

Darwen Resource Recovery Park

784-B043732

Environmental Risk Assessment

Environmental Permit Variation Application

SUEZ Recycling and Recovery UK Ltd

May 2024

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APPENDICES

Appendix A – Environmental Risk Assessment

Appendix B – Nature and Heritage Conservation Screen (EPR/BB3609KA/V005)

1.0 INTRODUCTION

1.1 REPORT SCOPE

- 1.1.1 This section of the Environmental Permit application corresponds to Section 6 of Part C2 of the Environmental Permit application forms, and has been prepared on behalf of the operator, SUEZ Recycling and Recovery UK Ltd (SUEZ).
- 1.1.2 This document relates to SUEZ's permitted facility at Darwen Resource Recovery Park (the site), Lower Eccleshill Road, Darwen, Lancashire BB3 0RP. The site location and permit boundary are presented on Drawing Number SUEZ/B043732/PER/01.
- 1.1.3 The site is currently regulated under a bespoke environmental permit (EPR/BB3609KA and EAWML 401488) which allows the operation of a Material Recycling Facility (MRF), Plastics Physical Treatment Facility, Glass Bulking Facility and Household, Commercial & Industrial (HCI) Waste Transfer Station.
- 1.1.4 This Environmental Risk Assessment (ERA) has been prepared to support an Environmental Permit Application to allow the operation of an Anaerobic Digestion (AD) facility. The process will generate biogas which will mainly be processed by two Combined Heat and Power (CHP) engines to generate heat and electricity that would be used by the AD plant. Once the parasitic load has been met, any excess biogas will be processed by a gas upgrading plant to National Gas Grid criteria and injected into the gas grid via a gas main situated to the southeast area of the site. Alternatively, excess biogas will be processed by the CHP engines to generate electricity that will be exported to the National Grid
- 1.1.5 Each of the two CHP engines will have a capacity of 1.2MW and therefore it's considered that the CHP engine will be subject to the Medium Combustion Plant Directive (MCPD) and therefore will comprise 2 X 1.2 MW MCP with a specified generator (SG).
- 1.1.6 To facilitate the installation and operation of the AD facility, SUEZ are seeking to demolish the existing buildings and site infrastructure and redevelop the whole site.
- 1.1.7 In addition to the AD Facility, SUEZ will continue to operate a waste transfer station as well as maintain the materials recycling facility within the environmental permit, there is currently no intention to operate Material Recycling Facility and therefore has not been included as part of the new site layout. Nevertheless, SUEZ would like to keep this activity within the environmental permit for future proofing purposes. These activities will be situated across both the Waste Transfer Station building and Canopy building according to their suitability. The waste transfer station building will be used for the acceptance, bulking and treatment of general municipal/residual black bag and bulky waste prior to treatment via shredding. The canopy building will be used solely for the bulking of non-hazardous waste prior to transfer off site for recovery and/or disposal.
- 1.1.8 It is the intention of SUEZ to remove the Plastics Physical Treatment Facility, Glass Bulking Facility from the permit.
- 1.1.9 This ERA is limited to a qualitative assessment of the potential risks to the environment and human health specifically related to the proposed activity. This report will identify any significant risk and demonstrate that the risk of pollution will be acceptable by taking the appropriate measures to manage the risk.

2.0 ENVIRONMENTAL RISK ASSESSMENT

2.1 METHODOLOGY

- 2.1.1 This report has been prepared following the Environment Agency's (EA) Risk Assessment guidance. It specifically relates to the potential risks associated with the following risk types: -
- Amenity and Accidents;
 - Surface water discharges;
 - Air;
 - Global Warming potential;
 - Site Waste; and,
 - Groundwater.
- 2.1.2 There will be no direct emissions to groundwater or surface water as a result of this proposal. Subsequently, it's considered that no further assessment is required for groundwater.
- 2.1.3 This report addresses the risks associated with amenity and accidents, air, global warming potential and site waste.
- 2.1.4 This risk assessment addresses the above, and is based on the following methodology: -
- Identification of potential sources of risks;
 - Identification of all potential receptors to risk; and,
 - Risk assessment of each risk type.
- 2.1.5 The ERA is a tool used to identify the pollutant linkage i.e. source-pathway-receptor. For most risks, the atmosphere is the main pathway and will always exist. Therefore, the ERA deals primarily with the sources and receptors and is provided in Appendix A and summarised below. The ERA will only consider environmental receptors within a 1km radius of the site.
- 2.1.6 A Nature and Heritage Conservation Screen (Reference Number EPR/BB3609KA/V005) was requested from the EA. This screen determines the presence of any sites of nature and heritage conservation, or protected species or habitats that may be impacted by the proposal.
- 2.1.7 The results of the screen (Appendix B) identified the following: -
- Local Wildlife Sites (LWS)
- Eccleshill Old Iron Works; and,
 - Flash Brook Fields.
- Protected Species
- European Eel (*Anguilla Anguilla*).
- Protected Habitats
- Reed bed habitat.

2.2 SOURCES

2.2.1 The potential sources of risks have been considered for each risk type, as provided in Appendix A and summarised below: -

Odour

- Receipt and treatment of odorous waste;
- Biogas generated from the AD process;
- Storage of waste outputs from the AD process; and,
- Odour from the storage of waste during contingencies (e.g. mechanical breakdown).

Noise and Vibration

- Engine noise from vehicle movements;
- Use of reverse vehicle warnings;
- Loading/unloading of waste; and,
- Mechanical treatment of waste.

Fugitive Emissions

- Particulate matter i.e., dust;
- Bioaerosols;
- Scavenging birds;
- Contaminated surface water run-off;
- Mud; and,
- Litter.

Accidents

- Fire or failure to contain firewater;
- Plant failure or breakdown;
- Flooding; and,
- Vandalism.

2.3 PATHWAYS

Table 1: Potential Pathways

Risk Type	Pathway
Odour	Atmosphere
Noise and vibration	Atmosphere
Fugitive emissions	Atmosphere
Accidents	Atmosphere
	Surface water run-off
	Infiltration
	Percolation

2.4 RECEPTORS

2.4.1 Receptors within 1km of the site, including those identified in the Nature and Heritage Conservation Screen (EPR/BB3609KA/V005) (Appendix B) provided by the EA, have been listed in Table 2 and are shown on Drawing Number SUEZ/B043732/REC/01. The main pathway for the identified sources will be atmosphere and as such, atmospheric conditions can affect dispersion rates and hence potential risk. As a result, the location of each receptor in relation to the site may influence the potential impact of the risk, as summarised in Table 2.

Table 2: Receptors Within 1Km of the Site

ID	Receptor	Direction from Operational Area	Minimum Distance from the Permit Application Boundary (approx. m)
Domestic Dwellings			
1	Residential Properties in Lower Darwen	N	420
2	Residential properties Upper Darwen	SW	505
3	Properties off Roman Rd	SE	525
4	Property adjacent to Flash Brook (Roman Rd)	E	425
5	Properties off Johnson Rd	E	735
6	Residential Caravan Park	SW	400
Commercial and Industrial Premises			
7	Industrial premises off Lower Eccleshill Rd	W	55
8	Industrial premises off Commercial Rd	W	490
9	Industrial premises off Hollins Rd	W	370
10	Centurion Business Park	NE	395
11	Industrial premises off Roman Road	NE	790
12	Industrial premises off Goose House Ln	SW	220
13	Clarence Street Car Breakers and Mercury Vehicles Deliveries	SW	595
14	Industrial premises off Riversway Dr	NW	775

15	G&J Booth	SE	835
16	GFW Limited & Valmet	E	1000
17	Darwen Wastewater Treatment Works	W	345
18	Pulford Dairy	E	985
19	Perspex International Chapels Park Plant	SW	575
20	Controlla Covers	S	498
21	Phoebes K9 Club	NE	580
Schools / Hospitals / Shops/Amenities			
22	Lower Darwen Primary School	NW	815
23	Hollins Grove Function Room	SW	855
24	The Hawkshaw Suite/Masonic Hall	SW	840
25	Oldfield Manor Crown Care Home	SW	980
26	St James' CE Primary Academy	S	918
27	Kittens Preschool	W	945
28	St Edwards Roman Catholic Primary School	W	945
29	Premier Inn Darwen South	NW	820
Recreation			
30	AFC Darwen	W	660
31	Square Meadow Community Sports Field	SE	751
32	Eccleshill playing Field	E	730
33	Play Space	N	400
34	Play Space	W	820
Highways or Minor Roads			
35	M65	N	320
36	A666 Blackburn Rd	W	990
37	Railway line	W	15
Protected Habitats			
38	Deciduous Woodland	S	Adjacent
39	Deciduous Woodland	N	83
40	Deciduous Woodland, Lower Eccleshill Rd	W	260
41	Deciduous Woodland	W	375
42	Deciduous Woodland, Hollins Grove/ Goose House Lane	SW	195
43	Deciduous Woodland, Hollins Grove/ Goose House Lane	SW	425
44	Deciduous Woodland, Goose House Lane	SW	225
45	Deciduous Woodland, Davy Field Brook	N	300
46	Deciduous Woodland, Light Brown St	S	725
47	Deciduous Woodland, M65	NE	635
Listed Buildings and Scheduled Monuments			
48	Lower Chapel, Listed II Building	S	690

49	Church Of St James, Listed II Building	S	835
50	Manor House Farm Cottage, Listed II Building	SE	535
51	Davy Field, Roman Rd	E	540
52	Church Of St Cuthbert	SW	830
Sensitive Land Uses			
53	Allotments	SE	560
54	Allotments (Snape Street Street)	SW	740
55	Allotments	SW	835
56	Polyphemus Wood	SE	95
Surface Water e.g. rivers and streams			
57	Davyfield Brook	N	285
58	Flash Brook	NE	187
59	Alum House Brook	W	415
60	Pond	SW	500
Nature and Heritage Screening Results			
61	Sunnyhurst Wood (Local Nature Reserve)	SW	975
62	Eccleshill Old Iron Works (Local Wildlife Sites)	N	Adjacent
63	Flash Brook Fields (Local Wildlife Sites)	NE	300
64	European Eel (Anguilla Anguilla) – Davy Field Brook	N	300
65	Protected Fish - Bullhead - Alum House Brook	NW	355
66	Lower Eccleshill Marsh	N	235

Groundwater (sensitivity)

According to the Multi-Agency Geographic Information for the Countryside's (MAGIC) website, the site is not situated within a Groundwater Source Protection Zone. The MAGIC website also indicates that the site is designated as a Secondary A aquifer.

