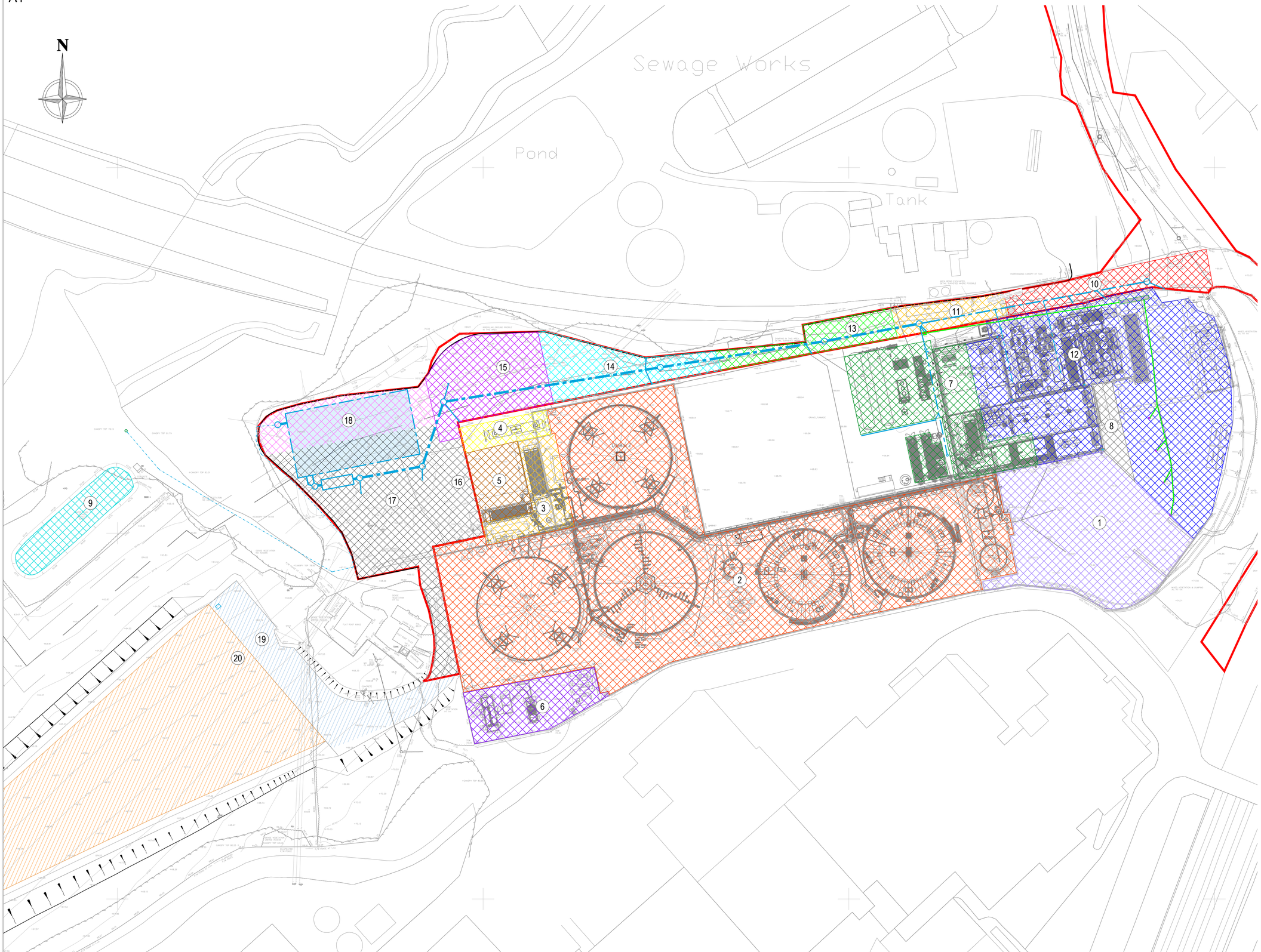
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Drawn	JH	Checked	JHC	Approved JHC	P02

Drawing No.
60273-GGP-XX-XX-DR-C-9102

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Figure 5: Drainage Catchment Plan

A1



PROPOSED DRAINAGE CATCHMENT PLAN
Scale: 1:500 @ A1

NOT FOR CONSTRUCTION

Notes

1. All dimensions must be checked on site and not scaled from this drawing.
2. The Contractor shall make a survey of the site and shall be responsible for obtaining all dimensions and levels necessary for the proper fabrication of the structure as indicated.
3. All levels shown on this drawing are relative to Agreed Datum
4. This drawing is to be read in conjunction with 60273 Series Drawings.
5. All existing invert levels are to be confirmed by contractor prior to construction. Connection subject to approval.

- Denotes Site Boundary – 16,580m²
- Denotes Approved Planning Boundary
- Clean Surface Water Sewer
- Clean Surface Water Chamber
- (1) Existing Yard – Clean outfalling to Bund Liquid feed Area – 1,568m²
- (2) Bund – Potential Clean / Dirty Area – 6,578m²
- (3) Bund – Dirty Area – 362m²
- (4) Clean Propane Catchment Area – 166m²
- (5) Yard – Potential Dirty Area – 284m²
- (6) Bund – Clean High Level Area – 481m²
- (7) Clean Roof / Equipment Runoff Area – 1,098m²
- (8) Dirty area to bund Area – 143m²
- (9) Clamp effluent lagoon Area – 337m²
- (10) SWMH.01 Catchment Area – 430m²
- (11) SWMH.01a Catchment Area (Approved) – 234m²
- (12) SWMH.01a Catchment Area (Proposed) – 2,976m²
- (13) SWMH.02 Catchment Area – 312m²
- (14) SWMH.03 Catchment Area – 506m²
- (15) SWMH.04 Catchment Area – 693m²
- (16) SWMH.04a Catchment Area – 175m²
- (17) SWMH.05 Catchment Area – 1,487m²
- (18) SWMH.06 Catchment Area – 549m²
- (19) Denotes Contaminated Hardstanding Runoff Area – 711m²
- (20) Denotes Dirty Silage Clamp Runoff Area – 3,705m²

REV	DATE	BY	DESCRIPTION	APPD
P02	24.06.2026	TN	STAGE 3 - ISSUED FOR APPROVAL	JHC
P01	05.06.2026	MK	STAGE 3 - ISSUED FOR APPROVAL	JHC

Suitability
S3 - SUITABLE FOR APPROVAL

Client
acorn BIOENERGY

GGP CONSULT
HULL | YORK | ROTHERHAM
www.ggpconsult.co.uk
info@ggpconsult.co.uk
(01482) 627963

Project
Willand AD Plant
Devon Green Power

Title
DRAINAGE CATCHMENT PLAN

Scale AS SHOWN @ A1	Date JUNE 2026			Revision P02
Drawn MK	Checked JHC	Approved JHC		

Drawing No.
60273-GGP-XX-XX-DR-C-9100

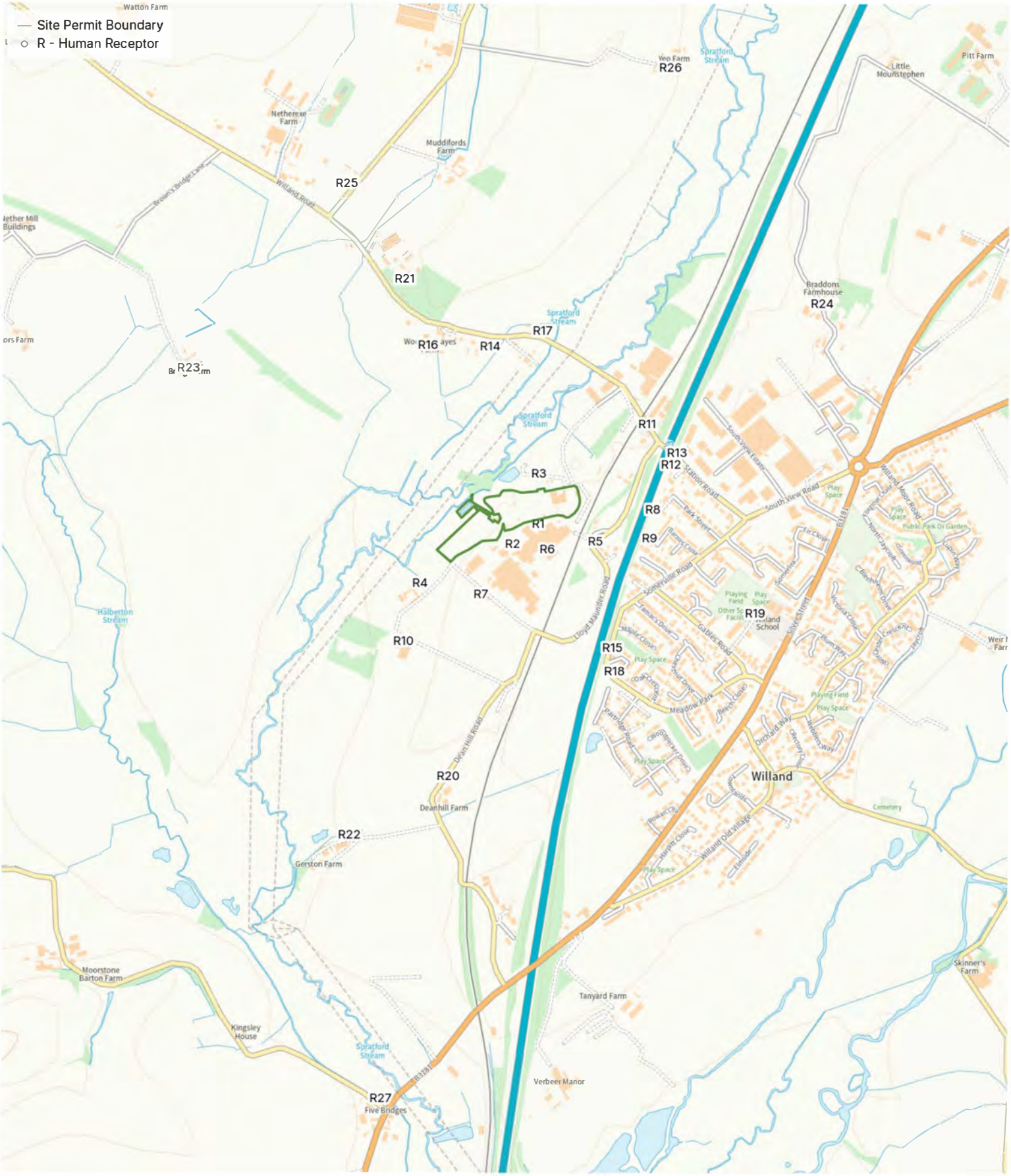
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Figure 6: Human Receptor Plan, Earthcare Technical

(ETL981_DGPL_Human Receptors _EPR02)

Earthcare TECHNICAL

Human Receptor Plan
ETL981_DGPL_HumanReceptors_EPR02



Produced on Land App, Jul 8, 2026.
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500 m
Scale 1:14000 (at A4)

N

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Appendix A: Enviro Geo Insight Report (2026)

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

Devon Green Power, Hide Market Road, Cullompton EX15 2QE

Order Details

Date: 05/02/2026

Your ref: ETL981/Devon Green Power

Our Ref: GS-RY6-GU1-7SG-OBS

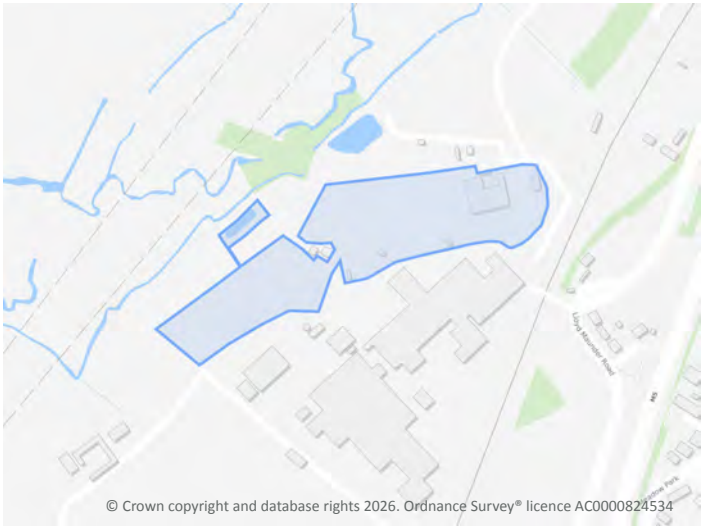
Site Details

Location: 302913 111182

Area: 3.3 ha

Authority: Mid Devon District Council ↗

Site plan



Quick Links

Summary of findings p. 2 >

OS MasterMap site plan p.14 >

Aerial image p. 9 >

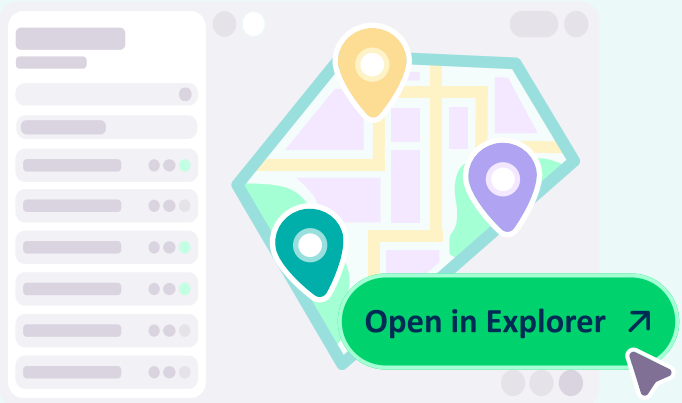
Insight User Guide ↗

Open this site in Explorer!

Access the data now in our interactive workspace.

- Map and interpret 130+ datasets across 170 years
- Generate insights and visuals quickly
- Revisit and collaborate with your team

Access to Groundsure Explorer requires an Insights account.
12 months access begins at purchase.



Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	6	13	21	17	-
18 >	1.2 >	Historical tanks >	13	7	4	31	-
20 >	1.3 >	Historical energy features >	2	1	0	7	-
21	1.4	Historical petrol stations	0	0	0	0	-
21	1.5	Historical garages	0	0	0	0	-
21	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
22 >	2.1 >	Historical industrial land uses >	8	15	28	27	-
25 >	2.2 >	Historical tanks >	30	8	7	60	-
29 >	2.3 >	Historical energy features >	4	2	0	21	-
31	2.4	Historical petrol stations	0	0	0	0	-
31	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
32	3.1	Active or recent landfill	0	0	0	0	-
32	3.2	Historical landfill (BGS records)	0	0	0	0	-
33	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
33	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
33 >	3.5 >	Historical waste sites >	0	0	1	0	-
33 >	3.6 >	Licensed waste sites >	0	0	1	1	-
34 >	3.7 >	Waste exemptions >	0	0	1	59	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
39 >	4.1 >	Recent industrial land uses >	3	2	9	-	-
40 >	4.2 >	National Geographic Database (NGD) - Current or recent tanks >	12	9	4	-	-
42	4.3	Current or recent petrol stations	0	0	0	0	-
42	4.4	Electricity cables	0	0	0	0	-
42	4.5	Gas pipelines	0	0	0	0	-

42	4.6	Sites determined as Contaminated Land	0	0	0	0	-
42	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
43	4.8	Regulated explosive sites	0	0	0	0	-
43	4.9	Hazardous substance storage/usage	0	0	0	0	-
43	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
43 >	4.11 >	Licensed industrial activities (Part A(1)) >	5	0	28	0	-
48 >	4.12 >	Licensed pollutant release (Part A(2)/B) >	0	1	0	2	-
49	4.13	Radioactive Substance Authorisations	0	0	0	0	-
49 >	4.14 >	Licensed Discharges to controlled waters >	0	0	2	9	-
51	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
51	4.16	Pollutant release to public sewer	0	0	0	0	-
52	4.17	List 1 Dangerous Substances	0	0	0	0	-
52 >	4.18 >	List 2 Dangerous Substances >	0	0	1	0	-
52 >	4.19 >	Pollution Incidents (EA/NRW) >	0	1	3	1	-
53 >	4.20 >	Pollution inventory substances >	0	0	1	0	-
54 >	4.21 >	Pollution inventory waste transfers >	0	0	1	0	-
54	4.22	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
56 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
58 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
59 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
60	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
60	5.5	Groundwater vulnerability- local information	None (within 0m)				
62 >	5.6 >	Groundwater abstractions >	10	10	22	0	17
75 >	5.7 >	Surface water abstractions >	0	0	1	1	3
76 >	5.8 >	Potable abstractions >	1	1	2	0	0
77 >	5.9 >	Source Protection Zones >	3	1	0	0	-
78	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m

79 >	6.1 >	Water Network (OS MasterMap) >	0	5	30	-	-
82 >	6.2 >	Surface water features >	1	3	8	-	-
83 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
83 >	6.4 >	WFD Surface water bodies >	0	1	0	-	-
83 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
85 >	7.1 >	Risk of flooding from rivers and the sea >	High (within 50m)				
86 >	7.2 >	Historical Flood Events >	0	3	0	-	-
86	7.3	Flood Defences	0	0	0	-	-
87	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
87	7.5	Flood Storage Areas	0	0	0	-	-
88 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
89 >	7.7 >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	Surface water flooding >					
90 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
92 >	9.1 >	Groundwater flooding >	High (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
93	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
94	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
94	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
94	10.4	Special Protection Areas (SPA)	0	0	0	0	0
94	10.5	National Nature Reserves (NNR)	0	0	0	0	0
95 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	1
95 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	2
95	10.8	Biosphere Reserves	0	0	0	0	0
96	10.9	Forest Parks	0	0	0	0	0
96	10.10	Marine Conservation Zones	0	0	0	0	0
96	10.11	Green Belt	0	0	0	0	0

96	10.12	Proposed Ramsar sites	0	0	0	0	0
96	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
97	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
97	10.15	Nitrate Sensitive Areas	0	0	0	0	0
97 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	0	1
98 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
99	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
100	11.1	World Heritage Sites	0	0	0	-	-
100	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
100	11.3	National Parks	0	0	0	-	-
100	11.4	Listed Buildings	0	0	0	-	-
101	11.5	Conservation Areas	0	0	0	-	-
101	11.6	Scheduled Ancient Monuments	0	0	0	-	-
101	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
102 >	12.1 >	Agricultural Land Classification >	Grade 4 (within 250m)				
103	12.2	Open Access Land	0	0	0	-	-
103 >	12.3 >	Tree Felling Licences >	0	0	4	-	-
104	12.4	Environmental Stewardship Schemes	0	0	0	-	-
104 >	12.5 >	Countryside Stewardship Schemes >	0	1	2	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
105 >	13.1 >	Priority Habitat Inventory >	1	7	17	-	-
106	13.2	Habitat Networks	0	0	0	-	-
107	13.3	Open Mosaic Habitat	0	0	0	-	-
107	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
108 >	14.1 >	10k Availability >	Identified (within 500m)				
109 >	14.2 >	Artificial and made ground (10k) >	1	0	1	2	-

111 >	14.3 >	Superficial geology (10k) >	2	0	0	2	-
112	14.4	Landslip (10k)	0	0	0	0	-
113 >	14.5 >	Bedrock geology (10k) >	1	0	0	0	-
114	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
115 >	15.1 >	50k Availability >	Identified (within 500m)				
116 >	15.2 >	Artificial and made ground (50k) >	0	0	0	1	-
117	15.3	Artificial ground permeability (50k)	0	0	-	-	-
118 >	15.4 >	Superficial geology (50k) >	2	0	0	2	-
119 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
119	15.6	Landslip (50k)	0	0	0	0	-
119	15.7	Landslip permeability (50k)	None (within 50m)				
120 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
121 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
121	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
122 >	16.1 >	BGS Boreholes >	0	0	7	-	-
Page	Section	**Natural ground subsidence** >					
124 >	17.1 >	Shrink swell clays >	Low (within 50m)				
125 >	17.2 >	Running sands >	Low (within 50m)				
127 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
129 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
130 >	17.5 >	Landslides >	Very low (within 50m)				
131 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	**Mining and ground workings** >	On site	0-50m	50-250m	250-500m	500-2000m
133 >	18.1 >	BritPits >	0	1	1	1	-
134 >	18.2 >	Surface ground workings >	3	10	7	-	-
135	18.3	Underground workings	0	0	0	0	0
136	18.4	Underground mining extents	0	0	0	0	-

136	18.5	Historical Mineral Planning Areas	0	0	0	0	-
136	18.6	Non-coal mining	0	0	0	0	0
136	18.7	JPB mining areas	None (within 0m)				
136	18.8	The Coal Authority non-coal mining	0	0	0	0	-
137 >	18.9 >	Researched mining >	0	0	1	0	-
137	18.10	Mining record office plans	0	0	0	0	-
137	18.11	BGS mine plans	0	0	0	0	-
137	18.12	Coal mining	None (within 0m)				
138	18.13	Brine areas	None (within 0m)				
138	18.14	Gypsum areas	None (within 0m)				
138	18.15	Tin mining	None (within 0m)				
138	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
139	19.1	Natural cavities	0	0	0	0	-
139	19.2	Mining cavities	0	0	0	0	0
139	19.3	Reported recent incidents	0	0	0	0	-
139	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
141 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
143 >	21.1 >	BGS Estimated Background Soil Chemistry >	3	1	-	-	-
143	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
144	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
145	22.1	Underground railways (London)	0	0	0	-	-
145	22.2	Underground railways (Non-London)	0	0	0	-	-
146	22.3	Railway tunnels	0	0	0	-	-
146 >	22.4 >	Historical railway and tunnel features >	3	12	3	-	-
147	22.5	Royal Mail tunnels	0	0	0	-	-

147 >	22.6 >	Historical railways >	1	0	0	-	-
147 >	22.7 >	Railways >	0	6	5	-	-
148	22.8	Crossrail 2	0	0	0	0	-
148	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 23/05/2023

Site Area: 3.3ha

Recent site history - 2020 aerial photograph



Capture Date: 09/04/2020

Site Area: 3.3ha

Recent site history - 2015 aerial photograph



Capture Date: 29/09/2015

Site Area: 3.3ha

Recent site history - 2006 aerial photograph



Capture Date: 17/06/2006

Site Area: 3.3ha

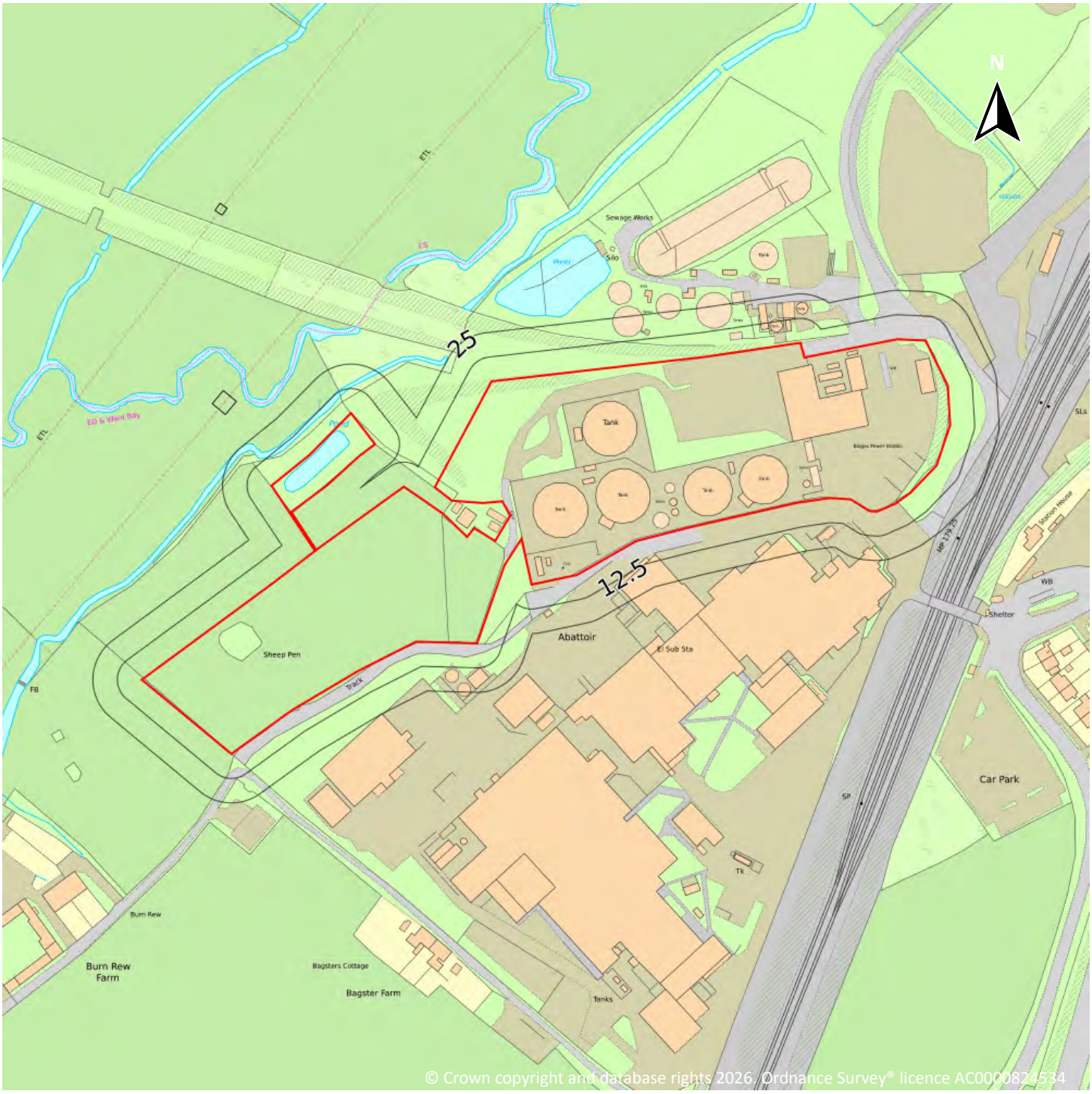
Recent site history - 1999 aerial photograph



Capture Date: 11/07/1999

Site Area: 3.3ha

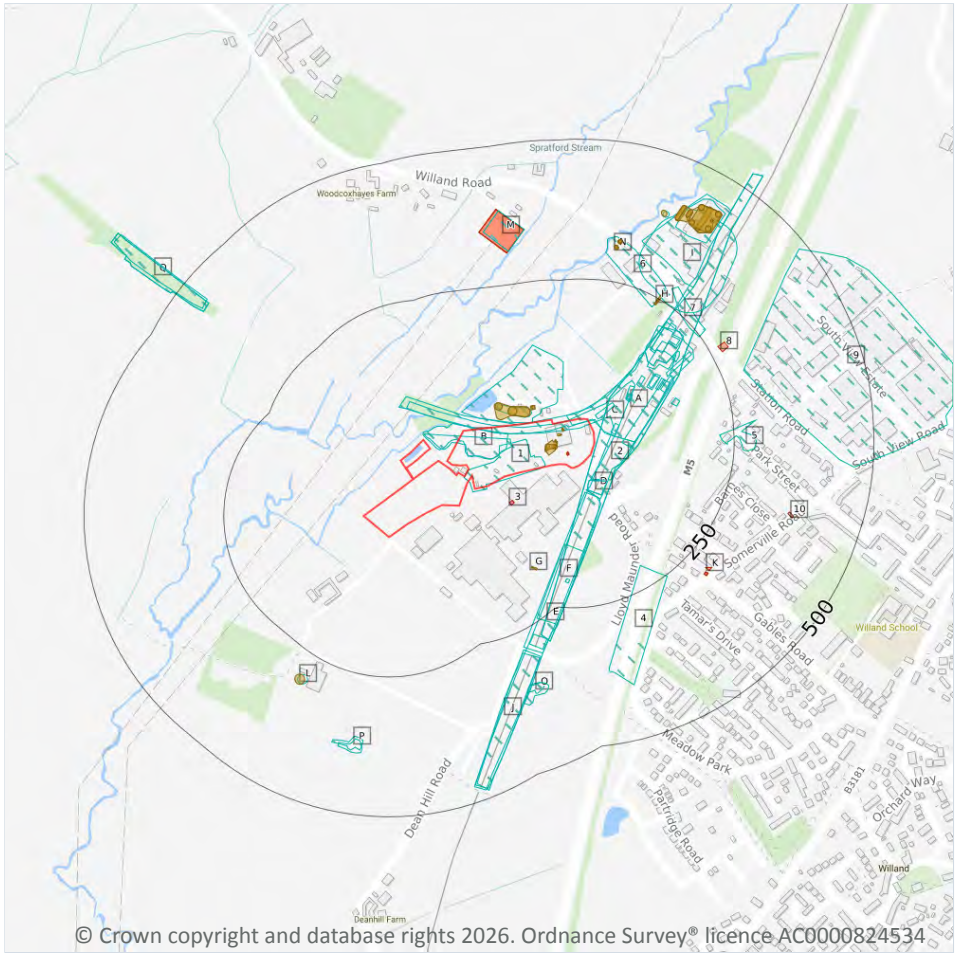
OS MasterMap site plan



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Site Area: 3.3ha

1 Past land use



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Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	57

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Abattoir**	**1979 - 1992**	**1284892**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Railway Sidings**	**1958**	**1235995**
A	**On site**	**Railway Sidings**	**1887**	**1294103**
B	**On site**	**Old Clay Pit**	**1958**	**1247226**
B	**On site**	**Old Clay Pit**	**1887 - 1906**	**1293862**
C	**On site**	**Railway Sidings**	**1906**	**1266778**
C	1m N	Sewage Works	1992	1202425
A	4m E	Railway Sidings	1979	1266989
A	4m E	Railway Sidings	1992	1294303
C	11m N	Unspecified Tanks	1992	1186980
A	16m NE	Railway Buildings	1958	1180248
C	19m N	Unspecified Tank	1979	1204030
2	23m SE	Cuttings	1887 - 1906	1211405
A	31m E	Railway Building	1887	1206579
D	32m SE	Cuttings	1887	1225166
D	32m SE	Cuttings	1906	1250401
E	47m SE	Cuttings	1958	1292683
F	48m SE	Cuttings	1887 - 1906	1232065
A	50m E	Railway Sidings	1906	1215281
A	78m NE	Railway Buildings	1906	1180247
A	78m NE	Railway Building	1958	1219494
A	80m NE	Railway Building	1887	1287275
A	108m NE	Railway Buildings	1906	1180253
A	121m NE	Railway Buildings	1906	1180254
A	125m NE	Railway Building	1887	1206559
A	134m NE	Railway Building	1958	1206561
F	138m S	Cuttings	1979 - 1992	1264288
A	141m NE	Railway Building	1979 - 1992	1243320
A	142m NE	Railway Building	1979 - 1992	1266645

ID	Location	Land use	Dates present	Group ID
A	148m E	Railway Building	1979 - 1992	1276771
A	149m NE	Railway Building	1958	1293974
A	162m NE	Railway Sidings	1887	1266567
A	168m NE	Railway Buildings	1906	1180252
A	171m NE	Railway Building	1887	1268912
A	186m NE	Railway Building	1887	1256098
F	198m S	Railway Building	1958	1206560
4	210m SE	Cuttings	1979 - 1992	1260601
5	225m E	Gravel Pit	1887 - 1906	1279425
6	231m NE	Dairy	1906 - 1958	1227142
7	245m NE	Cuttings	1887	1178512
I	251m NE	Oil Storage Depot	1979	1189146
E	266m SE	Cuttings	1979 - 1992	1261024
J	283m SE	Cuttings	1887 - 1906	1290196
J	287m SE	Cuttings	1979 - 1992	1279597
L	289m SW	Unspecified Tank	1992	1204029
9	290m E	Industrial Estate	1992	1197113
I	299m NE	Unspecified Depot	1992	1187827
M	309m N	Electricity Transformer Station	1979 - 1992	1234253
O	345m SE	Unspecified Heap	1887 - 1906	1240364
O	347m S	Unspecified Heap	1958	1291234
P	361m S	Unspecified Old Quarry	1887 - 1906	1262204
P	366m S	Unspecified Old Quarry	1958	1270244
I	374m NE	Unspecified Tanks	1979 - 1992	1224268
I	387m N	Unspecified Tank	1979 - 1992	1244610
Q	442m NW	Cuttings	1979 - 1992	1277207
Q	442m NW	Cuttings	1958	1294323
Q	447m NW	Cuttings	1887 - 1906	1267368

This data is sourced from Ordnance Survey® / Groundsure.

1.2 Historical tanks

Records within 500m	55

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 15 >**

ID	Location	Land use	Dates present	Group ID
C	**On site**	**Unspecified Tank**	**1978**	**185984**
C	**On site**	**Unspecified Tank**	**1996**	**187062**
C	**On site**	**Tanks**	**1990**	**187367**
C	**On site**	**Unspecified Tank**	**1970 - 1978**	**188885**
C	**On site**	**Unspecified Tank**	**1978**	**189736**
C	**On site**	**Unspecified Tank**	**1970**	**190165**
C	**On site**	**Tanks**	**1996**	**190767**
C	**On site**	**Unspecified Tank**	**1970 - 1978**	**193879**
C	**On site**	**Tanks**	**1983 - 1990**	**194749**
C	**On site**	**Tanks**	**1990**	**196012**
C	**On site**	**Unspecified Tank**	**1970 - 1990**	**198862**
C	**On site**	**Unspecified Tank**	**1983 - 1990**	**201246**
C	**On site**	**Tanks**	**1983**	**202641**
C	12m N	Tanks	1983	178304
C	12m N	Unspecified Tanks	1994	178481
C	17m N	Unspecified Tank	1970	185456
C	23m N	Unspecified Tank	1996	193414
C	23m N	Unspecified Tank	1983	188833
C	23m N	Unspecified Tank	1990	201794
C	30m N	Unspecified Tank	1983	185457
G	163m SE	Unspecified Tank	1996	202750

ID	Location	Land use	Dates present	Group ID
G	166m SE	Unspecified Tank	1996 - 1997	197994
H	237m NE	Tanks	1990	199296
H	239m NE	Tanks	1983	195417
L	291m SW	Unspecified Tank	1989 - 1994	185939
N	307m N	Unspecified Tank	1983	189682
N	307m N	Unspecified Tank	1970	193179
N	308m N	Unspecified Tank	1990 - 1996	189081
N	310m N	Unspecified Tank	1978	194188
N	319m N	Unspecified Tank	1990 - 1996	198107
N	319m N	Unspecified Tank	1983	191192
N	319m N	Unspecified Tank	1970	191657
N	321m N	Unspecified Tank	1978	193767
I	387m N	Unspecified Tank	1970 - 1996	186519
I	388m NE	Tanks	1983	197384
I	388m NE	Tanks	1996	191798
I	389m NE	Tanks	1983	191620
I	389m NE	Tanks	1996	190369
I	390m NE	Tanks	1978	196159
I	390m NE	Tanks	1990	198083
I	390m NE	Tanks	1990	192614
I	390m NE	Tanks	1978	196792
I	392m NE	Tanks	1970	199800
I	393m NE	Unspecified Tank	1990	191727
I	393m NE	Unspecified Tank	1978	202382
I	398m NE	Unspecified Tank	1990	194178
I	398m NE	Unspecified Tank	1978	197880
I	402m NE	Tanks	1978	190054
I	402m NE	Tanks	1990	194389

ID	Location	Land use	Dates present	Group ID
I	417m NE	Unspecified Tank	1990	188743
I	417m NE	Unspecified Tank	1978	201436
I	425m NE	Unspecified Tank	1990	199062
I	425m NE	Unspecified Tank	1978	200833
I	430m NE	Unspecified Tank	1990	186506
I	430m NE	Unspecified Tank	1978	190324

This data is sourced from Ordnance Survey® / Groundsure.

1.3 Historical energy features

Records within 500m	**10**

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 15 >**

ID	Location	Land use	Dates present	Group ID
C	**On site**	**Electricity Substation**	**1983 - 1990**	**120317**
C	**On site**	**Electricity Substation**	**1996**	**123213**
3	44m SE	Electricity Substation	1983 - 1994	111268
8	267m NE	Electricity Substation	1970	107129
K	289m SE	Electricity Substation	1989	105299
K	293m SE	Electricity Substation	1990 - 1997	111126
K	293m SE	Electricity Substation	1978 - 1987	112496
M	307m N	Electricity Substation	1983 - 1994	118214
M	307m N	Electricity Transformer Station	1970	107865
10	368m E	Electricity Substation	1970 - 1990	110165

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	0

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'.

This data is sourced from Ordnance Survey® / Groundsure.

