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Environmental Risk Assessment EPR/GP3190FL

Roberts Waste Transfer Station

Roberts Waste Limited

Report No. CRM 0182 001 PE R 003 ERA

'Experience and expertise working in union'

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Environmental Risk Assessment CRM 0182 001 PE R 005

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Contents

1.0Introduction 4
1.1 Introduction 4
1.2 Scope of Assessment 4
1.3 Environmental Setting 4
1.4 Sensitive Receptors 6
1.5 Permitted Activities 10
1.6 Waste Types and Operating Hours 11
1.7 Emissions from the Facility 11
2.0Environmental Risk Assessment 12
2.1 Scope of Assessments Completed 12
2.2 Point Source Emissions to Sewer 13
2.3 Fugitive Emissions to Air 13
2.4 Fugitive Emissions to Land, Ground and Surface Waters 15
2.5 Odour Impacts 16
2.6 Noise and Vibration Impacts 17
2.7 Accidents 17
2.8 Mud, Litter, Pests and Vermin 18
2.9 Wastes Generated 19
3.0Climate Change Risk Assessment 20
3.1 Overview 20
3.2 Scope 20
3.3 Regulatory Guidance 20
3.4 Step 1: Preparation 20
3.5 Step 2: Identifying Potential Impacts 21
3.6 Step 3 and 4: Risk Assessment and Control Measures 23

3.7 Step 5: Adaptation Plan 23

3.8 Step 6: Monitor, Record and Review the Plan 23

Tables and Figures

Figure 1.2.1: Site Location 5

Table 1.4.1: Sensitive Receptors 6

Table 1.5.1: Regulated Activities 10

Table 1.7.1: Point Source Emissions to Sewer 11

Table 1: Point Source Emissions to Sewer 24

Table 2: Fugitive Emissions to Air 25

Table 3: Fugitive Emissions to Land, Ground and Surface Water 29

Table 4: Odour 30

Table 5: Noise and Vibration 32

Table 6: Accidents 32

Table 7: Mud, Litter, Pests and Vermin 35

Figure 8: Monthly Wind Speed Statistics and Directions 45

Figure 9: Monthly Wind Direction and Strength Distribution 45

Table 10: Climate change Risk Assessment 48

Table 11: Climate Change Mitigation Plan 55

Drawings and Appendices

i

Appendix A – Risk Assessment 24

Appendix B - Waste Codes Accepted at the Facility 38

Appendix C – Huntspill Weather Station Data 45

Appendix D – Nature and Heritage Conservation Screening 46

Appendix E – Climate Change Risk Assessment 47

Appendix F – Climate Change Mitigation Plan 55

1.0 Introduction

1.1 Introduction

1.1.1 This Environmental Risk Assessment (ERA) forms part of an application submitted to the Environment Agency (EA) for a variation and consolidation of two existing permits, (originally held by S.Roberts & Son (Bridgwater) Limited which are being transferred to Roberts Waste Limited), to a Bespoke Environmental Permit, reference EPR/ EPR/GP3190FL. The proposed varied and consolidated permit application is for a Hazardous and Non-Hazardous Waste Transfer and Treatment Facility at Castlefields Industrial Estate, The Drove, Bridgwater, Somerset, TA6 4AG referred to as the 'Facility' throughout this document.

1.1.2 The Facility will be operated by Roberts Waste Limited (the 'Operator') whose registered office is Castlefields, The Drove, Bridgwater, United Kingdom, TA6 4AG. The Company Number as registered on Companies House is 10731669.

1.1.3 The variation will include:

- An increase to the existing permit boundaries; and
- Consolidation of the activities carried out under EPR/GP3190FL (WML 27030) and EPR/DB3201XT/V002.

1.1.4 The primary contact for the application is Steph Charnaud, Director of Permitting for Enzygo Limited with the secondary contact being Daniel Mills, Senior Consultant for Enzygo, who are employed to provide technical support to Roberts Waste Limited as part of the Environmental Permit application process.

1.2 Scope of Assessment

1.2.1 Several assessments have been carried out to determine the environmental risks posed by the Facility to identify whether the level of risk is considered acceptable together with any relevant mitigation. The assessment has been completed in accordance with the guidance provided on the Environment Agency's Website 'Risk assessments for your environmental permit', last updated 3rd January 2025..