2.5 RISK ASSESSMENT

2.5.1 The ERA (Appendix A) looks at each specific hazard identified and assesses the likelihood of those hazards impacting on the receptors. This is achieved by fulfilling the following objectives: -

- Identify the location and nature of each hazard;
- Identify the specific receptors potentially at risk and assess the sensitivity of each receptor;
- Provide a qualitative assessment of the risk posed to each sensitive receptor;
- Identify management and monitoring techniques; and,
- Provide recommendations for more detailed assessments where necessary.

2.6 SUMMARY OF ERA

2.6.1 The ERA (Appendix A) indicates that the proposed development will have no significant impact with regards to of odour, noise and fugitive emissions, and the likelihood of accidents is minimal.

3.0 AIR QUALITY RISK ASSESSMENT

3.1 METHODOLOGY

- 3.1.1 The EA's guidance requires the identification of any substances released to the air, the quantification of the emissions, and an evaluation of the potential environmental impact of the emissions.
- 3.1.2 The operation of the proposed AD facility will comprise emission points to air. Subsequently, an Air Quality Assessment (AQA) has been undertaken to assess the potential impact on air quality associated with the proposal. A copy of the AQA is provided as Appendix G of the Environmental Permit Application.

4.0 BIOAEROSOL RISK ASSESSMENT

4.1 METHODOLOGY

- 4.1.1 Section 11.4 of the EA's "Biological waste treatment: appropriate measures for permitted facilities (2022)" Guidance indicates that a bioaerosol risk assessment is required if the facility is within 250m of a sensitive receptor.
- 4.1.2 With reference to Table 2, the residential sensitive receptor is the Residential Caravan Park 400m to the southwest of the site. Resultantly, a Bioaerosol Risk Assessment has been undertaken to assess the potential impact on bioaerosols associated with the proposal. A copy of the bioaerosol risk assessment is provided as Appendix H of the Environmental Permit Application.

5.0 SITE WASTE

5.1 METHODOLOGY

- 5.1.1 The recommended approach for a site waste assessment is detailed in the EA's 'Select a Waste Recovery or Disposal Method for your Environmental Permit' guidance. According to the guidance, a risk assessment must be undertaken to predict the environmental impact of the disposal or recovery options for the waste produced on site.
- 5.1.2 As detailed in the Best Available Techniques and Operating Techniques (BATOT) document (Appendix C of the Environmental Permit Application), there will be three outputs associated with the proposed AD facility.
- 5.1.3 The first output will comprise unwanted packaging and contaminants which are removed from the food waste as part of the pre-treatment process. This waste will be stored within a skip and bulked up within the pre-treatment area prior to transfer off site to an appropriate permitted facility for further treatment.
- 5.1.4 The second output will be the biogas which will mainly be processed by two CHP engines to generate heat and electricity that would be used by the AD plant. Once the parasitic load has been met, any excess biogas will be processed by a gas upgrading plant to National Gas Grid criteria and injected into the gas grid. Alternatively, excess biogas will be processed by the CHP engines to generate electricity that will be exported to the National Grid. According to the guidance provided in the Quality Protocol 'Biomethane from Waste', it's considered that the biogas will be fully recovered and therefore ceases to be waste for each end use.
- 5.1.5 The third output relates to the digestate that's generated from the main AD process. As discussed within the BATOT document, SUEZ are seeking to utilise the digestate in a slurry, solid and liquid form which can be used as a fertiliser, compost, or soil improver. To achieve this, the digestate will be subject to the specifications outlined in PAS 110. If the digestate complies with PAS 110, it's considered that the digestate meets the end of waste criteria.
- 5.1.6 In the event that the digestate does not meet the specifications of PAS 110, it's considered that the digestate is waste and therefore will need to be disposed of accordingly.
- 5.1.7 In light of the above, it's considered that the proposed AD facility will generate the following waste outputs:-
- Unwanted packaging and contaminants
 - Non-compliant/poor quality digestate
 - Waste effluent
- 5.1.8 In addition to the AD facility, SUEZ propose to operate a waste transfer station at the site. However, SUEZ do not anticipate that this activity will produce any waste. As such, the waste transfer station was not considered as part of the assessment. Under the current environmental permit SUEZ is allowed operate a Materials Recycling Facility at the site, it is the intention of SUEZ to retain this activity, however, there is currently no intention to operate the MRF. Should the MRF be operated it is not anticipated that this activity will produce any waste.
- 5.1.9 The following tables identify 2 scenarios for the destination of the waste which is produced from the AD facility. These scenarios pertain to the maximum possible tonnage that could be produced and thus refer to the worst-case scenario.”
- 5.1.10 Option 1 details a scenario whereby the packaging and contaminants are transferred off site for recovery, the digestate is separated into a solid and liquid fraction with the solid digestate used for land spreading and the liquor is transferred off site as a liquid fertiliser.

5.1.11 Option 2 represents a scenario whereby the packaging and contaminants are transferred off site for recovery and the whole digestate is used for land spreading in slurry form.

Table 3: Waste Assessment - Option 1

Description of Waste Stream	Amount Produced (tonnes/annum)	Nature of Waste	Disposal or Recovery Option	Impact Score
Unwanted packaging/contaminants	8,450	Non-hazardous (2)	Recycling – R4 and R5 (3)	50,700
Digestate cake	19,000	Biodegradable Non-hazardous (4)	Land spreading – R10 (4)	304,000
Liquor	100,000	Biodegradable Non-hazardous (4)	Land spreading – R10 (4)	1,600,000

Table 4: Waste Assessment – Option 2

Description of Waste Stream	Amount Produced (tonnes/annum)	Nature of Waste	Disposal or Recovery Option	Impact Score
Unwanted packaging/contaminants	8,450	Non-hazardous (2)	Recycling – R4 and R5 (3)	50,700
Whole Digestate	100,000	Biodegradable Non-hazardous (4)	Land spreading – R10 (4)	1,600,000

5.1.12 The tables above indicates that the scenarios outlined in 2 represents the lowest possible impact scores that may be achieved for the waste outputs.

5.1.13 Consideration will be given to seeking alternative treatment and disposal routes in the future where new technologies are brought online.

6.0 GLOBAL WARMING POTENTIAL

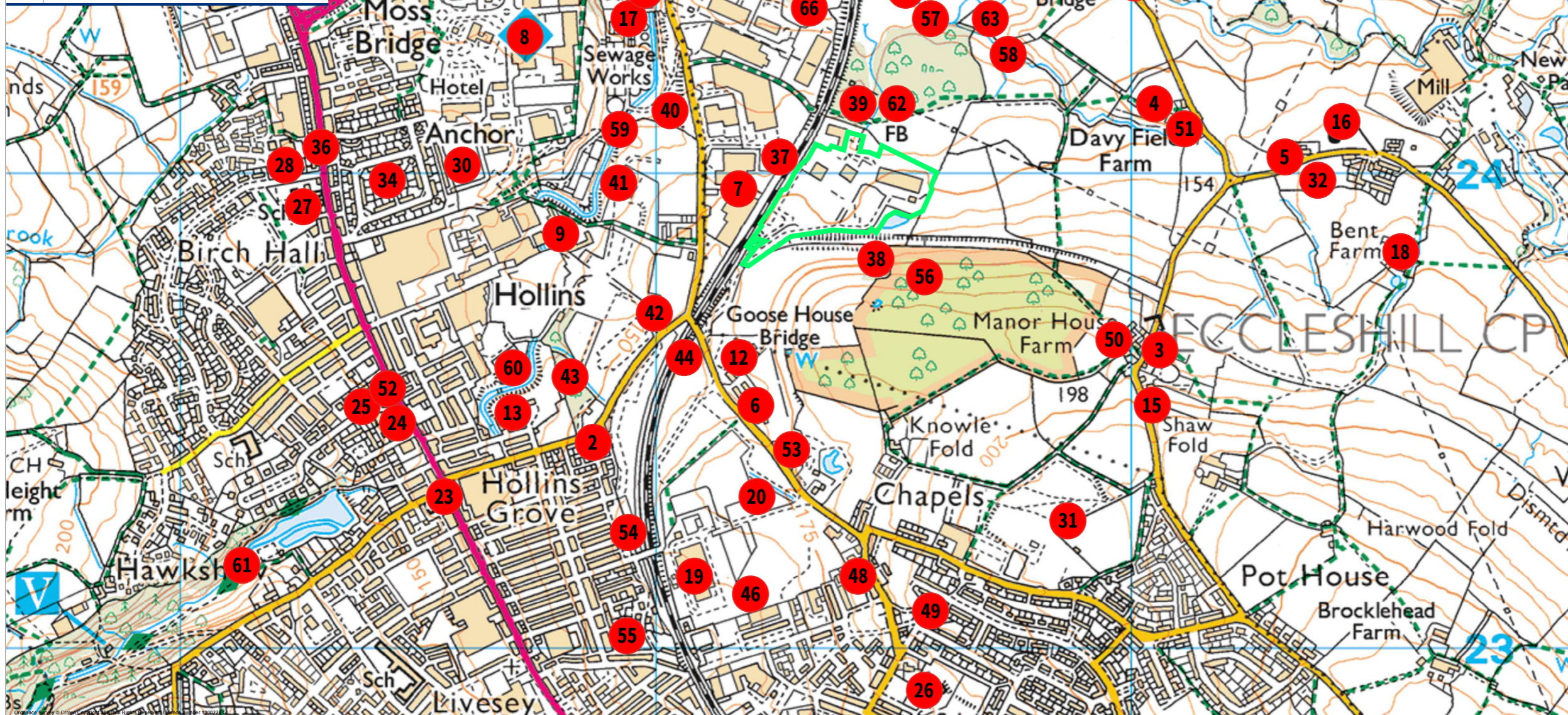
- 6.1 According to the EAs with the “Assess the impact of air emissions on global warming” guidance, an assessment must be undertaken to determine the impact of any air emissions towards global warming. As noted in Section 3, the proposed AD facility will comprise emission points to air which relate to the operation of the two CHP engines.
- 6.2 The purpose of the CHP engines is to process biogas from the AD process to generate heat and electricity that would be used to accommodate the parasitic load of the AD plant. In addition, the CHP engines may be used to generate electricity to export to the National Grid.
- 6.3 According to the aforementioned guidance, any direct or indirect carbon dioxide emissions that come from renewable energy sources (e.g. from waste or from ‘biomass’ - biodegraded waste) as having an impact of ‘0’ on global warming.
- 6.4 As such, it’s considered that the air emissions from the CHP engines will not have an impact on global warming and therefore further assessment is not required.
- 6.5 Due to the site being classified as having an impact of ‘0’ on global warming, it is established that a Greenhouse Gas Assessment is not required for this report.