1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



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Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

2.1 Historical industrial land uses

Records within 500m	78

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

Features are displayed on the Past land use - un-grouped map on **page 22 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Old Clay Pit**	**1906**	**1293862**
A	**On site**	**Old Clay Pit**	**1887**	**1293862**
A	**On site**	**Old Clay Pit**	**1958**	**1247226**

ID	Location	Land Use	Date	Group ID
B	**On site**	**Railway Sidings**	**1906**	**1266778**
B	**On site**	**Abattoir**	**1992**	**1284892**
B	**On site**	**Abattoir**	**1979**	**1284892**
C	**On site**	**Railway Sidings**	**1887**	**1294103**
C	**On site**	**Railway Sidings**	**1958**	**1235995**
B	1m N	Sewage Works	1992	1202425
C	4m E	Railway Sidings	1992	1294303
C	4m E	Railway Sidings	1979	1266989
B	11m N	Unspecified Tanks	1992	1186980
C	16m NE	Railway Buildings	1958	1180248
B	19m N	Unspecified Tank	1979	1204030
D	23m SE	Cuttings	1887	1211405
D	24m SE	Cuttings	1906	1211405
C	31m E	Railway Building	1887	1206579
D	32m SE	Cuttings	1906	1250401
D	32m SE	Cuttings	1887	1225166
F	47m SE	Cuttings	1958	1292683
G	48m SE	Cuttings	1906	1232065
G	48m SE	Cuttings	1887	1232065
C	50m E	Railway Sidings	1906	1215281
C	78m NE	Railway Buildings	1906	1180247
C	78m NE	Railway Building	1958	1219494
C	80m NE	Railway Building	1887	1287275
C	108m NE	Railway Buildings	1906	1180253
C	121m NE	Railway Buildings	1906	1180254
C	125m NE	Railway Building	1887	1206559
C	134m NE	Railway Building	1958	1206561
G	138m S	Cuttings	1992	1264288

ID	Location	Land Use	Date	Group ID
G	138m S	Cuttings	1979	1264288
C	141m NE	Railway Building	1992	1243320
C	141m NE	Railway Building	1979	1243320
C	142m NE	Railway Building	1992	1266645
C	146m NE	Railway Building	1979	1266645
C	148m E	Railway Building	1992	1276771
C	148m E	Railway Building	1979	1276771
C	149m NE	Railway Building	1958	1293974
C	162m NE	Railway Sidings	1887	1266567
C	168m NE	Railway Buildings	1906	1180252
C	171m NE	Railway Building	1887	1268912
C	186m NE	Railway Building	1887	1256098
G	198m S	Railway Building	1958	1206560
I	210m SE	Cuttings	1979	1260601
I	212m SE	Cuttings	1992	1260601
J	225m E	Gravel Pit	1906	1279425
J	225m E	Gravel Pit	1887	1279425
K	231m NE	Dairy	1958	1227142
K	232m NE	Dairy	1906	1227142
1	245m NE	Cuttings	1887	1178512
L	251m NE	Oil Storage Depot	1979	1189146
F	266m SE	Cuttings	1992	1261024
F	266m SE	Cuttings	1979	1261024
M	283m SE	Cuttings	1906	1290196
M	283m SE	Cuttings	1887	1290196
M	287m SE	Cuttings	1992	1279597
M	287m SE	Cuttings	1979	1279597
O	289m SW	Unspecified Tank	1992	1204029

ID	Location	Land Use	Date	Group ID
3	290m E	Industrial Estate	1992	1197113
L	299m NE	Unspecified Depot	1992	1187827
P	309m N	Electricity Transformer Station	1992	1234253
P	309m N	Electricity Transformer Station	1979	1234253
R	345m SE	Unspecified Heap	1906	1240364
R	345m SE	Unspecified Heap	1887	1240364
R	347m S	Unspecified Heap	1958	1291234
S	361m S	Unspecified Old Quarry	1906	1262204
S	361m S	Unspecified Old Quarry	1887	1262204
S	366m S	Unspecified Old Quarry	1958	1270244
L	374m NE	Unspecified Tanks	1992	1224268
L	374m NE	Unspecified Tanks	1979	1224268
L	387m N	Unspecified Tank	1992	1244610
L	387m N	Unspecified Tank	1979	1244610
U	442m NW	Cuttings	1992	1277207
U	442m NW	Cuttings	1979	1277207
U	442m NW	Cuttings	1958	1294323
U	447m NW	Cuttings	1906	1267368
U	447m NW	Cuttings	1887	1267368

This data is sourced from Ordnance Survey® / Groundsure.

2.2 Historical tanks

Records within 500m	**105**

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

Features are displayed on the Past land use - un-grouped map on **page 22 >**

ID	Location	Land Use	Date	Group ID
B	**On site**	**Unspecified Tank**	**1970**	**188885**

ID	Location	Land Use	Date	Group ID
B	On site	Unspecified Tank	1970	193879
B	On site	Unspecified Tank	1970	190165
B	On site	Unspecified Tank	1970	198862
B	On site	Unspecified Tank	1983	198862
B	On site	Tanks	1983	202641
B	On site	Unspecified Tank	1983	201246
B	On site	Tanks	1983	194749
B	On site	Unspecified Tank	1978	198862
B	On site	Unspecified Tank	1978	188885
B	On site	Unspecified Tank	1978	193879
B	On site	Unspecified Tank	1978	185984
B	On site	Unspecified Tank	1978	189736
B	On site	Unspecified Tank	1978	198862
B	On site	Unspecified Tank	1978	188885
B	On site	Unspecified Tank	1978	185984
B	On site	Unspecified Tank	1978	193879
B	On site	Unspecified Tank	1978	189736
B	On site	Unspecified Tank	1990	198862
B	On site	Tanks	1990	194749
B	On site	Unspecified Tank	1990	201246
B	On site	Tanks	1990	187367
B	On site	Tanks	1990	196012
B	On site	Unspecified Tank	1990	198862
B	On site	Tanks	1990	194749
B	On site	Unspecified Tank	1990	201246
B	On site	Tanks	1990	196012
B	On site	Tanks	1990	187367
B	On site	Unspecified Tank	1996	187062

ID	Location	Land Use	Date	Group ID
B	**On site**	**Tanks**	**1996**	**190767**
B	12m N	Tanks	1983	178304
B	12m N	Unspecified Tanks	1994	178481
B	17m N	Unspecified Tank	1970	185456
B	23m N	Unspecified Tank	1996	193414
B	23m N	Unspecified Tank	1983	188833
B	23m N	Unspecified Tank	1990	201794
B	23m N	Unspecified Tank	1990	201794
B	30m N	Unspecified Tank	1983	185457
H	163m SE	Unspecified Tank	1996	202750
H	166m SE	Unspecified Tank	1997	197994
H	166m SE	Unspecified Tank	1996	197994
H	166m SE	Unspecified Tank	1996	197994
K	237m NE	Tanks	1990	199296
K	237m NE	Tanks	1990	199296
K	239m NE	Tanks	1983	195417
O	291m SW	Unspecified Tank	1994	185939
O	292m SW	Unspecified Tank	1989	185939
Q	307m N	Unspecified Tank	1970	193179
Q	307m N	Unspecified Tank	1983	189682
Q	308m N	Unspecified Tank	1996	189081
Q	310m N	Unspecified Tank	1978	194188
Q	310m N	Unspecified Tank	1978	194188
Q	310m N	Unspecified Tank	1990	189081
Q	310m N	Unspecified Tank	1990	189081
Q	319m N	Unspecified Tank	1996	198107
Q	319m N	Unspecified Tank	1970	191657
Q	319m N	Unspecified Tank	1983	191192

ID	Location	Land Use	Date	Group ID
Q	321m N	Unspecified Tank	1978	193767
Q	321m N	Unspecified Tank	1978	193767
Q	321m N	Unspecified Tank	1990	198107
Q	321m N	Unspecified Tank	1990	198107
L	387m N	Unspecified Tank	1970	186519
L	387m N	Unspecified Tank	1983	186519
L	388m NE	Tanks	1983	197384
L	388m N	Unspecified Tank	1996	186519
L	388m NE	Tanks	1996	191798
L	389m NE	Tanks	1983	191620
L	389m N	Unspecified Tank	1978	186519
L	389m N	Unspecified Tank	1978	186519
L	389m N	Unspecified Tank	1990	186519
L	389m N	Unspecified Tank	1990	186519
L	389m NE	Tanks	1996	190369
L	390m NE	Tanks	1978	196159
L	390m NE	Tanks	1978	196159
L	390m NE	Tanks	1990	198083
L	390m NE	Tanks	1990	198083
L	390m NE	Tanks	1978	196792
L	390m NE	Tanks	1978	196792
L	390m NE	Tanks	1990	192614
L	390m NE	Tanks	1990	192614
L	392m NE	Tanks	1970	199800
L	393m NE	Unspecified Tank	1978	202382
L	393m NE	Unspecified Tank	1978	202382
L	393m NE	Unspecified Tank	1990	191727
L	393m NE	Unspecified Tank	1990	191727

ID	Location	Land Use	Date	Group ID
L	398m NE	Unspecified Tank	1978	197880
L	398m NE	Unspecified Tank	1978	197880
L	398m NE	Unspecified Tank	1990	194178
L	398m NE	Unspecified Tank	1990	194178
L	402m NE	Tanks	1978	190054
L	402m NE	Tanks	1978	190054
L	402m NE	Tanks	1990	194389
L	402m NE	Tanks	1990	194389
L	417m NE	Unspecified Tank	1978	201436
L	417m NE	Unspecified Tank	1978	201436
L	417m NE	Unspecified Tank	1990	188743
L	417m NE	Unspecified Tank	1990	188743
L	425m NE	Unspecified Tank	1978	200833
L	425m NE	Unspecified Tank	1978	200833
L	425m NE	Unspecified Tank	1990	199062
L	425m NE	Unspecified Tank	1990	199062
L	430m NE	Unspecified Tank	1978	190324
L	430m NE	Unspecified Tank	1978	190324
L	430m NE	Unspecified Tank	1990	186506
L	430m NE	Unspecified Tank	1990	186506

This data is sourced from Ordnance Survey® / Groundsure.

2.3 Historical energy features

Records within 500m	27

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

Features are displayed on the Past land use - un-grouped map on **page 22 >**

ID	Location	Land Use	Date	Group ID
B	**On site**	**Electricity Substation**	**1983**	**120317**
B	**On site**	**Electricity Substation**	**1990**	**120317**
B	**On site**	**Electricity Substation**	**1990**	**120317**
B	**On site**	**Electricity Substation**	**1996**	**123213**
E	44m SE	Electricity Substation	1994	111268
E	44m SE	Electricity Substation	1983	111268
2	267m NE	Electricity Substation	1970	107129
N	289m SE	Electricity Substation	1989	105299
N	293m SE	Electricity Substation	1978	112496
N	293m SE	Electricity Substation	1985	112496
N	293m SE	Electricity Substation	1986	112496
N	293m SE	Electricity Substation	1986	112496
N	293m SE	Electricity Substation	1987	112496
N	293m SE	Electricity Substation	1990	111126
N	293m SE	Electricity Substation	1990	111126
N	294m SE	Electricity Substation	1997	111126
N	294m SE	Electricity Substation	1996	111126
N	294m SE	Electricity Substation	1996	111126
P	307m N	Electricity Substation	1994	118214
P	307m N	Electricity Transformer Station	1970	107865
P	307m N	Electricity Substation	1983	118214
T	368m E	Electricity Substation	1978	110165
T	368m E	Electricity Substation	1978	110165
T	368m E	Electricity Substation	1990	110165
T	368m E	Electricity Substation	1990	110165
T	370m E	Electricity Substation	1970	110165
T	370m E	Electricity Substation	1983	110165

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.

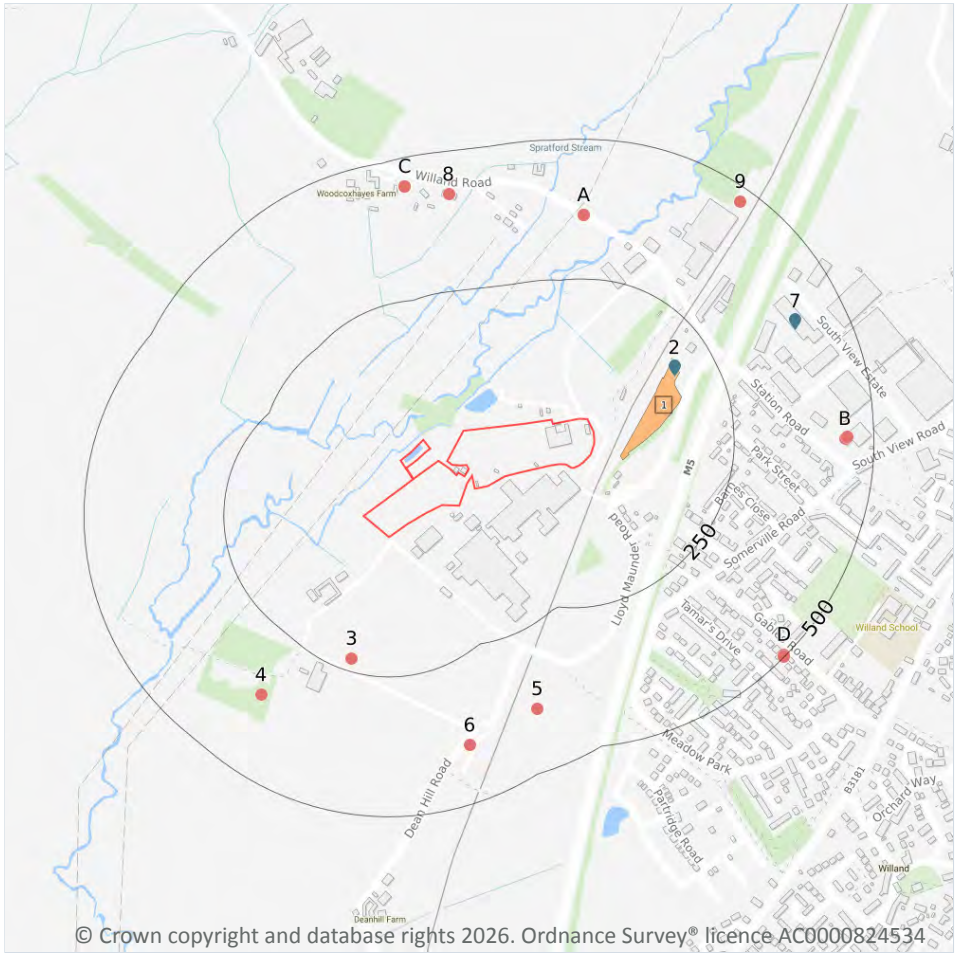
2.5 Historical garages

Records within 500m	0

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'.

This data is sourced from Ordnance Survey® / Groundsure.

3 Waste and landfill



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3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	1

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

Features are displayed on the Waste and landfill map on **page 32 >**

ID	Location	Address	Further Details	Date
1	51m E	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1996

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

3.6 Licensed waste sites

Records within 500m	2

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

Features are displayed on the Waste and landfill map on **page 32 >**

ID	Location	Details		
2	180m NE	Site Name: T Junction Auto Spares Site Address: T Junction Auto Spares, Station Yard, Willand, Devon, EX15 2PR Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 659750 EPR reference: EA/EPR/MP3891HL Operator: Gary Litten & Darren Litten Waste Management licence No: 21555 Annual Tonnage: 1300	Issue Date: 01/12/1994 Effective Date: 01/12/1994 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
7	410m NE	Site Name: Willand Refrigerator Storage Facility Site Address: Unit 16, Blackdown Park, Willand Ind Est, Willand, Devon, EX15 2QW Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 664350 EPR reference: EA/EPR/YP3291HL Operator: Stoford Transport Limited Waste Management licence No: 21746 Annual Tonnage: 4999	Issue Date: 20/06/2002 Effective Date: 20/06/2002 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked

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

3.7 Waste exemptions

Records within 500m **60**

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 32 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
3	228m S	-	WEX376325	Using waste exemption	On a farm	Use of waste for a specified purpose
A	364m N	-	WEX417622	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	364m N	-	WEX417622	Treating waste exemption	Not on a farm	Sorting mixed waste

ID	Location	Site	Reference	Category	Sub-Category	Description
4	364m SW	Burn Rew Farm, Dean Hill Road, Willand, Cullompton, Ex15 2pg	WEX129917	Using waste exemption	On a farm	Use of waste for a specified purpose
5	390m S	Pugham Farm, Westleigh, Tiverton, Ex16 7hl	WEX170928	Storing waste exemption	On a farm	Storage of sludge
6	399m S	Langarra, Dean Hill Road, Willand, Cullompton, Ex15 2pg	WEX164211	Using waste exemption	Not on a farm	Use of waste in construction
8	422m N	Holmfield, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX150643	Using waste exemption	On a farm	Use of waste in construction
B	448m E	Unit 13 South View Estate Cullompton Devon Ex15 2qw	EPR/NF0604NM/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
C	449m N	-	WEX056238	Using waste exemption	On a farm	Use of mulch
C	449m N	-	WEX056238	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	449m N	-	WEX056238	Treating waste exemption	On a farm	Recovery of scrap metal
C	449m N	-	WEX056238	Treating waste exemption	On a farm	Screening and blending of waste
C	449m N	-	WEX056238	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
C	449m N	-	WEX056238	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
C	449m N	-	WEX056238	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
C	449m N	-	WEX056238	Disposing of waste exemption	On a farm	Burning waste in the open
C	449m N	-	WEX056238	Using waste exemption	On a farm	Use of waste in construction
C	449m N	-	WEX056238	Using waste exemption	On a farm	Spreading waste on non-agricultural land to confer benefit

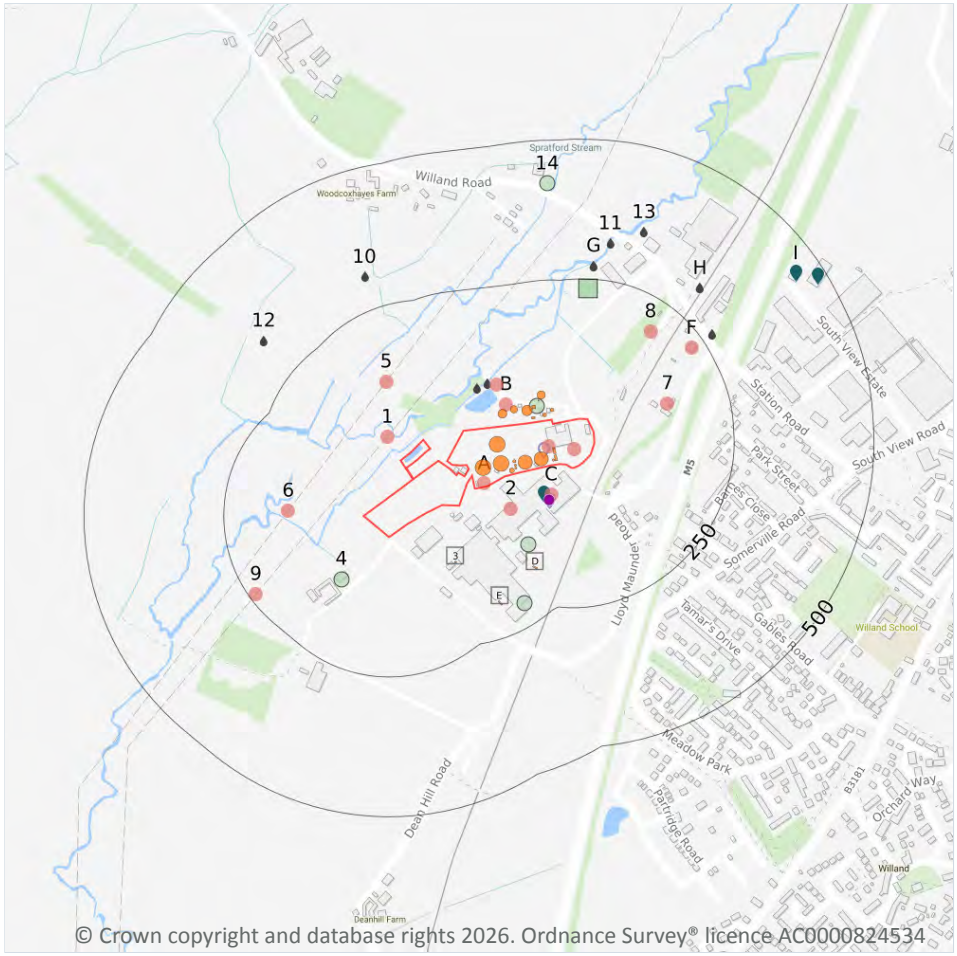
ID	Location	Site	Reference	Category	Sub-Category	Description
C	449m N	-	WEX056238	Treating waste exemption	On a farm	Preparatory treatments (baling, sorting, shredding etc)
C	449m N	-	WEX056238	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	449m N	-	WEX056238	Using waste exemption	On a farm	Incorporation of ash into soil
C	449m N	-	WEX211320	Treating waste exemption	On a farm	Recovery of scrap metal
C	449m N	-	WEX211320	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	449m N	-	WEX211320	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
C	449m N	-	WEX211320	Using waste exemption	On a farm	Use of mulch
C	449m N	-	WEX211320	Treating waste exemption	On a farm	Screening and blending of waste
C	449m N	-	WEX211320	Disposing of waste exemption	On a farm	Burning waste in the open
C	449m N	-	WEX336911	Using waste exemption	On a farm	Spreading waste on non-agricultural land to confer benefit
C	449m N	-	WEX336911	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
C	449m N	-	WEX336911	Using waste exemption	On a farm	Use of mulch
C	449m N	-	WEX336911	Using waste exemption	On a farm	Use of waste in construction
C	449m N	-	WEX336911	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
C	449m N	-	WEX336911	Using waste exemption	On a farm	Incorporation of ash into soil

ID	Location	Site	Reference	Category	Sub-Category	Description
C	449m N	-	WEX336911	Treating waste exemption	On a farm	Preparatory treatments (baling, sorting, shredding etc)
C	449m N	-	WEX336911	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	449m N	-	WEX336911	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
C	449m N	-	WEX336911	Treating waste exemption	On a farm	Screening and blending of waste
C	449m N	-	WEX336911	Treating waste exemption	On a farm	Recovery of scrap metal
C	449m N	-	WEX336911	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	449m N	-	WEX336911	Disposing of waste exemption	On a farm	Burning waste in the open
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Using waste exemption	On a farm	Use of waste in construction
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Disposing of waste exemption	On a farm	Burning waste in the open
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Using waste exemption	On a farm	Use of mulch

ID	Location	Site	Reference	Category	Sub-Category	Description
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
C	449m N	Slough Farm Cottage, Halberton Road, Willand, Cullompton, Ex15 2qf	WEX466205	Using waste exemption	On a farm	Incorporation of ash into soil
C	449m N	-	WEX211320	Using waste exemption	On a farm	Use of waste in construction
C	449m N	-	WEX211320	Using waste exemption	On a farm	Spreading waste on non-agricultural land to confer benefit
C	449m N	-	WEX211320	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
C	449m N	-	WEX211320	Using waste exemption	On a farm	Incorporation of ash into soil
C	449m N	-	WEX211320	Treating waste exemption	On a farm	Preparatory treatments (baling, sorting, shredding etc)
C	449m N	-	WEX211320	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	449m N	-	WEX211320	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
B	451m E	Unit 3 South View Trading Estate Willand Devon Ex15 2qw	EPR/AF0102NB/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
9	475m NE	Stan Robinson (Stafford) Ltd - Devon Depot Station Road Ex15 2qd	EPR/JE5949NQ/A001	Storing waste exemption	Both agricultural and non-agricultural waste	Storage of waste in a secure place
D	497m SE	Linacre, Gables Road, Willand, Cullompton, Ex15 2pl	WEX460356	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
D	500m SE	-	WEX375297	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



Site Outline

Search buffers in metres (m)

- Recent industrial land uses
- NGD current or recent tanks
- Part A(1) industrial activities
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- List 2 Dangerous Substances
- Pollution Incidents (EA/NRW)
- Pollution inventory substances
- Pollution inventory waste transfers

4.1 Recent industrial land uses

Records within 250m	14

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 39 >**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Chimney**	**Devon, EX15**	**Chimneys**	**Industrial Features**
A	**On site**	**Willand AD - Anaerobic Digestion (BEIS)**	**Lloyd Maunder Road, Willand, Cullompton, Devon, EX15 2PJ**	**Energy Production**	**Industrial Features**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Biogas Power Station**	**Devon, EX15**	**Energy Production**	**Industrial Features**
B	38m N	Electricity Sub Station	Devon, EX15	Electrical Features	Infrastructure and Facilities
1	48m NW	Pylon	Devon, EX15	Electrical Features	Infrastructure and Facilities
C	51m S	2 Sisters Food Group	Lloyd Maunder Road, Willand, Devon, EX15 2PJ	Fish, Meat and Poultry Products	Foodstuffs
2	55m SE	Electricity Sub Station	Devon, EX15	Electrical Features	Infrastructure and Facilities
B	75m N	Sewage Works	Devon, EX15	Waste Storage, Processing and Disposal	Infrastructure and Facilities
5	124m NW	Pylon	Devon, EX15	Electrical Features	Infrastructure and Facilities
6	135m W	Pylon	Devon, EX15	Electrical Features	Infrastructure and Facilities
7	141m E	T Junction Autospares	Lloyd Maunder Road, Cullompton, Devon, EX15 2PH	Vehicle Parts and Accessories	Motoring
8	193m NE	Mast (Telecommunication)	Devon, EX15	Telecommunications Features	Infrastructure and Facilities
F	225m NE	H F Heard Ltd	Land and Buildings at Grid Reference 303285 111393, Lloyd Maunder Road, Willand, Devon, EX15 2PH	Distribution and Haulage	Transport, Storage and Delivery
9	238m SW	Pylon	Devon, EX15	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey®.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m	**25**

Current or recent tanks identified from the Ordnance Survey® NGD.

Features are displayed on the Current industrial land use map on **page 39 >**

ID	Location	Tank description	Activity	Date first identified
A	**On site**	**Open Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**

ID	Location	Tank description	Activity	Date first identified
A	**On site**	**Roofed Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**
A	**On site**	**Roofed Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**
A	**On site**	**Roofed Storage Tank**	**Commercial Activity: Distribution Or Storage**	**04/09/2020**
A	**On site**	**Roofed Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**
A	**On site**	**Open Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**
A	**On site**	**Open Storage Tank**	**Commercial Activity: Distribution Or Storage**	**01/09/2020**
A	**On site**	**Roofed Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**
A	**On site**	**Roofed Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**
A	**On site**	**Open Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**
A	**On site**	**Roofed Storage Tank**	**Commercial Activity: Distribution Or Storage**	**30/10/2018**
A	**On site**	**Roofed Sludge Tank**	**Utility Or Environmental Protection**	**17/12/2022**
B	7m N	Open Storage Tank	Commercial Activity: Distribution Or Storage	08/06/2001
B	7m N	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	18/09/2003
B	14m N	Open Storage Tank	Commercial Activity: Distribution Or Storage	08/06/2001
B	15m N	Open Storage Tank	Commercial Activity: Distribution Or Storage	08/06/2001
B	15m N	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	18/09/2003
B	21m N	Open Storage Tank	Commercial Activity: Distribution Or Storage	30/10/2018
B	24m N	Open Storage Tank	Commercial Activity: Distribution Or Storage	30/10/2018
B	36m N	Open Storage Tank	Commercial Activity: Distribution Or Storage	18/09/2003
B	39m N	Open Storage Tank	Commercial Activity: Distribution Or Storage	18/09/2003
3	99m S	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	03/09/2010
D	164m SE	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	18/09/2003
E	184m SE	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	07/10/2015
E	190m SE	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	07/10/2015

This data is sourced from Ordnance Survey®.

4.3 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 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.

4.7 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.

4.8 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.

4.9 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.10 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.

4.11 Licensed industrial activities (Part A(1))

Records within 500m	33

Records of Part A(1) 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 39 >**

ID	Location	Details	
A	**On site**	**Operator: WILLAND O&M LIMITED** **Installation Name: Willand Anaerobic Digester EPR/WP3533AJ** **Process: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT** **Permit Number: WP3533AJ** **Original Permit Number: WP3533AJ**	**EPR Reference: EPR/WP3533AJ** **Issue Date: 22/09/2017** **Effective Date: 24/03/2021** **Last date noted as effective: 07/01/2026** **Status: Effective**

ID	Location	Details	
A	**On site**	**Operator: GFLE WILLAND O&M LIMITED** **Installation Name: WILLAND ANAEROBIC DIGESTER** **Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT** **Permit Number: WP3533AJ** **Original Permit Number: WP3533AJ**	**EPR Reference: -** **Issue Date: -** **Effective Date: -** **Last date noted as effective: 15/07/2017** **Status: DETERMINATION**
A	**On site**	**Operator: GFLE WILLAND O&M LIMITED** **Installation Name: WILLAND ANAEROBIC DIGESTER** **Process: ANIMAL, VEGETABLE AND FOOD; DISPOSING ETC ANIMAL CARCASSES ETC >10 T/DAY** **Permit Number: WP3533AJ** **Original Permit Number: WP3533AJ**	**EPR Reference: -** **Issue Date: -** **Effective Date: -** **Last date noted as effective: 15/07/2017** **Status: DETERMINATION**
A	**On site**	**Operator: Willand O&M Limited** **Installation Name: Willand Anaerobic Digester - EPR/WP3533AJ** **Process: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT** **Permit Number: ZP3100PQ** **Original Permit Number: WP3533AJ**	**EPR Reference: -** **Issue Date: 24/03/2021** **Effective Date: 24/03/2021** **Last date noted as effective: 21/03/2023** **Status: Superceded**
A	**On site**	**Operator: Willand O&M Limited** **Installation Name: Willand Anaerobic Digester EPR/WP3533AJ** **Process: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT** **Permit Number: DP3802BU** **Original Permit Number: WP3533AJ**	**EPR Reference: -** **Issue Date: 24/03/2021** **Effective Date: 24/03/2021** **Last date noted as effective: 21/03/2023** **Status: Effective**
C	61m S	Operator: LLOYD MAUNDER LIMITED Installation Name: Willand Abattoir Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC ANIMAL RAW MATERIALS (NOT MILK) FOR FOOD >75T/D Permit Number: LP3737PN Original Permit Number: LP3737PN	EPR Reference: EPR/LP3737PN Issue Date: 29/03/2005 Effective Date: 29/03/2005 Last date noted as effective: 07/01/2026 Status: Superseded
C	61m S	Operator: 2 SISTERS FOOD GROUP LIMITED Installation Name: Willand Poultry Abbatoir-EPR/QP3633GP Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: QP3633GP Original Permit Number: QP3633GP	EPR Reference: EPR/QP3633GP Issue Date: 05/09/2008 Effective Date: 21/12/2016 Last date noted as effective: 07/01/2026 Status: Effective

ID	Location	Details	
C	61m S	Operator: LLOYD MAUNDER LIMITED Installation Name: Willand Abattoir Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: LP3737PN Original Permit Number: LP3737PN	EPR Reference: EPR/LP3737PN Issue Date: 29/03/2005 Effective Date: 29/03/2005 Last date noted as effective: 07/01/2026 Status: Superseded
C	61m S	Operator: LLOYD MAUNDER LIMITED Installation Name: Willand Abattoir Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY BIOLOGICAL TREATMENT Permit Number: LP3737PN Original Permit Number: LP3737PN	EPR Reference: EPR/LP3737PN Issue Date: 29/03/2005 Effective Date: 29/03/2005 Last date noted as effective: 07/01/2026 Status: Superseded
C	61m S	Operator: 2 SISTERS FOOD GROUP LIMITED Installation Name: Willand Poultry Abbatoir-EPR/QP3633GP Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: QP3633GP Original Permit Number: QP3633GP	EPR Reference: EPR/QP3633GP Issue Date: 05/09/2008 Effective Date: 21/12/2016 Last date noted as effective: 07/01/2026 Status: Effective
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ASSOCIATED PROCESS Permit Number: CP3830VQ Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 17/02/2014 Effective Date: 17/02/2014 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 SISTERS FOOD GROUP LIMITED Installation Name: Willand Abattoir EPR/QP3633GP Process: ASSOCIATED PROCESS Permit Number: QP3633GP Original Permit Number: QP3633GP	EPR Reference: EPR/QP3633GP Issue Date: 21/12/2016 Effective Date: 21/12/2016 Last date noted as effective: 08/11/2023 Status: Effective
C	61m S	Operator: 2 SISTERS FOOD GROUP LTD Installation Name: WILLAND ABATTOIR Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: SP3634RE Original Permit Number: QP3633GP	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 01/04/2016 Status: DETERMINATION
C	61m S	Operator: 2 SISTERS FOOD GROUP LTD Installation Name: WILLAND ABATTOIR Process: ASSOCIATED PROCESS Permit Number: SP3634RE Original Permit Number: QP3633GP	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 01/04/2016 Status: DETERMINATION

ID	Location	Details	
C	61m S	Operator: 2 SISTERS FOOD GROUP LTD Installation Name: WILLAND ABATTOIR Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: SP3634RE Original Permit Number: QP3633GP	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 01/04/2016 Status: DETERMINATION
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ASSOCIATED PROCESS Permit Number: LP3334RS Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 04/05/2016 Effective Date: 04/05/2016 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: CP3830VQ Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 17/02/2014 Effective Date: 17/02/2014 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: HP3434RP Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 21/12/2016 Effective Date: 21/12/2016 Last date noted as effective: 21/03/2023 Status: Effective
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: LP3334RS Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 04/05/2016 Effective Date: 04/05/2016 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC ANIMAL RAW MATERIALS (NOT MILK) FOR FOOD >75T/D Permit Number: MP3130NF Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 12/04/2013 Effective Date: 12/04/2013 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY BIOLOGICAL TREATMENT Permit Number: MP3130NF Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 12/04/2013 Effective Date: 12/04/2013 Last date noted as effective: 21/03/2023 Status: Superceded

ID	Location	Details	
C	61m S	Operator: 2 Sisters Food Products Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC ANIMAL RAW MATERIALS (NOT MILK) FOR FOOD >75T/D Permit Number: BP3033KB Original Permit Number: QP3633GP	EPR Reference: EA/EPR/QP3633GP/V003 Issue Date: 30/04/2010 Effective Date: 30/04/2010 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: LP3334RS Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 04/05/2016 Effective Date: 04/05/2016 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: MP3130NF Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 12/04/2013 Effective Date: 12/04/2013 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: HP3434RP Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 21/12/2016 Effective Date: 21/12/2016 Last date noted as effective: 21/03/2023 Status: Effective
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ASSOCIATED PROCESS Permit Number: HP3434RP Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 21/12/2016 Effective Date: 21/12/2016 Last date noted as effective: 21/03/2023 Status: Effective
C	61m S	Operator: 2 Sisters Food Products Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY BIOLOGICAL TREATMENT Permit Number: BP3033KB Original Permit Number: QP3633GP	EPR Reference: EA/EPR/QP3633GP/V003 Issue Date: 30/04/2010 Effective Date: 30/04/2010 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Products Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: BP3033KB Original Permit Number: QP3633GP	EPR Reference: EA/EPR/QP3633GP/V003 Issue Date: 30/04/2010 Effective Date: 30/04/2010 Last date noted as effective: 21/03/2023 Status: Superceded

ID	Location	Details	
C	61m S	Operator: 2 Sisters Food Group Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: CP3830VQ Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 17/02/2014 Effective Date: 17/02/2014 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Products Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC ANIMAL RAW MATERIALS (NOT MILK) FOR FOOD >75T/D Permit Number: QP3633GP Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 05/09/2008 Effective Date: 05/09/2008 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 Sisters Food Products Ltd Installation Name: Willand Abattoir EPR/QP3633GP Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY BIOLOGICAL TREATMENT Permit Number: QP3633GP Original Permit Number: QP3633GP	EPR Reference: - Issue Date: 05/09/2008 Effective Date: 05/09/2008 Last date noted as effective: 21/03/2023 Status: Superceded
C	61m S	Operator: 2 SISTERS FOOD GROUP LIMITED Installation Name: Willand Poultry Abbatoir-EPR/QP3633GP Process: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY Permit Number: QP3633GP Original Permit Number: QP3633GP	EPR Reference: EPR/QP3633GP Issue Date: 05/09/2008 Effective Date: 21/12/2016 Last date noted as effective: 07/01/2026 Status: Effective
C	61m S	Operator: 2 SISTERS FOOD GROUP LIMITED Installation Name: Willand Poultry Abbatoir-EPR/QP3633GP Process: DIRECTLY ASSOCIATED ACTIVITY (INCLUDED) Permit Number: QP3633GP Original Permit Number: QP3633GP	EPR Reference: EPR/QP3633GP Issue Date: 05/09/2008 Effective Date: 21/12/2016 Last date noted as effective: 07/01/2026 Status: Effective

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

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

Records within 500m	**3**

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 39 >**

ID	Location	Address	Details	
C	48m S	Lloyd Maunder Ltd, Feed Mill, Uffculme, EX15 3AX	Process: Pet Food Manufacture Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
I	455m NE	TWR Commercial Bodybuilders Ltd, Willand Industrial Estate, Willand, Devon, EX15 2QW	Process: Respraying of Road Vehicles Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
I	484m NE	Twose Of Taverton Ltd, Lowman Green, EX16 4JT	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.13 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.