1.2.2 This report contains justification for all risk assessments completed or screened out from requiring further consideration and provides an overall assessment of the acceptability of the proposed activity.

1.3 Environmental Setting

1.3.1 Figure 1.2.1 below shows the location of the site, marked with a red pin.

Figure 1.2.1: Site Location

©Ordnance Survey 2024

1.3.2 The Facility is located at:

Roberts Waste Transfer Station
Castlefields Industrial Estate
The Drove
Bridgwater
Somerset
TA6 4AG

1.3.3 The site is approximately centred at National Grid Reference ST 30403 37957.

1.3.4 The Facility covers an area of approximately 1 hectare and lies within an industrial area to the north of the centre of Bridgwater.

1.3.5 The site currently consists of existing permitted waste operations, registered exemptions and storage of equipment utilised in the waste management operations.

1.3.6 The nearest residential property to the proposed Facility, are the residential properties on Kimberly Terrace which are located to the east of the site on the opposite side of Boards Road.

1.3.7 The nearest surface water feature to the Facility is the River Parrett, a designated main river, which lies approximately 320m to the west of the western site boundary.

1.3.8 The prevailing winds at the proposed Facility are generally from the west, northwest, west northwest and west southwest. This data is based on historic daily observation data sourced

from the Huntspill weather station. The weather station is located approximately 7.5km north of the Facility (based on data provided by www.windfinder.com), see Appendix B for details.

1.4 Sensitive Receptors

1.4.1 The key receptors that have the potential to be impacted by the Facility are summarised in Table 1.4.1 below. These receptors have been considered where appropriate within each risk assessment undertaken.

1.4.2 There are no Special Protection Areas (SPA), Special Areas of Conservation (SAC) Local Nature Reserves (LNR), National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI) or Ramsar sites within 2km of the proposed Facility based on a search carried out using Defra's Magic website.

1.4.3 The EAs nature and heritage conservation screening assessment has identified protected species, namely Atlantic salmon, European eel, river lamprey and sea lamprey within 500m of the proposed Facility. No further protected sites or species are identified by the EA's nature and heritage conservation screening assessment within the designated screening distance for a waste facility at this site.

1.4.4 The Flood Map for Planning was checked and the entire site is located within a Flood Zone 3. The site also benefits from a flood defence. The site reported as being at a medium risk of annual surface water flooding (which equates to between a 1% and 3.3% chance of a flood each year) and low risk of flooding from rivers and the sea (which equates to between 0.1% and 1% chance of flooding each year). Groundwater flooding and reservoir flooding is listed as being unlikely.

1.4.5 The Facility is over a Secondary B aquifer in the bedrock and a secondary undifferentiated aquifer within the superficial drift. The groundwater vulnerability beneath the Site is classified as medium.

1.4.6 The Facility does not lie within a source protection zone.

Table 1.4.1: Sensitive Receptors

Receptor	Type	Distance (m)	Direction
Wylds Road Trade Park	Commercial & Industrial	0	NW
King's Castle Business Park	Commercial & Industrial	13	S
Bradfords Building Supply	Commercial	28	SE
Residential properties off Kimberley Terrace	Residential	16	NE
Commercial complex off Jessie Close	Commercial	62	W
Beech Business Park	Commercial & Industrial	49	N
The Leggar Retail Park	Commercial	77	S
Bridgwater Self Storage	Commercial	79	SW
Wickes Bridgwater	Commercial	122	W
Commercial and Industrial complex off Symons Way	Commercial & Industrial	143	SW
Residential Properties off Bristol Road	Residential	152	E
Commercial and Industrial units off Robins Drive	Commercial & Industrial	183	SW
Bridgwater Tyre and Exhausts	Commercial	189	SE
East Quay Medical Centre	Commercial	227	W