DRAWINGS

Receptor Plan - SUEZ/B043732/REC/01

Permit Boundary Plan - SUEZ/B043732/PER/01

Sensitive Land Uses	
53	Allotments
54	Allotments (Snape Street Street)
55	Allotments
56	Polyphemus Wood
Surface Water e.g. rivers and streams	
57	Davyfield Brook
58	Flash Brook
59	Alum House Brook
60	Pond
Nature and Heritage Screening Results	
61	Sunnyhurst Wood (Local Nature Reserve)
62	Eccleshill Old Iron Works (Local Wildlife Sites)
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65	Potected Fish - Bullhead - Alum House Brook
66	Lower Eccleshill Marsh



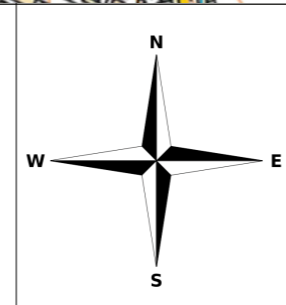
ID	Receptor
Domestic Dwellings	
1	Residential Properties in Lower Darwen
2	Residential properties Upper Darwen
3	Properties off Roman Rd
4	Property adjacent to Flash Brook (Roman Rd)
5	Properties off Johnson Rd
6	Residential Caravan Park
Commercial and Industrial Premises	
7	Industrial premises off Lower Eccleshill Rd
8	Industrial premises off Commercial Rd
9	Industrial premises off Hollins Rd
10	Centurion Business Park
11	Industrial premises off Roman Road
12	Industrial premises off Goose House Ln
13	Clarence Street Car Breakers and Mercury Vehicles Deliveries
14	Industrial premises off Riversway Dr
15	G&J Booth
16	GFW Limited & Valmet
17	Darwen Wastewater Treatment Works
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19	Perspex International Chapels Park Plant
20	Controlla Covers
21	Phoebes K9 Club
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23	Hollins Grove Function Room
24	The Hawkshaw Suite/Masonic Hall
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26	St James' CE Primary Academy
27	Kittens Preschool
28	St Edwards Roman Catholic Primary School
29	Premier Inn Darwen South
Recreation	
30	AFC Darwen
31	Square Meadow Community Sports Field
32	Eccleshill playing Field
33	Play Space
34	Play Space
Highways or Minor Roads	
35	M65
36	A666 Blackburn Rd
37	Railway line
Protected Habitats	
38	Deciduous Woodland
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52	Church Of St Cuthbert

Client: SUEZ Recycling and Recovery UK Ltd
 Project: Darwen Resource Recovery Park
 Title: Receptor Plan
 Drawing No: 784-B043732

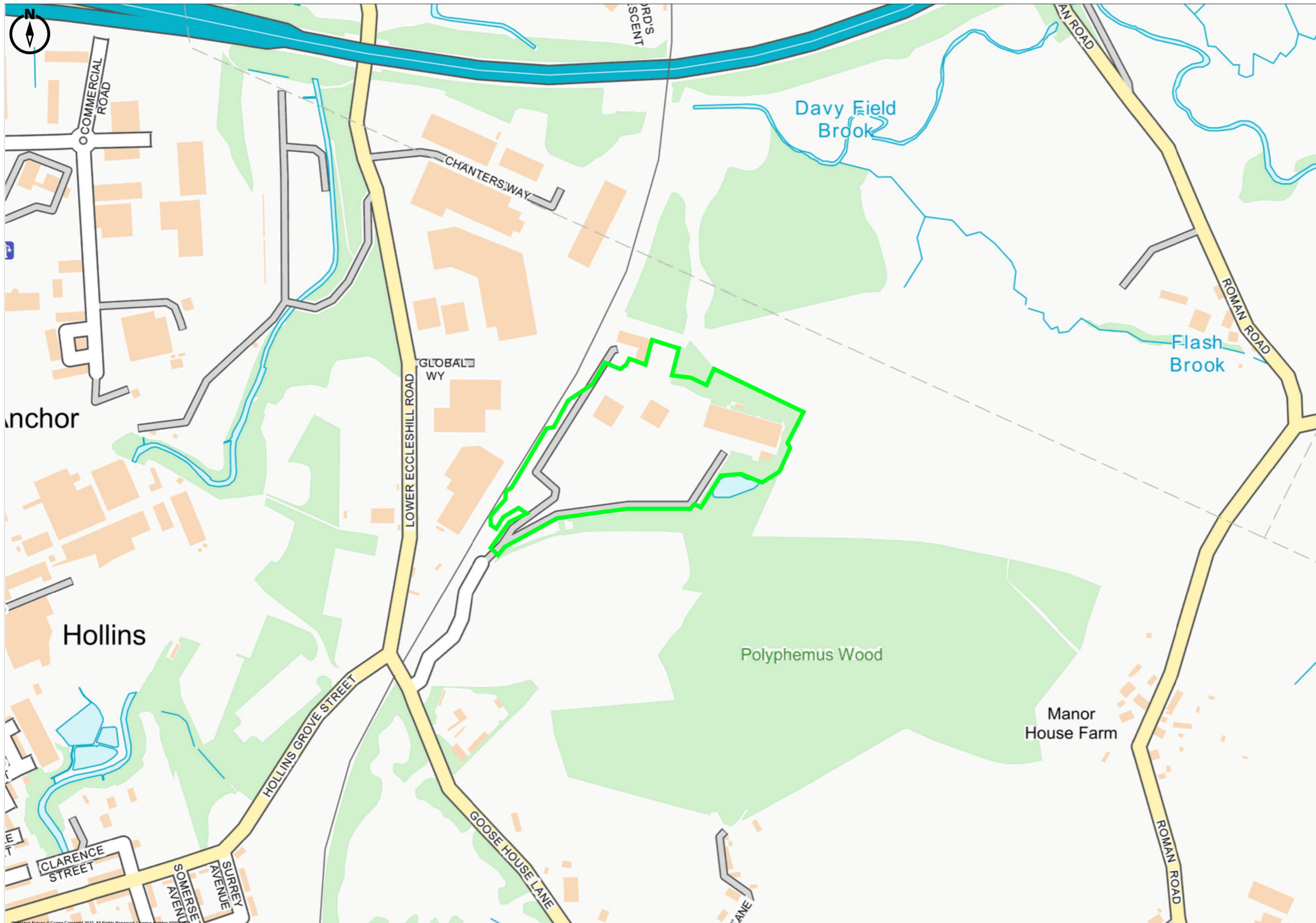
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 Date: 07/07/2023
 Version: 1
 Scale: 1:25,000

Key:

- ENVIRONMENTAL PERMIT BOUNDARY
- RECEPTOR LOCATION
- Wind Rose Direction (S/SW)



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Client:
SUEZ Recycling and Recovery UK Ltd

Project: Darwen Resource Recovery Park

Title: Permit Boundary Plan

Drawing No: SUEZ/B043732/PER/01

Created: GA


Checked: AB

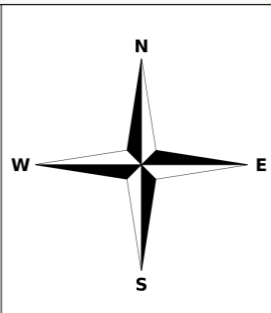
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Version: 1

Scale: 1:25,000

Key:

 ENVIRONMENTAL PERMIT BOUNDARY



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APPENDICES

APPENDIX A – ENVIRONMENTAL RISK ASSESSMENT

Table A1 - Odour Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Receipt and treatment of odorous wastes (Anaerobic Digestion Facility).	Occupiers of domestic dwellings listed in Table 2 above. Commercial and industrial units' users in listed Table 2 above. Amenities listed in Table 2 above.	Atmosphere	<p>All putrescible waste for the AD facility will be unloaded and pre-treated from within an enclosed building. This building benefits from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any odour generated on site to impact receptors beyond the site boundary.</p> <p>The facility will operate 24 hours a day, with vehicle movements restricted between 07:00 – 19:00 Monday-Sunday, excluding bank holidays.</p> <p>The building will also benefit from an odour control system which will be designed to extract and treat any odour emissions that may be generated from the AD process. This would ensure that all odours are drawn through the odour control system preventing odour release from the building. Details regarding the odour control system are provided in the Odour Management Plan (Appendix F of the Environmental Permit Application).</p> <p>All waste delivered for the AD process will be deposited within a waste reception pit that is situated within the waste reception hall. The pit will be designed to push the waste into the pre-treatment area. This will</p>	Low – the management procedures should prevent emissions of odour.	Medium/Low - Odour annoyance.	Low – The management procedures employed reduce the likelihood of impact.