4.14 Licensed Discharges to controlled waters

Records within 500m	**11**

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 39 >**

ID	Location	Address	Details	
B	72m N	LLOYD MAUNDER LTD, WILLAND, CULLOMPTON, DEVON	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - WATER COMPANY (WTW) Permit Number: NRA-SW-1920 Permit Version: 1 Receiving Water: SPRATFORD STREAM	Status: CONSENT REVOKED - DISCHARGE CEASED (WRA 91, SCHED 10 & 6) Issue date: 03/08/1990 Effective Date: 03/08/1990 Revocation Date: 04/02/2002

ID	Location	Address	Details	
B	80m N	LLOYD MAUNDER LTD, WILLAND, CULLOMPTON, DEVON	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - WATER COMPANY (WTW) Permit Number: NRA-SW-6663 Permit Version: 1 Receiving Water: SPRATFORD STREAM	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/07/1994 Effective Date: 12/07/1994 Revocation Date: 24/05/2005
F	269m NE	PUMPING STATION AT STATION ROAD, STATION ROAD, WILLAND, CULLOMPTON, DEVON, EX15 2QA	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 202175 Permit Version: 1 Receiving Water: SPRATFORD STREAM	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 26/06/2007 Effective Date: 26/06/2007 Revocation Date: 06/07/2023
G	274m N	PUMPING STATION AT STATION ROAD, STATION ROAD, WILLAND, CULLOMPTON, DEVON, EX15 2QA	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 202175 Permit Version: 2 Receiving Water: SPRATFORD STREAM VIA SW SEWER	Status: VARIED UNDER EPR 2010 Issue date: 07/07/2023 Effective Date: 07/07/2023 Revocation Date: -
G	274m N	PUMPING STATION AT STATION ROAD, STATION ROAD, WILLAND, CULLOMPTON, DEVON, EX15 2QA	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 202175 Permit Version: 2 Receiving Water: SPRATFORD STREAM VIA SW SEWER	Status: VARIED UNDER EPR 2010 Issue date: 07/07/2023 Effective Date: 07/07/2023 Revocation Date: -
H	309m NE	WILLAND (FRONT OF ASSEMBLY ROOMS), SSO	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: NRA-SW-1694 Permit Version: 1 Receiving Water: SPRATFORD STREAM	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 30/10/1989 Effective Date: 30/10/1989 Revocation Date: 23/10/2000
H	309m NE	WILLAND (FRONT OF ASSEMBLY ROOMS), SSO	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: NRA-SW-1693 Permit Version: 1 Receiving Water: SPRATFORD STREAM	Status: REVOKED - UNSPECIFIED Issue date: 30/10/1989 Effective Date: 30/10/1989 Revocation Date: 22/06/2001

ID	Location	Address	Details	
10	310m N	WOODCOXHAYES FARM, HALBERTON ROAD, WILLAND, CULLOMPTON, DEVON, EX15 2QF	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 200215/PW/01 Permit Version: 1 Receiving Water: TRINBUTARY OF SPRATFORD STREAM	Status: VARIED BY APPLICATION - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 16/12/1996 Effective Date: 16/12/1996 Revocation Date: -
11	317m N	SKINS INTERNATIONAL LTD, STATION ROAD, WILLAND, CULLOMPTON, DEVON, EX15 2QE	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - WATER COMPANY (WTW) Permit Number: 200071/TR/01 Permit Version: 1 Receiving Water: SPRATFORD STREAM	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 28/10/1996 Effective Date: 28/10/1996 Revocation Date: 11/07/2006
12	325m NW	SLOUGH FARM, WILLAND, CULLOMPTON, DEVON	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - WATER COMPANY (WTW) Permit Number: FDA 1302 Permit Version: 1 Receiving Water: UNKNOWN	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 04/07/1984 Effective Date: 04/07/1984 Revocation Date: 15/08/2000
13	349m N	ESSO PETROLEUM CO LTD, TIVERTON BULK PLANT, TIVERTON JUNCTION, WILLAND, DEVON	Effluent Type: MISCELLANEOUS DISCHARGES - MINE/GROUNDWATER AS RAISED Permit Number: DRA 1400 Permit Version: 1 Receiving Water: SPRATFORD STREAM TO EXE	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 26/08/1971 Effective Date: 26/08/1971 Revocation Date: 13/11/2002

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

4.15 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.

4.16 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.

4.17 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.

4.18 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 39 >**

ID	Location	Name	Status	Receiving Water	Authorised Substances
G	234m N	Strong Rawle & Strong	Not Active	-	Chromium, Copper, Lead, Nickel, pH, Zinc

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

4.19 Pollution Incidents (EA/NRW)

Records within 500m	5

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 39 >**

ID	Location	Details	
B	28m N	Incident Date: 01/08/2024 Incident Identification: 2292897 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
4	112m SW	Incident Date: 25/07/2014 Incident Identification: 1261015 Pollutant: Other Pollutant Pollutant Description: Noise	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
D	127m SE	Incident Date: 01/08/2020 Incident Identification: 1832746 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)

ID	Location	Details	
E	209m SE	Incident Date: 17/07/2020 Incident Identification: 1828035 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Odour	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
14	422m N	Incident Date: 13/05/2002 Incident Identification: 78392 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.

4.20 Pollution inventory substances

Records within 500m	**1**

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.

Features are displayed on the Current industrial land use map on **page 39 >**

ID: C, Location: 61m S, Permit: QP3633GP
Operator: 2 Sisters Food Group Ltd
Activity: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY
Address: Lloyd Maunder Road Cullompton Devon EX15 2PJ
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Controlled Waters	Mercury	0.1kg	Below Reporting Threshold
Controlled Waters	Cadmium	1kg	Below Reporting Threshold
Air	Hydrofluorocarbons (HFCs)	100kg	Below Reporting Threshold
Controlled Waters	Phosphorus - as total P	5000kg	Below Reporting Threshold
Controlled Waters	Total organic carbon (TOC)	50000kg	Below Reporting Threshold

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

4.21 Pollution inventory waste transfers

Records within 500m	1

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.

Features are displayed on the Current industrial land use map on **page 39 >**

ID: C, Location: 61m S, Permit: QP3633GP
Operator: 2 Sisters Food Group Ltd
Activity: ANIMAL, VEGETABLE AND FOOD; SLAUGHTERING ANIMALS >50 T/DAY
Address: Lloyd Maunder Road Cullompton Devon EX15 2PJ
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	38852	Absolute Value	02 02 03	materials unsuitable for consumption or processing	No
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	17554.6	Absolute Value	02 02 04	sludges from on-site effluent treatment	No
R5	Recycling/reclamation of other inorganic materials	54	Absolute Value	20 01 39	plastics	No
R1	Use principally as a fuel or other means to generate energy	548.4	Absolute Value	20 03 01	mixed municipal waste	No
R4	Recycling/reclamation of metals and metal compounds	44.2	Absolute Value	20 01 40	metals	No

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

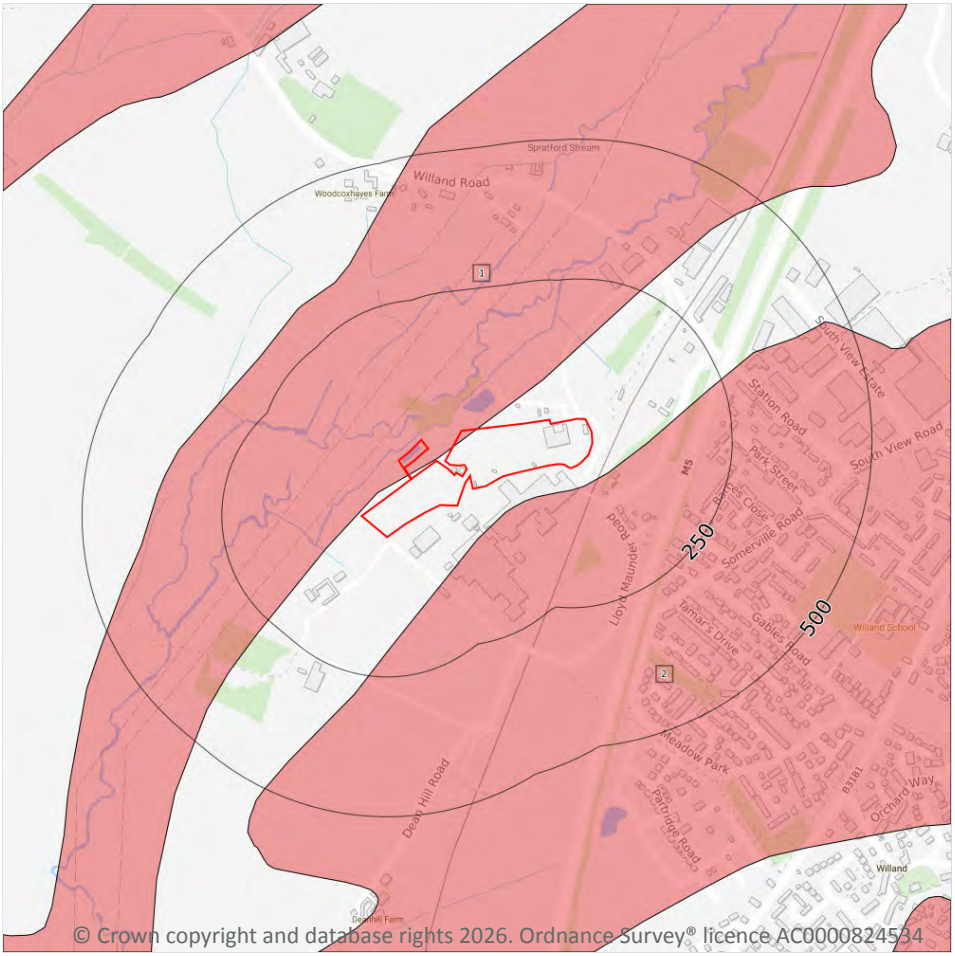
4.22 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	2

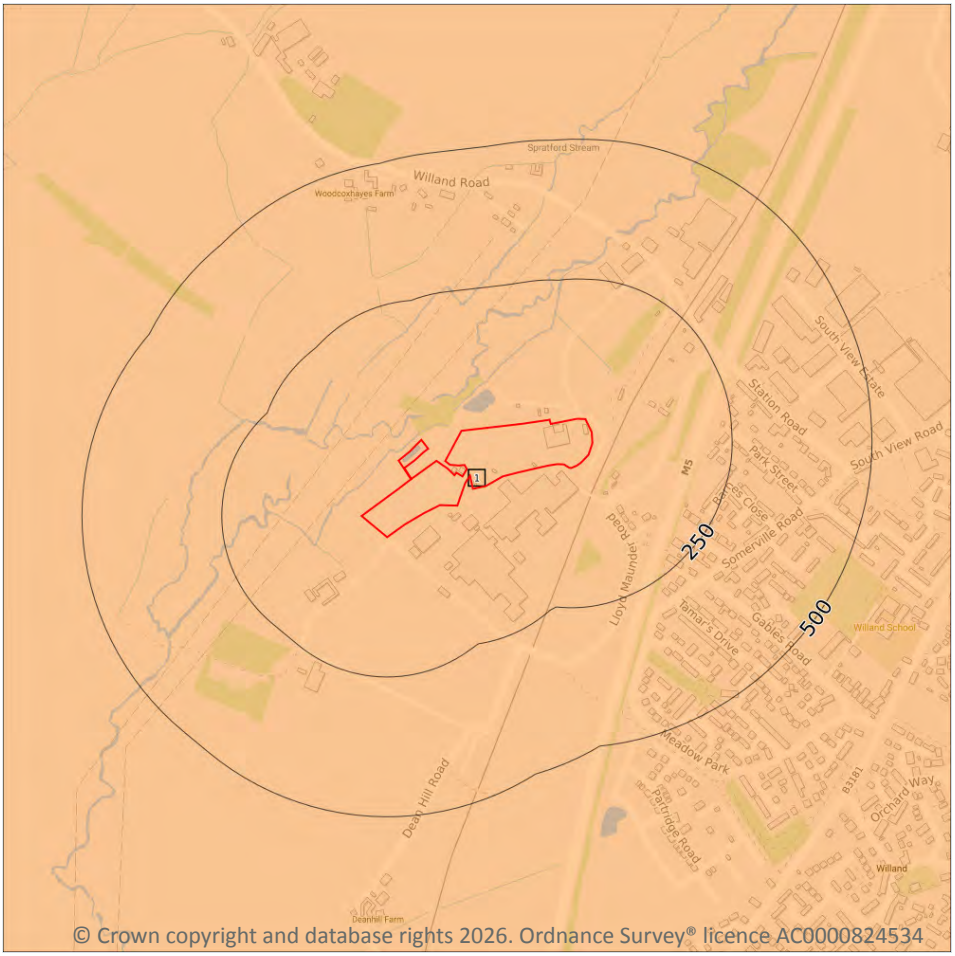
Aquifer status of groundwater held within superficial geology.

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

ID	Location	Designation	Description
1	**On site**	**Secondary 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	38m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m	1

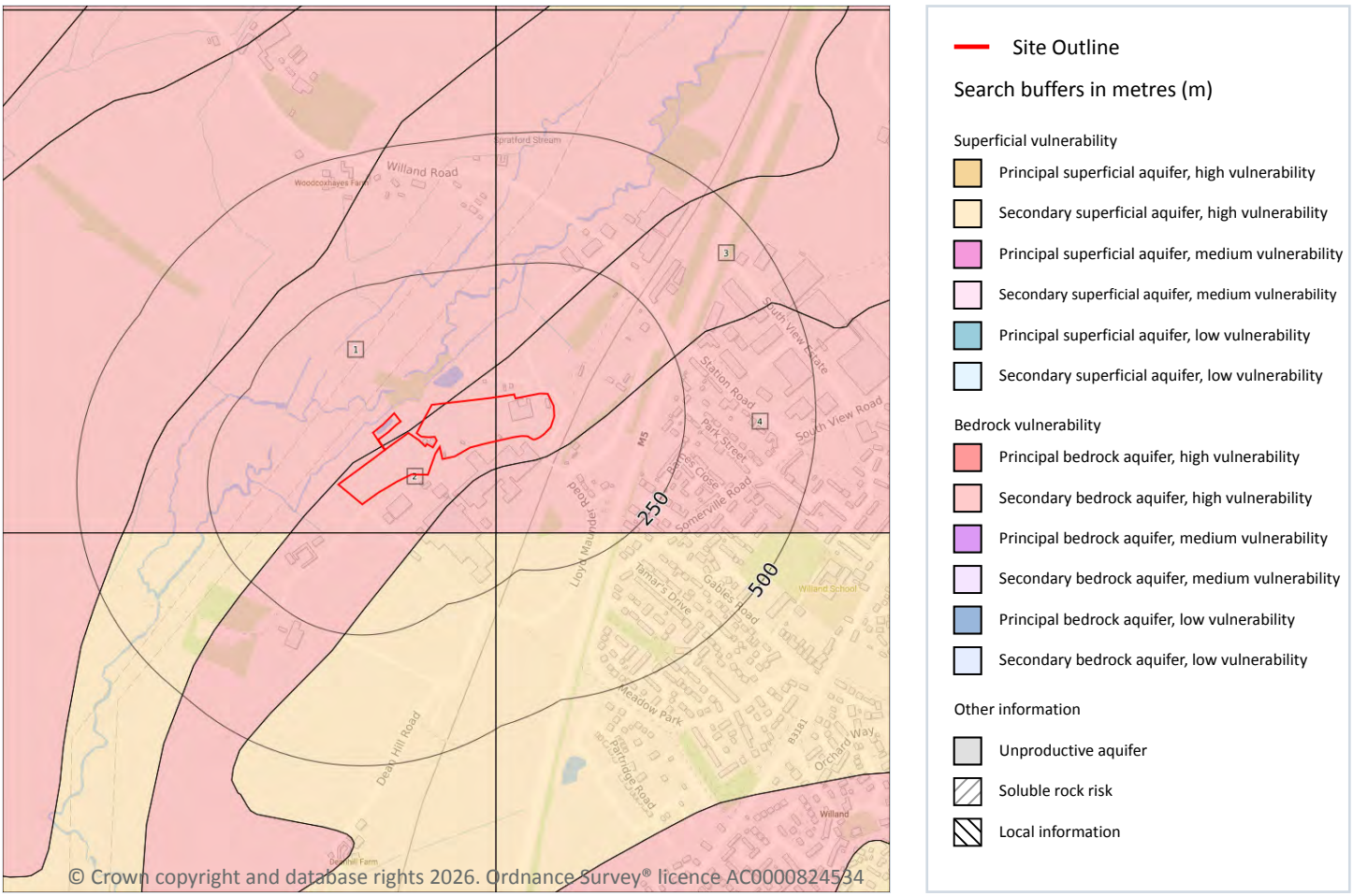
Aquifer status of groundwater held within bedrock geology.

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

ID	Location	Designation	Description
1	On site	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



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5.3 Groundwater vulnerability

Records within 50m	4

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

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

Features are displayed on the Groundwater vulnerability map on **page 59 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Intermediate Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: Medium Aquifer type: Secondary Thickness: <3m 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: Intermediate Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures**
3	**On site**	**Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Intermediate Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: High**	**Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures**
4	38m S	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	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.

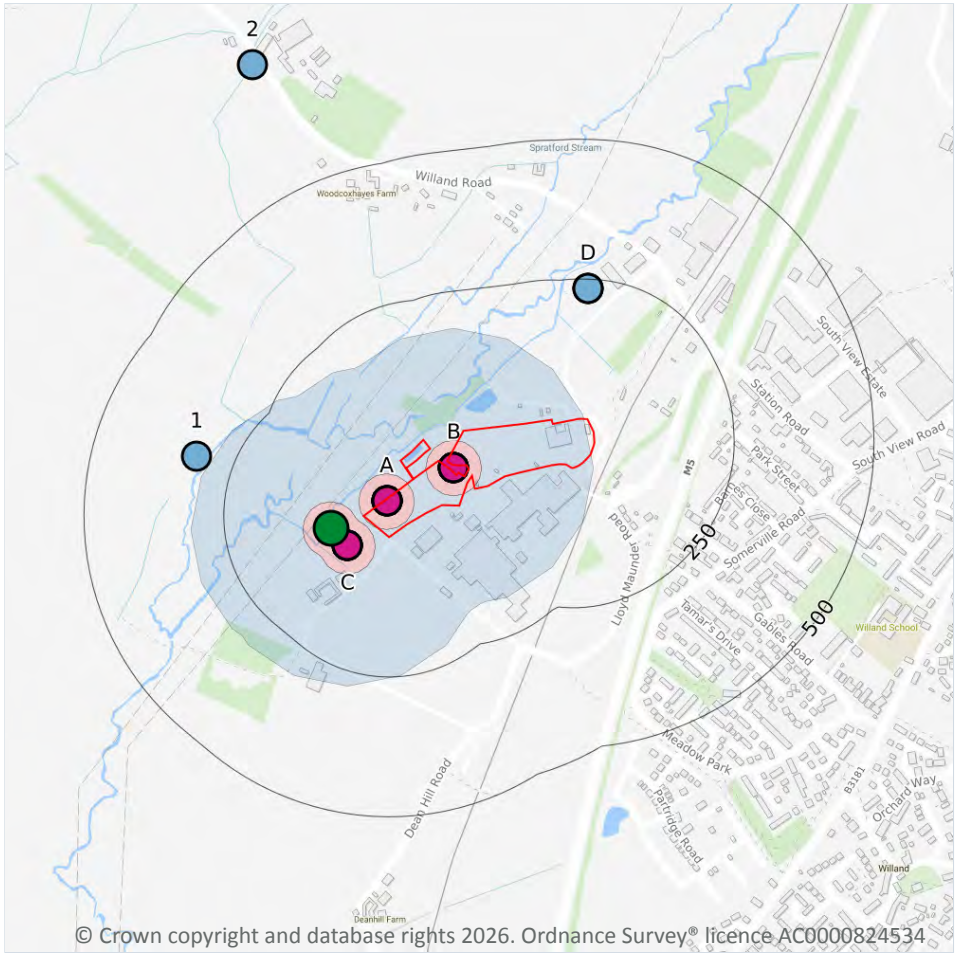
5.5 Groundwater vulnerability- local information

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	59

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

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

ID	Location	Details	
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: General Use Relating To Secondary Category (Medium Loss)** **Direct Source: Ground Water - Fresh** **Point: LLOYD MAUNDER - BOREHOLE #2** **Data Type: Point** **Name: Lloyd Maunder Ltd** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 454609** **Max Daily Volume (m^3): 1590.9** **Original Application No: -** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 100** **Version Start Date: 01/04/1993** **Version End Date: -**
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household** **Direct Source: Ground Water - Fresh** **Point: LLOYD MAUNDER - BOREHOLE #2** **Data Type: Point** **Name: Lloyd Maunder Ltd** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 454609** **Max Daily Volume (m^3): 1590.9** **Original Application No: -** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 100** **Version Start Date: 01/04/1993** **Version End Date: -**
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: Evaporative Cooling** **Direct Source: Ground Water - Fresh** **Point: LLOYD MAUNDER - BOREHOLE #2** **Data Type: Point** **Name: 2 Sisters Food Group Limited** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 453715** **Max Daily Volume (m^3): 1588** **Original Application No: -** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 101** **Version Start Date: 18/06/2014** **Version End Date: -**
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: Non-Evaporative Cooling** **Direct Source: Ground Water - Fresh** **Point: LLOYD MAUNDER - BOREHOLE #2** **Data Type: Point** **Name: 2 Sisters Food Group Limited** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 453715** **Max Daily Volume (m^3): 1588** **Original Application No: -** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 101** **Version Start Date: 18/06/2014** **Version End Date: -**
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: General Washing/Process Washing** **Direct Source: Ground Water - Fresh** **Point: LLOYD MAUNDER - BOREHOLE #2** **Data Type: Point** **Name: 2 Sisters Food Group Limited** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 453715** **Max Daily Volume (m^3): 1588** **Original Application No: -** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 101** **Version Start Date: 18/06/2014** **Version End Date: -**

ID	Location	Details	
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: General Use Relating To Secondary Category (Medium Loss)** **Direct Source: Ground Water - Fresh** **Point: LLOYD MAUNDER - BOREHOLE #2** **Data Type: Point** **Name: 2 Sisters Food Group Limited** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 453715** **Max Daily Volume (m^3): 1588** **Original Application No: -** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 101** **Version Start Date: 18/06/2014** **Version End Date: -**
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: Non-Evaporative Cooling** **Direct Source: Ground Water - Fresh** **Point: BOREHOLE #2 AT WILLAND** **Data Type: Point** **Name: 2 Sisters Food Group Limited** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 453533** **Max Daily Volume (m^3): 1588** **Original Application No: NPS/WR/016138** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 101** **Version Start Date: 18/06/2014** **Version End Date: -**
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: General Washing/Process Washing** **Direct Source: Ground Water - Fresh** **Point: BOREHOLE #2 AT WILLAND** **Data Type: Point** **Name: 2 Sisters Food Group Limited** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 453533** **Max Daily Volume (m^3): 1588** **Original Application No: NPS/WR/016138** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 101** **Version Start Date: 18/06/2014** **Version End Date: -**
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: Evaporative Cooling** **Direct Source: Ground Water - Fresh** **Point: BOREHOLE #2 AT WILLAND** **Data Type: Point** **Name: 2 Sisters Food Group Limited** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 453533** **Max Daily Volume (m^3): 1588** **Original Application No: NPS/WR/016138** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 101** **Version Start Date: 18/06/2014** **Version End Date: -**
A	On site	**Status: Historical** **Licence No: 14/45/002/1980** **Details: General Use Relating To Secondary Category (Medium Loss)** **Direct Source: Ground Water - Fresh** **Point: BOREHOLE #2 AT WILLAND** **Data Type: Point** **Name: 2 Sisters Food Group Limited** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 453533** **Max Daily Volume (m^3): 1588** **Original Application No: NPS/WR/016138** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 101** **Version Start Date: 18/06/2014** **Version End Date: -**

ID	Location	Details	
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: Evaporative Cooling Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #1 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302860 Northing: 111180	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #1 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302860 Northing: 111180	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #1 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302860 Northing: 111180	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #1 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302860 Northing: 111180	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: General Washing/Process Washing Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #1 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302860 Northing: 111180	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -

ID	Location	Details	
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: Non-Evaporative Cooling Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #1 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302860 Northing: 111180	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: Non-Evaporative Cooling Direct Source: Ground Water - Fresh Point: BOREHOLE #1 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302860 Northing: 111180	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: General Washing/Process Washing Direct Source: Ground Water - Fresh Point: BOREHOLE #1 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302860 Northing: 111180	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: Evaporative Cooling Direct Source: Ground Water - Fresh Point: BOREHOLE #1 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302860 Northing: 111180	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: BOREHOLE #1 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302860 Northing: 111180	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -

ID	Location	Details	
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #3 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302670 Northing: 111040	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #3 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302670 Northing: 111040	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: Evaporative Cooling Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #3 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302670 Northing: 111040	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #3 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302670 Northing: 111040	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: Non-Evaporative Cooling Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #3 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302670 Northing: 111040	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -

ID	Location	Details	
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: General Washing/Process Washing Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #3 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302670 Northing: 111040	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: General Washing/Process Washing Direct Source: Ground Water - Fresh Point: BOREHOLE #3 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302670 Northing: 111040	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: Non-Evaporative Cooling Direct Source: Ground Water - Fresh Point: BOREHOLE #3 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302670 Northing: 111040	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: BOREHOLE #3 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302670 Northing: 111040	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: Evaporative Cooling Direct Source: Ground Water - Fresh Point: BOREHOLE #3 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302670 Northing: 111040	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -

ID	Location	Details	
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #4 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302640 Northing: 111070	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #4 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302640 Northing: 111070	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #4 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302640 Northing: 111070	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: Evaporative Cooling Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #4 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302640 Northing: 111070	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: Non-Evaporative Cooling Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #4 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302640 Northing: 111070	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -

ID	Location	Details	
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: General Washing/Process Washing Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #4 Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302640 Northing: 111070	Annual Volume (m^3): 453715 Max Daily Volume (m^3): 1588 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: Evaporative Cooling Direct Source: Ground Water - Fresh Point: BOREHOLE #4 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302640 Northing: 111070	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: BOREHOLE #4 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302640 Northing: 111070	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: General Washing/Process Washing Direct Source: Ground Water - Fresh Point: BOREHOLE #4 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302640 Northing: 111070	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: Non-Evaporative Cooling Direct Source: Ground Water - Fresh Point: BOREHOLE #4 AT WILLAND Data Type: Point Name: 2 Sisters Food Group Limited Easting: 302640 Northing: 111070	Annual Volume (m^3): 453533 Max Daily Volume (m^3): 1588 Original Application No: NPS/WR/016138 Original Start Date: 23/10/1970 Expiry Date: - Issue No: 101 Version Start Date: 18/06/2014 Version End Date: -

ID	Location	Details	
D	234m N	Status: Historical Licence No: 14/45/002/0513 Details: Process water Direct Source: Ground Water - Fresh Point: "SKINS INTERNATIONAL LTD, BOREHOLE" Data Type: Point Name: Skins International Ltd Easting: 303100 Northing: 111500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/01/1996 Version End Date: -
D	234m N	Status: Historical Licence No: 14/45/002/0513 Details: Process water Direct Source: Ground Water - Fresh Point: SKINS INTERNATIONAL LTD, BOREHOLE Data Type: Point Name: Skins International Ltd Easting: 303100 Northing: 111500	Annual Volume (m^3): 14184 Max Daily Volume (m^3): 54.55 Original Application No: - Original Start Date: 01/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/01/1996 Version End Date: -
-	1139m N	Status: Historical Licence No: 14/45/002/2338 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "YEO FARM, BOREHOLE" Data Type: Point Name: Alford Easting: 303200 Northing: 112400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 12/05/1991 Expiry Date: - Issue No: 100 Version Start Date: 12/05/1991 Version End Date: -
-	1139m N	Status: Historical Licence No: 14/45/002/2338 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: YEO FARM, BOREHOLE Data Type: Point Name: Alford Easting: 303200 Northing: 112400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 12/05/1991 Expiry Date: - Issue No: 100 Version Start Date: 12/05/1991 Version End Date: -
-	1152m N	Status: Historical Licence No: 14/45/002/0629 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "YEO FARM, WELL" Data Type: Point Name: Alford Easting: 303300 Northing: 112400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 06/02/1991 Version End Date: -

ID	Location	Details	
-	1152m N	Status: Historical Licence No: 14/45/002/0629 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: YEO FARM, WELL Data Type: Point Name: Alford Easting: 303300 Northing: 112400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 06/02/1991 Version End Date: -
-	1231m NW	Status: Historical Licence No: 14/45/002/0231 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "NETHEREXE FARM, WELL" Data Type: Point Name: Martin Easting: 302200 Northing: 112300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 29/04/1966 Expiry Date: - Issue No: 100 Version Start Date: 29/04/1966 Version End Date: -
-	1231m NW	Status: Historical Licence No: 14/45/002/0231 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: NETHEREXE FARM, WELL Data Type: Point Name: Martin Easting: 302200 Northing: 112300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 29/04/1966 Expiry Date: - Issue No: 100 Version Start Date: 29/04/1966 Version End Date: -
-	1507m S	Status: Historical Licence No: 14/45/002/2474 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: LOWER MARLS - BOREHOLE Data Type: Point Name: Verbeer Manor Easting: 303100 Northing: 109590	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1997 Expiry Date: - Issue No: 100 Version Start Date: 18/02/1997 Version End Date: -
-	1507m S	Status: Historical Licence No: 14/45/002/2474 Details: General use relating to Secondary Category (High Loss) Direct Source: Ground Water - Fresh Point: LOWER MARLS - BOREHOLE Data Type: Point Name: Trustees of HE SAS Pension Fund Easting: 303100 Northing: 109590	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1997 Expiry Date: - Issue No: 102 Version Start Date: 28/10/2003 Version End Date: -

ID	Location	Details	
-	1507m S	Status: Historical Licence No: 14/45/002/2474 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: LOWER MARLS - BOREHOLE Data Type: Point Name: Trustees of HE SAS Pension Fund Easting: 303100 Northing: 109590	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1997 Expiry Date: - Issue No: 102 Version Start Date: 28/10/2003 Version End Date: -
-	1700m SE	Status: Active Licence No: 14/45/002/2177 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: SKINNERS FARM BOREHOLE Data Type: Point Name: Rew Easting: 304200 Northing: 109900	Annual Volume (m^3): 9088 Max Daily Volume (m^3): 409.14 Original Application No: 11066 Original Start Date: 07/02/1980 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2003 Version End Date: -
-	1700m SE	Status: Active Licence No: 14/45/002/2177 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: SKINNERS FARM BOREHOLE Data Type: Point Name: Rew Easting: 304200 Northing: 109900	Annual Volume (m^3): 9088 Max Daily Volume (m^3): 409.14 Original Application No: 11066 Original Start Date: 07/02/1980 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2003 Version End Date: -
-	1738m NE	Status: Historical Licence No: 14/45/002/2569 Details: Vegetable washing Direct Source: Ground Water - Fresh Point: PITT FARM SEEPAGE FED POND Data Type: Point Name: Dorse Easting: 304270 Northing: 112550	Annual Volume (m^3): 2387 Max Daily Volume (m^3): 19.2 Original Application No: - Original Start Date: 17/06/2003 Expiry Date: 31/03/2016 Issue No: 101 Version Start Date: 17/06/2003 Version End Date: -
-	1738m NE	Status: Historical Licence No: 14/45/002/2569 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: PITT FARM SEEPAGE FED POND Data Type: Point Name: Dorse Easting: 304270 Northing: 112550	Annual Volume (m^3): 2387 Max Daily Volume (m^3): 19.2 Original Application No: - Original Start Date: 17/06/2003 Expiry Date: 31/03/2016 Issue No: 101 Version Start Date: 17/06/2003 Version End Date: -

ID	Location	Details	
-	1746m N	Status: Historical Licence No: 14/45/002/0516 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "WATTON FARM, TAPPED SPRING" Data Type: Point Name: Messrs L J Grabham & Son Easting: 302300 Northing: 112900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/08/1999 Version End Date: -
-	1746m N	Status: Historical Licence No: 14/45/002/0516 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: WATTON FARM, TAPPED SPRING Data Type: Point Name: Messrs L J Grabham & Son Easting: 302300 Northing: 112900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/08/1999 Version End Date: -
-	1804m W	Status: Historical Licence No: 14/45/002/1759 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: "BRYMERY TAPPED SPRING IN O.S. NOS. 525,527,528,529" Data Type: Point Name: Stevens Easting: 301000 Northing: 111700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 30/06/1967 Expiry Date: - Issue No: 100 Version Start Date: 30/06/1967 Version End Date: -
-	1804m W	Status: Historical Licence No: 14/45/002/1759 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - Fresh Point: BRYMERY TAPPED SPRING IN O.S. NOS. 525,527,528,529 Data Type: Point Name: Stevens Easting: 301000 Northing: 111700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 30/06/1967 Expiry Date: - Issue No: 100 Version Start Date: 30/06/1967 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	5

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

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

ID	Location	Details	
D	234m N	Status: Historical Licence No: 14/45/002/0514 Details: Process water Direct Source: Surface Water - Fresh Point: SKINS INTERNATIONAL Data Type: Point Name: Skins International Ltd Easting: 303100 Northing: 111500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/01/1996 Version End Date: -
1	317m W	Status: Active Licence No: 14/45/002/2348 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Surface Water - Fresh Point: SLOUGH FARM - STREAM Data Type: Point Name: Messrs C R & M M Gollop & Sons Easting: 302400 Northing: 111200	Annual Volume (m^3): 4960 Max Daily Volume (m^3): 24.8 Original Application No: 12157 Original Start Date: 11/10/1991 Expiry Date: - Issue No: 100 Version Start Date: 01/10/2007 Version End Date: -
2	738m NW	Status: Active Licence No: 14/45/002/2348 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Surface Water - Fresh Point: SLOUGH FARM - UNNAMED TRIB Data Type: Point Name: Messrs C R & M M Gollop & Sons Easting: 302500 Northing: 111900	Annual Volume (m^3): 4960 Max Daily Volume (m^3): 24.8 Original Application No: 12157 Original Start Date: 11/10/1991 Expiry Date: - Issue No: 100 Version Start Date: 01/10/2007 Version End Date: -
-	1610m SE	Status: Historical Licence No: 14/45/002/2341 Details: Fish Farm/Cress Pond Throughflow Direct Source: Surface Water - Fresh Point: R CULM Data Type: Point Name: Folds Easting: 304500 Northing: 110400	Annual Volume (m^3): 300000 Max Daily Volume (m^3): 9092 Original Application No: - Original Start Date: 13/06/1991 Expiry Date: - Issue No: 101 Version Start Date: 06/05/2009 Version End Date: -

ID	Location	Details	
-	1639m W	Status: Active Licence No: SW/045/0002/070 Details: Trickle Irrigation - Direct Direct Source: Surface Water - Fresh Point: TRIBUTARY OF HALBERTON STREAM AT HALBERTON COURT FARM Data Type: Point Name: E J Stevens & Son Easting: 301173 Northing: 111691	Annual Volume (m^3): 6300 Max Daily Volume (m^3): 900 Original Application No: NPS/WR/034555 Original Start Date: 16/03/2021 Expiry Date: 31/03/2028 Issue No: 1 Version Start Date: 16/03/2021 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m **4**

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

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

ID	Location	Details	
A	**On site**	**Status: Historical** **Licence No: 14/45/002/1980** **Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household** **Direct Source: Ground Water - Fresh** **Point: LLOYD MAUNDER - BOREHOLE #2** **Data Type: Point** **Name: Lloyd Maunder Ltd** **Easting: 302740** **Northing: 111120**	**Annual Volume (m^3): 454609** **Max Daily Volume (m^3): 1590.9** **Original Application No: -** **Original Start Date: 23/10/1970** **Expiry Date: -** **Issue No: 100** **Version Start Date: 01/04/1993** **Version End Date: -**
B	4m S	Status: Historical Licence No: 14/45/002/1980 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #1 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302860 Northing: 111180	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -

ID	Location	Details	
C	59m SW	Status: Historical Licence No: 14/45/002/1980 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #3 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302670 Northing: 111040	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
C	63m W	Status: Historical Licence No: 14/45/002/1980 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - Fresh Point: LLOYD MAUNDER - BOREHOLE #4 Data Type: Point Name: Lloyd Maunder Ltd Easting: 302640 Northing: 111070	Annual Volume (m^3): 454609 Max Daily Volume (m^3): 1590.9 Original Application No: - Original Start Date: 23/10/1970 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	**4**

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

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

ID	Location	Type	Description
A	**On site**	**1**	**Inner catchment**
A	**On site**	**2**	**Outer catchment**
B	**On site**	**1**	**Inner catchment**
C	11m SW	1	Inner catchment

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

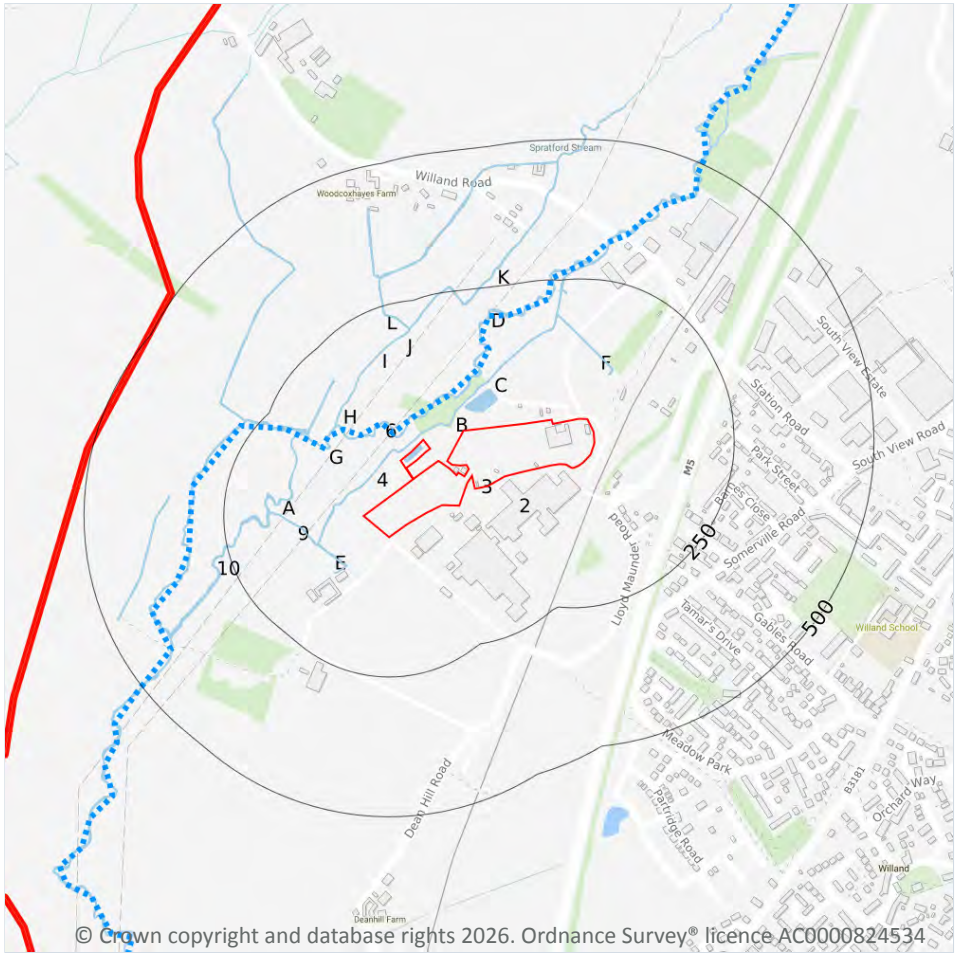
5.10 Source Protection Zones (confined aquifer)