			<p>ensure that waste is processed in the order it is received (first-in, first-out) and therefore ensure that the waste is not stored for more than 72 hours which will be the maximum residence time that waste will be stored in the reception hall prior to treatment. Although the retention time for the main AD process will be up to 60 days, the process will be undertaken within sealed tanks which will minimise the release of odour emissions.</p> <p>SUEZ's Integrated Management System (IMS) includes site inspection check sheets that include a daily requirement for site staff to qualitatively assess odour; if perceived to be excessive, measures will be taken to identify the source of any malodorous and take appropriate remedial action.</p> <p>In addition to the above, SUEZ's IMS includes policies and procedures that requires all site infrastructure to be maintained in accordance with the manufacturer's guidance. In addition, the IMS includes a daily requirement for site staff to check plant and site infrastructure to ensure continuing integrity and fitness for purpose. In the event that any defects are identified so that it no longer meets the required standards, necessary remedial work will be completed as soon as practicable.</p> <p>In addition to the above, an Odour Management Plan (OMP) has been prepared which details how odour from the proposed activities will be managed. A copy of the OMP is provided as Appendix F of the Environmental Permit Application.</p>			
<p>Odour from biogas generated from AD process (Anaerobic Digestion Facility).</p>	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users</p>	<p>Atmosphere</p>	<p>The whole AD process will be undertaken within an enclosed building. This building benefits from fast-acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any odour generated on site to impact receptors beyond the site boundary.</p> <p>Any gases that are produced from the AD process will be produced within a sealed network and will be piped to the CHP engines to generate heat and electricity for the AD plant. Any excess biogas will be piped to the biogas upgrading plant to National Gas Grid criteria and injected into the gas grid via the gas main situated to the southeast of the site.</p>	<p>Low – the management procedures should prevent emissions of odour.</p>	<p>Medium/Low – Odour annoyance.</p>	<p>Low – The management procedures employed reduce the likelihood of impact.</p>

Darwen Resource Recovery Park
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	<p>in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p>		<p>SUEZ's IMS includes site inspection check sheets that include a daily requirement for site staff to qualitatively assess odour; if perceived to be excessive, measures will be taken to identify the source of any malodourous and take appropriate remedial action.</p> <p>In addition to the above, SUEZ's IMS includes policies and procedures that requires all site infrastructure to be maintained in accordance with the manufacturer's guidance. In addition, the IMS includes a daily requirement for site staff to check plant and site infrastructure to ensure continuing integrity and fitness for purpose. In the event that any damage breaches the integrity of the engineered containment so that it no longer meets the required standards, necessary remedial work will be completed as soon as practicable.</p> <p>As part of the Environmental Permit Application, an OMP has been prepared which details how odour from the proposed activities will be managed. A copy of the OMP is provided as Appendix F of the Environmental Permit Application.</p>			
<p>Odour from the storage of waste outputs generated from the AD process (Anaerobic Digestion Facility)</p>	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p>	<p>Atmosphere</p>	<p>The whole AD process will be undertaken within an enclosed building. This building benefits from a fast-acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any odour generated on site to impact receptors beyond the site boundary.</p> <p>As noted in Section 4, the AD is expected to generate three outputs. The first waste stream will comprise unwanted packaging and contaminants that are recovered from the organic waste as part of the pre-treatment process. Such waste streams are not putrescible in nature and therefore the risk of odour from this waste stream is expected to be low. Nevertheless, the building will also benefit from an odour control system which will comprise a two-stage process using a biofilter and a carbon filter. Details regarding the odour control system are provided in the Odour Management Plan (Appendix F of the Environmental Permit Application).</p> <p>The second output will be the biogas which will mainly be processed by two CHP engines to generate heat and electricity that would be used by the AD plant. Once the parasitic load has been met, any excess biogas will be processed by a gas upgrading plant to National Gas Grid criteria</p>	<p>Low – the management procedures should prevent emissions of odour.</p>	<p>Medium/Low - Odour annoyance</p>	<p>Low – The management procedures employed reduce the likelihood of impact</p>

		<p>and injected into the gas grid. Alternatively, excess biogas will be processed by the CHP engines to generate electricity that will be exported to the National Grid.</p> <p>The third output relates to the digestate that's generated from the main AD process. As mentioned in Sections 4, SUEZ are seeking to utilise the digestate in a slurry, solid and liquid form which can be used as a fertiliser, compost, or soil improver. In the event that the digestate is used in a slurry or liquid form, both will be stored within enclosed tanks inside the AD building. If the digestate is processed via the centrifuge to separate the solid and liquid fractions, the digestate cake will be discharged into articulated trailers where it can be periodically collected and subsequently transferred off site. The trailers will be situated within a designated area inside the AD building. The storage area will be connected to an odour control system to process any odour that may be generated from the digestate. The digestate out area will utilise an odour abatement system. Further details are provided in the BATOT document (Appendix C of the Environmental Permit Application).</p> <p>In the event that the digestate does not meet the required specifications, the material will be stored within designated RoRos/skips inside the AD building and disposed of accordingly.</p> <p>SUEZ's IMS includes site inspection check sheets that include a daily requirement for site staff to qualitatively assess odour; if perceived to be excessive, measures will be taken to identify the source of any malodorous and take appropriate remedial action.</p> <p>In addition to the above, SUEZ's IMS includes policies and procedures that require all site infrastructure to be maintained in accordance with the manufacturer's guidance. In addition, the IMS includes a daily requirement for site staff to check plant and site infrastructure to ensure continuing integrity and fitness for purpose. In the event that any damage breaches the integrity of the engineered containment so that it no longer meets the required standards, necessary remedial work will be completed as soon as practicable.</p> <p>In addition to the above, an OMP has been prepared which details how odour from the proposed activities will be managed. A copy of the OMP is provided as Appendix F of the Environmental Permit Application.</p>			
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<p>Odour from the storage of waste on site during contingencies such as mechanical breakdown (Anaerobic Digestion Facility).</p>	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p>	<p>Atmosphere</p>	<p>All putrescible wastes for the AD facility will be stored within a building prior to removal from the site. This building benefits from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any odour generated on site to impact receptors beyond the site boundary.</p> <p>In addition, the building will benefit from an odour control system which will minimise the risk of odour to impact sensitive receptors beyond the site boundary.</p> <p>In the event of a mechanical breakdown which is expected to disrupt the AD process for a prolonged period of time or increase the risk of odour emissions (i.e. breakdown of odour control system), SUEZ will consider a reduction of waste deliveries or cease accepting waste until appropriate remedial action has been taken. In addition, any waste stored in the reception hall may be transferred off site to an appropriate permitted facility.</p> <p>Although the infrastructure for the main AD process will be situated outside, the process will be an enclosed system whereby any biogas that's produced from the AD process will be captured within a sealed network and piped to into the biogas upgrading plant to National Gas Grid criteria and injected into the gas grid. Alternatively, the biogas may be processed by the CHP engines to generate heat and electricity that would be used by the AD plant. This will minimise the potential for any odour generated on site to impact receptors beyond the site boundary.</p> <p>SUEZ's IMS includes site inspection check sheets that include a daily requirement for site staff to qualitatively assess odour; if perceived to be excessive, measures will be taken to identify the source of any malodourous and take appropriate remedial action.</p> <p>In addition to the above, SUEZ's IMS includes policies and procedures that requires all site infrastructure to be maintained in accordance with the manufacturer's guidance. In addition, the IMS includes a daily requirement for site staff to check plant and site infrastructure (including the odour control system) to ensure continuing integrity and fitness for purpose. In the event that any damage breaches the integrity of the engineered containment so that it no longer meets the required</p>	<p>Low – the management procedures should prevent emissions of odour.</p>	<p>Medium/Low - Odour annoyance.</p>	<p>Low – The management procedures employed reduce the likelihood of impact.</p>
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			<p>standards, necessary remedial work will be completed as soon as practicable.</p> <p>As part of the Environmental Permit Application, an OMP has been prepared which details how odour from the proposed activities will be managed. A copy of the OMP is provided as Appendix F of the Environmental Permit Application.</p>			
<p>Storage and treatment of odorous wastes (Waste Transfer Station and Materials Recycling Facility).</p>	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p>	<p>Atmosphere</p>	<p>The majority of putrescible waste that's accepted as part of the waste transfer station will be stored and processed within a building. This building benefits from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any odour generated on site to impact receptors beyond the site boundary.</p> <p>The only waste streams that will be stored outside, regarding the WTS, that have the potential to generate odour is green waste and road sweepings. These waste streams will be stored within bays within a canopy building that's enclosed on three sides. Storage of putrescible waste, and wastes that are stored within the canopy building, will be limited to 72 hours from the date of receipt.</p> <p>Wastes accepted as part of the materials recycling facility should not be putrescible in nature, thus are not anticipated to generate odour. Should odorous wastes accidentally be accepted they shall be removed as soon as practicable.</p> <p>Waste that's accepted as part of the waste transfer station and materials recycling facility will be accepted at manageable volumes to avoid a backlog of wastes. In the event of odorous materials being received at the site, or materials becoming odorous during storage, these will be prioritised before other materials already stored at the site.</p> <p>SUEZ's Integrated Management System (IMS) includes site inspection check sheets that include a daily requirement for site staff to qualitatively assess odour; if perceived to be excessive, measures will be taken to identify the source of any malodorous and take appropriate remedial action.</p>	<p>Low – the management procedures should prevent emissions of odour.</p>	<p>Medium/Low - Odour annoyance.</p>	<p>Low – The management procedures employed reduce the likelihood of impact.</p>

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			<p>As part of the Environmental Permit Application, an OMP has been prepared which details how odour from the proposed activities will be managed. A copy of the OMP is provided as Appendix F of the Environmental Permit Application.</p>			
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Table A2: Noise and Vibration Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
<p>Vehicle movements on site and haul roads.</p> <p>Noise from reverse vehicle warnings.</p>	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p> <p>Non-statutory ecological sites listed</p>	<p>Atmosphere.</p>	<p>The site is situated within an industrial area, whereby the industrial and commercial properties which have the potential to generate noise, with the nearest residential sensitive receptor located approximately 400m southwest from the site.</p> <p>Although the AD facility will operate 24 hours a day and 7 days a week, vehicle movements will be restricted to 07:00 – 19:00 Monday – Sunday.</p> <p>Loads for the waste transfer station will only be delivered in accordance with the conditions outlined under existing planning permissions.</p> <p>H&S Legislation is in place to ensure SUEZ protects its employees from the effects of noise.</p> <p>Plant on site is fitted with “white noise” reversing beacons which minimise the intrusive nature of the safety measure.</p> <p>In accordance with SUEZ’s IMS, site inspection check sheets include a daily requirement for site staff to qualitatively assess noise; if perceived to be excessive, measures will be taken to identify the source of any noise and take appropriate remedial action.</p> <p>All complaints received associated with noise will be recorded and investigated in line with company procedures.</p> <p>In addition to the above, SUEZ’s IMS includes policies and procedures that requires all plant to be maintained in accordance with the</p>	<p>Low – the site is situated within an operational industrial estate and the management procedures should prevent emissions of noise.</p>	<p>Medium/Low - Intermittent noise and vibration disturbance.</p>	<p>Low – The management procedures employed reduced the likelihood of impact.</p>

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	<p>in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>manufacturer's guidance. This will minimise the risk of mechanical failure which could result in increased noise emissions.</p> <p>All equipment and vehicles when not in regular use shall be switched off.</p> <p>During Pre-application discussion with the EA (Appendix B), it was determined that a Noise Impact Assessment and Noise Management Plan are not required to be submitted as part of the Environmental Permit Application at this time.</p>			
<p>Noise from the loading/unloading of wastes.</p>	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p> <p>Non-statutory ecological sites listed</p>	<p>Atmosphere.</p>	<p>The site is situated within an operational industrial estate whereby the industrial and commercial properties which have the potential to generate noise, with the nearest residential receptor located approximately 400m southwest from the proposed facility. In addition, the loading/unloading of waste within the AD facility will be undertaken within the confines of a building. This building benefits fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any noise generated on site to impact receptors beyond the site boundary.</p> <p>All loading/unloading activities at the waste transfer station will be undertaken within the hours that are stipulated under the existing planning permissions (07.00 - 19.00 Monday to Saturday and 07:00 to 13:00 on Sundays and Bank Holidays).</p> <p>H&S Legislation is in place to ensure SUEZ protects its employees from the effects of noise.</p> <p>In accordance with SUEZ's IMS, site inspection check sheets include a daily requirement for site staff to qualitatively assess noise; if perceived to be excessive, measures will be taken to identify the source of any noise and take appropriate remedial action.</p> <p>All complaints received associated with noise will be recorded and investigated in line with company procedures.</p>	<p>Low – the site is situated within an operational industrial estate and the management procedures should prevent emissions of noise.</p>	<p>Medium/Low - Intermittent noise and vibration disturbance.</p>	<p>Low – The management procedures employed reduced the likelihood of impact.</p>

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	<p>in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>Drop heights will be minimised as much as practicable.</p> <p>During Pre-application discussion with the EA (Appendix B), it was determined that a Noise Impact Assessment and Noise Management Plan are not required to be submitted as part of the Environmental Permit Application at this time.</p>			
<p>Noise from the mechanical treatment of waste from the AD facility (pre-treatment) and the waste transfer station.</p>	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p> <p>Non-statutory ecological sites listed</p>	<p>Atmosphere.</p>	<p>The site is situated within an operational industrial estate, whereby the industrial and commercial properties which have the potential to generate noise, with the residential sensitive receptor located approximately 400m southwest from the proposed facility. Mechanical treatment at the site will comprise a de-packaging plant as part of the AD pre-treatment process and the shredding of waste as part of the waste transfer station.</p> <p>All mechanical treatment activities will be undertaken within the confines of the AD building or the waste transfer station building. Both buildings will benefit from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any noise generated on site to impact receptors beyond the site boundary.</p> <p>All treatment activities at the waste transfer station will be undertaken within the hours that are stipulated under the existing planning permissions (06.00 - 23.00 Monday to Sunday).</p> <p>H&S Legislation is in place to ensure SUEZ protects its employees from the effects of noise.</p> <p>In accordance with SUEZ's IMS, site inspection check sheets include a daily requirement for site staff to qualitatively assess noise; if perceived to be excessive, measures will be taken to identify the source of any noise and take appropriate remedial action.</p>	<p>Low – the site is situated within an operational industrial estate and the management procedures should prevent emissions of noise.</p>	<p>Medium/Low - Intermittent noise and vibration disturbance.</p>	<p>Low – The management procedures employed reduced the likelihood of impact.</p>

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<p>in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>In addition to the above, SUEZ's IMS includes policies and procedures that requires all plant to be maintained in accordance with the manufacturer's guidance. This will minimise the risk of mechanical failure which could result in increased noise emissions.</p> <p>All complaints received associated with noise will be recorded and investigated in line with company procedures.</p> <p>During Pre-application discussion with the EA (Appendix B), it was determined that a Noise Impact Assessment and Noise Management Plan are not required to be submitted as part of the Environmental Permit Application at this time.</p>			
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Table A3: Fugitive Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Hazard	Receptor	Pathway	Hazard
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What has the potential to cause harm?
To Air						
Dust emissions from vehicle movements.	Occupiers of domestic dwellings listed in Table 2 above. Commercial and industrial units' users in listed Table 2 above. Amenities listed in Table 2 above. Non-statutory ecological sites listed in Table 2 above. Protected species listed in Table 2 above.	Atmosphere	Vehicles delivering waste to the site will be covered or sheeted to prevent the generation of dust whilst the waste is in transit. All vehicle drivers will comply with the speed limits within the site and on the access roads. The site and access road will largely comprise an impermeable paved surface and therefore vehicles will only drive over paved ground while they are delivering waste to the AD facility, WTS or exporting waste from the site. As such, it is unlikely that any vehicles will track over any hardstanding/unmade ground and therefore the risk of dust is considered to be low. Nevertheless, in accordance with SUEZ's IMS, site inspection check sheets include a daily requirement for site staff to qualitatively assess dust; if perceived to be excessive measures will be taken to identify the source of any dust/particulates and take appropriate remedial action. Dust on site will be managed in accordance with the Dust Management Plan that is provided as Appendix E of the Environmental Permit Application.	Low - the management actions should prevent emissions of dust.	Low – human health risk in immediate vicinity, nuisance risk to nearby vehicles and property. In addition, ecological receptors may be susceptible to smothering.	Low – The management procedures employed reduced the likelihood of impact.

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	Protected habitats listed in Table 2 above.					
Dust generated during loading/unloading of waste.	Occupiers of domestic dwellings listed in Table 2 above. Commercial and industrial units' users in listed Table 2 above. Amenities listed in Table 2 above. Non-statutory ecological sites listed in Table 2 above. Protected species listed in Table 2 above. Protected habitats listed in Table 2 above.	Atmosphere	<p>The loading/unloading of waste within the AD facility and WTS will be undertaken within the confines of a building. These buildings benefit from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any dust generated on site to impact receptors beyond the site boundary. Wastes deposited in the canopy building will be deposited in front of or directly into bays. The canopy building will benefit from being enclosed on three sides with an opening to the northwest. This opening works with the south westerly wind direction to ensure that any dust generated on site is not transported off site or liable to impact sensitive receptors.</p> <p>Drop heights would be minimised as much as practicable to reduce the generation of dust from loading/unloading activities.</p> <p>Nevertheless, in accordance with SUEZ's IMS, site inspection check sheets include a daily requirement for site staff to qualitatively assess dust; if perceived to be excessive measures will be taken to identify the source of any dust/particulates and take appropriate remedial action.</p> <p>General site housekeeping will ensure that dust does not build up on site and all dust generating activities will be monitored closely and site operatives will be vigilant and report any excessive dust issues to the Site Manager to be dealt with at the next available notice.</p> <p>Dust on site will be managed in accordance with the Dust Management Plan that is provided as Appendix E of the Environmental Permit Application.</p>	Low - the management actions should prevent emissions of dust.	Low – human health risk in immediate vicinity, nuisance risk to nearby vehicles and property. In addition, ecological receptors may be susceptible to smothering.	Low – The management procedures employed reduced the likelihood of impact.
Dust and particulates	Occupiers of domestic	Atmosphere	Waste that is accepted for the AD facility will be stored within the confines of a building. This building benefits from a roller shutter door on the outside and a speed door on the inside will be kept	Low - the management actions should.	Low – human health	Low – The management

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<p>from storage of waste.</p>	<p>dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p> <p>Non-statutory ecological sites listed in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>closed when not in use (i.e. arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any dust generated on site to impact receptors beyond the site boundary.</p> <p>Waste that's accepted as part of the waste transfer station and materials recycling facility will be stored within the confines of a building or within a canopy building that's enclosed on three sides. The WTS building benefits from roller shutter doors which will be kept closed when not in use (i.e. arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. The canopy building will benefit from being enclosed on three sides with an opening to the northwest. This opening works with the south westerly wind direction to ensure that any dust generated on site is not transported off site or liable to impact sensitive receptors.</p> <p>With regard to the wastes stored within the canopy building, wastes will be stored for a maximum of 72 hours thus are unlikely to it is anticipated that dust generation will be minimal.</p> <p>However, these stockpiles will be inspected daily for the purpose of identifying dust. Should dust be noticed or persistent hot, dry with occurs, SUEZ will employ dust suppression measures such as water suppression techniques to dampen stockpiles those reducing the resuspension of dust particle.</p> <p>Further dust suppression measures will be identified and implemented if there is any risk identified of dust emanating past the site boundary, with attention to meteorological conditions which may exacerbate potential dust issues.</p> <p>In accordance with SUEZ's IMS, site inspection check sheets include a daily requirement for site staff to qualitatively assess dust; if perceived to be excessive measures will be taken to identify the source of any dust/particulates and take appropriate remedial action.</p>	<p>prevent emissions of dust</p>	<p>risk in immediate vicinity.</p>	<p>procedures employed. reduced the likelihood of impact.</p>
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			Dust on site will be managed in accordance with the Dust Management Plan that is provided as Appendix E of the Environmental Permit Application.			
Dust and particulates from mechanical treatment of waste.	Occupiers of domestic dwellings listed in Table 2 above. Commercial and industrial units' users in listed Table 2 above. Amenities listed in Table 2 above. Non-statutory ecological sites listed in Table 2 above. Protected species listed in Table 2 above. Protected habitats listed in Table 2 above.	Atmosphere	<p>Mechanical treatment at the site will comprise a de-packaging plant as part of the AD pre-treatment process and the shredding of waste as part of the waste transfer station.</p> <p>All mechanical treatment activities will be undertaken within the confines of a building. These buildings will benefit from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any noise generated on site to impact receptors beyond the site boundary.</p> <p>As part of the waste transfer station, SUEZ intend to shred bulky wastes including items that contain POPs. Subsequently, the waste transfer station building is currently undergoing monitoring on POPs as per the EAs latest guidance. Should it be required, the site will implement an appropriate abatement system which will capture and abate any particulates that are generated from the shredding process</p> <p>Further dust suppression measures will be identified and implemented if there is any risk identified of dust emanating past the site boundary, with attention to meteorological conditions which may exacerbate potential dust issues.</p> <p>In accordance with SUEZ's IMS, site inspection check sheets include a daily requirement for site staff to qualitatively assess dust; if perceived to be excessive measures will be taken to identify the source of any dust/particulates and take appropriate remedial action.</p> <p>Dust on site will be managed in accordance with the Dust Management Plan that is provided as Appendix E of the Environmental Permit Application.</p>	Low - the management actions should prevent emissions of dust	Low – human health risk in immediate vicinity.	Low – The management procedures employed reduced the likelihood of impact.
Bioaerosols from the AD process (Anaerobic)	Occupiers of domestic dwellings listed	Atmosphere	With reference to the EA's 'Biological waste treatment: appropriate measures for permitted facilities', Section 11.4 indicates that a site specific bioaerosol risk assessment is required if a facility is within 250m of a sensitive receptor.	Low - the management actions should prevent	Low – human health	Low – The management procedures employed