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	35

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 79 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
4	11m NW	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
B	26m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
6	34m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
C	39m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	44m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Spratford Stream
D	61m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
E	87m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	88m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	89m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
9	97m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	110m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	130m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
H	132m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
A	133m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream

ID	Location	Type of water feature	Ground level	Permanence	Name
D	143m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	144m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
H	147m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Spratford Stream
G	147m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
H	148m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
D	148m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
H	151m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Spratford Stream
D	161m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	161m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
10	170m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
H	171m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	174m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
G	188m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream

ID	Location	Type of water feature	Ground level	Permanence	Name
G	189m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
D	189m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
J	191m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Spratford Stream
J	192m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
K	200m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spratford Stream
L	200m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	225m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	234m N	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	**12**

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

Features are displayed on the Hydrology map on **page 79 >**

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 79 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	**On site**	**River**	**Spratford Stream**	**GB108045015020**	**Clyst and Culm**	**Devon East**

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

6.4 WFD Surface water bodies

Records identified	1

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

Features are displayed on the Hydrology map on **page 79 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
7	43m NW	River	Spratford Stream	GB108045015020 ↗	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site	1

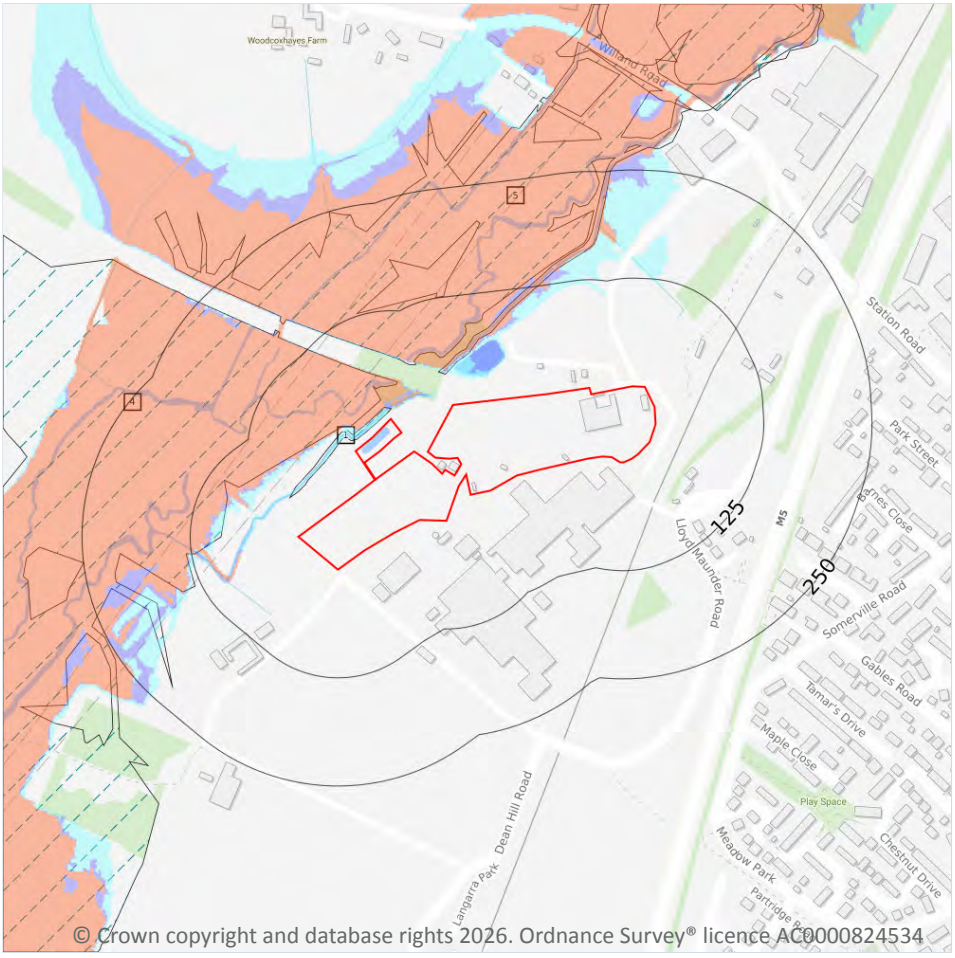
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 79 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
3	**On site**	**Central Devon and Exe - Aylesbeare Mudstone**	**GB40802G801800** ↗	**Poor**	**Poor**	**Good**	**2019**

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

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m	6

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

Features are displayed on the River and coastal flooding map on **page 85 >**

Distance	Flood risk category
On site	**N/A**
0 - 50m	High

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

7.2 Historical Flood Events

Records within 250m	**3**

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.

Features are displayed on the River and coastal flooding map on **page 85 >**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
1	8m NW	River Culm: Spratford Stream	1983-12-01 1983-12-31	Main river	Channel capacity exceeded (no raised defences)	Fluvial
4	24m NW	River Culm: Spratford Stream	1983-12-01 1983-12-31	Main river	Channel capacity exceeded (no raised defences)	Fluvial
5	37m N	River Culm: Spratford Stream	1983-12-01 1983-12-31	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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.

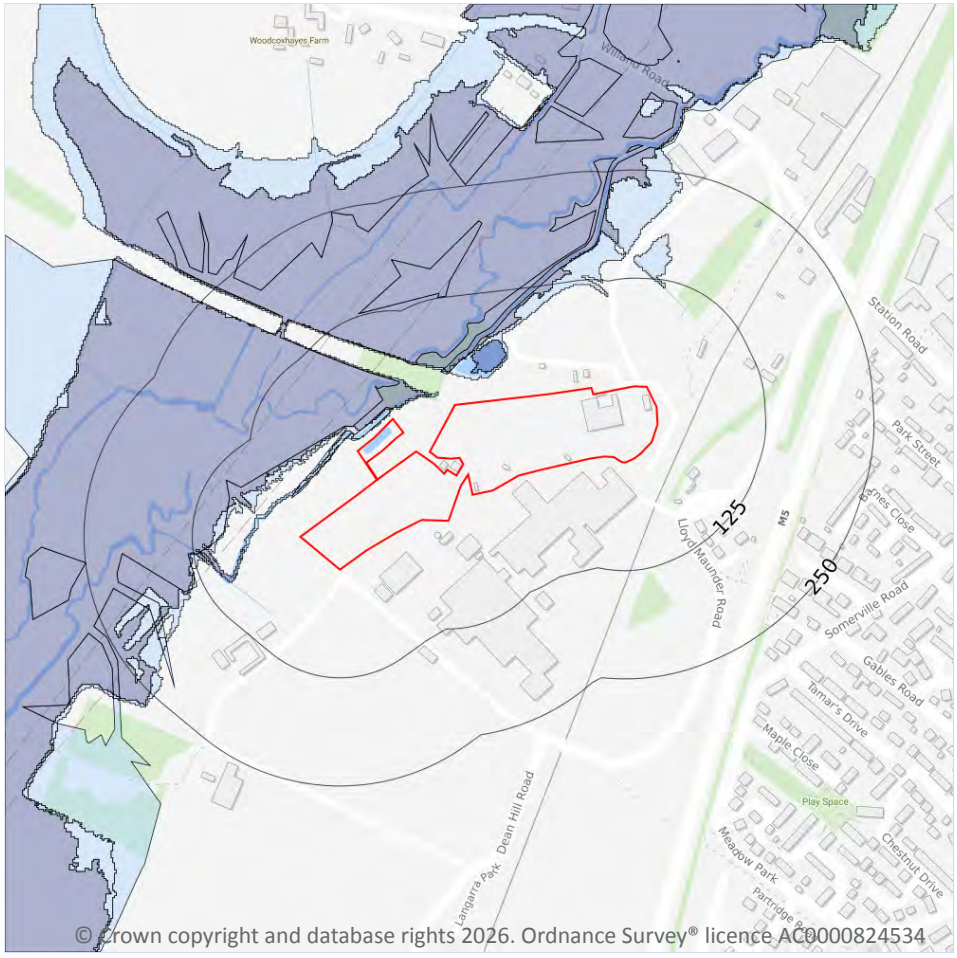
7.5 Flood Storage Areas

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



Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

7.6 Flood Zone 2

Records within 50m	1

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.

Features are displayed on the River and coastal flooding map on **page 85 >**

Location	Type
5m NW	Zone 2 - (Fluvial /Tidal Models)

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

7.7 Flood Zone 3

Records within 50m	1

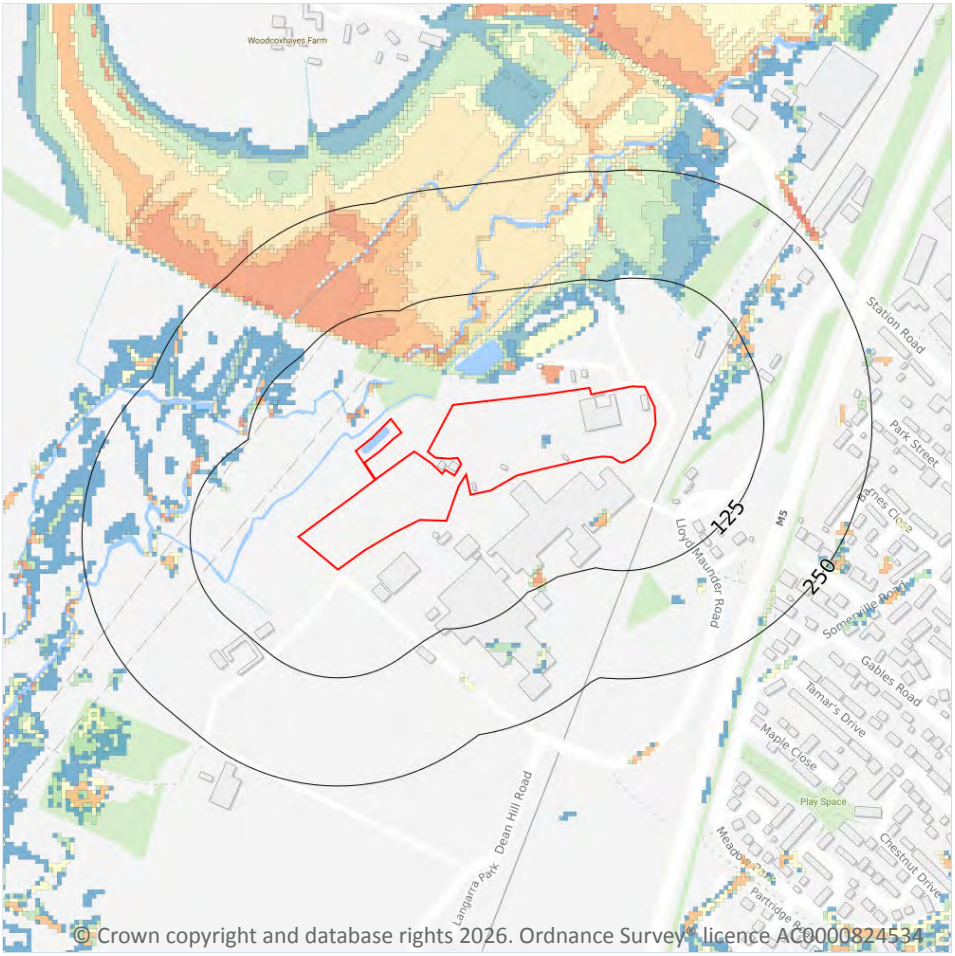
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 85 >**

Location	Type
11m N	Zone 3 - (Fluvial /Tidal Models)

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

8 Surface water flooding



Site Outline
Search buffers in metres (m)

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

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

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

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

8.1 Surface water flooding

Highest risk on site	**1 in 1000 year, 0.3m - 1.0m**
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 90 >**

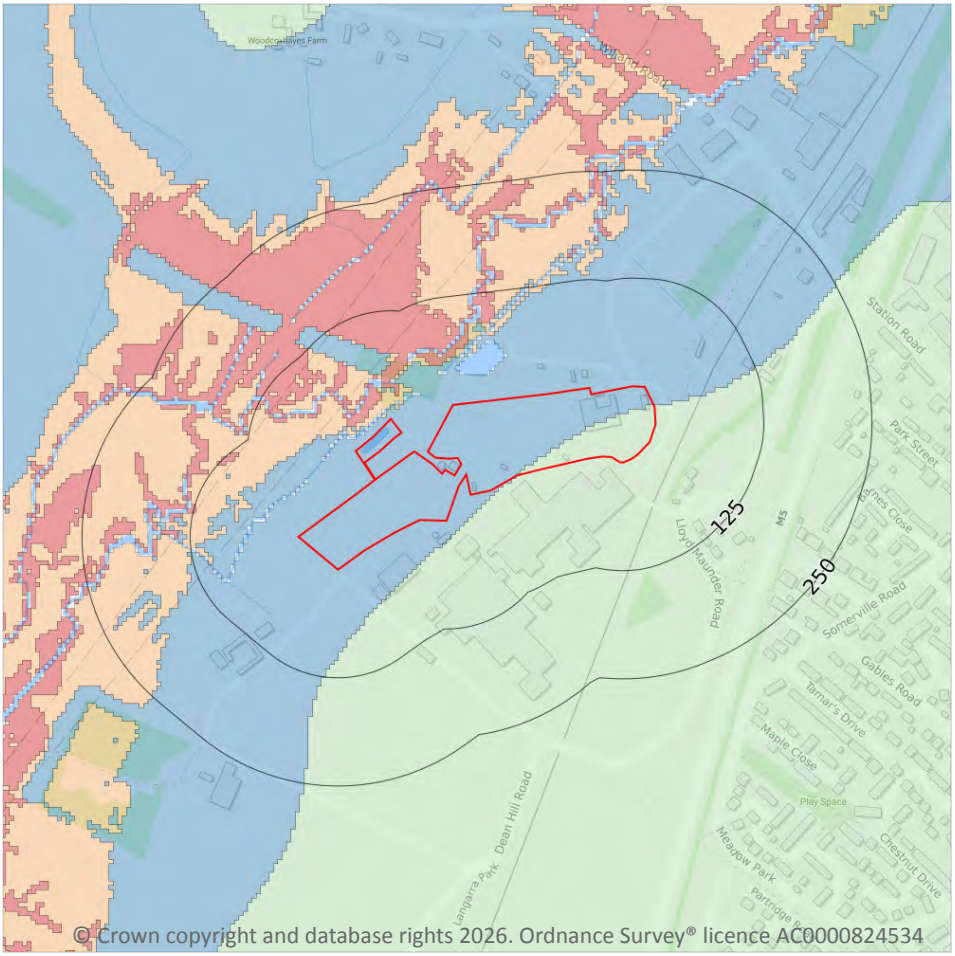
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



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9.1 Groundwater flooding

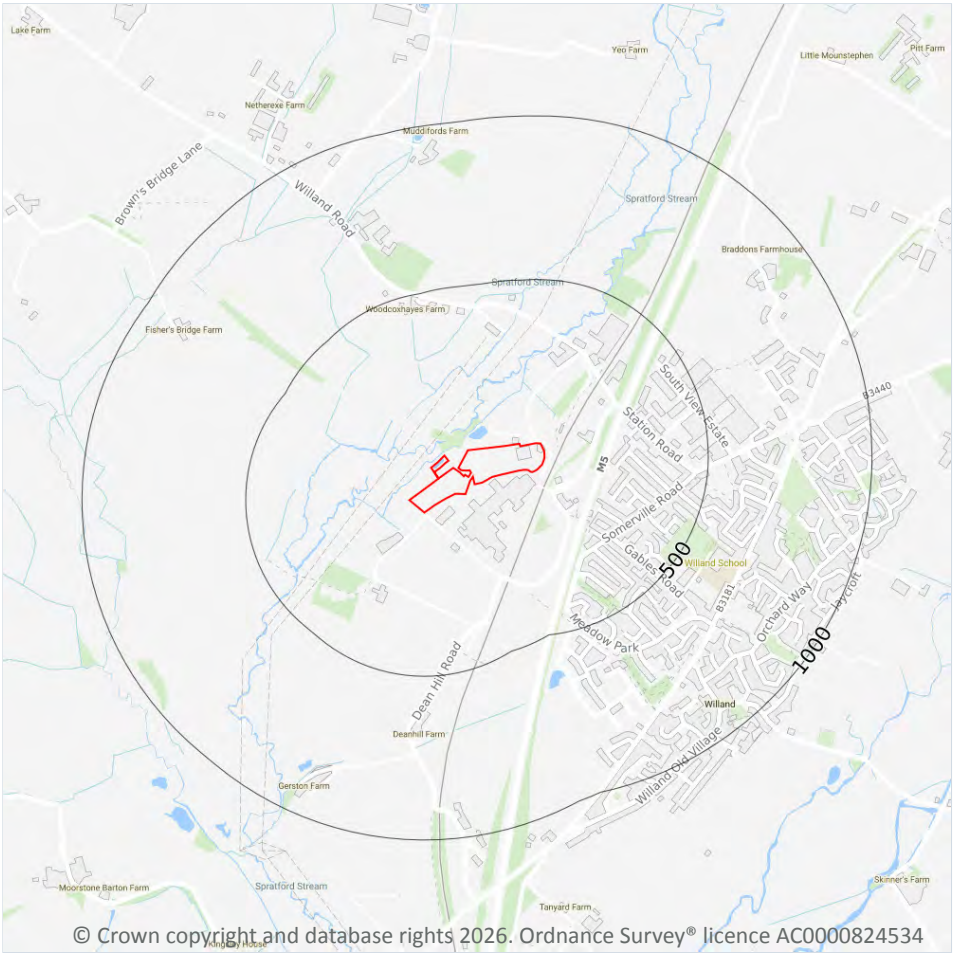
Highest risk on site	**Low**
Highest risk within 50m	**High**

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

Features are displayed on the Groundwater flooding map on **page 92 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



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Site Outline

Search buffers in metres (m)

Local Nature Reserves (LNR)

Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	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 93 >**

ID	Location	Name	Data source
-	1918m NW	Grand Western Canal Country Park	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	2

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 93 >**

ID	Location	Name	Woodland Type
-	1582m SE	Unknown	Ancient Replanted Woodland
-	1929m NE	Woodrows Close Copse	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

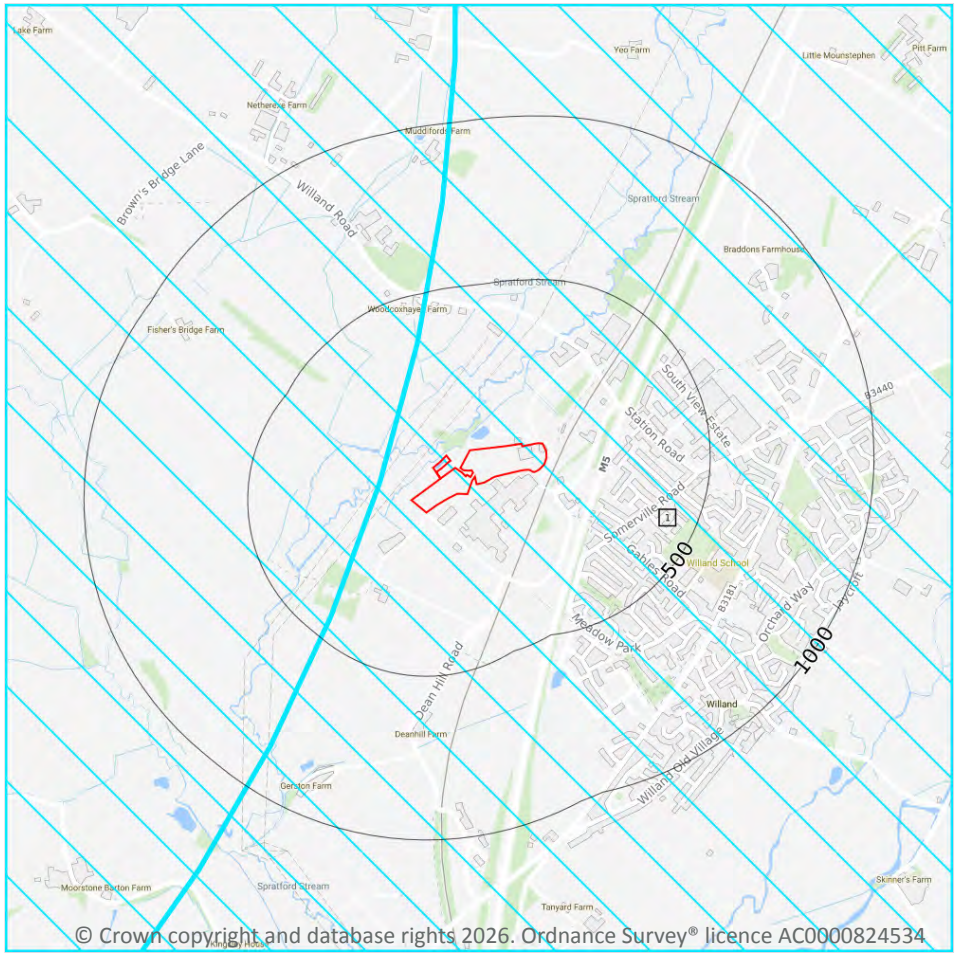
Records within 2000m	2

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

Location	Name	Type	NVZ ID	Status
On site	**Mid Devon**	**Groundwater**	**18**	**Existing**
981m E	Mid Devon	Groundwater	18	Existing

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	1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 98 >**

ID	Location	Type of developments requiring consultation
1	**On site**	**https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0000000000000&notes=&location=306288,108743%20(IRZ%20polygon%20centre)**

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

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	0

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.

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

11.5 Conservation Areas

Records within 250m	0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

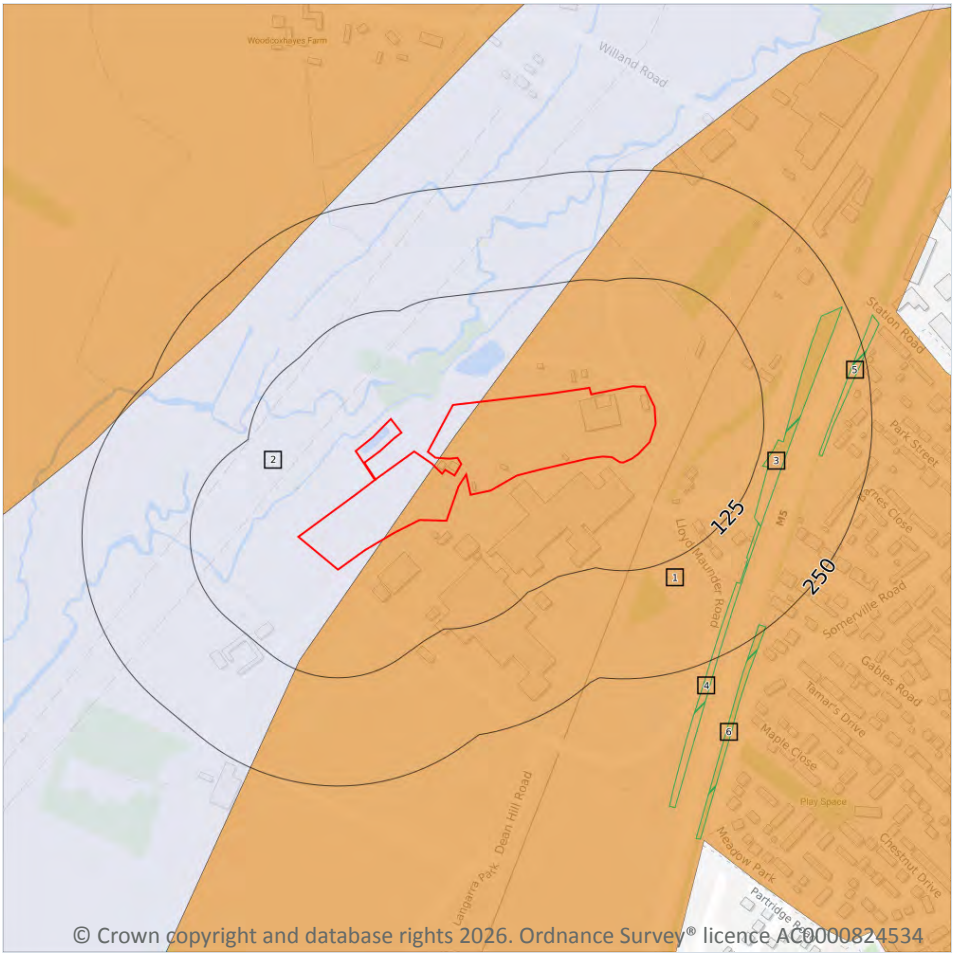
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	2

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

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

ID	Location	Classification	Description
1	On site	Grade 3	**Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.**

ID	Location	Classification	Description
2	**On site**	**Grade 4**	**Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.**

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	**0**

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

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

12.3 Tree Felling Licences

Records within 250m	**4**

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.

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

ID	Location	Description	Reference	Application date
3	132m E	Selective Fell/Thin (Unconditional)	018/366/15-16	-
4	157m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
5	192m E	Selective Fell/Thin (Unconditional)	018/366/15-16	-
6	241m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

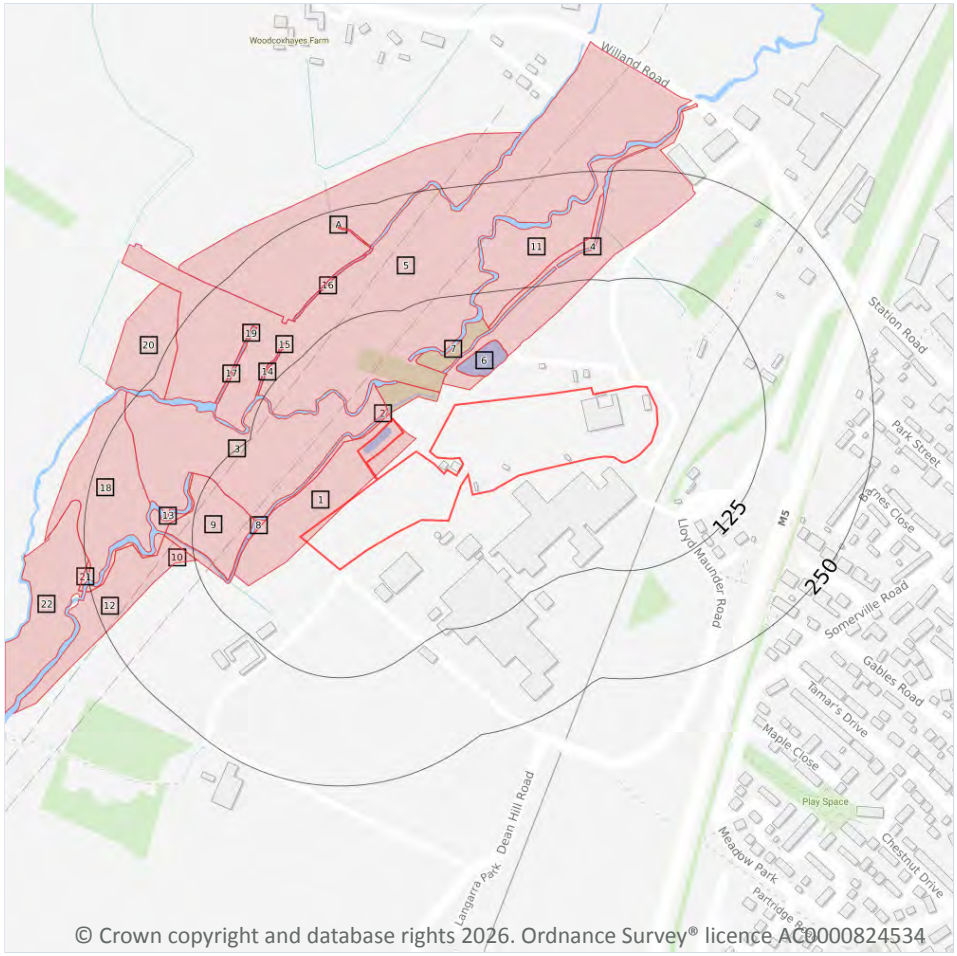
Records within 250m	3

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.

Location	Reference	Scheme	Start Date	End Date
36m S	1261789	Countryside Stewardship (Middle Tier)	01/01/2022	31/12/2026
94m SW	1261789	Countryside Stewardship (Middle Tier)	01/01/2022	31/12/2026
174m S	1261789	Countryside Stewardship (Middle Tier)	01/01/2022	31/12/2026

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks

Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	**25**

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

Features are displayed on the Habitat designations map on **page 105 >**

ID	Location	Main Habitat	Other habitats
1	**On site**	**Coastal and floodplain grazing marsh**	**Main habitat: CFPGM (INV > 50%)**
2	7m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
3	12m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
4	16m N	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)

ID	Location	Main Habitat	Other habitats
5	23m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
6	29m N	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
7	41m N	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
8	44m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
9	57m W	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
10	60m W	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
11	84m N	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
12	122m W	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
13	128m W	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
14	131m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
15	147m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
16	160m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
A	162m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
17	169m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
18	172m W	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
19	179m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
A	192m N	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
A	199m N	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
20	223m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
21	245m W	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
22	246m W	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)

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.

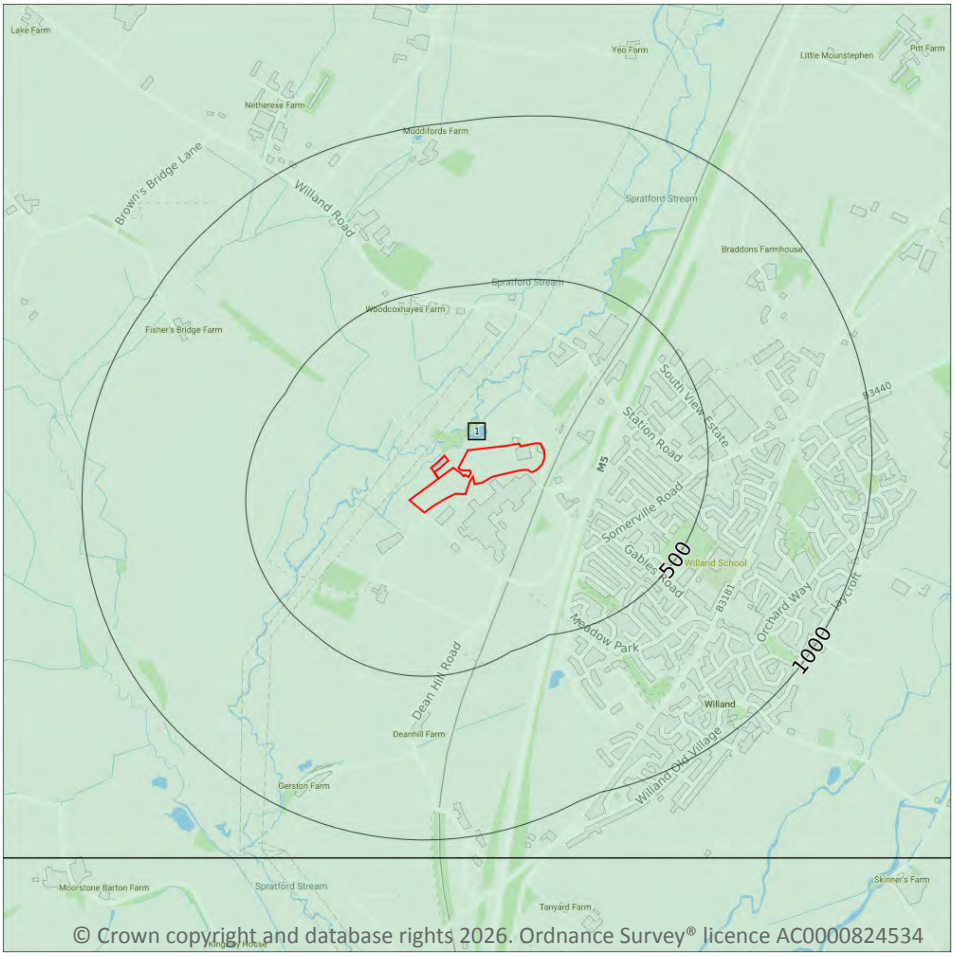
13.4 Limestone Pavement Orders

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	1

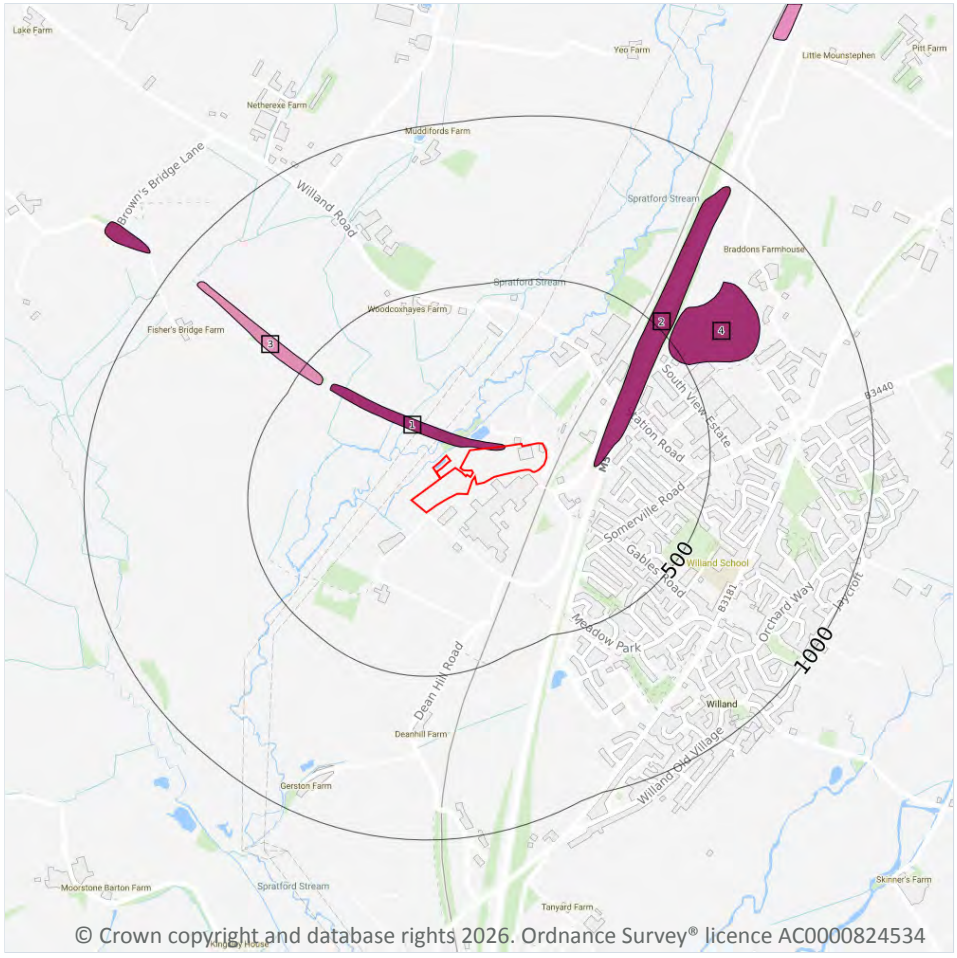
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 108 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**ST01SW**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m **4**

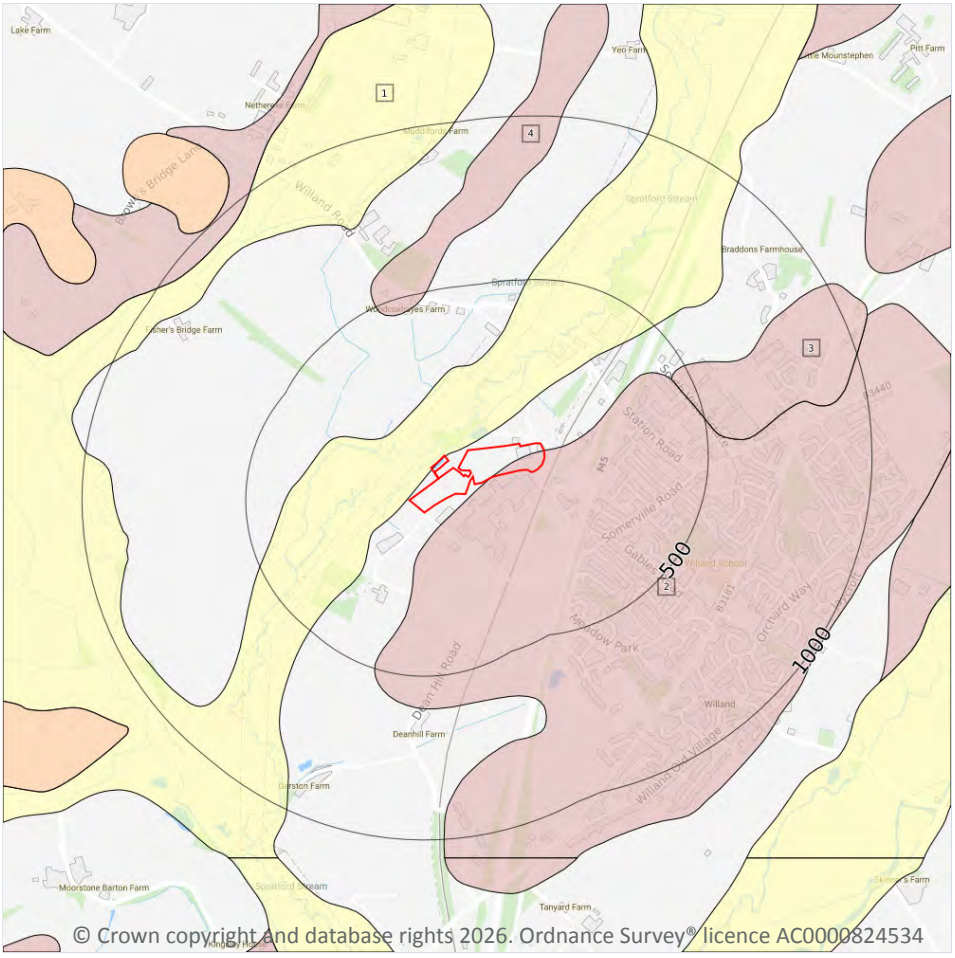
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 109 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial deposit**
2	146m E	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
3	427m NW	WGR-VOID	Worked Ground (Undivided)	Void
4	478m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m **4**

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 111 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-XVSZ**	**Alluvium-Gravel, Sand And Silt**	**Gravel, sand and silt**
2	**On site**	**HEAD-V**	**Head-Gravel**	**Gravel**
3	445m NE	HEAD-DMTN	Head-Diamicton	Diamicton

ID	Location	LEX Code	Description	Rock description
4	452m N	HEAD-REGOL	Head-Regolith	Regolith

This data is sourced from the British Geological Survey.

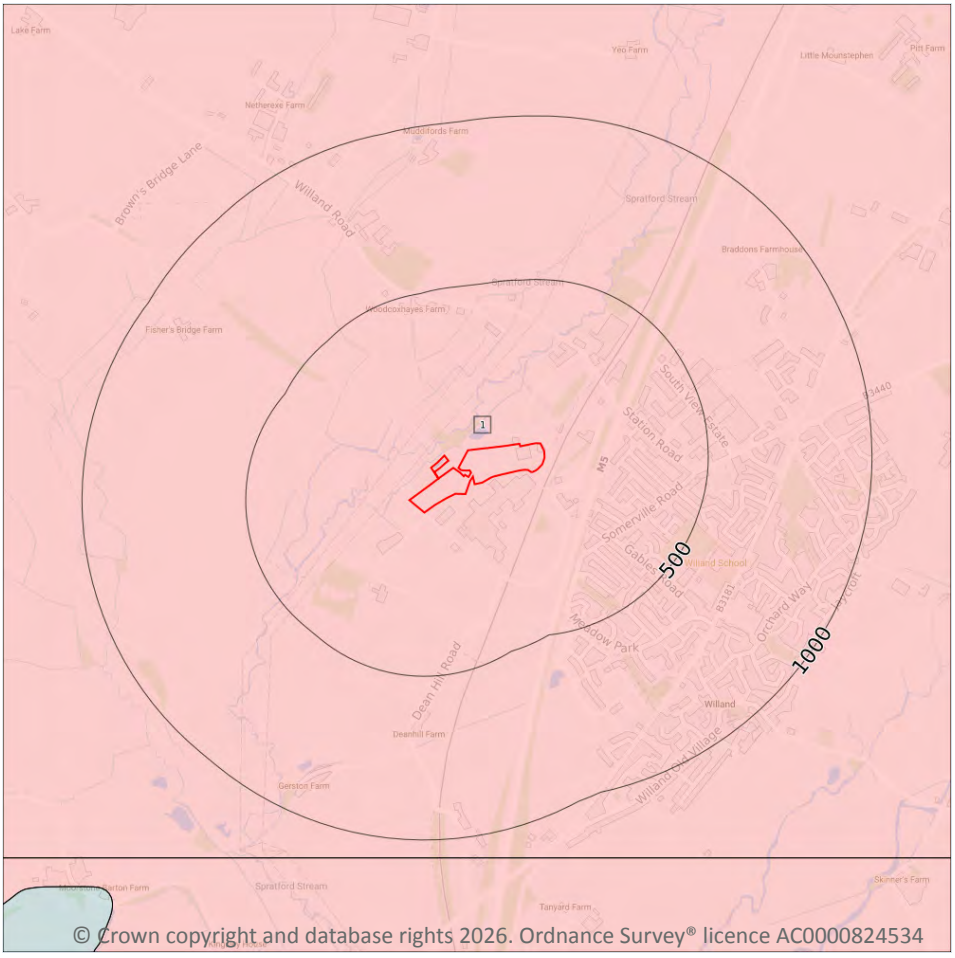
14.4 Landslip (10k)

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	1

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 113 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**AYB-MDST**	**Aylesbeare Mudstone Group-Mudstone**	**Not Defined**

This data is sourced from the British Geological Survey.

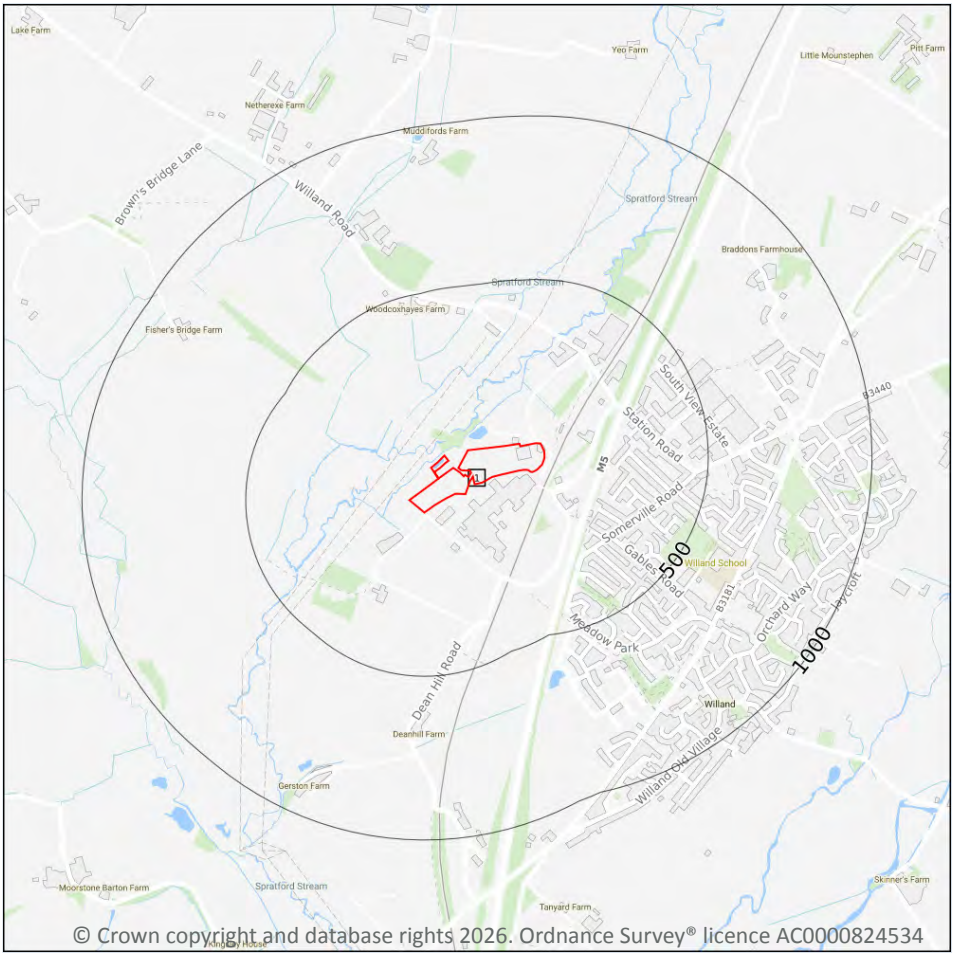
14.6 Bedrock faults and other linear features (10k)

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

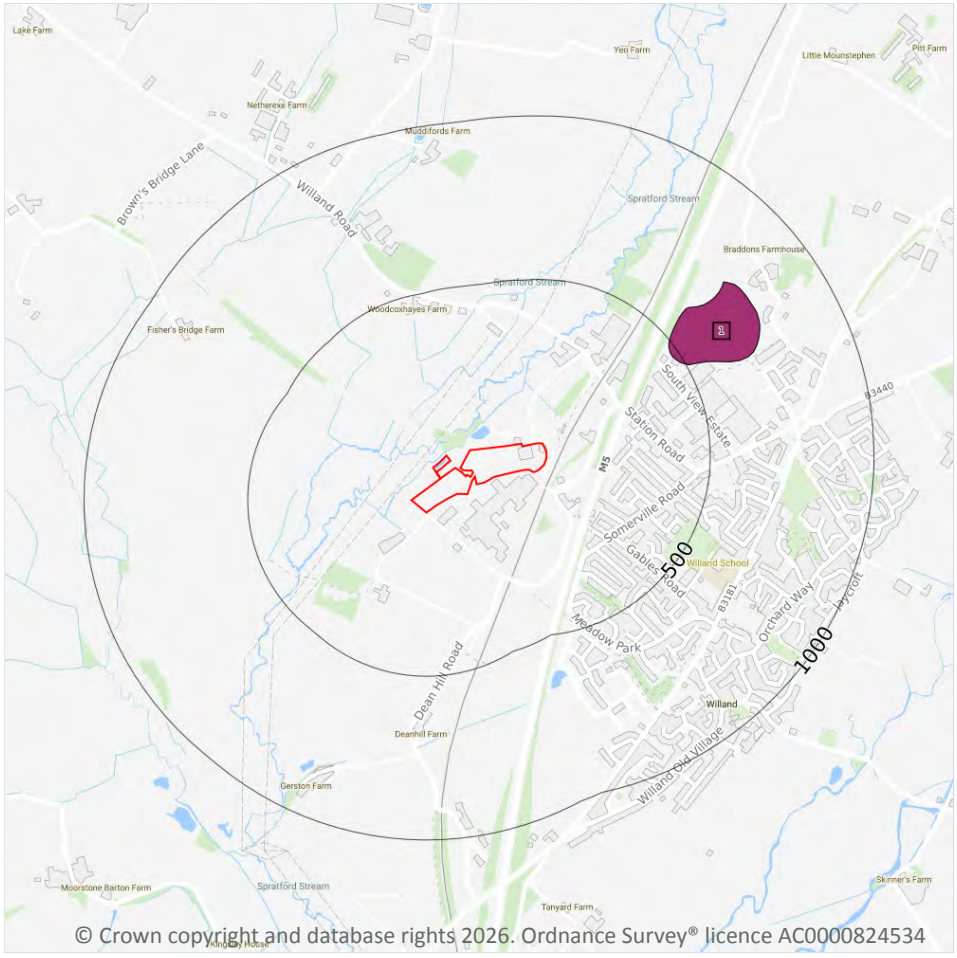
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 115 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**No coverage**	**EW310_tiverton_v4**

This data is sourced from the British Geological Survey.

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



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Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 116 >**

ID	Location	LEX Code	Description	Rock description
1	478m NE	MGR-ARTDP	Made Ground	Artificial deposit

This data is sourced from the British Geological Survey.

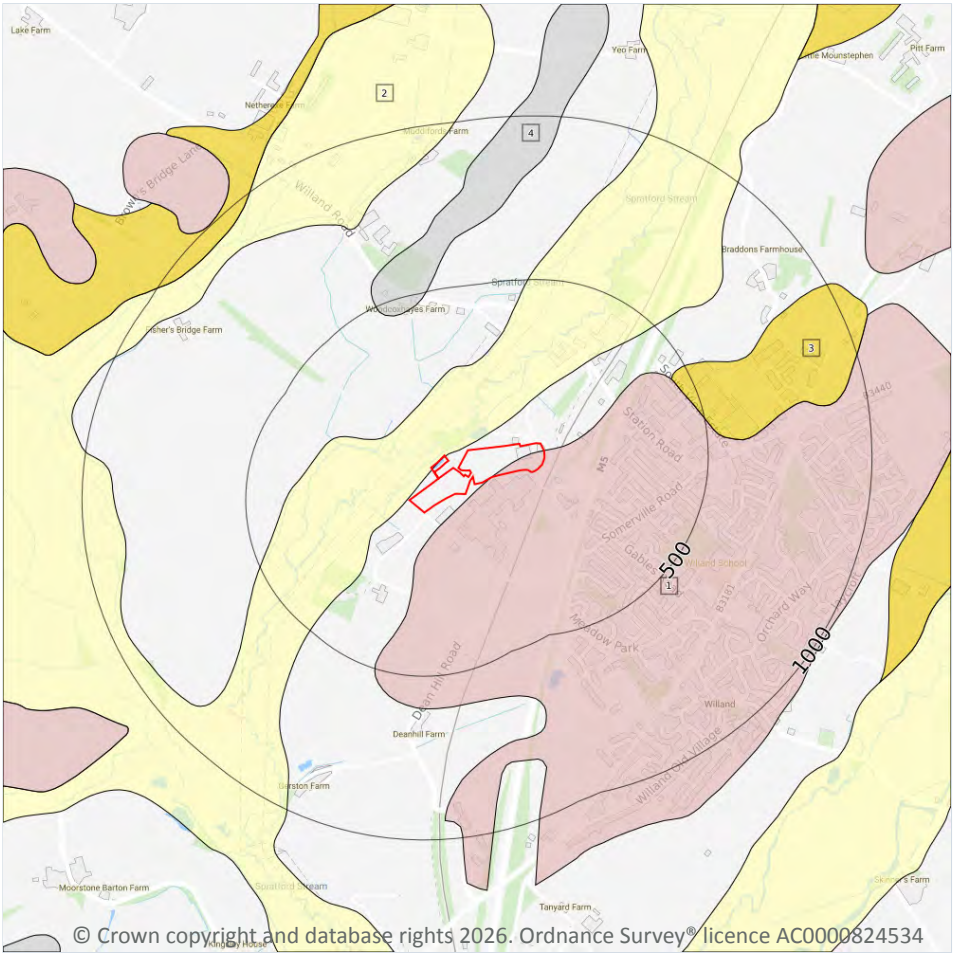
15.3 Artificial ground permeability (50k)

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 **4**

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 118 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**HEAD-V**	**Head**	**Gravel**
2	**On site**	**ALV-XCZS**	**Alluvium**	**Clay, silt and sand**
3	445m NE	COLV-DMTN	Colluvium	Diamicton

ID	Location	LEX Code	Description	Rock description
4	452m N	RLITH-REGOL	Regolith	Regolith

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	**2**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Very High**	**Very High**
On site	**Intergranular**	**Moderate**	**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.

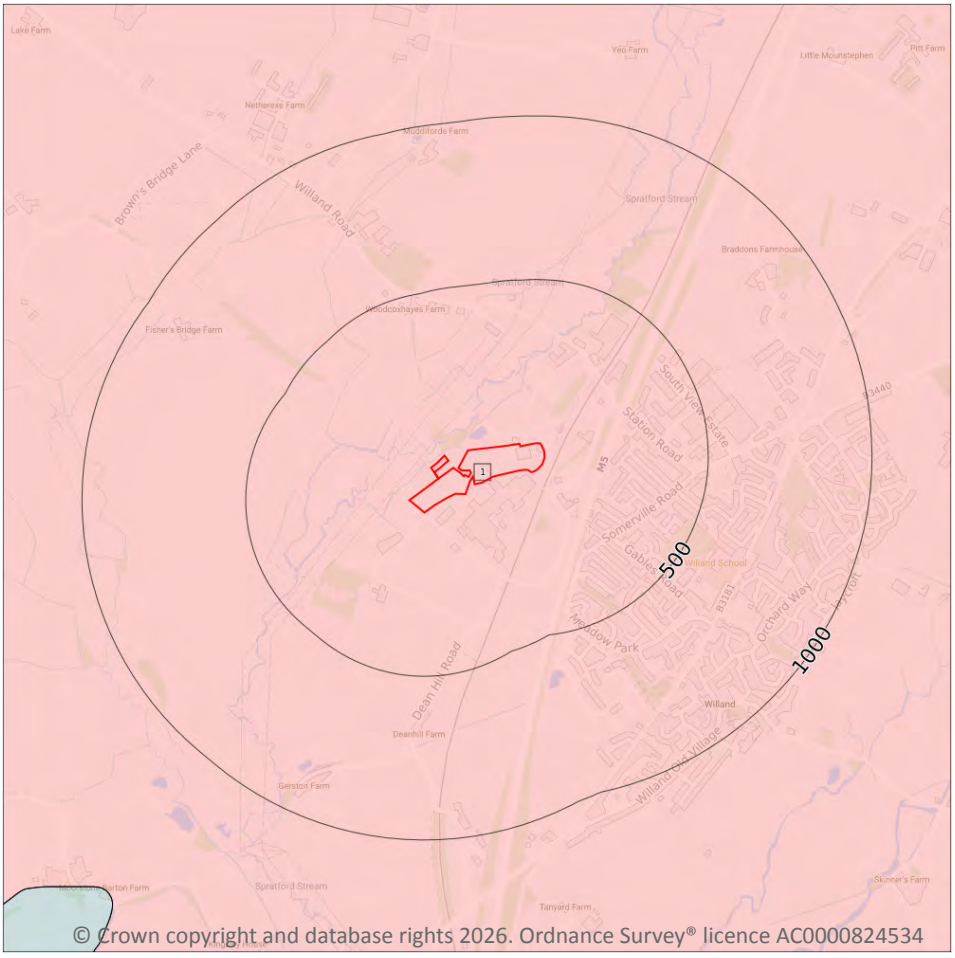
15.7 Landslip permeability (50k)

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	1

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 120 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**AYB-MDST**	**Aylesbeare Mudstone Group-Mudstone**	**Not Defined**

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**	**Low**	**Low**

This data is sourced from the British Geological Survey.

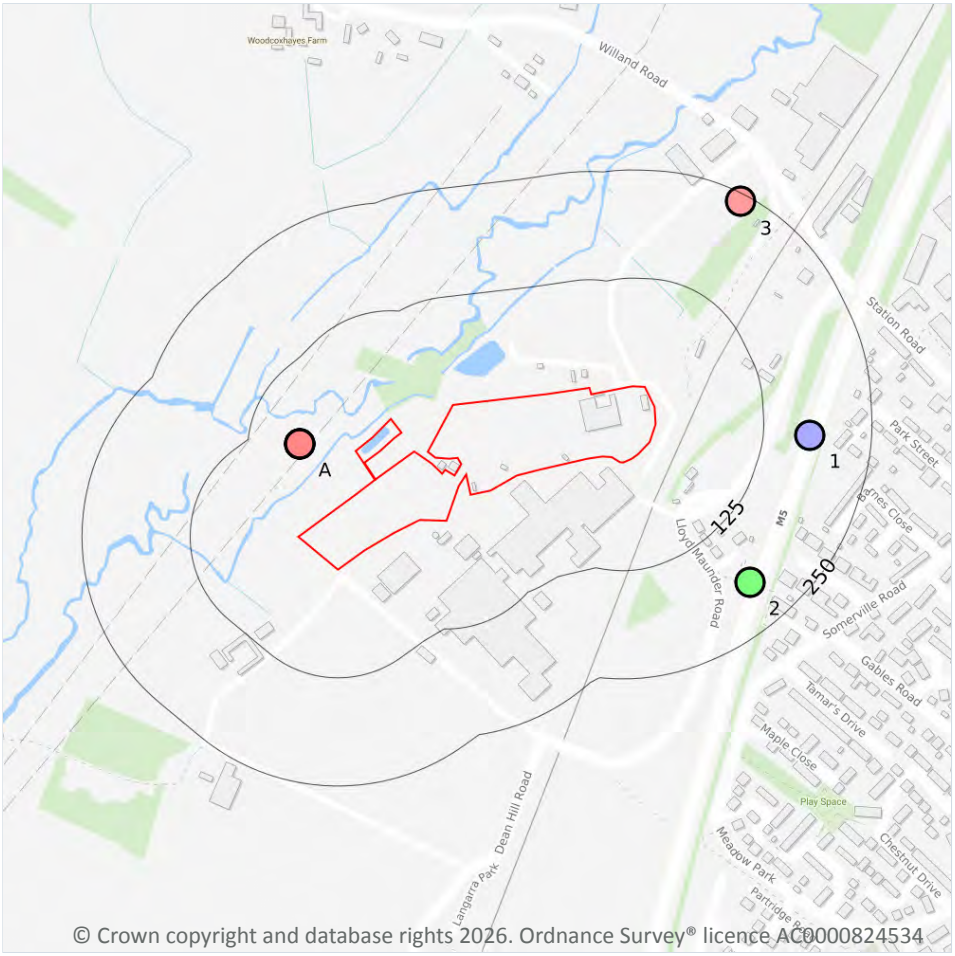
15.10 Bedrock faults and other linear features (50k)

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	7

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.

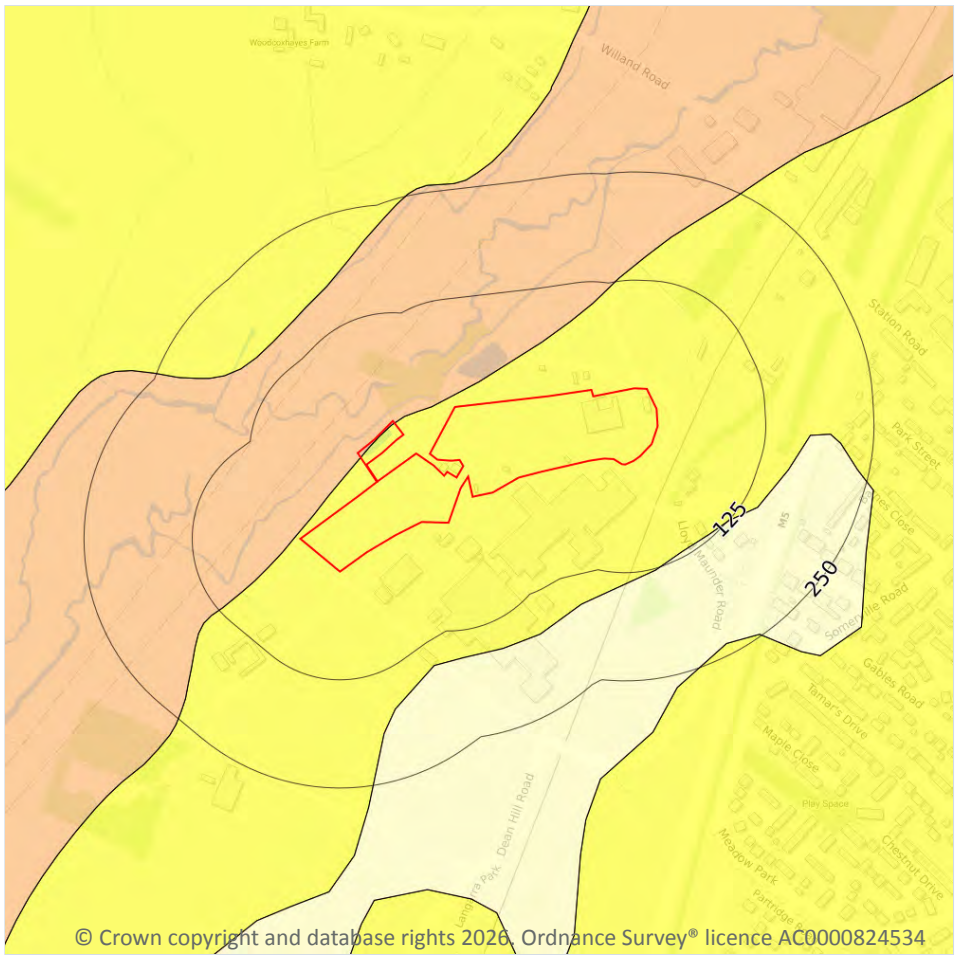
Features are displayed on the Boreholes map on **page 122 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	66m W	302700 111200	LLOYD MAUNDER TIVERTON JUNCTION NO 1	77.11	N	749718 ↗
A	66m W	302700 111200	LLOYD MAUNDER TIVERTON JUNCTION NO 2	91.44	N	749719 ↗
A	66m W	302700 111200	LLOYD MAUNDER TIVERTON JUNCTION NO 3	93.27	N	749720 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	66m W	302700 111200	LLOYD MAUNDER TIVERTON JUNCTION NO 4	118.87	N	749721 ↗
1	179m E	303290 111210	M5 CHELSTON TO WILLAND SECTION R16/119	10.0	N	749561 ↗
2	196m SE	303220 111040	M5 CHELSTON TO WILLAND SECTION R16/120	15.0	N	749562 ↗
3	241m NE	303210 111480	TIVERTON JUNCTION	121.92	N	749657 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

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

17.1 Shrink swell clays

Records within 50m	2

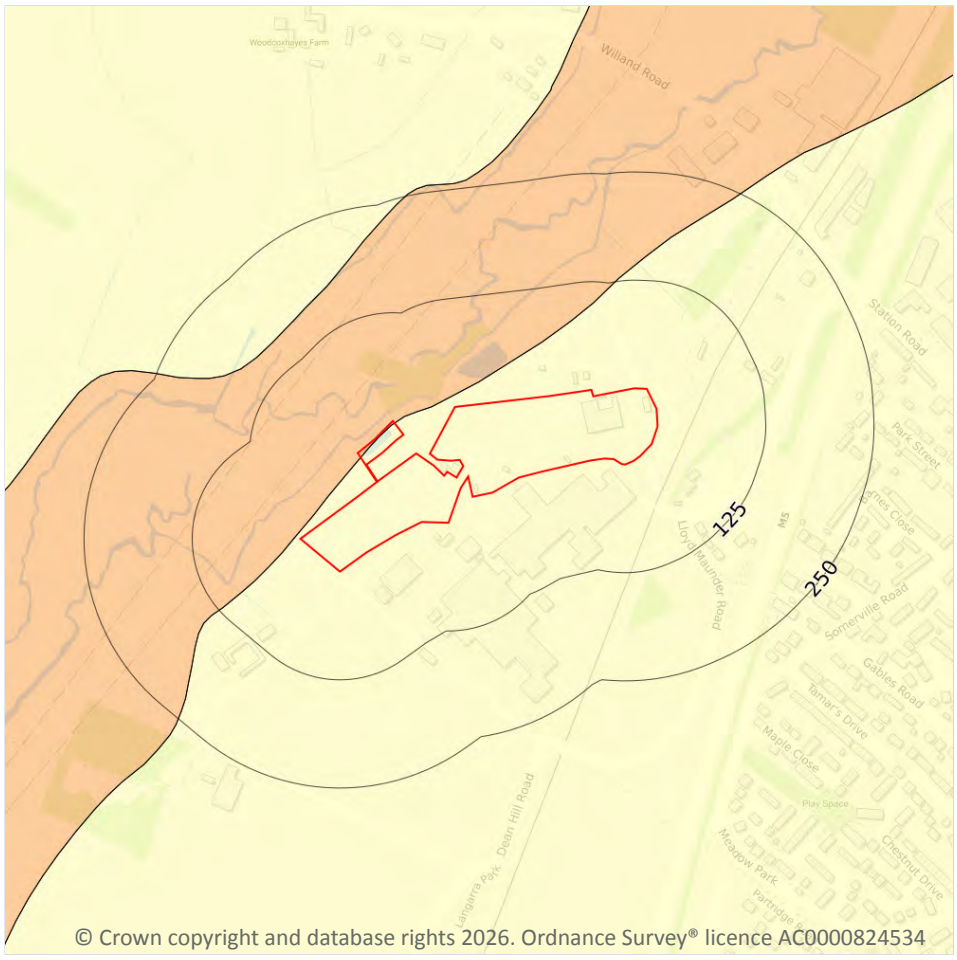
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 124 >**

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.

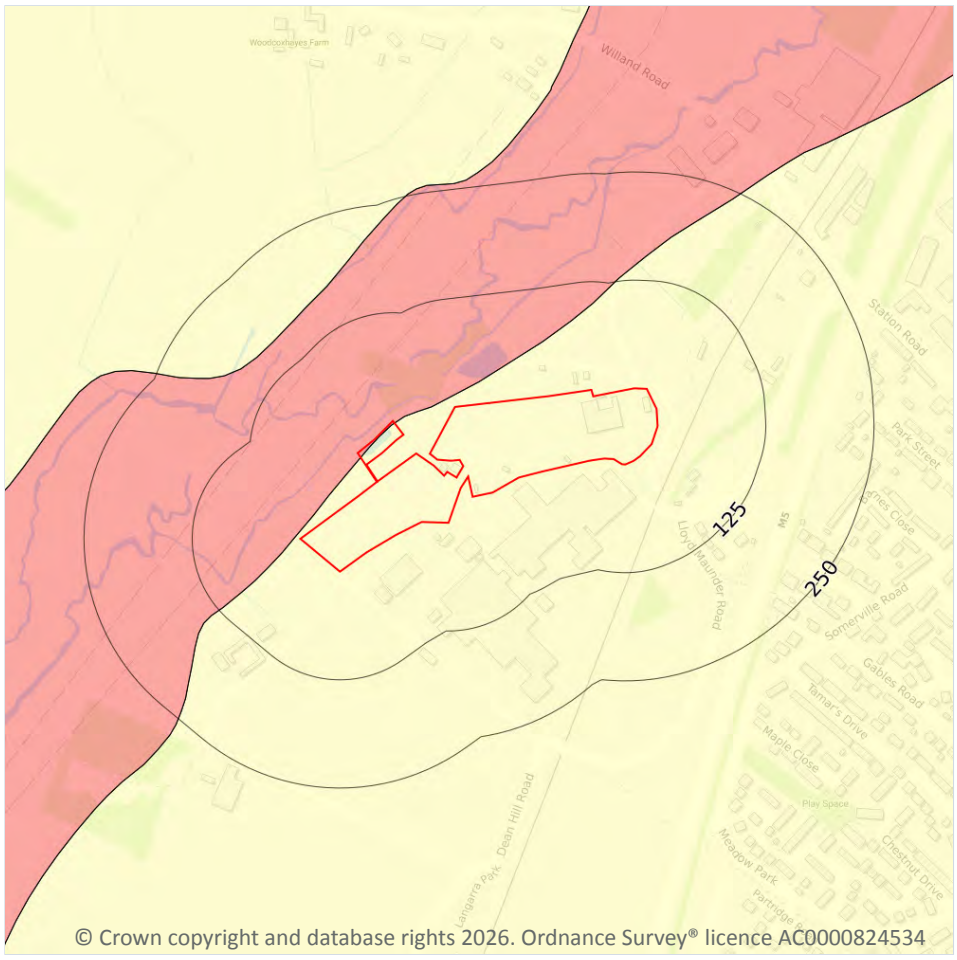
Features are displayed on the Natural ground subsidence - Running sands map on **page 125 >**

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	**Low**	**Running sand conditions may be 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

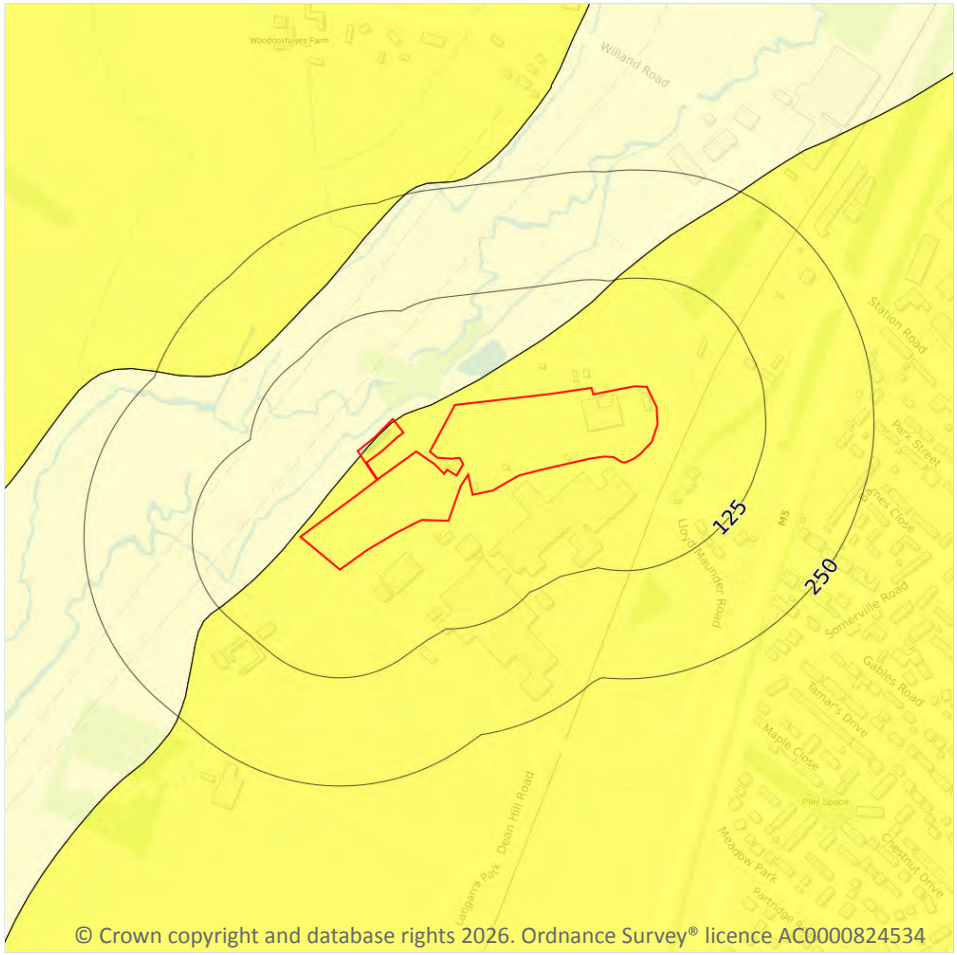
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

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

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



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	2

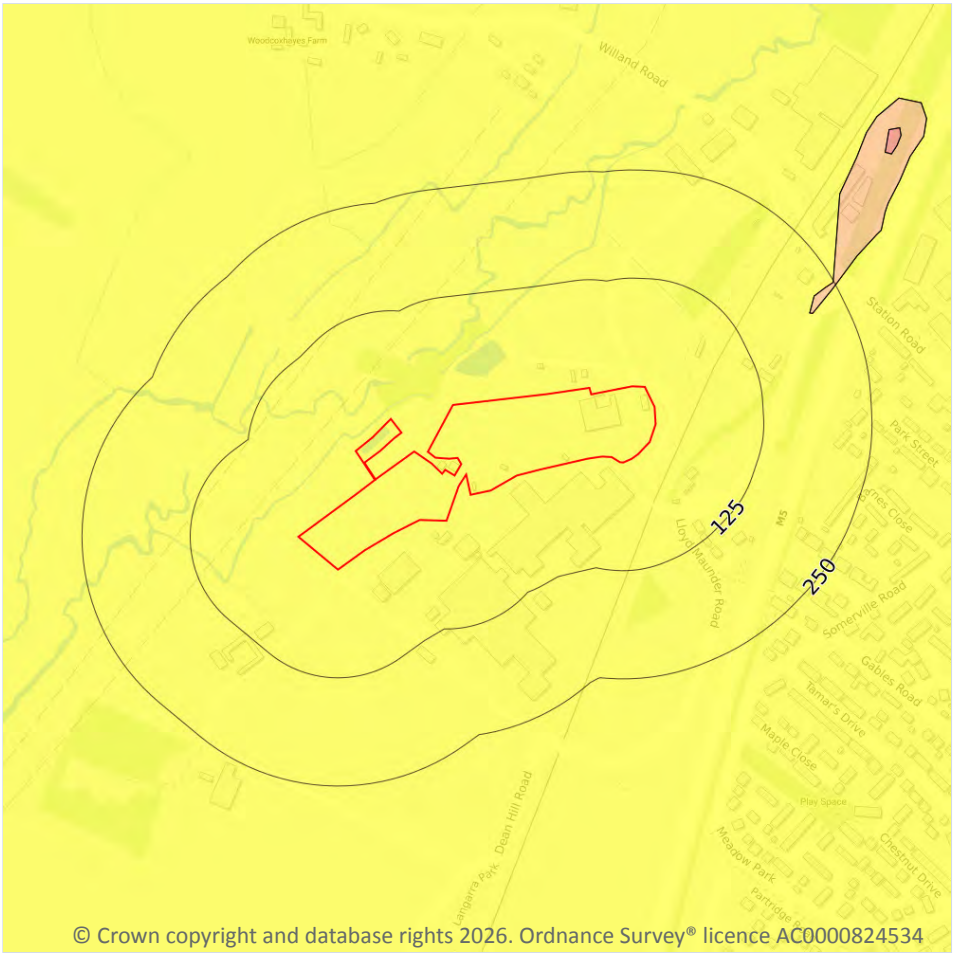
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 129 >**