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<p>Digestion Facility).</p>	<p>in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Non-statutory ecological sites listed in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>According to the list of receptors provided in Table 2 of this document, the nearest residential receptor to the site is located approximately 400m southwest of the site thus a Bioaerosol Risk Assessment has been provided as Appendix H of the application.</p> <p>The proposed AD facility will largely comprise a wet process and will be undertaken within a fully enclosed system to ensure the risk of bioaerosols remains minimal.</p> <p>Further to the above, an Air Quality Assessment has been undertaken and submitted as Appendix H of this permit application in order to determine the impact of bioaerosols and the subsequent mitigation methods.</p>	<p>emissions of dust.</p>	<p>risk in immediate vicinity.</p>	<p>reduced the likelihood of impact.</p>
<p>To Water</p>						
<p>Contaminated rainwater run-off.</p> <p>Run off of contaminants from wastes or non-wastes (e.g. oil, fuel).</p> <p>Discharge to Sewer</p>	<p>Groundwater.</p> <p>Surface water features listed in Table 2.</p>	<p>Direct surface water run-off from site.</p> <p>Infiltration.</p> <p>Percolation.</p>	<p>Waste that is accepted as part of the AD facility or waste transfer station will be stored within the confines of a building or covered bays (as part of the waste transfer station) and therefore will minimise contact with rainwater.</p> <p>As part of the waste transfer station, SUEZ intend to shred bulky wastes including items that contain POPs. The shredding process and the storage of shredded material will be undertaken within the confines of a building and therefore will minimise contact with rainwater.</p> <p>The site will benefit from an impermeable concrete surface and a sealed drainage system to prevent the transmission of potentially contaminated liquids into groundwater beneath the site.</p>	<p>Low – The engineered systems and infrastructure are designed to prevent any discharge of contaminated rainwater run-off.</p>	<p>Medium – contamination of local water bodies and/or groundwater.</p>	<p>Low - due to the design of the site.</p>

			<p>Fuel storage will be provided, and storage will be in line with latest legislation.</p> <p>All deliveries of fuel will be supervised to ensure no spillages occur.</p> <p>Emergency spillage procedures are in place to ensure any oil, hydraulic fluids etc. are dealt with before they enter the drainage system. A supply of absorbent granules will be stored on site. The drainage system will be sealed off to prevent discharge in the event of an incident.</p> <p>Interceptors are cleaned at suitable intervals to maintain their effectiveness and are fitted with high level alarms.</p> <p>The hardstanding and drainage system are inspected as required by the IMS. The results of the inspections are recorded. Any remedial actions required are recorded in the site diary. Weekly check sheets include a requirement for site staff to undertake visual inspections of the status of the drainage.</p>			
Pests/Scavenging birds						
Birds and Pests from the AD Facility.	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p>	Air. Ground.	<p>All waste that's accepted as part of the AD facility will be unloaded and pre-treated from within an enclosed building. This building benefits from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for interactions between birds/pests and the waste, therefore reducing impact on receptors beyond the site boundary.</p> <p>All waste delivered for the AD process will be deposited within a waste reception pit that is situated within the waste reception hall. The pit will comprise a walking floor and screw conveyor that will push the waste into the pre-treatment area. This will ensure that waste is processed in the order it is received (first-in, first-out) and therefore ensure that the waste is not stored for more than 72 hours which will be the maximum residence time that waste will be stored in the reception area prior to treatment.</p>	Low – The management actions should reduce the risk.	Medium - Nuisance, property damage and risk of vermin spread infections.	Low – the management procedures in place reduce likelihood of impact.

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	<p>Non-statutory ecological sites listed in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>Although the digester tanks for the AD process will be located outside, they will be contained within enclosed containers with the gas piped within a sealed network and will be piped to a biogas upgrading plant to National Gas Grid criteria and injected into the gas grid. Alternatively, the biogas may be processed by the CHP engines to generate heat and electricity that would be used by the AD plant.</p> <p>Waste acceptance procedures will include a requirement for incoming waste to be checked for fly infestation either at the weighbridge or as the load is tipped.</p> <p>Any wastes found to contain flies on entry to the site will either be treated appropriately with the fly spray or rejected from the site.</p> <p>Routine inspections are undertaken as required by the IMS and appropriate action will be taken in the event that the inspections indicate the presence of any pests or vermin.</p> <p>A pest control contractor will be appointed to attend the site at regular intervals (to be determined) by the contractor in accordance with IMS procedures. Additionally, the pest control contractor will be called to site to deal with any vermin/pest related problems that may arise between scheduled visits.</p> <p>As determined in Pre-application discussion with the EA, a Pest Management Plan is not required to be submitted at this stage of the Environmental Permit Application.</p>			
<p>Birds and Pests from the Waste Transfer Station and Materials Recycling Facility.</p>	<p>Occupiers of domestic dwellings listed in Table 2 above.</p> <p>Commercial and industrial</p>	<p>Air.</p> <p>Ground.</p>	<p>The majority of putrescible waste that's accepted as part of the waste transfer station will be stored and processed within a building. This building will benefit from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles) and during non-operational hours. This will minimise the potential for any pests to be attracted to the site.</p> <p>The only waste streams that will be stored outside that has the potential to attract pests is green waste and road sweepings.</p>	<p>Low – The management actions should reduce the risk.</p>	<p>Medium - Nuisance, property damage and risk of vermin spread infections.</p>	<p>Low – the management procedures in place reduce likelihood of impact.</p>

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<p>units' users in listed Table 2 above.</p> <p>Amenities listed in Table 2 above.</p> <p>Non-statutory ecological sites listed in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>These waste streams will be stored within bays within a canopy building that's enclosed on three sides.</p> <p>Storage of wastes accepted at the canopy building will be limited to 72 hours from the date of receipt.</p> <p>Waste that's accepted as part of the waste transfer station will be accepted at manageable volumes to avoid a backlog of wastes. In the event of odorous materials being received at the site, or materials becoming odorous during storage, these will be prioritised before other materials already stored at the site.</p> <p>The waste stored within the canopy will be stored for a maximum of 72 hours thus are unlikely to attract unwanted birds and pests.</p> <p>Waste acceptance procedures will include a requirement for incoming waste to be checked for fly infestation either at the weighbridge or as the load is tipped.</p> <p>Any wastes found to contain flies on entry to the site will either be treated appropriately with the fly spray or rejected from the site.</p> <p>Routine inspections are undertaken as required by the IMS and appropriate action will be taken in the event that the inspections indicate the presence of any pests or vermin.</p> <p>A pest control contractor will be appointed to attend the site at regular intervals (to be determined) by the contractor in accordance with IMS procedures. Additionally, the pest control contractor will be called to site to deal with any vermin/pest related problems that may arise between scheduled visits.</p> <p>As determined in Pre-application discussion with the EA, a Pest Management Plan is not required to be submitted at this stage of the Environmental Permit Application.</p>				
Mud						
Mud arising from vehicles movements.	Highways listed in Table 2.	Tracked by vehicles.	The site and access road will largely comprise an impermeable paved surface and therefore vehicles will only drive over concrete ground while they are delivering waste to the facility or exporting	Low – the management actions should	Medium - Nuisance	Low – The management

			<p>waste from the facility. As such, it is unlikely that any vehicles will track over any hardstanding/unmade ground and therefore the risk of mud is considered to be low.</p> <p>IMS procedures require that all vehicles leaving the site are inspected for cleanliness, any vehicles not reaching the required standard will be manually cleaned before leaving site to prevent material being tracked onto local highways.</p> <p>A street sweeping vehicle will be contracted in to attend to any specific instances of mud being tracked onto local highways.</p>	<p>prevent materials being tracked/dropped onto local highways.</p>	<p>and potential health and safety hazard caused by waste on the highway.</p>	<p>procedures in place minimise the likelihood of impact.</p>
Litter						
<p>Litter arising from vehicle movements and high winds.</p>	<p>All receptors listed in Table 2.</p>	<p>Air Tracked by vehicles.</p>	<p>Litter may arise from unwanted packaging and contaminants removed from the organic waste material as part of the AD pre-treatment process. All packaging and contaminants will be stored within a skip which is situated within the confines of a building. This building benefits from fast acting doors which will be kept closed when not in use (i.e., arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the risk of wind-blown litter.</p> <p>Waste that's accepted as part of the waste transfer station and MRF will be stored within the confines of a building or within a canopy building that's enclosed on three sides. Waste with a litter potential will be stored within a building which will benefit from roller shutter doors which will be kept closed when not in use (i.e. arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use. This will minimise the potential for any litter on site to impact receptors beyond the site boundary.</p> <p>Waste that's stored within the canopy building are considered to have a low litter potential such as wood, hardcore, green waste and road sweepings. As such, the risk of litter is expected to be low.</p> <p>Vehicles will be sheeted/netted as necessary when entering/leaving the site to prevent fugitive emissions of litter/waste materials onto the public highways.</p>	<p>Low – the management actions should prevent materials being tracked/dropped onto local highways.</p>	<p>Medium - Nuisance and potential health and safety hazard caused by waste on the highway.</p>	<p>Low – The management procedures in place minimise the likelihood of impact.</p>

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			SUEZ's IMS includes site inspection check sheets that include a daily requirement for site staff to check for litter on site. If litter is identified, site staff will undertake litter picking as required.			
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Table A4: Accident and Incident Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Fire or failure to contain firewater.	Groundwater. Site Operators Surface water features listed in Table 2. Occupiers of domestic dwellings listed in Table 2 above. Commercial and industrial units' users in listed Table 2 above. Amenities listed in Table 2 above. Non-statutory ecological	Infiltration. Contaminated rainwater runoff.	<p>With reference to the EA's 'Fire prevention plans: environmental permits' guidance, Section 3 indicates that a Fire Prevention Plan is not required for AD facilities that comprise a wet process. The proposed AD facility will largely comprise a wet process and therefore the risk of combustion from AD facility is expected to be low.</p> <p>There will be strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the BATOT document (Appendix C of the Environmental Permit Application).</p> <p>SUEZ's IMS includes policies and procedures that requires all plant to be maintained in accordance with the manufacturer's guidance. This will minimise the risk of mechanical failure which may result in an increased risk of fire.</p> <p>Smoking is only permitted in designated areas.</p> <p>Daily checks of fire safety equipment will be carried out in accordance with SUEZ's IMS.</p> <p>The proposed AD facility will benefit from an impermeable concrete surface and a sealed drainage system to prevent</p>	Low – the management actions should prevent fire.	Medium - possible respiratory irritation from smoke inhalation Nuisance from smoke and emissions of Particulates.	Low – due to Management system in place.

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	<p>sites listed in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>the transmission of potentially contaminated liquids into groundwater beneath the site.</p> <p>In the event of a fire, the drainage system will be sealed off to prevent discharge in the event of an incident.</p> <p>Fire from the waste transfer station and canopy building will be managed in accordance with the current Fire Prevention Plan</p>			
<p>Spillage of oil, fuel or hydraulic fluid from plant colliding with infrastructure, mechanical failure, leak during refueling or maintenance.</p>	<p>Groundwater.</p> <p>Surface waters listed in Table 2.</p>	<p>Surface run-off.</p> <p>Infiltration.</p> <p>Percolation</p>	<p>The fuel oil storage facility on site is fully bunded in compliance with the Control of Pollution (Oil Storage) (England) Regulations 2001 and are located on an impermeable concrete surface.</p> <p>All other fuel/oil storage on site takes place in accordance with relevant legislation and in suitably bunded containers.</p> <p>The site is provided with impermeable concrete surfaces to prevent the transmission of potentially contaminated liquids into groundwater beneath the site.</p> <p>SUEZ's IMS includes policies and procedures that requires all plant to be maintained in accordance with the manufacturer's guidance. This will minimise the risk of mechanical failure which will minimise the risk of leaks and/or spillages.</p> <p>In addition, the IMS includes a daily requirement for site staff to check plant and site infrastructure to ensure continuing integrity and fitness for purpose. In the event that any defects are identified so that it no longer meets the required standards, necessary remedial work will be completed as soon as practicable.</p> <p>The AD plant will benefit from a process control monitoring system which will monitor the operational requirements of the plant and allow faults to be identified. This will ensure that remedial action is undertaken as soon as practicable.</p>	<p>Low - the Management actions should prevent accidents and the engineered systems and infrastructure are designed to prevent any discharge of contaminated water run-off.</p>	<p>Medium - Pollution of local water courses, groundwater and aquifers.</p>	<p>Low - The management procedures in place should prevent this occurring.</p>

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<p>Flooding</p>	<p>Groundwater. Surface water bodies listed in Table 2.</p>	<p>Infiltration. Contaminated surface water runoff.</p>	<p>The AD plant will benefit from a process control monitoring system which will monitor the operational requirements of the plant and therefore minimize the risk of flooding that may occur from the overfilling of tanks or leaks due to failure in pipework.</p> <p>In addition, a bund will be installed around the digester tanks and associated infrastructure in accordance with CIRIA 736 guidance. The bund is designed to mitigate against artificial flood risk in the event of a digester tank fail. However, the bund will also be used to contain any firewater that may be generated in the event of a fire. The bund will be designed in line with the CIRIA 'Containment systems for the prevention of pollution (C736)' document.</p> <p>In the event of a fire, the drainage system will be sealed off to prevent discharge in the event of an incident.</p>	<p>Low – the management actions should prevent fire</p>	<p>Medium - Disruption to works on site. Contamination of local groundwater and/or surface water. Contamination of local agricultural land.</p>	<p>Low – due to Management system in place</p>
<p>Vandalism / theft – damage to waste containment and fuel storage infrastructure.</p>	<p>Groundwater. Surface water features listed in Table 2. Occupiers of domestic dwellings listed in Table 2 above. Commercial and industrial units' users in listed Table 2 above. Amenities listed in Table 2 above.</p>	<p>Unauthorised entry to the site.</p>	<p>All waste accepted for the AD facility will be stored within the confines of a building. This building benefits from a fast-acting doors on the outside and a speed door on the inside will be kept closed when not in use (i.e. arrival or departure of vehicles). In addition, pedestrian doors are also closed when not in direct use.</p> <p>In addition, some waste streams that's accepted as part of the transfer station and materials recycling facility will be stored within the confines of a building. This building will benefit from fast acting doors which are locked outside operational hours.</p> <p>Site security, perimeter fencing, and gates are installed to prevent unauthorised access to the site outside operational hours.</p> <p>A CCTV system will be installed to deter and record any unauthorised activity. In addition, the site will benefit from an on-site security guard will undertake regular patrols of the site.</p>	<p>Low – the management actions should prevent unauthorised access and the engineered systems and infrastructure are designed to prevent any discharge of harmful liquids.</p>	<p>Medium - Pollution of local water courses, groundwater and aquifers.</p>	<p>Low - The management procedures in place should prevent this occurring.</p>

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<p>Non-statutory ecological sites listed in Table 2 above.</p> <p>Protected species listed in Table 2 above.</p> <p>Protected habitats listed in Table 2 above.</p>		<p>Procedures within SUEZ's IMS include a daily requirement to check the condition of the security measures and take appropriate remedial action in the event of any damage.</p>			
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**APPENDIX B – NATURE AND HERITAGE CONSERVATION SCREEN
(EPR/BB3609KA/V005)**

Nature and Heritage Conservation

Screening Report: Bespoke Waste

Reference	EPR/BB3609KA/V005
NGR	SD 69413 23979
Buffer (m)	150
Date report produced	02/06/2023
Number of maps enclosed	3

The nature and heritage conservation sites and/or protected species and habitats identified in the table below must be considered in your application.

Nature and heritage conservation sites

Screening distance (m)

Further Information

Local Wildlife Sites (LWS)

200

[Appropriate Local Record Centre \(LRC\)](#)

Flash Brook Fields

Lower Eccleshill Marsh

Eccleshill Old Iron Works

Protected Species

Screening distance (m)

Further Information

European Eel migratory route

up to 500m

[Natural England](#)

Bullhead

Environment Agency. Dial 03708 506 506 for your local Fisheries and Biodiversity team

Protected Habitats

Screening distance (m)

Further Information

Deciduous woodland

up to 50m

[Natural England](#)



Where protected species are present, a licence may be required from [Natural England](#) to handle the species or undertake the proposed works.

The relevant Local Records Centre must be contacted for information on the features within local wildlife sites. A small administration charge may also be incurred for this service.

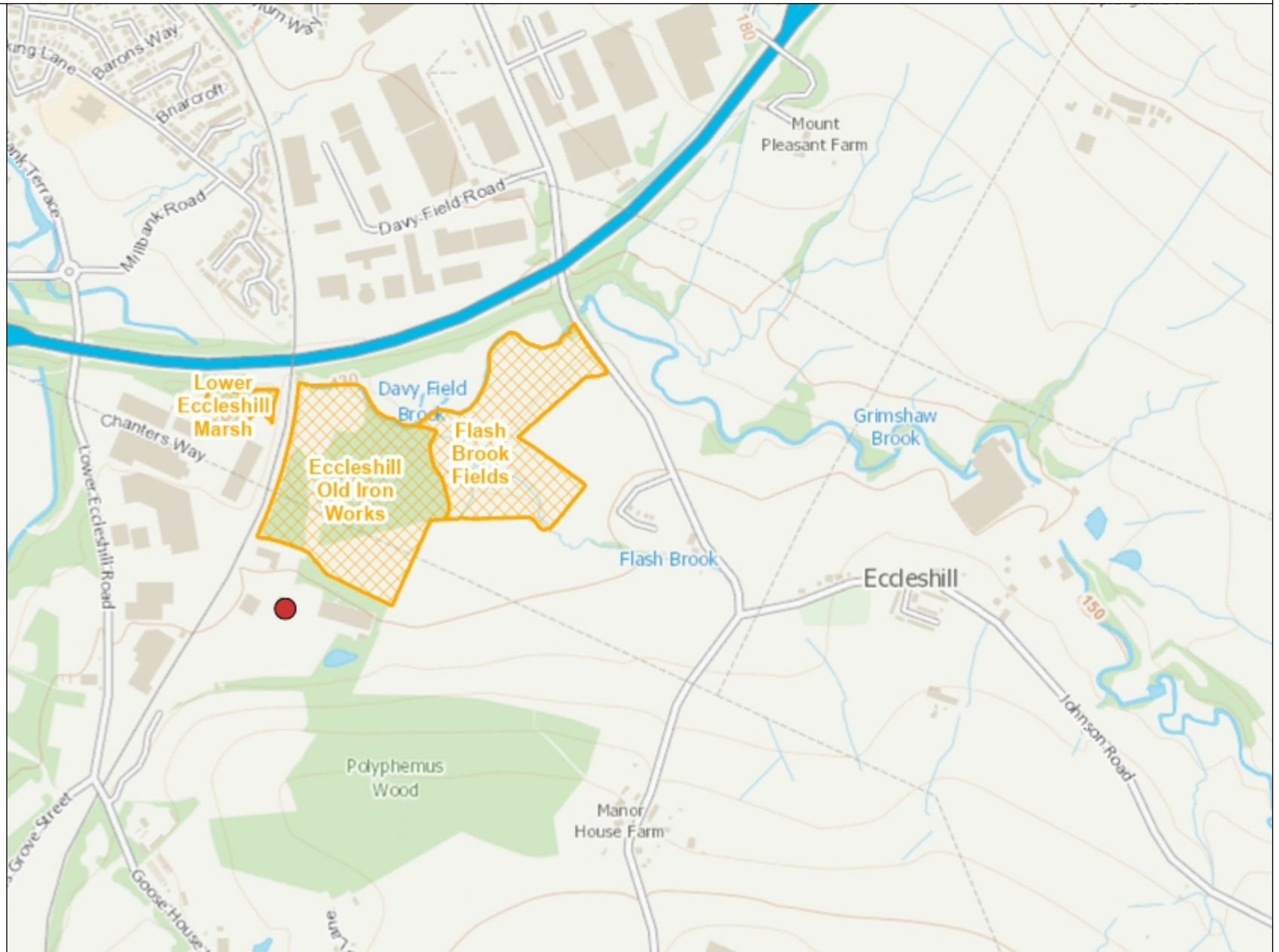
Please note we have screened this application for protected and priority sites, habitats and species for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be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