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	1

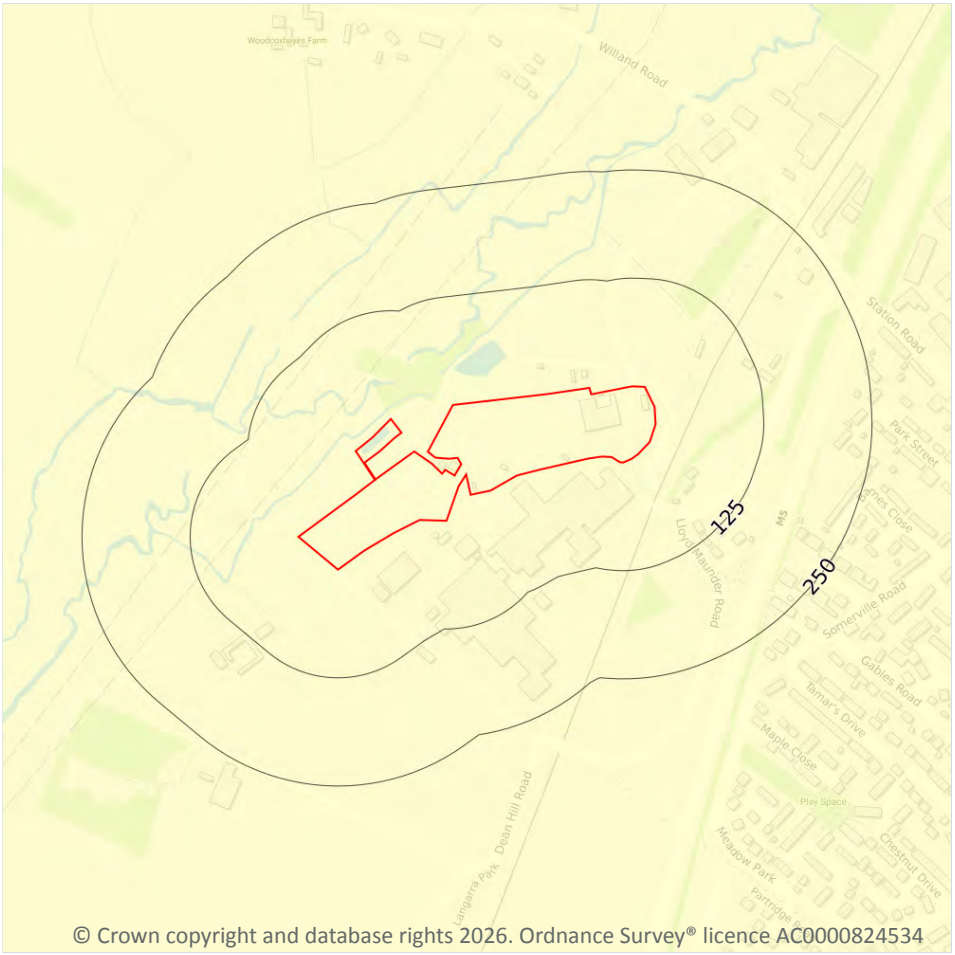
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 130 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m	1

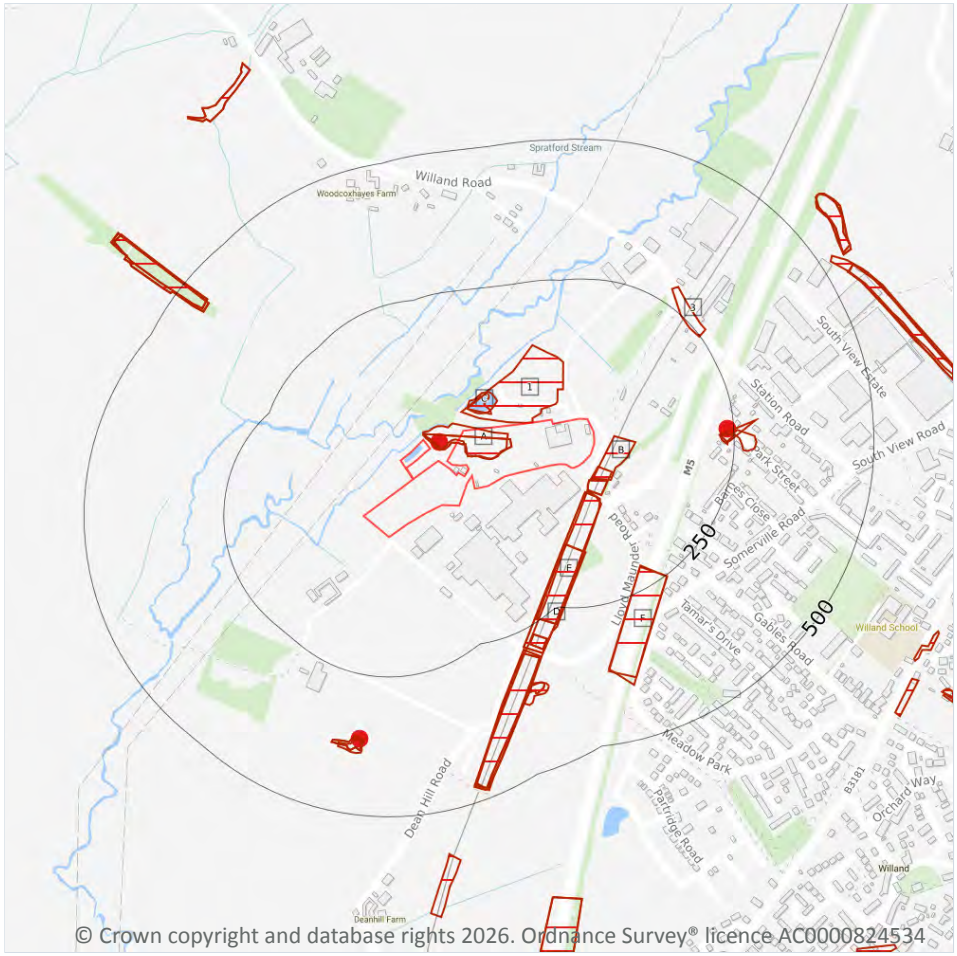
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 131 >**

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

This data is sourced from the British Geological Survey.

18 Mining and ground workings



Site Outline

Search buffers in metres (m)

BritPits

Surface ground workings

Underground workings

Underground mining extents

Historical mineral planning areas

TCA non-coal mining

Non Coal Mining

Sporadic underground mining of restricted extent possible

Localised small scale underground mining possible

Small scale mining possible

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m	3

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 and ground workings map on **page 133 >**

ID	Location	Details	Description
2	21m NE	Name: East Burnrew Clay Pit Address: Willand, CULLOMPTON, Devon Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
G	238m E	Name: Willard Gravel Pit Address: Willand, CULLOMPTON, Devon Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
J	365m S	Name: Deanhill Farm Address: Willand, CULLOMPTON, Devon Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m **20**

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

Features are displayed on the Mining and ground workings map on **page 133 >**

ID	Location	Land Use	Year of mapping	Mapping scale
A	**On site**	**Old Clay Pit**	**1958**	**1:10560**
A	**On site**	**Old Clay Pit**	**1906**	**1:10560**

ID	Location	Land Use	Year of mapping	Mapping scale
A	**On site**	**Old Clay Pit**	**1887**	**1:10560**
1	1m N	Sewage Works	1992	1:10000
B	23m SE	Cuttings	1887	1:10560
C	24m N	Pond	1979	1:10000
B	24m SE	Cuttings	1906	1:10560
C	27m N	Pond	1992	1:10000
B	32m SE	Cuttings	1906	1:10560
B	32m SE	Cuttings	1887	1:10560
D	47m SE	Cuttings	1958	1:10560
E	48m SE	Cuttings	1906	1:10560
E	48m SE	Cuttings	1887	1:10560
E	138m S	Cuttings	1992	1:10000
E	138m S	Cuttings	1979	1:10000
F	210m SE	Cuttings	1979	1:10000
F	212m SE	Cuttings	1992	1:10000
G	225m E	Gravel Pit	1906	1:10560
G	225m E	Gravel Pit	1887	1:10560
3	245m NE	Cuttings	1887	1:10560

This is data is sourced from Ordnance Survey®/Groundsure.

18.3 Underground workings

Records within 1000m	**0**

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

This is data is sourced from Ordnance Survey®/Groundsure.

18.4 Underground mining extents

Records within 500m	0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

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

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	0

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

Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	1

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

Location	Mineral type
153m S	Unspecified

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	0

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0

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

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

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0

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

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

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	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 Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m	0

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

Not all 'holes' noted on Ordnance Survey® mapping will necessarily be present within this dataset.

This data is sourced from Groundsure.

20 Radon



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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%

20.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 141 >**

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

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

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	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 - 25 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 - 25 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 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**40 - 60 mg/kg**	**15 - 30 mg/kg**
38m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

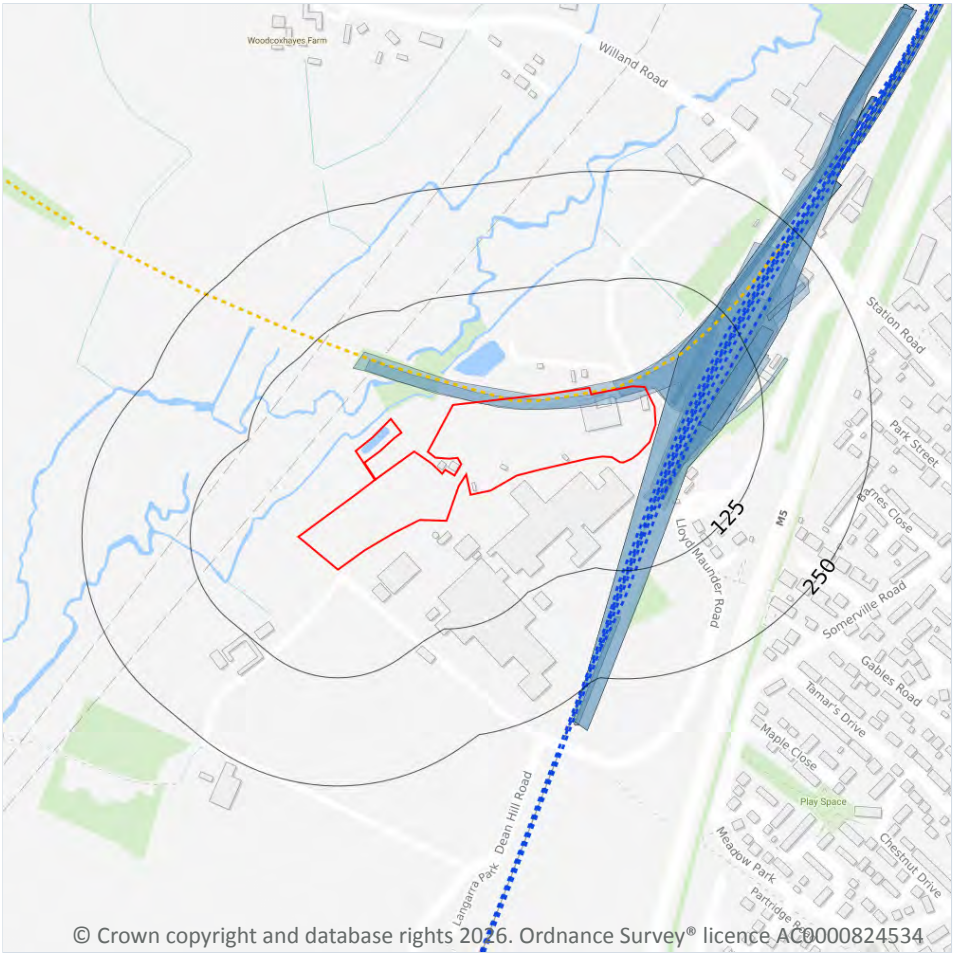
21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects



Site Outline

Search buffers in metres (m)

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

22.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey® mapping.

This data is sourced from the Ordnance Survey®.

22.4 Historical railway and tunnel features

Records within 250m	18

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 145 >**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1906**	**10560**
On site	**Railway Sidings**	**1887**	**10560**
On site	**Railway Sidings**	**1958**	**10560**
4m E	Railway Sidings	1992	10000
4m E	Railway Sidings	1979	10000
19m E	Railway Sidings	1978	2500
19m E	Railway Sidings	1990	2500
20m E	Railway Sidings	1970	2500
20m E	Railway Sidings	1983	2500
39m SE	Railway Sidings	1996	2500
40m SE	Railway Sidings	1978	2500
40m SE	Railway Sidings	1990	2500
41m SE	Railway Sidings	1970	2500
42m SE	Railway Sidings	1983	2500
50m E	Railway Sidings	1906	10560
162m NE	Railway Sidings	1887	10560
178m S	Railway Sidings	1989	2500

Location	Land Use	Year of mapping	Mapping scale
178m S	Railway Sidings	1969	2500

This data is sourced from Ordnance Survey®/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	1

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 145 >**

Location	Description
On site	**Historical OSM**

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	11

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 145 >**

Location	Name	Type
26m E		rail
30m SE	Bristol to Exeter Line	rail
33m SE	Not given	Multi Track
34m SE	Bristol to Exeter Line	rail

Location	Name	Type
39m SE		rail
43m SE		rail
60m SE	Not given	Multi Track
75m S	Not given	Multi Track
86m S	Not given	Multi Track
197m NE	Not given	Multi Track
199m NE	Not given	Multi Track

This data is sourced from Ordnance Survey® and OpenStreetMap.

22.8 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.

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Appendix B – Geo-Environmental Report (2014)

Willand Biogas – Technical Due Diligence

Red Flag Report

UK Biogas Ltd

Prepared by:

SLR Consulting Limited

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SLR Project No.: 405.065404.00001

8 October 2024

Revision: Final V2

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
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Final	7 October 2024	A Brown, I Nicolas	E Featherstone	M Giamblanco
Final V2	8 October 2024	A Brown, I Nicolas	E Featherstone	M Giamblanco

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with UK Biogas Limited (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

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Executive Summary

SLR Consulting Ltd (SLR) has been instructed by UK Biogas to undertake technical due diligence for Willand Biogas AD Plant in Cullompton, Devon. The plant was built in 2015 and was operational until last year, when it was mothballed and left dormant for many months.

The executive summary provides an overview of the risk items that have been identified during SLR's review of the site.

The most critical items, and those considered to have a potential material impact on plant viability are allocated as high-risk items (H). Least critical items are allocated low risk (L) and critical items between the two as medium risk (M). These can be split into four broad themes: non-compliance with statutory regulation, absence of definitive contracts, planning non-conformances and damage to structures. Concerns with the process equipment, operational performance and financial performance are also highlighted below.

The table below lists the most significant outstanding risks that may affect the plant's future performance or compliance.

Item	Description	Risk Rating	Mitigation
Capex	At this time, UK Biogas are not in receipt of detailed quotations for all the equipment required for the rehabilitation of the plant. Therefore, the Capex model developed for the plant will not be fully accurate and a suitable contingency budget should be included in the model. Some quotes have not been fully accounted for in the Capex breakdown.	H	Request firm quotes for work based on accurate details. Allow additional contingency in Capex budget.
Tank emptying and inspection	As discussed on site, UK Biogas would aim to have tanks emptied before end of season for spreading on fields i.e. November 2024, to then start inspections and work toward re-commissioning. The Gantt chart file "Final – Willand GANTT" shared by UK Biogas also shows tank emptying in November 2024, with the final date showing "SPF3 Liquids Removal" finishing 10th Dec 2024.	M	Risk of having no options for disposal of substrate in tanks. This could significantly delay multiple operations, including: - Tank inspections and repairs if needed - Tank equipment replacements (mixers) - Tank re-filling and re-commissioning - Re-commissioning plant to full production. UK Biogas have confirmed the liquid removal arrangements are currently based on land

Item	Description	Risk Rating	Mitigation
			spreading and finding storage for the total volume and have started discussions regarding off-site lagoon storage. The FM describes a conservative case with lower output generation for this phase of the works (i.e. 2025 methane export rate of 350 m^3/h then 450 m^3/h in 2026 then 600 m^3/h in years 2027).
Planning	The amount of feedstock delivered by road to the site shall not exceed 55,000 tonnes per annum	M	The permit has been changed to accommodate 100,000 tonnes but planning permission still restricts to 55,000 tonnes. This will need to be amended through a variation of the planning condition application. Whilst there is a high chance an application would be accepted, there is always the risk the Council would not accept the new feedstock amounts. A pre-application advice application could be submitted to understand if the Council would accept the new amounts. CC state that pre application advice would be given in approximately 30 days from submission. A s73 application to vary the consent should take 8 weeks.

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Figure 2-1 Aerial view of Willand Biogas AD Plant 2

Acronyms and Abbreviations

/a	per annum
/h	per hour
m	Meters
mm	Milimeters
AD	Anaerobic Digestion
AtEx	Atmosphere Explosible
BAT	Best available techniques
BMP	Biomethane Potential
BREF	BAT reference document
BS	British Standards
Capex	Capital Costs
CAR	Compliance assessment report
CEMP	Construction Environmental Management Plan
CH_4	Methane or Biomethane
CHP	Combined Heat and Power
CIRIA	The Construction Industry Research and Information Association
CompEx	Competency in Explosive Atmospheres
DCC	Devon County Council
DFO	Delivery Facility Operator
DM	Dry Matter
DSEAR	Dangerous Substances and Explosive Atmospheres Regulations
EA	Environment Agency
ELV	Emission limit values
EPC	Engineering Procurement Construction
EWC	European Waste Codes
FiT	Feed in Tariff
FM	Financial Model
GGC	Green gas certificates
HAZOP	Hazard and Operability Study
HGV	Heavy goods vehicle
H&S	Health and safety
HSE	Health and Safety Executive
IC	Improvement conditions
kW	Kilowatt – unit of power

kWe	Kilowatt electrical
kWh	Kilowatt hour – unit of energy
kWth	Kilowatt thermal
ktpa	Metric kilo tonnes per annum
LDAR	Lead detection and repair
MEB	Mass and energy balance
MCP	Medium Combustion Plant
MW	Megawatts
NEA	Network Entry Agreement
NEU	Network Entry Unit
Nm^3	Nominal cubic metres
OEM	Original Equipment Manufacturer
OLR	Organic Loading Rate
Opex	Operating Costs
PRV	Pressure Relief Valve
RC	Reinforced concrete
RHI	Renewable Heat Incentive
SSAFO	Silage, Slurry and Agricultural Fuel Oil
Sm^3	Standard cubic metres
tn	Metric tonnes
t-oDM	Tonnes of organic dry matter
tpa	Metric tonnes per annum
tpd	Metric tonnes per day
WPA	Waste Planning Authority

1.0 Introduction

This report sets out SLR's findings following a review of technical information made available by the client, as well as from a site visit to Willand. This document reports by exception, i.e., it does not cover every element of the business but reports on those areas which pose a potential or perceived risk. Definitions of the level of risk are shown in the Table 1-1 below:

Table 1-1 Risk Level Definitions

Risk	Regulatory	CAPEX Cost	OPEX Cost or Lost Revenue
High (H)	Potential significant non-compliance or significant impact on plant operations	>£250,000	>£250,000/year
Medium (M)	Potential compliance issue or possible impact on operations	£50,000 - £250,000	£50,000 - £250,000
Low (L)	Minimal compliance issues/unlikely to have any material impact on operations	<£50,000	<25,000/year

Where possible SLR have also sought to provide suggestion for mitigating each of the identified risks i.e. improvement plans, additional CAPEX/OPEX requirements.

2.0 Technical Description

Willand Biogas Plant is an agricultural anaerobic digestion facility located in Cullompton, Devon.



Figure 2-1 Aerial view of Willand Biogas AD Plant

The first phase of the plant was completed in 2015, but subsequent upgrades and tank additions increased the plant capacity from the original design. The site stopped operation in early 2024, however mixing is maintained in the primary digesters and the site is manned 24/7. UK Biogas have plans to bring the plant back online by replacing and servicing of much of the equipment on site and installing additional infrastructure. Further to that, they also have future plans to adapt the plant to accept and treat food waste, but this option is not considered in this report.

The plant was originally permitted to feed up to 55 ktpa, however the permit was later changed to accommodate 100 ktpa, including energy crops, food and agricultural wastes. The plant has operated with agricultural feedstocks until operation ceased.

The site has a covered feedstock storage area, with a solids feeder in one of the bays which can automatically feed into the two Biogest PowerRing digesters, each with a usable primary digester capacity of 2,114 m^3 and a secondary digester of 1,507 m^3. Three post digester/storage tanks of 4,127 m^3 each were commissioned in 2019 increasing the digestate storage capacity of the site.

The site has a biogas engine for provision of site electricity (without export) with a capacity of 499 kWe, as well as a biogas boiler for heat production, rated at 599 kWth. The biogas is upgraded through a Purac Puregas amine upgrader which UK Biogas state is rated to produce 750 m^3/hr upgraded biomethane, while the site has capacity to inject up to 2,500 Sm^3/h of biomethane directly to the grid. Additional to the biogas sales revenue, the site benefits from a RHI subsidy and UK Biogas have confirmed it is accredited for FiT and the Green Gas Certificate Scheme.

3.0 Technical Review

3.1 Recommissioning Plan

Please note that the Capex related to the recommissioning plan is considered in Section 3.10.4 and this section relates to technical concerns and any additional costs they may incur or any deficits that SLR do not believe have been considered.

Issue	Description	Risk Rating	Mitigations
Tank emptying and inspection	As discussed on site, UK Biogas would aim to have tanks emptied before end of season for spreading on fields i.e. November 2024, to then start inspections and work toward re-commissioning. The Gantt chart file "Final – Willand GANTT" shared by UK Biogas also shows tank emptying in November 2024, with the final date showing "SPF3 Liquids Removal" finishing 10th Dec 2024.	M	Risk of having no options for disposal of substrate in tanks. This could significantly delay multiple operations, including: - Tank inspections and repairs if needed - Tank equipment replacements (mixers) - Tank re-filling and re-commissioning - Re-commissioning plant to full production. UK Biogas have confirmed the liquid removal arrangements are currently based on land spreading and finding storage for the total volume and have started discussions regarding off-site lagoon storage. The FM describes a conservative case with lower output generation for this phase of the works (i.e. 2025 methane export rate of 350 m^3/h then 450 m^3/h in 2026 then 600 m^3/h in years 2027).
Feedstock area expansion and feeding system upgrade	Following discussions on site with the operators, the existing feeding system has suffered from frequent blockages which has been one of the main limiting factors for higher throughputs.	L	UK Biogas have allocated provisions for a new feeding system and feedstock storage upgrade, including automatic feeding and maceration.

Issue	Description	Risk Rating	Mitigations
			An appropriate control of the dry matter and particle size of the feedstock should contribute to an increased availability.
Mixing	Tank mixing has been deficient in the post digesters and historical failures of the mixers in the secondary digesters of the Power Rings	Note	UK Biogas CAPEX forecast includes a combination of mixing upgrades for the different tanks.
Biogas upgrading unit and Grid Entry Unit	The Purac biogas upgrader and the injection to grid system have outstanding defects from previous operation and will need to be serviced and recommissioned.	L/M	Equipment OEMs have been contacted, quotations provided, and provisions allocated to conduct the required works. It should be considered that the level of service required may not be fully apparent until servicing takes place.
CHP	Major servicing on the CHP is overdue.	L/M	UK Biogas have quotation and estimated requirements for the service. It should be considered that the level of service required may not be fully apparent until servicing takes place.

3.2 Process Design

Issue	Description	Risk Rating	Mitigations
Alignment between FM and MEB	While SLR currently have no major objections to the site's mass balance or financial model, ideally these two workbooks and analysis are in complete alignment. Currently this is not the case, with the MEB designed for 63 ktpa of feeding and the FM showing 84 ktpa feeding, both with slightly different gas production rates. These levels of feeding are also both subject to planning consent.	L	SLR understand that this is due to the conservative, phased approach UK Biogas have planned to remediate Willand. The mass balance shows the initial production phase of the site, feeding energy crops and agricultural wastes, with a lower feeding rate but higher biogas yield. The FM shows a future plan for feeding food waste, conservatively at a higher annual tonnage. This allows for an upside case to the model, if the gas yield from food waste is higher, potentially less than 84 ktpa may be required, or if the swap from agri-feeds to food waste can happen sooner than 2028 when the FM includes for 85 ktpa. Slight risk remains of sourcing feedstocks as forecasted in the phased approach, however UK Biogas have an existing network and connections, managed by dedicated personnel for sourcing feedstocks in the local area.
Water Balance	The site is due to process high dry matter feedstocks (as per feeding plan in file "1 ref 1. Willand Feedstock Strategy FINAL.xlsx") which will require a high rate of dilution with liquids: either fresh water or recirculated from downstream process. This needs to be included in future detailed mass balances and site design.	L	UK Biogas have confirmed in the latest mass balance, that 29,200 tpa of fresh water will be fed to process which will aid the site's water and nitrogen balance, particularly when feeding high DM solids such as 72% DM poultry manure. UK Biogas have also confirmed that a verbal agreement has taken place with the adjacent processing facility (an abattoir in SLR's understanding), to procure water which is currently being discharged to a nearby ditch and may thus be of sufficient quality, although thorough testing should be completed before processing in AD site in case of

Issue	Description	Risk Rating	Mitigations
			contaminants i.e. antibiotics, fungicides from animal processing operations. Slight risk remains when processing such high DM feedstocks, a very significant quantity of water is required consistently over the long-term operations, but UK Biogas do appear to be considering this fully and the site has a mains water connection able to provide the full quantity of water if necessary. This would need to be considered as an additional Opex if required.
Nitrogen Management	Given the high DM feedstocks and high nitrogen content in feeds such as poultry manure, SLR are conscious that the carbon:nitrogen ratio of the site will be low. There is potential for nitrogen build-up in the AD biology, which can inhibit biogas production and create excessive ammonia gas which can damage gas processing equipment.	L	Confirm nitrogen balance of site, water balance, and recirculation rates at detailed design stage. UK Biogas intend to add zeolites as a consumable to aid the removal of nitrogen in the solid offtake fraction. This, along with sufficient fresh water provision, should prevent major issues from occurring. Ongoing careful monitoring will also be required, which UK Biogas are familiar with.

Issue	Description	Risk Rating	Mitigations
Gas production	The FM forecasts a biomethane export rate of 773 m^3 CH_4 per hour (at full operations apparent in year 2028), when feeding 84 ktpa. The MEB currently forecasts similar "biomethane production" rate of 766 m^3 CH_4 per hour whilst only feeding 63 ktpa.	L	Ideally the MEB and FM should be aligned on feeding and gas export rates to provide backing to the FM. It is acceptable for the MEB to produce the same quantities of gas with lower feed tonnages, provided the feedstock is of higher quality (gas potential and high dry matter). As above, UK Biogas have applied a conservative, phased approach to the FM. The effective average BMP from the FM plan can be estimated at 242 m^3 CH_4 per tonne of organic dry matter (t-oDM), which is reasonable in SLR's view. For the MEB, this is much higher at 321 m^3 CH_4/t-oDM which is the upper limit in SLR's view. Hence, if planning to feed only 64 ktpa to produce similar gas levels as the FM, high quality feedstock must be sourced, such as high dry matter energy crops. The gas yields predicted for both the FM and MEB should be well justified – SLR have not yet reviewed any such gas yield evidence.
Feedstock and feedstock preparation	The site has minimal storage capacity for feedstock (i.e. very small solid store clamps) however UK Biogas accept that frequent deliveries are therefore required. In SLR's review of planning (see section 3.7), there currently does not appear to be a set restriction on vehicle movements, however an approved plan must be in place before the site starts to accept wastes.	L	A stable supply and delivery of feedstocks will be critical to ensure successful operations. UK Biogas are confident in their feedstock supply chain from their existing operations and network and will be utilising a "Just in Time" operation, in combination with the buffer store provided by the two small silage clamps on site. Exact dimensions of feeding clamps were not available; however these may be estimated as 10m by 30m, which should be enough for 2-3 days. SLR have not reviewed UK Biogas's feedstock procurement and management strategy in detail, following UK Biogas's requested scope of investigation.

Issue	Description	Risk Rating	Mitigations
Availability	The availability assumption shown in the FM is 96%. This is considered to be on the high side. For an AD plant with gas upgrading, SLR would consider a typical availability to be circa 90-95%. This figure would also assume the gas upgrader has been well maintained which is currently not the case on the Willand site.	L	A more conservative availability assumption should be considered. The figure should be somewhat based on the level to which the gas upgrader will be refurbished. However, 95% is reasonable when considering that UK Biogas have confirmed they will ensure all required refurbishment works necessary are completed and this work is being carried out by the provider that serviced the equipment when the site was operational.

3.3 Equipment Review

Issue	Description	Risk Rating	Mitigations
Performance Test and Capacity Validation	It is not clear if the site has ever formally achieved the original "Performance Test" under the original EPC contract terms. No formal documentation was available for review. The EPC contract suggests the performance test was set as follows: "Acceptable Biogas produced by the AD plant within 30 consecutive days reaches 90% of the agreed capacity i.e. 1,400 m^3/h x 24h x 30 days x 0.9 = 907,200 $Nm^{3,}$ equivalent to a biomethane production rate of circa 756 Nm^3 CH_4/h.	L	Whilst not critical as UK Biogas have a remediation plan, ideally the site would have had a formal completion certificate and performance test approval at the time of commissioning.
Flare condition and capacity	No details on the flare system were available for SLR to review. No maintenance or service records were available for review.	L/M	A detailed inspection and review of the flare is required, as a safety critical item of plant that must be capable of handling 110% of planned biogas throughput.

Table 3-1 Equipment Capacity Review

Equipment	Capacity	Proposed Mass Balance Design requirement
Solid feeding system	Two hopper units, 100 m^3 capacity each.	The site's 200 m^3 hopper capacity is thought to be sufficient for twice daily feeding operations, i.e. filling once morning and once evening, for feeding 64 ktpa of solids.
Digesters	15,500 m^3 active AD volume.	SLR have evaluated the site AD active capacity as 15,500 m^3. Mass of feedstock in MEB shown as 63,000 plus 29,000 m^3 water. Thus, site operations should allow for a tank residence time of 62 days which is sufficient for the feedstocks.
CHP	Details not available for review. Expected capacity of 499 kW. Complete service overhaul and investigation of the CHP condition is required and planned in the CAPEX budget.	
Flare	Details not available for review.	
Boiler	Details not available for review. Expected capacity of 599 kW. Complete service overhaul and investigation of the boiler condition is required and planned in the CAPEX budget.	
Biogas Upgrader	Details not available for review.	The FM expects an average rate of biomethane export to grid of 773 m^3CH_4/h, and the MEB similar at 766 m^3CH_4/h.

Equipment	Capacity	Proposed Mass Balance Design requirement
		As above, detailed overhaul is likely required and is planned within UK Biogas's CAPEX budget.
Grid Entry Unit	Details not available for review.	The site's Network Entry Agreement (file) suggests capacity is available far in excess of site design (2,500 Sm^3/h) which benefits the site for any future capacity expansion plans i.e waste processing line with new tank farm and upgrading equipment. File "4.6.3 7.3 NEA Willand LLP part 2 signed 29092015" Schedule 6 reports "The DFO (Willand Biogas) shall have minimum Entry Capacity of 2,500 scmh".

3.4 Operations and Maintenance

Issue	Description	Risk Rating	Mitigations
Maintenance contracts	Maintenance contracts are not in place for key equipment. Typically, SLR would expect these to be in place for the gas upgrader, CHP and NEU.	Note	Maintenance contracts for the key equipment usually come with an availability guarantee and access to specialised maintenance personnel and it is recommended that these be put in place to minimise downtime. Cost of maintenance of these items has been included in the FM and UK Biogas have confirmed initial discussions with service providers are taking place.
Lack of servicing and maintenance	There has been significant under investment in servicing and maintenance and bringing the plant back up to the expected level is important as a basis for ongoing operations and maintenance.	Note	There is provision in the Capex and FM for servicing and maintenance. Bringing the site up to a fully maintained status and continuing a suitable maintenance programme will maximise the availability of the plant going forward.

3.5 Digestate

Issue	Description	Risk Rating	Mitigations
Digestate storage volume on site/off site	Following the AD process, UK Biogas have confirmed they will utilise the 4,900 m^3 digestate storage tank on site for buffer capacity, whilst UK Biogas's wider operations will manage additional storage for application of Willand's digestate.	Note	UK Biogas have confirmed their plans for digestate separation (i.e. screw press to split solid fibre), which reduces the requirement for bulk liquid storage. Depending on the offtake method (i.e. landspreading, discharge) some sites can require up to six months storage between land spreading seasons. The 4,900 m^3 digestate storage will not provide 6 months of capacity. It is therefore critical the UK Biogas have sufficient infrastructure in place to manage digestate. UK Biogas are aware of this and are seeking the necessary arrangements. UK Biogas are confident in their digestate management system from their existing operations and network. SLR have thus not reviewed this in detail.
Digestate offtake agreement	No digestate contract is in place at present, however it was noted on site that this is in negotiation.	L	Ensure that digestate offtake agreements are in place and they are in line with industry standard.
Dewatering digestate	A screw press for separation of digestate is included in the proposal for improving the site. This is standard for agricultural AD plants to reduce the quantity of liquid to be stored. UK Biogas are also proposing a Huber Q Press separator as a secondary separation step. While this a suitable piece of equipment, its benefit may not be realised until future food waste plans are achieved.	Note	The benefit of having the Q Press in addition to a screw press should be weighed against the Capex and Opex of the equipment. The Capex model includes this equipment already, so this is not a risk, only a note. There is potential for water removed from digestate using these presses to be recirculated and reused as process input water in the digesters. If this is not possible due to the risk of ammonia concentrations, then there is an option of cleaning this water and removing ammonia through the water cleaning plant at the neighbouring site.

3.6 Civils

The Willand site has with a conventional arrangement and layout for an AD plant utilising energy crop feedstock. The site is located at the periphery of existing industrial activities to the north and south and bounded by open farmland to the west. Prior to its dormancy, the Site had been operated during an ongoing phase of development. There is evidence that temporary arrangements, such as additional pipework and temporary ancillary tank installations had been in place to facilitate normal operation and the phased of construction. There are currently areas of the site that are unused or partially used that will be incorporated into the future planned development of the site. SLR comments regarding the design and construction are detailed below.

Issue	Risks	Comments	Risk Rating	Mitigations
Ground conditions – AG Solutions Geo Environmental Report Dated May 2014	Ground conditions across the site are predominantly good. The Site's ground level has been reduced and based on the assumed Biogest Digester tank's internal height of approx. 8.0m. The tanks will be founded in the Aylesbeare Mudstone Group.	The EPC contract between the Client and Biogest Energie Und Wassertecknik GMBH contains a letter of Reliance allowing use of the Geo Environmental Report to inform the Design. It is assumed that all design and static calculations were based on the information therein. No further design calculations, detailed construction elevations or further ground evaluation testing results have not been made available. In the absence of any detail designs or elevations or construction data, SLR assumes that the design and construction and supervision was undertaken in accordance with the Contractual requirements. *See Document -4.12.3.1 4.3.19 3.01Biogest EPC (19847846_1).PDF*	M	As the site has been operational for a number of years with the tanks under load and there was no visual evidence of cracks or differential settlement, it is recommended that routine monitoring for evidence of differential settlement, leaks and cracks is carried out. It has been confirmed by UK Biogas that this routine monitoring will be part of their monitoring schedule.
As built drawings, construction	The following layout and as built drawings have been made available:	In the absence of this information, SLR cannot determine if the site	L	The site should be monitored regularly for

Issue	Risks	Comments	Risk Rating	Mitigations
records, and test records	Simon Bastone Associates, 151103/01-3, Sheet Pile Retaining Wall and Long Sections Dated 12/2020. Ref: *4.3.8 151103 Willand AD Plant* AMZCO Phase 2 General Arrangement Dated 02/2020. ref: *6 ref 31 - Willand phase 2 as built.dwg* *Various Layouts contained within other PDF documents throughout the Information provided – note these are of low quality and not easily readable in electronic paper format* No test records were made available for review.	construction complies with the designers' specifications		signs of settlement, cracking and leakage. A further full site topological and detailed features survey is recommended to update the existing and accurately consolidate the available information. UK Biogas that this routine monitoring will be part of their monitoring schedule.
Clamps	A temporary feedstock storage arrangement was in use prior to the site's dormancy in the footprint of the planned "*hgv delivery yard & turning area*" and "*building*" footprint area. This consisted of legio block concrete wall/s. It is also further noted from the site visit and previously in a containment report that perimeter sheet pile wall to the south of the site has had retained feedstock as evidenced by staining to the piles and historic aerial photography.	Levels of wear are consistent with its age and use. The previous arrangement did not strictly comply with silage, slurry and agricultural fuel oil (SSAFO) guidance due to the absence of perimeter drains. No joint details are available for the concrete slab floor joints. It is likely that these rely on flexible joints sealants and therefore provide a possible pathway for effluent to escape the clamps. Existing Drainage channels appear to be blocked as observed by chemical erosion of concrete surface between drainage gulleys.	L	Review ongoing requirements and operational methodologies and install compliant clamps where necessary. Clean, jet and survey all drainage. UK Biogas plans include completing the building encompassing the concrete area and built in-situ clamp storage and design a flow process for HGV

Issue	Risks	Comments	Risk Rating	Mitigations
				movements to ensure adequate access. Containment work and ongoing monitoring and repair will be carried out regularly to ensure complete capture of effluent.
Feedstock reception building	The buildings contain partially installed equipment for pre-treatment of feedstock. The buildings appear to be at predominately practical completion. The buildings contain drainage gulleys that do not appear on current surveys. The pit in the main reception hall has incomplete insitu concrete walls surrounding the pit. At the time of the visit there was no access to the "*Food Waste Building*". No structural design calculations for the buildings have been made available for review or comment. However, the buildings are a relatively standard portal frame design, and the observed workmanship is visually of a reasonably good standard.	Current arrangement may need modification dependent on future use. The insitu concrete walls in the main reception building will need to be completed, together with adequate fall protection /railing around walkways around the pit. It is not clear the level of commissioning the installed plant has undergone.	L	There is currently a risk due to apparent incompleteness of buildings, particularly relevant to H&S risks around pit in main reception hall. Modifications and finalisation of existing buildings is built into the project plan and part of the CAPEX programme. The CAPEX programme also contains a figure for the development of the food waste processing building. Full surveys and tests will be carried out, as well as understanding what can be utilised

Issue	Risks	Comments	Risk Rating	Mitigations
				and what will be disused.
Feed Hoppers	Feed hoppers are located on concrete slabs with spill containment provided using a low upstand and a perimeter retaining walls to the east. The volume formed by these walls would be insufficient to act as secondary containment but would act to contain incidental spillages within the wider secondary containment. An apparent temporary surface mounted liquid feed tank is connected to the feed system. Redundant/unconnected equipment is within the feed hopper area.	The floor slab and upstand walls have numerous pipe penetrations and holes visible – any spillage is unlikely to be contained and will escape onto the wider site. The apparent temporary liquid feed tank is not properly mounted or secured on any suitable base. The concrete wall to the north of the feed hoppers is incomplete with a sawn cut entry through the wall.	L	Repair opening to wall. Modify existing temporary arrangements on feed system to suit end use requirements. Remove redundant equipment. Surface mounted tanks will need to be installed on a suitable concrete base. UK Biogas confirmed that their CAPEX model includes for the above mitigation.
Digesters & Fermenters	**Digesters** - The 2 No 24.5m outer diameter digesters are of a concrete roofed circular '*Ring in Ring*" design. These appear to be of the proven design that has been utilised by the EPC Contractor elsewhere. **Fermenters** - The 3 No. 27.5m diameter Single Process Fermenter's "*roofs*" have utilised a flexible gas collector membrane which are currently in disrepair. The contractual documents and drawings refer to a tank of internal heights of 8.0m with approximately 5.0m high estimated to	There are no construction records / test results confirming ground conditions encountered during construction There are no construction records / test results confirming concrete specifications and strengths achieved during construction. The tanks have numerous penetrations through the walls. It was noted at time of visit that SBF02 has a leak from a point source. This was obscured within a	M	Mitigations to tank designs and construction are unlikely to be economic. The tanks are all full at the time of visit. A full internal inspection should be carried out on each tank as they are sequentially emptied.

Issue	Risks	Comments	Risk Rating	Mitigations
	be projecting above local ground level. Both the fermenter and digester tank's walls and floors are constructed in insitu reinforced concrete. It is assumed the tanks were constructed using spread foundations. The tanks cladding and superficial equipment mountings all appear to be in a reasonable condition.	high-level mounted enclosure and was inaccessible at the time of visit. It is reportedly likely to be a heating point stab in through the tank wall and is easily repairable. No design or test information is available for these seals / penetrations and no warranties / guarantees are available.		A detailed inspection, monitoring and maintenance plan should be developed, and repairs made where necessary. UK Biogas confirmed that the project plan highlights the need to drain, clean and inspect each process tank. Part of this will lead into the detailed inspection, monitoring and maintenance plan in line with CIRIA guidance.
Secondary Containment	The site's secondary containment consists of vertical mounted precast concrete panel walls clamped to vertical steels beams. The walls are in a generally good condition with some areas requiring sealant repair on joints. The sheet pile walling on the southern limit of the site is in good condition. The gate at the northwest of the site does not currently seal adequately. The concrete floors within the secondary containment area have numerous cracks and gaps between panels.	Any large-scale escape of pollutants from above ground structures will potentially flow over surface and cause offsite pollution. Any leaks from the storage tanks are likely to escape directly into ground water and potentially cause offsite pollution. Such leaks will be difficult to detect until they have already caused pollution. Some of the above ground process pipework has open flange connections above the secondary containment bund – loss through	L	Review site wide containment (hardstandings, drainage, perimeter bunds) and complete improvement works as required as detailed in previous containment report:Simon Bates Associates Ltd. (2015). *Survey of Containment Structure*

Issue	Risks	Comments	Risk Rating	Mitigations
	Process Pipework is mounted above ground on supports above the secondary containment wall	these open flanges will allow escape beyond the bund wall. There are several below ground pipes terminating in above ground flange plate connections.		*Close all open/unused flanges with blanking plates.* Full repair of site-wide containment is planned by UK Biogas. This will be following a further inspection and report from an approved contractor
Hardstandings	The majority of the existing development site is surfaced, comprising concrete hardstanding. This includes the area previously used to feedstocks, where some localised damage was observed. The liquid digestate take off is in an undeveloped area above an unsurfaced area. No construction details are available for the concreted areas.	Where hardstandings are provided, these appear to be in reasonable condition, with signs of localised damage that can be easily repaired. Small areas of hardstanding and surface works are incomplete around to the rear of the PURAC building. The approach to the main doors on the food reception hall along the northern periphery of the site is unbound.	L	Clean all existing hardstanding areas and repair as necessary. Dependent on planned future usage the Site would require further bound surfaces on the approach track to the main reception hall. UK Biogas confirmed that all hardstanding onsite to be inspected and repaired ahead of operations. This will ensure all impermeable membranes will be fixed and monitored going forward.

Issue	Risks	Comments	Risk Rating	Mitigations
Drainage	The site drainage design uses an apparent dual drainage system to direct all surface flows to chamber/s from where “clean” water flows via a chamber into the lagoon approximately 100 m to the northwest of the site for storage and reuse. From a review of the available information “Dirty” water flows to a chamber from where it is pumped and reused on site	The gulleys on site were noted to be surcharged with liquid or blocked and as such the system is not currently functional.	L	Clean, survey and reinstate drainage system, review design and construction. Review drainage system operation and make improvement modifications where necessary. UK Biogas confirmed that the above mitigation and the recirculation of water collected onsite is part of the CAPEX budget.
Lagoon	The lagoon uses a conventional rectangular layout and simple below local ground level excavation to form the void, with soils used to form small embankments. The lagoon does not benefit from a geosynthetic lining system. It is unclear what level of soil engineering was undertaken to the lagoon bases and sides. A chamber pump is installed to lift water back to the plant for reuse.	The lagoon embankments are heavily vegetated, making inspection for signs of movement or disturbance difficult. The liquid level within the lagoons was noted to be fairly high and not “clean” at time of visit. It can be assumed that during the site’s dormancy, leaks and spillages within the bund have been allowed to drain via the clean system to the lagoon. A freeboard level of min 750mm should be maintained. Drawing *4.3.6 151103 Willand Plant* shows a planned discharge pipe from the pump/valve chamber to river	Note	UK Biogas confirmed that the existing lagoon will not be used and is likely to be decommissioned.

Issue	Risks	Comments	Risk Rating	Mitigations
		discharge. This arrangement needs to be clarified and checked if installed to ensure no discharges are active.		

Summary

The Willand Site uses conventional layout, design and construction techniques. Ground conditions on the site are good, with construction being undertaken on reduced ground levels in relatively good bearing capacity soils. In the absence of detailed design information or construction records SLR cannot determine if appropriate construction methodologies have been used to ensure the site infrastructure remains stable in the long term.

The primary containment has used proven designs utilised elsewhere by the EPC contractor. A point source leak around a through bund penetration was observed and will need to be further investigated and repaired.

The secondary containment to the above ground site infrastructure (feed hoppers, digestate storage etc) and large parts of the site surface is in a relatively good condition. Further reasonably minor remedial works are required to reduce the risk of pollutants escaping site.

Drainage is provided by a combined system that reportedly discharges clean water via chambered pump/valve to an onsite lagoon or utilised in the plant. The drainage system appears to be blocked in several locations and requires remedial works to restore its function.

The small lagoon is a simple earth excavated void below ground level It unclear if these have been designed for sufficient storm storage and constructed adequately.

3.7 Planning

The Site is located at Lloyd Maunder Road, Willand, Cullompton, EX15 2PJ, and within the administrative boundaries of Devon County Council.

3.7.1 Review of the planning permission(s) granted for the site

Planning permission was granted by DCC on 2nd April 2001 with reference **DCC/0683/2000** for "*the continuation of waste composting*." The permission was conditionally approved. There are no associated documents available to view on the DCC public access site.

Planning permission was granted by DCC on 26th May 2015 with reference **DCC/3725/2014** for the *"Construction of 2MW Anaerobic Digestion Plant with new access road and weighbridge on land adjacent to existing Abattoir at Lloyd Maunder Road, Willand and construction of two bay silage clamp with hardstanding and turning area at Burn Rew Farm, Willand."* The permission was subject to 10 conditions, of which two were pre-commencement.

Planning permission was granted by DCC on 22nd July 2015 with **Reference DCC/3772/2015** for the *"Installation of a bio-refinery unit (multi-stage anaerobic digestion system connected to a combined heat and power unit) to treat the organic waste produced by the factory and associated temporary siting of a portable cabin for the duration of the construction."* The permission was subject to eight conditions, of which four were pre-commencement.

Planning permission was granted by DCC on 15th October 2015 with **Reference DCC/3797/2015** for the "…*rerouting of the access road into the site of the Willand Anaerobic Digestion Plant (DCC/3725/2014), extending the red line to better accommodate the road and embankment and for the relocation of the pipe from the attenuation pond to the stream. The construction of the plant commenced 29/06/2015."* The permission was subject to four conditions, none of which are pre-commencement or suspensive.

An application to vary consent DCC/3725/2014 was submitted and granted by DCC on 9th June 2016 with **Reference DCC/3825/2015** for the *"Variation of condition 6 of application DCC/3725/2014 (Construction of 2MW Anaerobic Digestion Plant with new access road and weighbridge on land adjacent to existing Abattoir at Lloyd Maunder Road, Willand) to vary the amount and type of feedstock delivered by road."* The permission was subject to 14 conditions of which two were pre-commencement and one was suspensive

Planning permission was granted by DCC on 9th June 2016 **Reference DCC/3850/2016** for the *"Variation of condition 2 (to enable revised plant design) of planning permission DCC/3725/2014 for Construction of a 2MW anaerobic digestion plant with new access road and weighbridge on land adjacent to existing abattoir at Lloyd Maunder Road, Willand and construction of two bay silage clamp with hardstanding and turning area at Burn Rew Farm, Willand."* The permission was subject to 14 conditions of which two were pre-commencement and one was suspensive. The permission was amended by a non-material amendment application which was submitted and approved by DCC on 22nd December 2016 (**Reference SP/DCC/3960/2016**). The description of development was to "*relocate a boiler to a cluster of 3 further boilers and install a single cover to the boilers to increase efficiency in accordance with the drawing labelled 151103/50, WIN01_W_NMA_SP_004 and WIN01_W_NMA_EIEx_002."*

An application to vary consent DCC/3725/2014 was submitted and granted by DCC on 25th July 2019 **Reference DCC/4037/2017** for the *"Variation of Condition 6 of permissions DCC/3725/2014 and DCC/3850/2016 to remove the restriction on the importation of poultry products by road; Willand Anaerobic Digester, Lloyd Maunder Road, Willand."* The permission was subject to 14 conditions of which one was pre-commencement, and one was suspensive.

Planning permission was granted by DCC on 14th February 2019 **Reference DCC/4074/2018** for the *"Extension to site area of Existing AD plant to accommodate: 1 additional digestate storage tank, 2 separated digestate tanks (relocated from within the existing approved site layout); 2 new batch tanks; 1 new lime storage tank; 3 new propane tanks; 1 new feeder tank and extension to viewing gantry; and*

Variation of Condition 2 of Permission DCC/4037/2017 Amendment to layout of existing AD plant area to accommodate: 1 Additional Purac "Puregas" gas upgrade unit; 2 new boiler units; 1 additional Siemens gas grid entry point; 1 additional flare, chiller and blower unit; 2 additional buffer tanks and the removal of 2 separated digestate tanks at Willand AD Plant, Willand." The permission was subject to 15 conditions of which two were pre-commencement and one was suspensive. The Officer's Report notes that this permission is a rationalisation of the previous consents. Further it notes that a revised S106 agreement is required to secure the surrender of previous consents and to secure vehicle routeing agreement. The S106 agreement is not available on the DCC planning portal. The S106 agreement should be reviewed to determine whether or not planning permission **DCC/4074/2018** supersedes previous permissions.

3.7.2 Compliance with Pre-commencement and Suspensive Conditions

As noted above, permission **DCC/3725/2014** was varied by permissions **DCC/4037/2017** and **DCC/4074/2018**. These include nine conditions which are pre-commencement conditions or suspensive in whole or in part, which are summarised in Table 1-1.

Table 3-2 Pre-commencement and Suspensive Conditions

Condition	Requirement	Compliance / Risk
Permission DCC/3725/2014 Varied by permissions DCC/4037/2017 and DCC/4074/2018		
Condition 4 CEMP	**Pre-commencement** Construction Environmental Management Plan to be submitted and approved in writing by the WPA.	A CEMP was submitted to the DCC on 14th August 2019. There is no confirmation that the condition has been partially or fully discharged.

Condition	Requirement	Compliance / Risk
Condition 9 Surface Water Management	**Pre-commencement** Before the extension is commenced provision of surface water management across the whole site (excluding the site access) shall be submitted and approved in writing by the WPA.	Details of the surface water management were submitted to the WPA on 12th August 2019. There is no confirmation that the condition has been partially or fully discharged.
Condition 12	**Suspensive** Prior to the importation of any waste material to this operation, a Traffic Management Plan to be submitted and approve in writing by the WPA. (a) Official delivery routes; (b) Actions to be taken against those in breach of the delivery instructions; (c) hours during which delivery and construction traffic will travel to and from the site, with such vehicular movements being restricted between 8:30 am to 9.30 am and 3.00pm to 4.00pm Mondays to Fridays to safeguard school pick up and drop off; (d) the number, sizes of vehicles, and origin and destination of vehicles visiting the site in connection with the development; (e) details of proposals to promote car sharing amongst staff in order to limit staff vehicles parking off-site.	A route plan has been submitted on 12th August 2019 for discharge of the condition. It does not appear to cover all required points, and there is no confirmation that the condition has been partially or fully discharged.

3.7.3 Compliance with Other Conditions

The relevant permissions are reviewed below with regard to 'other' conditions, i.e. not pre-commencement or suspensive conditions.

Table 3-3 Compliance with Conditions

Condition	Requirement	Compliance / risk rating
Permission DCC/3725/2014 Varied by permissions DCC/4037/2017 and DCC/4074/2018		
Condition 1 Commencement	Commencement of development must be within three years beginning with the date of this permission (i.e. by 14 February 2022).	Google Earth aerial imagery dated 18th September 2019 indicates that the development has commenced.
Condition 2 Approved plans and documents	Lists the approved plans and documents.	The latest Google Earth aerial imagery dated 20th April 2024, indicates some of the main items of the plant are located as per the approved drawings. There are structures that are not in accordance and would need to be regularised. These are explained further in the section below.
Condition 3 Construction Traffic Management	Development constructed in accordance with the approved Construction Traffic Management Plan submitted in respect of permission Ref. DCC/3725/2014.	Should any further construction works be carried out, it must accord with this Plan.
Condition 5 Contamination	Works shall cease if any previously unidentified contamination is found, until a remediation strategy has been submitted and approved by the WPA.	Should this be encountered, details must be submitted to the WPA
Condition 7 Feedstock	The amount of feedstock delivered by road to the site shall not exceed 55,000 tonnes per annum	The permit has been changed to accommodate 100,000 tonnes but planning permission still restricts to 55,000 tonnes. This will need to be amended through a variation of the planning condition application. Whilst there is a high chance an application would be accepted, there is always the

Condition	Requirement	Compliance / risk rating
		risk the Council would not accept the new feedstock amounts. A pre-application advice application could be submitted to understand if the Council would accept the new amounts. DCC state that pre application advice would be given in approximately 30 days from submission. A s73 application to vary the consent should take 8 weeks.
Condition 8 External materials	The external materials for the cladding of the proposed buildings and digestate tanks shall be RAL 7038 (Goose wing grey) and the security fencing shall be RAL 6005 (Dark green)	It is not possible from Google Earth Aerial Imagery to confirm compliance, this should be confirmed on site.
Condition 9 White noise alarm	No vehicle or mobile plant used (other than visiting road lorries) shall be operated within the permission area unless they have been fitted with and use “white noise” alarms.	Compliance should be confirmed on site.
Condition 10 Landscaping	Landscaping scheme down on the approved plans shall be carried out before 31st December 2019 and maintained for 5 years.	It is not clear from Google Earth Imagery if the planting has been carried out. Compliance should be confirmed on site.
Condition 11 Habitat Enhancement	Habitat and ecological enhancement and mitigation measures as set out in appendix 11 of the Habitat Enhancement and Mitigation Report shall be implemented.	Compliance should be confirmed on site.
Condition 13 Sealed containers	All waste or odorous feedstock delivered to this site and digestate leaving it by road shall be transported in sealed containers or tankers.	Compliance should be confirmed on site.
Condition 14 Vegetation	There shall be no external storage of waste materials or soiled containers.	The latest Google Earth aerial imagery dated 20th April 2024, there is no evidence of unauthorised external

Condition	Requirement	Compliance / risk rating
		storage. Compliance should be confirmed on site.
Condition 15 Access road	Hedgerow planting spacing and sizes.	The latest Google Earth aerial imagery dated 20th April 2024; shows the access road has been completed. Compliance with planting scheme should be confirmed on site.

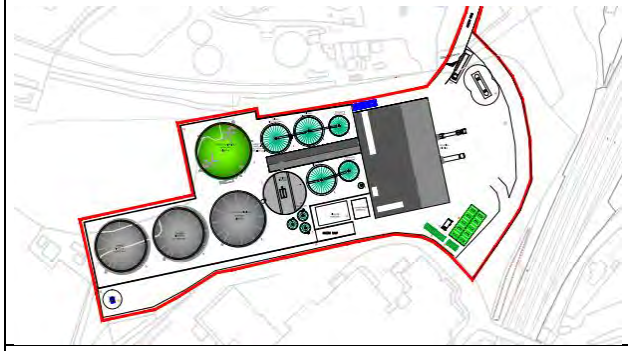
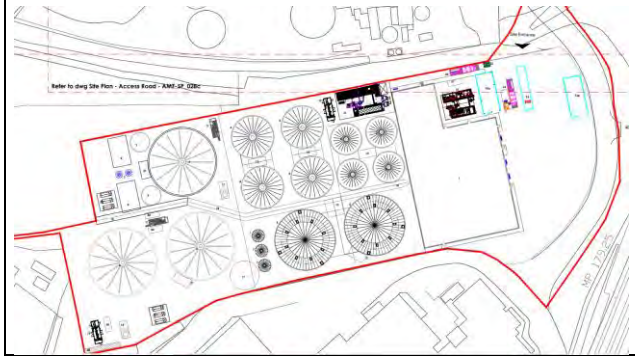
3.7.4 Are current and proposed operations in line with the planning permission granted?

3.7.4.1 Layout

A review of the Google Earth images for compliance with approved plans has been carried out, with the most recent imagery being 20th March 2024. The imagery shows there are some discrepancies in what has been built out on the Site including potentially uncovered storage tank and the main building in the east of the Site which was constructed different from all approved permissions. It is recommended that an application to vary approved plans is submitted to ensure all details are regularised, or the buildings and plant equipment is constructed in accordance with the approved plans.

Some elements from the most recent permission **DCC/4074/2018** have been constructed, with some yet to be started. The development has commenced, and there are no time limits for completion. The access track has been built out and is in the approved location.

Approved Plan extract	Aerial photography
Drawing WIN01_Willand_SP_002 (Original permission DCC/3725/2014)	Google Earth 5th August 2018

Approved Plan extract	Aerial photography
	
Drawing AMZ01_SP_029_a (DCC/4074/2018) 	Google Earth 20th April 2024 

3.7.4.2 Operations

Compliance with operational conditions relating to feedstock source, hours of working and haulage routes should be confirmed with site records. Compliance with approved details (including materials, landscaping etc) should be confirmed on site. The Officer's Report notes that this permission is a rationalisation of the previous consents.

The S106 agreement should be reviewed to determine whether planning permission **DCC/4074/2018** supersedes previous permissions.

3.8 Regulatory

Issue	Description	Risk Rating Description	Risk Rating	Mitigations
Proposed changes for the site	SLR understands that UK Biogas have plans to rehabilitate the site. Any changes to EWC codes in the permit, or increase to tonnage over the current permitted amount, would require a permit variation application. SLR understands that UK Biogas intend to accept energy crops and waste under the 02 01 06 code, with an estimated 173 tonnes of waste and non-waste to be processed per day. These waste codes and limits are all within the current permit conditions. Other changes UK Biogas are proposing include, a new waste reception hall, additions to on-site drainage, additions to LDAR in place, a CHP re-build. SLR understand that UK Biogas would be intending to develop the site to be in line with the changes made to the permit in 2021. This would not require a permit variation provided that UK Biogas did not make any changes to the EWC codes, permitted tonnages, emissions from site, permitted activities, site boundary or make any changes that would alter the nature of your facility's operation or increase the environmental risk posed. All changes would be required to be in line with Best Available Techniques (BAT) requirements as per the Waste Treatment BAT Reference Document (BREF). Some details of changes and proposed mitigation provided by UK Biogas. More in-depth detail would be required to understand if the mitigations proposed are sufficient, but initial information indicates mitigation would	If UK Biogas proposed to develop the site in line with the changes and plans submitted by the existing operator in 2021, then a permit variation application may not be required. UK Biogas have confirmed that they do not intend to change the current EWC codes or tonnage within the permit. Any changes made to the site which are not in line with the current permit may require a permit variation. Note that the EA permitting queue	L	Consultancy fees for preparing the permit variation application documents could be c. £10,000 - £15,000. EA application fees could vary but could start at c. £4,000 and be up to c. £15,000 depending on the changes proposed. Based on feedback from UK Biogas at this stage, it is assumed that a permit variation would not be required.

Issue	Description	Risk Rating Description	Risk Rating	Mitigations
	be on-track for BAT, i.e. odour and dust abatement, sealed drainage system in intake area, LDAR. Note that a CHP re-build could trigger the CHP to be considered a 'new' Medium Combustion Plant (MCP). As per EA guidance[1] an 'existing' MCP will become a new MCP if it's 'substantially refurbished and the refurbishment costs are more than 50% of what a new comparable MCP would cost'. A 'new' MCP would have tighter emission limit values (ELVs) and earlier compliance dates to comply with.	currently has extensive waiting times, expect to wait up to 12-18 months for a permit variation to be issued.		
Pre-Operational Conditions for Future Development	The permit details a number of pre-operational conditions for future development: 1. Site infrastructure (Phase 2 and 3) – at least 8 weeks prior to acceptance of waste… the operator shall provide a written commissioning plan. 2. Odour abatement plant (biofilter and carbon filter) - During the commissioning of the odour abatement system, the operator shall undertake the monitoring of the parameters proposed for the site biofilter and the carbon filter (digestate separation building) detailed in the Application (response to the Schedule 5 Notice dated 4 December 2020).	UK Biogas would be required to meet the pre-operational conditions as detailed within the permit. If these were not met prior to the relevant operations this would be a breach of the permit.	L	Significant costs could be incurred for some of the requirements of the pre-operational conditions, such as abatement plant and secondary containment. UK Biogas are aware of the pre-operational conditions required within the permit.

[1] https://www.gov.uk/guidance/medium-combustion-plant-when-you-need-a-permit#when-a-mcp-is-classed-as-new-or-existing

Issue	Description	Risk Rating Description	Risk Rating	Mitigations
	- At least 2 weeks before full operation with waste, the operator shall submit a report which includes the following aspects: outcome of the commissioning of the odour abatement plant; demonstration that the proposed monitoring of the odour abatement plant is sufficient; trigger levels to initiate remedial actions; and procedures in place for the operation of the odour abatement plant. 3. Secondary containment for new tanks - Prior to the acceptance of waste specified in Table S2.2 at the installation, the operator shall ensure that a review of the design, method of construction and integrity of the site secondary containment for the new tanks is carried out by a qualified structural engineer			
Secondary Containment	A containment survey completed in 2022 raised the following comments regarding containment: • Choice of precast RC walls and ground slabs within containment area indicate a cheaper and faster form of construction • Recommendation that the construction of containment is completed at right-hand side of the site (currently a gap being bridged with a steel plate) • More rigorous maintenance regime recommended • Corrosion on steel members to be cleaned • Epoxy coating recommended for the containment slab to infill cracks.	SLR understand that the EA have had sight of this report as part of the site permit improvement conditions programme. It is unknown if the EA have issued further improvement conditions or recommendations for the site to improve the	M	UK Biogas have planned a full repair of site-wide containment, as well as a full inspection and report from an approved contractor to highlight problem areas. Any improvements required could incur significant costs for UK Biogas.

Issue	Description	Risk Rating Description	Risk Rating	Mitigations
		containment, on the basis of the recommendations within the report. The faults noted within the containment survey are such that the site is in breach of BAT requirements.		
Current site infrastructure	If any of the existing site infrastructure is not in line with BAT or requires improvements or upgrades, UK Biogas would take on the responsibility to remedy these or be in breach of the permit conditions. Infrastructure which needs to be in line with permit conditions and BAT includes: drainage systems, waste reception and storage buildings, abatement systems, digestate storage lagoons or tanks, digestion tanks, CHPs, secondary containment systems (as mentioned above), site surfacing. SLR understand that most of the proposed changes within the sites last permit variation application, were not made on site. Including completion of the waste reception building, odour abatement, new digestor tanks and digestate storage tanks.	SLR does not currently have enough information on the site infrastructure to determine if they are in line with BAT and permit conditions. To operate in line with the permit conditions (i.e. EWC codes and tonnages), UK Biogas would be required to finish construction of the infrastructure which was	M	Significant costs could be incurred to finish construction and development of the site. Site infrastructure required to be constructed could include the waste reception building, odour abatement, new tanks for the site and secondary containment around any new tanks. UK Biogas are aware of the significant work required and have stated that the works have been considered in their improvement plan.

Issue	Description	Risk Rating Description	Risk Rating	Mitigations
		proposed for the site. UK Biogas have stated they are aware of the significant amount of work required to ensure the site complies with BAT.		
CAR Forms	Two CAR forms provided. No breaches were noted, but did contain some actions and / or comments: • CAR Form: 0463430, 23/05/2023 - Noted that a permit variation would be required for planned instalment of additional CHP plant - Summary of status of improvement conditions (ICs) given: IC1&2 to be completed once waste is accepted to site, IC3&4 complete, IC5 not complete, IC6&7 not complete, IC8&9 to be completed once waste is accepted to site. - Site to provide up-to-date drawings of the DSEAR zone. - Gate of the bund found to be dented, action to inspect and repair immediately. - Note that the pond meant for clean surface runoff looked to contain dirty water.	The current operator notes that '*Some action has been taken but the site has remained dormant with little work being carried out'*. The operator also states that UK Biogas are aware of the continued discussions with the EA officer. The site states that there are plans to remedy outstanding ICs as well as increasing conformance to BAT.	M	Mitigations may vary depending on which, if any, actions are unresolved. UK Biogas should work to establish if these have been resolved, which could require some communications with the EA. Costly mitigations could include: - Impermeable based and sealed drainage system for the tank discharge point. - Clean up of the surface water attenuation lagoon if found to have dirty / contaminated water in.

Issue	Description	Risk Rating Description	Risk Rating	Mitigations
	- Tank discharge point was on unmade ground, action to provide a transfer area with an impermeable base and sealed drainage. • CAR Form: 0467059, 28/06/2023 - The EA officer recommended a permit variation to integrate changes to the surface attenuation water lagoon into a lined dirty lagoon with no discharge, due to instances noted of dirty water discharging to the surface water lagoon - Action for the site to install a generator fence - Notes that a number of the actions from the previous CAR form in May are still outstanding. - Notes a response to IC6 & 7 have been received by the EA and is awaiting review. • CAR Form: 0509339, 21/06/2024 - Yard in the feedstock area drains to an underground storage tank. Advised that the liquid levels within this tank need to be monitored as the treatment tanks are all full and therefore when the underground storage tank fills up, there will be nowhere for the liquid to go. - Bund area is not currently clean and is discharging to the surface water attenuation lagoon meant for clean water only. Also noted that the water in this lagoon does not look or smell clean. EA officer asked for a sample to be taken. - Waste is building up on site and attracting vermin.	UK Biogas may inherit any outstanding actions from CAR forms from the previous operator, if these have not been resolved prior to UK Biogas taking over the site. Some of the actions, if unresolved, could incur costly mitigations to resolve. UK Biogas have ensured that they understand that a significant amount of work is required to meet the actions required in the CAR forms. They have stated that areas for consideration within the CAR forms largely fall under the		

Issue	Description	Risk Rating Description	Risk Rating	Mitigations
		improvements planned by UK Biogas. UK Biogas have also stated that the surface water lagoon will not be used. There may still be costs involved in cleaning this lagoon if found to have contamination.		
Odour Complaints	Records of four odour complaints, all made during 2023. Unknown if the odours were attributed to the site. Noted that there are other industrial premises in the area which could also be the source of the odours. If the site continued to receive odour complaints, while certain odour controls are not in place at the site, they could be in breach of their permit conditions.	If the permit conditions specify the site is to have odour abatement installed, then the site may be in breach of permit conditions if appropriate odour abatement is not place.	L	Odour abatement has been considered and costed in the CAPEX requirement by UK Biogas for the re-development of the site.
Improvement conditions	Site were unable to provide evidence or confirmation from the EA that improvement conditions 1, 2, 5, 8 and 9 have been completed. The deadline for these to be completed was March 2022. CAR form 0467059 does note that this survey of the containment was submitted to the EA for IC 6 & 7 in June 2023, however it is unknown to SLR if the	If the IC have not been completed by the current operator, UK Biogas would inherit the	L	UK Biogas would need to open a conversation with the local EA officer to determine which ICs are still required. Many of the ICs would require a consultant or third party technical specialist to

Issue	Description	Risk Rating Description	Risk Rating	Mitigations
	EA accepted this, or if there were any further actions or improvements required to the site following this report. It is unknown to SLR if the remaining improvement conditions within the permit have been completed. Some of these conditions can only be completed once the site starts accepting waste, as such they may not have been completed by the current operator but would be required to be met by UK Biogas if they were to start operating the site.	responsibility to undertake the required monitoring, studies and assessments to complete the ICs. The site has stated it has plans to remedy outstanding ICs, as well as increasing conformance to BAT.		undertake the required study or assessment. As part of the recommissioning plan, UK Biogas have stated that most areas which utilise third parties have already been considered. This includes CIRIA containment specialists, specialist for tank integrity inspections, LDAR, drainage and abatement.

3.9 Health and Safety

Issue	Description	Risk Rating	Mitigations
Lightning protection	Lightning protection rods are not currently installed on the AD plant. Insurers and the EA are increasingly asking for Lightning Protection to be fitted. In SLR's understanding, future insurers may require that a lightning risk assessment is completed, which may then require the installation of appropriate lightning protection where necessary, in line with BS EN 62305.	L	UK Biogas have confirmed that lightning protection is not currently planned for the Willand site following discussions with specialist contacts. This discussion should be formalised and quantified in a written Lightning Risk Assessment. Operational methods should also be considered, implemented and documented in conjunction with a risk assessment. This might include prohibiting personnel exposure during thunderstorms and installing surge protection devices to protect equipment from electrical shock loading in an incident.
Electrical certification	An electrical installation certificate has been provided from 2018. Re-testing is recommended every 5 years or when changes take place and there is no evidence this has taken place.	L	UK Biogas have confirmed that provision for electrical certification for both the existing and new installation will take place. The electrical contractor who has provided all previous works on site will be utilised and has assured UK Biogas of all records of work and certificates for the site.
Missing HAZOP actions	A HAZOP study was completed for the plant in 2017. It is not clear if there have been updates following changes on site. SLR notes that there is no evidence provided that the actions raised in studies have been suitably closed out, hence our residual risk rating. An additional HAZOP study should be carried out for the upgrade works.	L	UK Biogas have confirmed a HAZOP will be carried out to include any additional equipment and site changes that will be made.

Issue	Description	Risk Rating	Mitigations
DSEAR compliance	A suitable DSEAR risk assessment has been provided. However, there is no evidence that equipment installed in hazardous areas has been checked by a competent person (i.e. CompEx certified). This is typically rechecked every three years and we have also not been provided evidence that these subsequent inspections have been completed.	L/M	UK Biogas have confirmed a new DSEAR assessment will be carried out following the servicing and rectification of equipment onsite. All AtEx equipment will need to be inspected by a CompEx qualified engineer.
H&S incidents	In 2020 there was a fatality on site where a contractor working on a cherry-picker came into contact with the high voltage overhead electrical cables. The contractor at the time is understood to have been working on cleaning the digester tanks before being electrocuted. No details of other incidents of note have been made available or reviewed.	Note	The HSE appear to have determined the incident to have been an accident. In SLR's understanding, the jury reviewing the case returned the verdict of accidental death. SLR are not aware of the site being served any Improvement or Prohibition Notices by the HSE following the incident. The power lines were moved underground by Western Power Distribution.
Fire detection, management and flare functionality	Not available for review at this stage	N/A	

3.10 Financial

Issue	Description	Risk Rating	Mitigations
Capex	At this time, UK Biogas are not in receipt of detailed quotations for all the equipment required for the rehabilitation of the plant. Therefore, the Capex model developed for the plant will not be fully accurate and a suitable contingency budget should be included in the model. Some quotes have not been fully accounted for in the Capex breakdown.	H	Request firm quotes for work based on accurate details. Allow additional contingency in Capex budget.

3.10.1 Overview

To determine if the assumptions employed within the "UK Biogas Willand Financial Model August 2024 v1.1" are reasonable, UK Biogas have proposed the conditions in "Scenario 1 – Restart case" as the plant assumptions for the production case. Since the proposed assumptions and equipment to be implemented differ from the previous process conditions, we have focused our analysis on the review of the projected case and compare this to similar processes from SLR's experience rather than the historical performance of this site.

In general, the Opex cost/tonne at £96/tonne of input feedstock in 2025 is higher than we would typically expect, but the financial model shows a decrease to £65/tonne of input feedstock from 2028 which is aligned with SLR expectations. This can be explained as the assumption model considers a ramp up of the plant during the first year and feed rates and gas production are expected to be limited. It is important to note that the cost of Opex items such as feedstock can be subject to external factors and that the planned feed tonnage is subject to planning consent.

3.10.2 Revenue

The provided FM from UK Biogas outlines the revenue mechanism for Willand in future planned operations. Revenue streams are split between: RHI Tier 1 and Tier 2, wholesale biomethane export (non-subsidised portion), and Green Gas Certificates. At full production shown in 2028 in the model, annual gas revenue is forecasted as £9.12M (excluding propane costs). This is composed of: 20% wholesale gas, 76% RHI subsidy, and 4% green gas certificates. In SLR's understanding, the site benefits from one of the highest RHI subsidies awarded from Ofgem.

For feeding 84 ktpa as per the FM, the revenue is broadly in line with SLR's expectations. Revenue can be compared to the feedstock input for the same period, which is set as 84 ktpa in 2028. The Revenue per tonne of input is therefore £109/tonne which is in line with SLR's expectations.

3.10.3 OPEX

Opex has been calculated from the financial model "UK Biogas Willand Financial Model August 2024 v1.1" applying the assumptions in "Scenario 1 – Restart case" for the production case. The provided data is for the financial year, from March to February of each year and Opex was calculated by not including the non-operational costs such as interest and depreciation.

To allow comparison the Opex data with other plants with equivalent feedstocks and process conditions, the annual Opex ratio has been calculated against the proposed input tonnages and forecasted methane export. For the financial year 2025, a total of 42,000 tonnes of feedstock consumed are estimated, ramping up to 54,000tonnes in 2026 and 72,000 tonnes in 2027. An input tonnage plateau is achieved from 2028 at 84,000 tonnes per annum with the consequent stabilisation of the gas production rates.

An Opex detailed breakdown has not been provided, however the "Global Assumptions" in the financial model, estimate the total "G&A/Overhead Cost" at £2,000,000 per year. This cost is shown as fixed for the length of the model, except when the Micronisation and CO_2 capture options are selected in the Global Assumptions where the annual G&A Opex cost becomes £2,320,000 from 2025 onwards. We have calculated the annual Opex considering these assumptions provided and adding the forecasted feedstock and digestate handling costs, at £40 per tonne and £5 per tonne respectively.

The provided financial model for "Scenario 1" process case assumes 96% uptime, which is factored in the gas calculations. An estimated uptime of 96% of the biomethane injection system is slightly higher than what SLR would expect, around 95%. This, however, could be achieved with the appropriate equipment installation, commissioning and an adequate maintenance regime.

It must be noticed that the estimated annual tonnage for digestate and feedstock are equivalent. SLR would expect the tonnage of digestate to be higher than the input tonnages since addition of fresh water is expected in the mass balance.