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

Local Wildlife Sites

Legend

 Local Wildlife Sites



1: 10,000

0 250




Metres

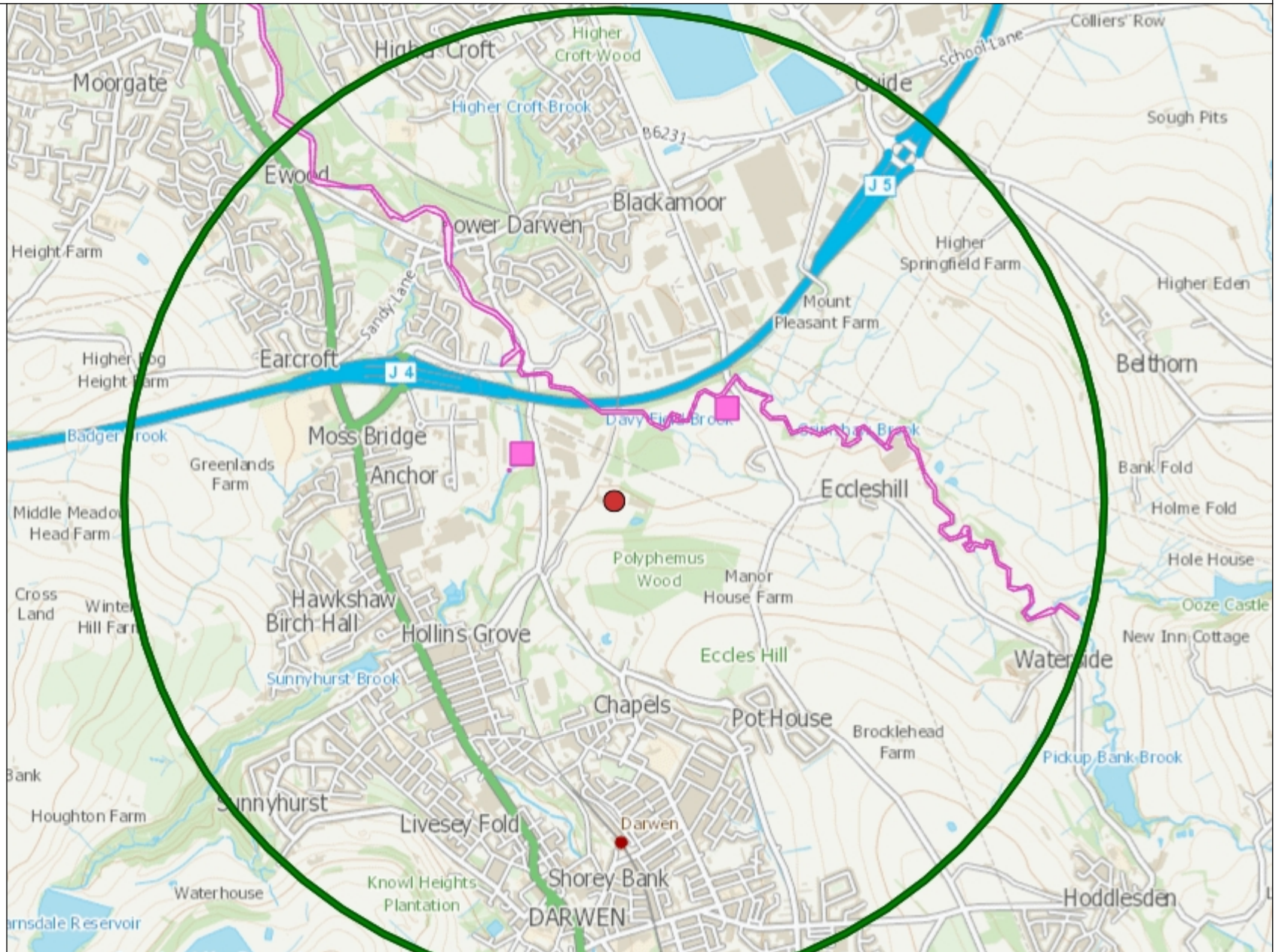


Protected Species

Legend

Protected species screened for Env Permits - complete set

-  Protected species, non fish
-  Protected fish
-  Protected fish migratory route



1: 25,000


0 625

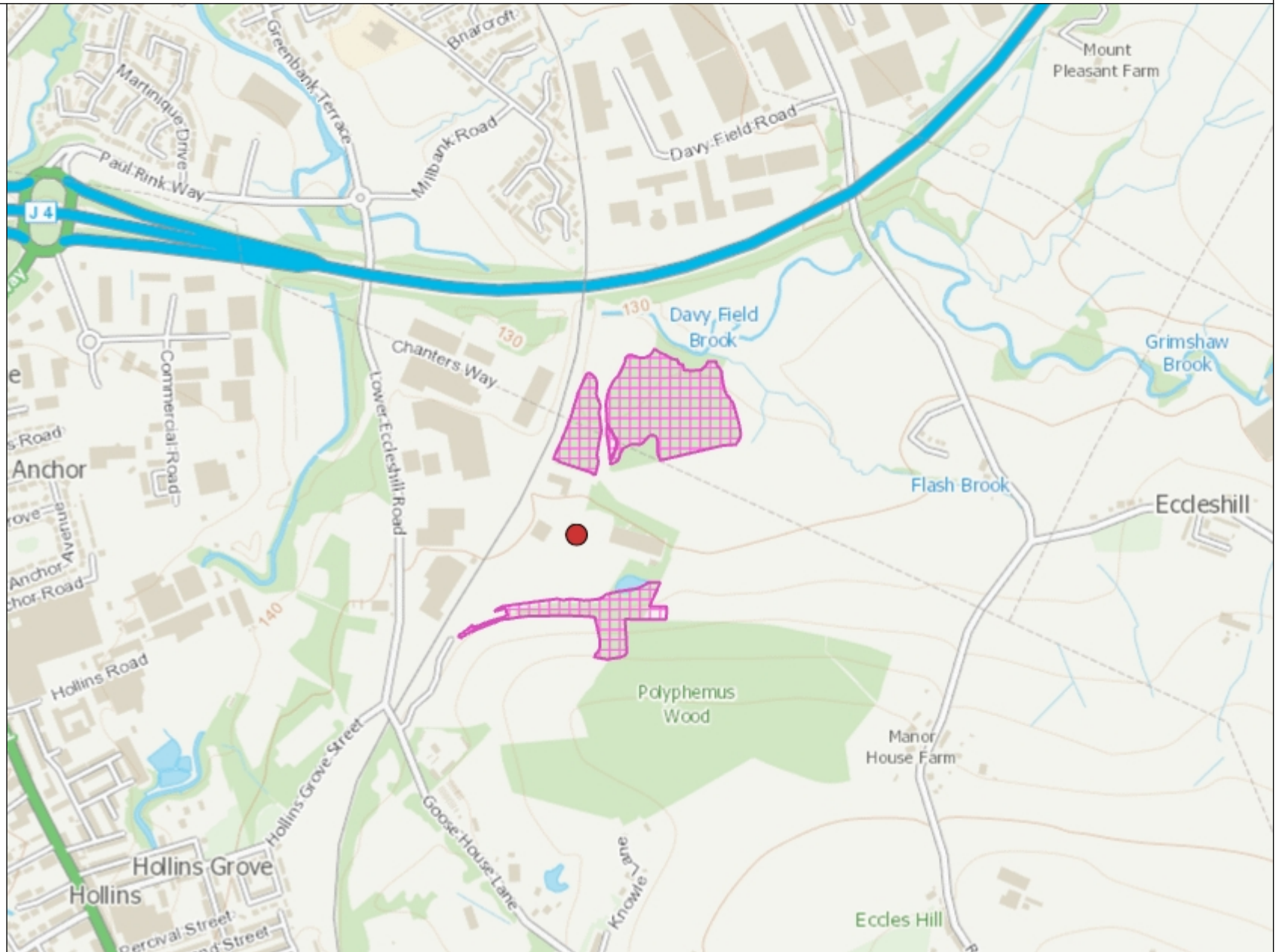
Metres



Protected Habitats

Legend

-  Protected Habitats screened for En Permits



1: 10,000

0 250

Metres