Table 3-4 FM forecasted Opex

Year Financial model	Input Feedstock (Tonnes)	Opex (£)	Opex /input (£/tonne)	Opex/biomethane Exported (£/m^3)
2025	42,000	£4,042,000	£96	1.28
2026	54,000	£4,318,000	£80	0.99
2027	72,000	£4,944,000	£69	0.86
2028 onwards	84,000	£5,428,000	£65	0.80

3.10.4 CAPEX

The costed Capex improvements from UK Biogas can be broadly split into improvements of existing infrastructure and the addition of new infrastructure. The Capex budget for reinstating the plant totals £8,673,560. This budget is split between the following headings: site, AD process, gas equipment and digestate as follows:

Table 3-5 Capex breakdown

Plant area	Capex (£)	% of costs quoted
Site	£1,195,000	34.3
AD process	£3,063,560	39.0
Gas equipment	£3,995,000	75.8
Digestate	£420,000	51.0

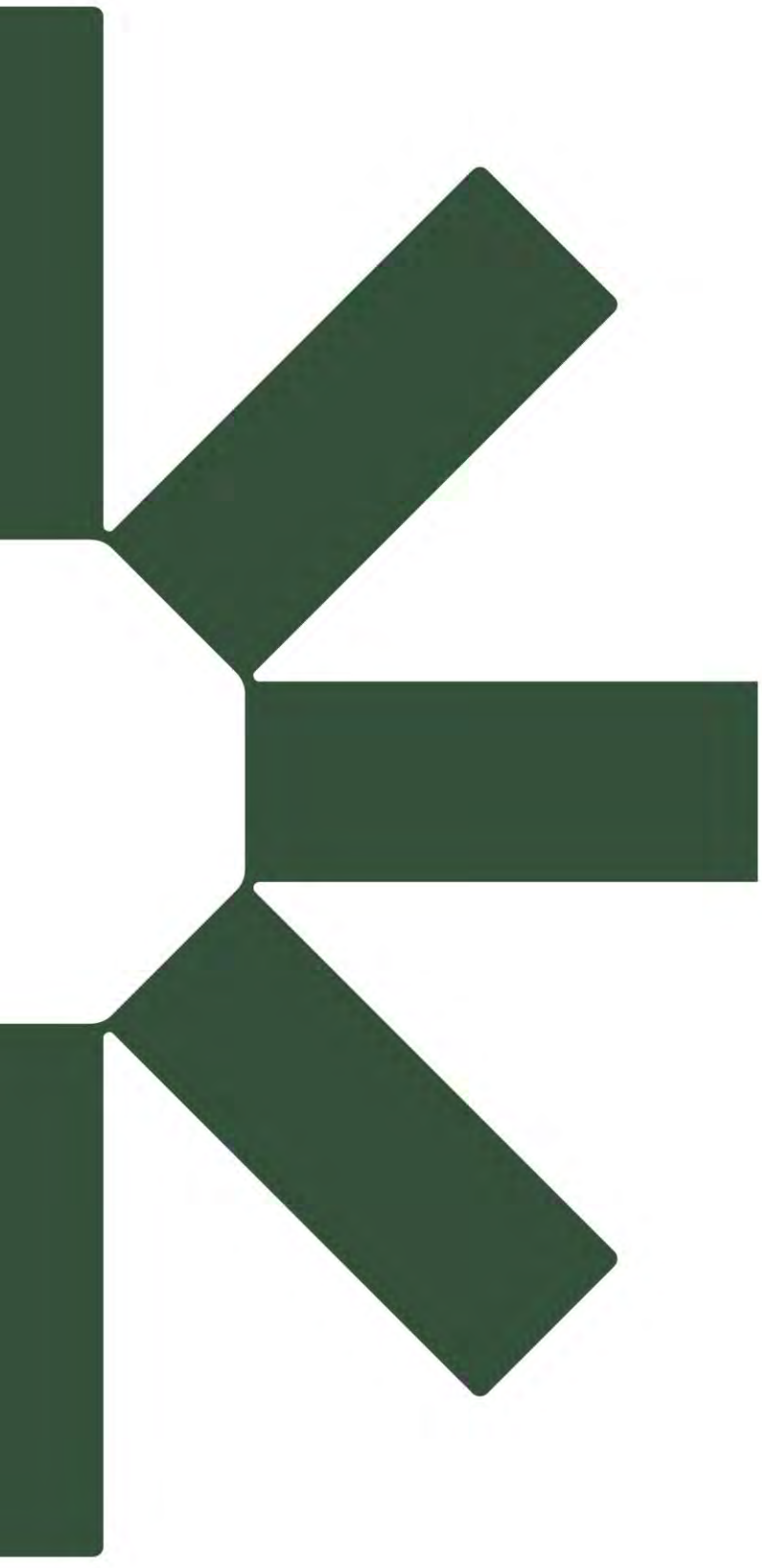
Having reviewed the quotes provided for equipment, which totals around 55% of the total Capex value, the costs and requirements are in general sufficient. Most of the quotes are budget at this stage and there are some concerns about the level of work required and whether it has been sufficiently costed in the quotes, particularly with the gas upgrader reinstatement.

Comparing the quotes with the Capex breakdown, one issue that was noted is that the Landia mixing system has only been costed for 1 tank, not the 3 required. The site abatement is also not inclusive of all items on the quote, though it is not clear if this is due to some parts being superfluous to planned requirements.

As the plant development works are currently not well developed and are at a high level only, it is not possible to determine if the allocated amounts are suitable and reasonably accurate as detail is lacking. Our review of the information provided suggests that the Capex costs assumed for each element appear to be reasonable. However, as the planned works are not fully specified and designed there remains the potential for the Capex costs to increase significantly.

3.11 Connections and Accreditations

Issue	Description	Risk Rating	Mitigations
Biomethane Grid export capacity	The site's Network Entry Agreement (file 4.2.3 NEA Willand LLP part 2 signed 29092015) suggests capacity is available far in excess of site design (2,500 Sm^3/h) which benefits the site for any future capacity expansion plans i.e. waste processing line with new tank farm and upgrading equipment. File "4.6.3 7.3 NEA Willand LLP part 2 signed 29092015" Schedule 6 reports "The DFO (Willand Biogas) shall have minimum Entry Capacity of 2,500 scmh".	Note	
RHI subsidy for Heat on the CHP and Boiler	Not available for review.	N/A	
FiT accreditation on the CHP	Not available for review.	N/A	
Review energy connection documentation for electrical connections	Not available for review.	N/A	
Review proposed changes to Power and Heat Purchase Agreements	Not available for review.	N/A	



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Appendix C – Geo-Environmental Report (2017)

A1625
Supplementary Geotechnical Report

Willand Biogas AD Plant, Willand, Tiverton, Devon

AGS Ground Solutions Ltd

For

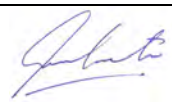
AMZCO, Swallow Court, Devonshire Gate, Tiverton, Devon, EX16 7EJ

August 2017
Report Number: A1625

AGS Ground Solutions Ltd
3 Greenwith Crescent, Greenwith Road,
Perranwell Station, Truro, Cornwall TR3 7LU

DOCUMENT CONTROL

Client	AMZCO
Project Title	Willand Biogas
Document Title	Supplementary Geotechnical Report
Document No.	A1625

Date	Revision	Changes	Author	Review	Signature
08/08/17	0	Final	PF	AW	

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1. Exploratory Hole Location Plan

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1. Plate Bearing Test Results

1. INTRODUCTION

AGS Ground Solutions (AGS) was commissioned by AMZCO (The Client), to undertake a supplementary geotechnical site investigation on a site known as Willand Biogas.

It is understood that the development will comprise the construction of large anaerobic digestion tanks and equipment.

The purpose of the ground investigation was to determine the ground bearing pressure for a digestate tank, upon completion of the tank formation.

In addition to information gathered on site, this report relies upon information presented in two historical reports relating to the site:

- Report number A1177, published by AGS Ground Solutions on 22nd May 2014.
- Report number A1385, published by AGS Ground Solutions on 12th January 2016.

This report must be read in conjunction with the historical reports.

This report specifically excludes comment and/or advice relating to ground contamination and/or contaminated land.

This report specifically excludes comment and/or advice relating to ground stability caused by subsurface voids including historical mining and tunnelling.

Our general Terms and Conditions are applicable to this report.

2. PREVIOUSLY PUBLISHED WORK

Two site investigations have previously been undertaken on the site:

Geo-Environmental Report. Report number A1377, published by AGS on 22nd May 2014 (2014 Report).

Additional Geotechnical Report. Report number A1385, published by AGS on 12th January 2016 (2016 Report).

2.1 2014 REPORT

The 2014 Report identified an upper layer of Made Ground to be underlain by the Aylesbeare Formation (Clay / Mudstone).

The report identified that a maximum allowable ground bearing pressure of 175 kN/m^2 on a tank foundation 10 m by 10 m wide, placed at a depth of 5.0 m from original ground level.

2.2 2016 REPORT

The 2016 Report provided supplementary information on the soil properties for the Aylesbeare Formation, predominantly for the design of retaining structures.

3. SITE LOCATION AND LAYOUT

The site is located in Willand, Tiverton, Devon and is centred approximately on Ordnance Survey Grid Reference ST 027 113.

A site walkover survey was made on 5th July 2017.

During the walkover survey, the site was a construction site, with a large cutting running along the southern boundary. Much of the site had been levelled. Tanks were being installed from the western end of the site, with the westernmost tank having been constructed. The area of concern was the second tank from the western end of the site, and a small area of land immediately to the east of this. The tank base in concern had been excavated, levelled and prepared with an unknown thickness of crushed stone, which was in the process of being rolled during testing.

Owing to the natural ground profile rising to the south, there was a significant cutting forming the southern edge of the tank, however, the northern edge was at natural ground level.

The southern part of the tank excavation was observed to comprise a red moderately weak mudstone / very stiff clay. The northern part of the excavation was observed to comprise a sandy layer, which was different to that described in previous reports.

4. ENVIRONMENTAL SETTING

4.1 GEOLOGY

Reference to the British Geological Survey 1:50,000 scale geological map of the area shows the site as being underlain by the Aylesbeare Mudstone Group (AYB).

No superficial deposits are shown on the site.

The BGS offer the following descriptions (Contains British Geological Survey materials © NERC 2017).

Aylesbeare Mudstone Group (AYB)

Description: "Aylesbeare Mudstone Group - Mudstone. Sedimentary Bedrock formed approximately 246 to 251 million years ago in the Triassic Period. Local environment previously dominated by lakes."

Setting: "lakes. These rocks were formed in lakes typically depositing laminated clays and silts from suspension, or sands with increased sediment supply."

5. INTRUSIVE INVESTIGATION

5.1 FIELDWORK

The site works were carried out on the 3rd August 2017 and comprised the following:

- Performance of 4 no. Plate Bearing Tests (PBTs)

The positions of the above works on the site are indicated on Figure 1, Exploratory Hole Location Plan.

Plate Bearing Tests

Four Plate Bearing Tests (PBTs) were carried out on the site on Thursday 3rd August 2017.

The tests were all carried out surface.

Plate bearing tests PBT 5 to PBT 8 were carried out upon the rolled stone beneath the proposed tanks.

The PBT procedure involves applying a test load to the ground through a steel plate of a known diameter. The load applied is monitored by means of a load cell. Settlement of the plate is monitored as the load is applied, by means of an independently supported datum bar assembly.

Testing was carried out to the following test cycle:

Test Location	Working Load (kN/m²)	Cycle 1 (kN/m²)	Cycle 2 (kN/m²)
PBT 1	150	0–30–60–90–150–300–0	Not required
PBT 2			
PBT 3			
PBT 4			

Plate Bearing Test results are presented in Appendix 1.

5.2 GROUNDWATER

Groundwater was not encountered during the site investigation, however, the area was noted to contain many puddles, following heavy rain.

It should be noted that the absence of groundwater is not necessarily indicative of the absence of a groundwater table in view of the short period the trial excavations remained open. Groundwater levels may vary due to seasonal fluctuations in rainfall, but in the shorter term can be affected by antecedent weather conditions or other causes.

6. DISCUSSION ON ENGINEERING DESIGN

6.1 DIGESTION TANKS

The results of the plate bearing tests PBT 5 – PBT 8 appear to correlate with the findings of the original report. A safe ground bearing pressure in excess of 150 kN/m^2 can be expected for both tanks.

Settlement at this load ranged between 5.32 mm and 6.35 mm. This would appear to be slightly high, however, is likely to reflect softening of the upper clay layer due to standing water following heavy rain. Drainage of the layer should take place prior to the construction of the tank base, with additional stone placed if the existing stone is found to be contaminated with clay.

7. CONCLUSIONS AND RECOMMENDATIONS

Based on the intrusive investigation, the following conclusions and recommendations have been drawn up in respect to Willand Biogas, Willand, Tiverton.

- Previous ground investigations identified an upper layer of made ground to be underlain by The Aylesbeare Formation (AYB).
- No groundwater was encountered on site, however, significant surface water was encountered.
- Historical reports have identified the maximum allowable ground bearing pressure as being between 175 kN/m^2 for a 10 m long by 10 m wide spread footing placed at 5.0 m from original ground surface.
- Plate Bearing tests confirmed the original findings with regards to ground bearing pressure beneath the digestion tank.
- Settlement was slightly high (5.32 mm to 6.35 mm), however, this is likely to be due to softening of the surface of the clay due to standing water.
- Any stone contaminated with clay should either be removed and replaced or new stone laid above, prior to the laying of the tank base.

FIGURES:

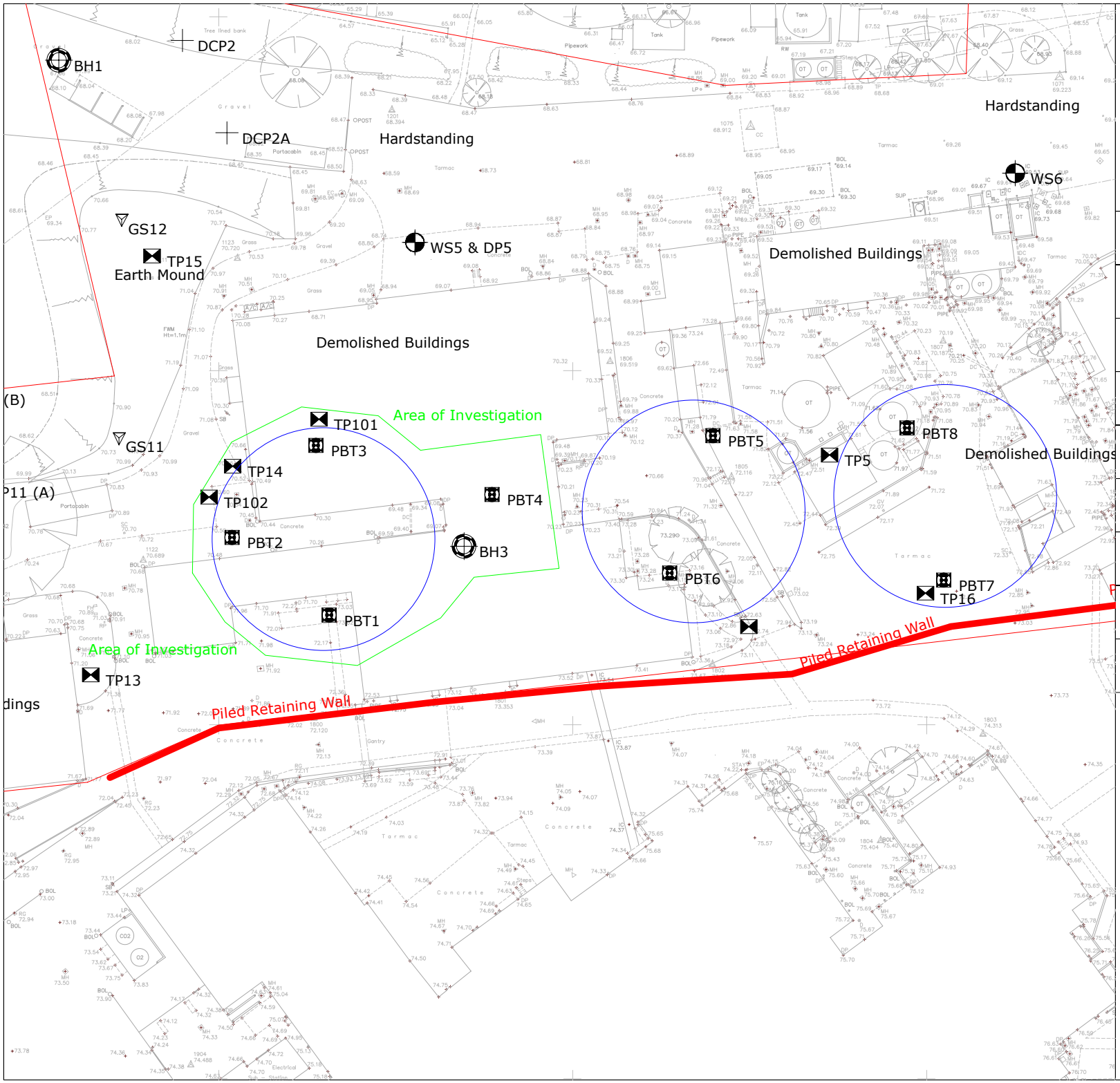
1. Exploratory Hole Location Plan

APPENDICES:

1. Plate Bearing Test Results

Figure 1

Exploratory Hole Location Plan



AG Ground Solutions

Project	Lloyd Maunder
Project Number	A1625
Location	Willand, Devon
Client	AMZCO
Drawing Title	PBT Locations
Drawing Number	A1625-01
Date	03/08/2017
Revision	01
Scale	NTS

Key to symbols

Appendix 1

Plate Bearing Test Results

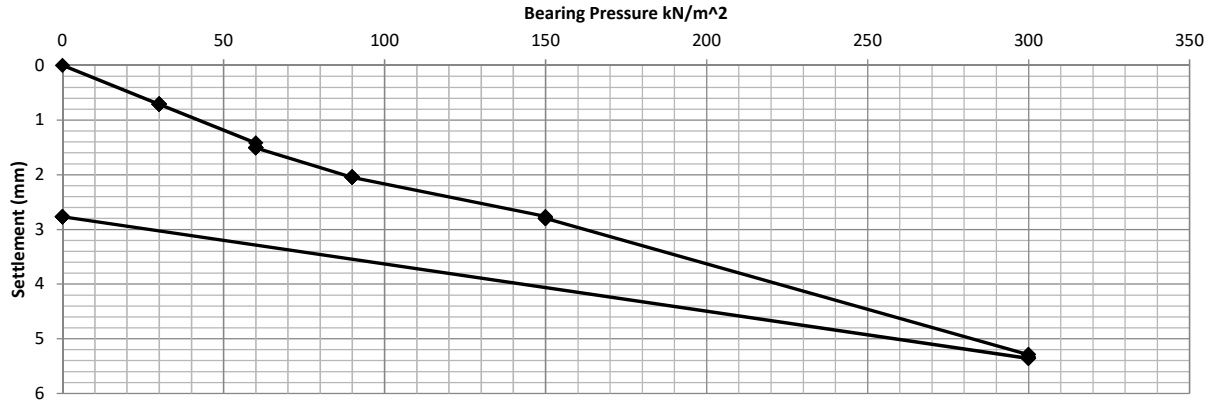
AGS Ground Solutions Ltd

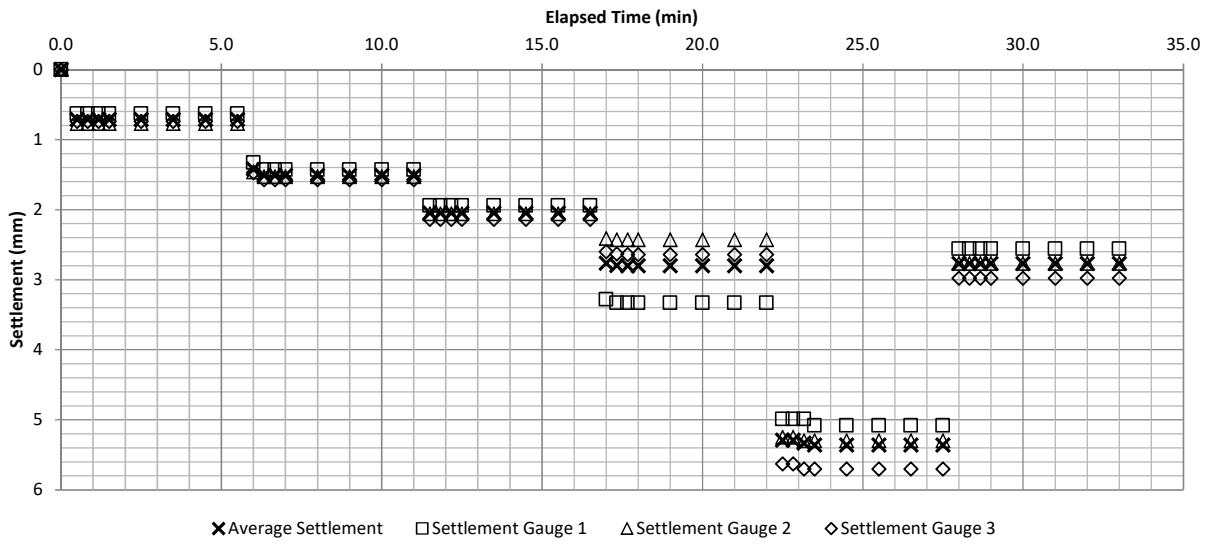
PLATE BEARING TEST

In accordance with BS 1377, Part 9, 1990

Job Number:	A1625		
Site:	Willand Biogas		
Location:	Willand, Tiverton, Devon	Test Number	PBT 5
Weather:	Sunny		
Client:	Greener for Life	Sheet:	1
Date:	03 August 2017	Of:	1

Depth of Trial Pit (m):	0	Maximum Applied Pressure (kN/m^2)	299.98	Modulus of Subgrade Reaction at 1.25 mm (k) (kN/m^2/m)	26417.32
Groundwater Level (m):	Dry				
Diameter of Plate (mm):	450	Maximum Deformation (mm)	5.36		
Area of Plate (m^2)	0.159043				
Type of Kentledge:	13 tonne tracked excavator			Approximate CBR Value (%)	2.81





Remarks:		Tested:	OR
		Checked:	PF
		Approved:	PF

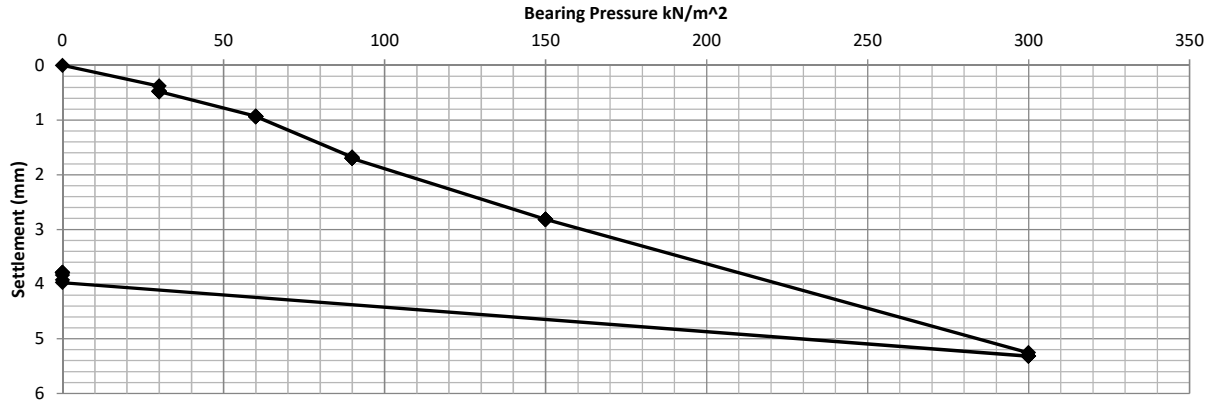
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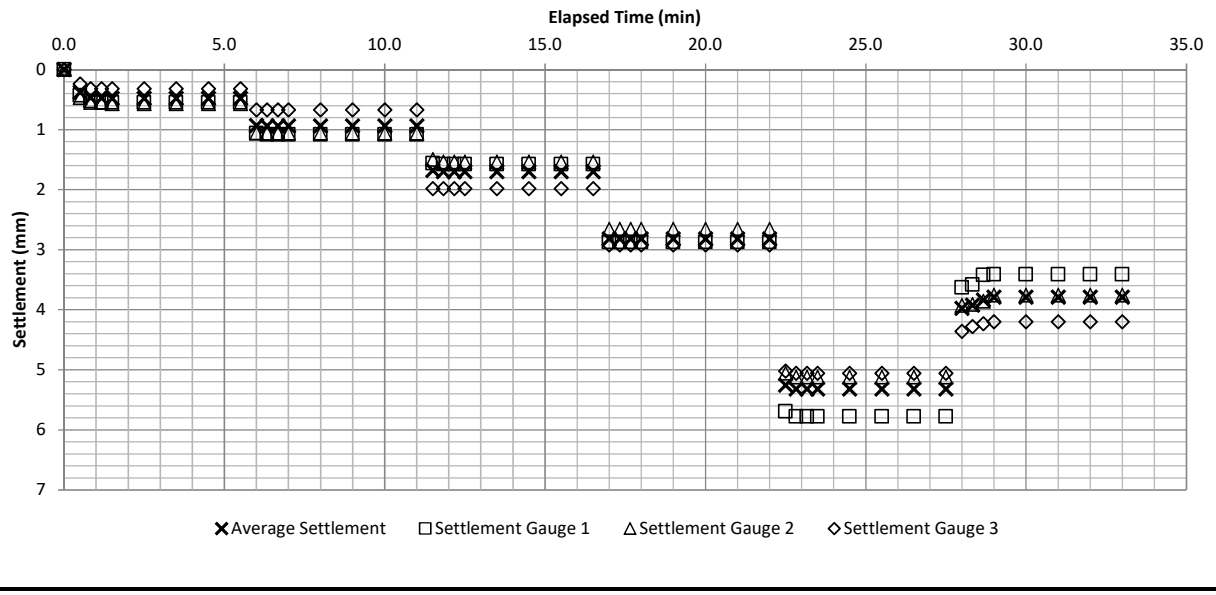
PLATE BEARING TEST

In accordance with BS 1377, Part 9, 1990

Job Number:	A1625		
Site:	Willand Biogas		
Location:	Willand, Tiverton, Devon	Test Number	PBT 6
Weather:	Sunny		
Client:	Greener for Life	Sheet:	1
Date:	03 August 2017	Of:	1

Depth of Trial Pit (m):	0	Maximum Applied Pressure (kN/m^2)	299.98	Modulus of Subgrade Reaction at 1.25 mm (k) (kN/m^2/m)	36386.12
Groundwater Level (m):	Dry				
Diameter of Plate (mm):	450	Maximum Deformation (mm)	5.32		
Area of Plate (m^2)	0.159043				
Type of Kentledge:	13 tonne tracked excavator			Approximate CBR Value (%)	4.89





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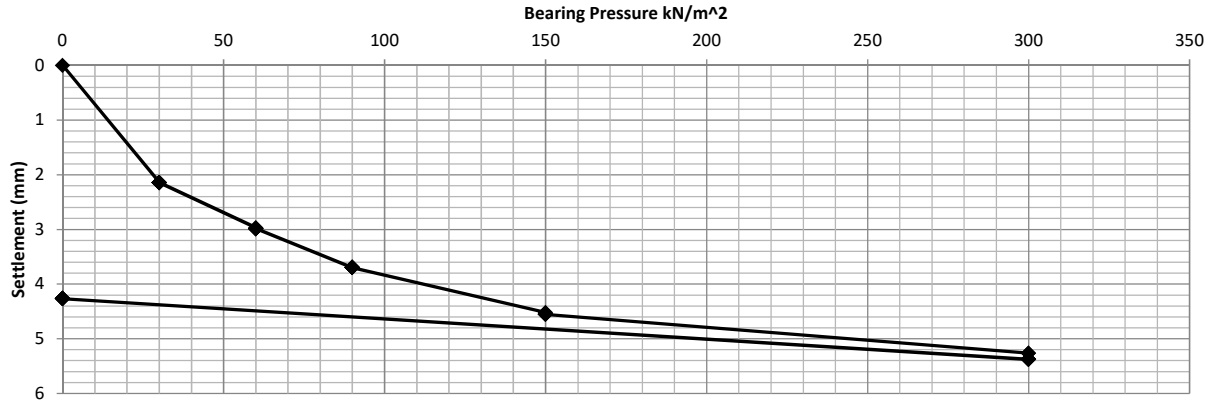
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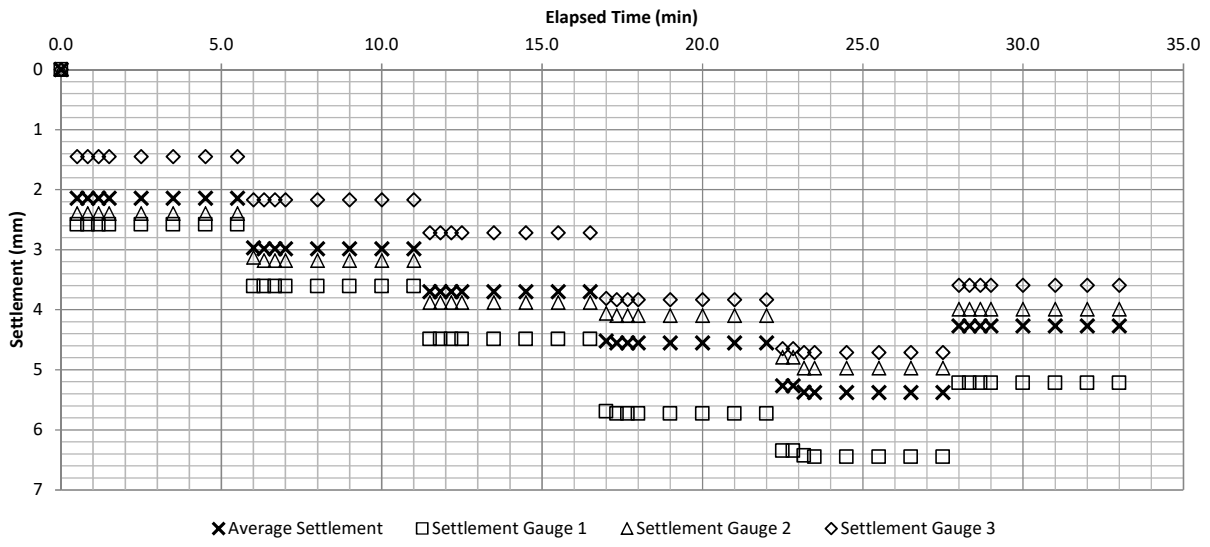
PLATE BEARING TEST

In accordance with BS 1377, Part 9, 1990

Job Number:	A1625		
Site:	Willand Biogas		
Location:	Willand, Tiverton, Devon	Test Number	PBT 7
Weather:	Sunny		
Client:	Greener for Life	Sheet:	1
Date:	03 August 2017	Of:	1

Depth of Trial Pit (m):	0	Maximum Applied Pressure (kN/m^2)	299.98	Modulus of Subgrade Reaction at 1.25 mm (k) (kN/m^2/m)	9470.36
Groundwater Level (m):	Dry				
Diameter of Plate (mm):	450	Maximum Deformation (mm)	5.38		
Area of Plate (m^2)	0.159043				
Type of Kentledge:	13 tonne tracked excavator			Approximate CBR Value (%)	0.47





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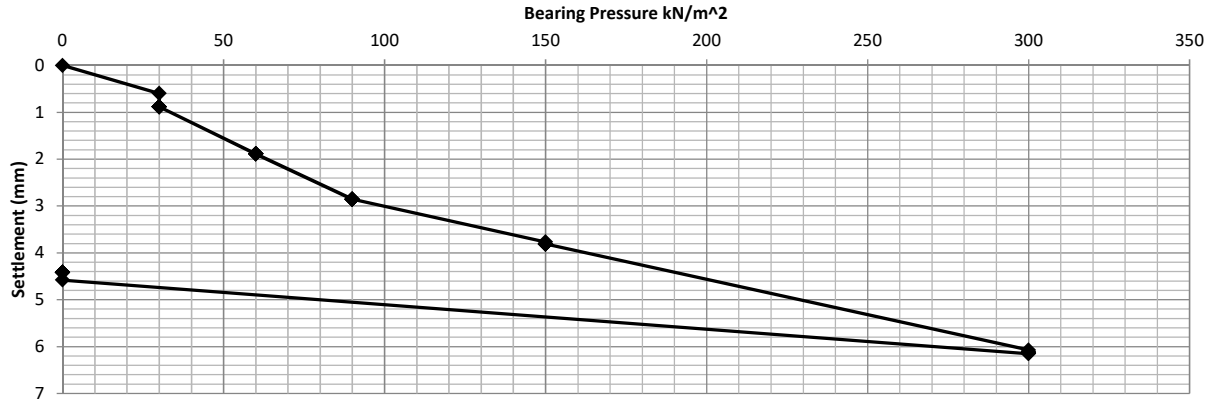
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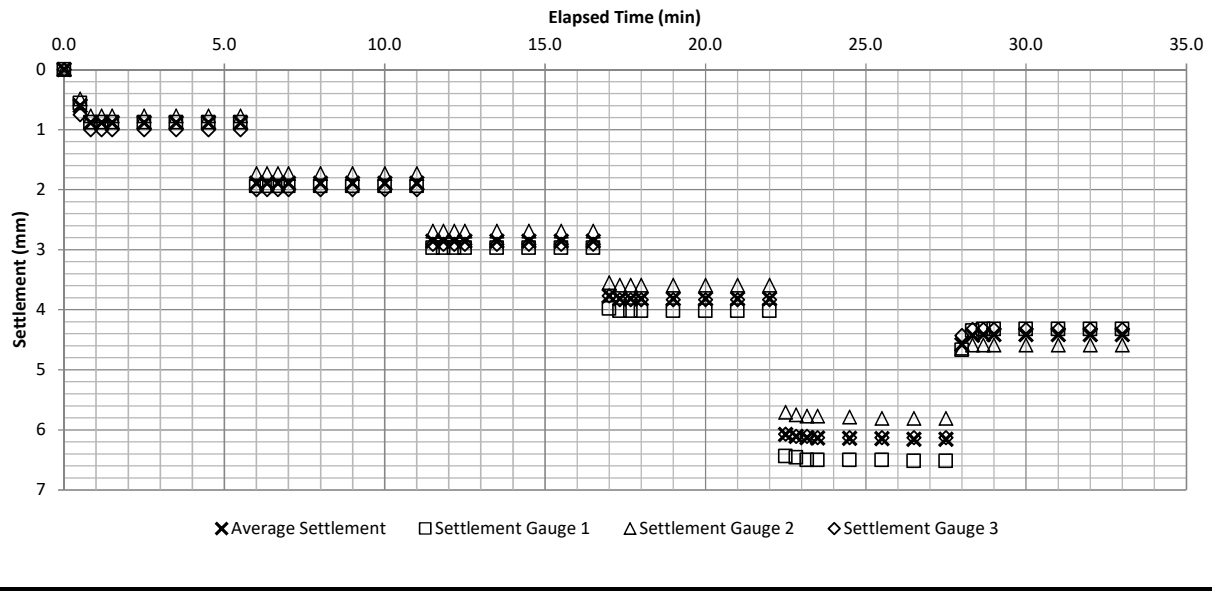
PLATE BEARING TEST

In accordance with BS 1377, Part 9, 1990

Job Number:	A1625		
Site:	Willand Biogas		
Location:	Willand, Tiverton, Devon	Test Number	**PBT 8**
Weather:	Sunny		
Client:	Greener for Life	Sheet:	1
Date:	03 August 2017	Of:	1

Depth of Trial Pit (m):	0	Maximum Applied Pressure (kN/m^2)	299.98	Modulus of Subgrade Reaction at 1.25 mm (k) (kN/m^2/m)	19937.6
Groundwater Level (m):	Dry				
Diameter of Plate (mm):	450	Maximum Deformation (mm)	6.15		
Area of Plate (m^2)	0.159043				
Type of Kentledge:	13 tonne tracked excavator			Approximate CBR Value (%)	1.72





Remarks:		Tested:	OR
		Checked:	PF
		Approved:	PF

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Appendix D: Earthcare Site Walkover Photographs - 21 January 2026

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Image 1 – Facing west within the existing secondary containment bund and showing the wall separating the site from the neighbouring 2 Sisters Food Group boundary, also shown is piping which brings abattoir effluent through the site for treatment at the neighbouring wastewater treatment works



Image 2 – facing north from the secondary containment bund showing existing above bund pipework



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Image 3 - facing west and showing the existing digester tanks within the secondary containment bund



Image 4 – existing drains within the secondary containment bund



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Image 5 – showing existing digestor tanks



Image 6 – Showing within an existing digester tank prior to remediation/emptying



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Image 7 – a view of the tanks facing south



Image 8 – facing southwest, location of the silage clamps and existing borehole



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Image 9 – existing weighbridge



Image 10 - existing waste reception building viewed facing west



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Appendix E: Google Earth Images of the site

Google Image 1 - December 2002



Google Image 2 - June 2006



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Google Image 3 - December 2010



Google Image 4 – April 2015



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Google Image 5 - August 2016



Google Image 6 – June 2018



Google Image 7 – September 2019



Google Image 8 – March 2020



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Google Image 9 – June 2022



Google Image 10 – April 2024