Receptor	Type	Distance (m)	Direction
Office Complex off East Quay	Commercial	241	W
UK Storage Self Storage	Commercial	276	W
Environment Agency Rivers House (office)	Commercial	283	SW
River Parrett	Ecological	284	NW
Sainsbury's store	Commercial	288	S
Commercial Complex off East Quay	Commercial	325	W
Bridgwater Retail Park	Commercial	339	S
Saltlands Recycling Centre	Industrial	380	NW
Residential Properties off Riverside Close	Residential	381	NW
Kilnside Industrial Estate	Commercial & Industrial	399	SW
Car dealerships off Bristol Road	Commercial	427	NE
Residential Properties off Linham Road	Residential	433	W
High street on Bath Road	Commercial	433	SE
Somerset Brick & Tile Museum	Recreational	436	SW
Bath Bridge Business Park	Commercial & Industrial	451	SE
Chilton Trinity Water Recycling Centre	Industrial	459	N
Commercial and Industrial complex off East Quay	Commercial & Industrial	464	SW
Host Campus (residential)	Residential	478	E
Residential Properties off Church Street	Residential	502	S
Residential Properties off Chilton Street	Residential	514	W
Residential Properties off Polden Street	Residential	519	S
Fairport Containers South West Depot	Industrial	533	SE
Asda	Commercial	570	S
Chilton Park	Recreational	579	NW
The McMillan Theatre	Recreational	594	E
Residential Property off Northgate	Residential	595	SW
Crypton Technology Business Park	Commercial & Industrial	647	NE
Bridgwater Sea Cadets (Youth)	Recreational	661	SW
Residential Properties off Fairfax Road	Residential	681	E
Eastover Community Primary School	Education	682	SW
Commercial complex off West Quay	Commercial	691	SW
Eastover Indoor Shopping Centre	Commercial	725	S
Bridgwater and Taunton College	Education	744	SE
Bridgwater Methodist Church	Recreational	745	S
Aldi	Commercial	746	SW
Mercure Bridgwater Hotel	Commercial	787	S
Station Yard	Commercial	808	SE
High Street on Eastover	Commercial	815	S
Aldi	Commercial	828	S
Residential Properties off Drakes Close	Residential	861	SW

Receptor	Type	Distance (m)	Direction
Northgate Primary School	Education	862	SW
Pallet Hotel	Commercial/residential	865	NE
Chilton Trinity School	Education	871	NW
High street on Fore Street	Commercial	892	SW
Broadway Health Park Bridgwater	Commercial	922	S
Bridgwater Library	Recreational	950	S
Commercial area on Northgate	Commercial	954	SW
Kings Down	Residential	977	NE
Bridgwater Station	Transport	978	SE
Morrisons Manufacturing	Industrial	986	NE
Angel Place Shopping Centre	Commercial	994	SW
Bridgwater High Street	Commercial	998	SW
Premier Inn Bridgwater North	Commercial	1000	N
Residential Properties off Blackland's	Residential	1005	SW
Cranleigh Gardens Medical Centre	Commercial	1007	S
Rainbow Preschool	Education	1016	E
Bridgwater College Academy	Education	1037	SE
The Olive Tree Nursery	Education	1070	S
St Mary's Church	Recreational	1078	SW
Victoria Park	Recreational	1087	SW
Acron House Office	Commercial	1098	S
Wills Industrial Estate	Commercial & Industrial	1107	S
Residential Property of Chilton Trinity	Residential	1139	N
Avalon Nursing Home	Residential/commercial	1140	S
Residential Property off Old Taunton Road	Residential	1158	S
Express Park	Commercial & Industrial	1165	N
Bridgwater Fire Station	Commercial	1172	S
Esso	Commercial	1179	S
Royal Mail Delivery Office	Commercial	1196	SW
Residential Properties off Loxleigh Avenue	Residential	1198	SE
Redgate Medical Centre	Commercial	1210	SE
Commercial and Industrial complex off Salmon Parade	Commercial & Industrial	1213	S
First Class Nurseries	Education	1213	S
Sedgemoor Manor Community Nursery and Infant School	Education	1222	E
The Trussell Trust Food Bank	Non-residential	1229	SW
Wireworks Estate commercial and industrial	Commercial & Industrial	1236	NE
Co-op Food The Redgate Centre	Commercial	1277	SE
Willowdown Primary School	Education	1288	NE
Retail Park off Broadway	Commercial	1300	SW

Receptor	Type	Distance (m)	Direction
Residential Properties off Victoria Road	Residential	1301	SW
Taunton Road Medical Centre	Medical	1304	S
North Street	Commercial	1313	SW
Wembdon Motors	Commercial	1348	W
Fothergill Business Park	Commercial & Industrial	1349	S
Wembdon Village Hall	Recreational	1372	W
Holy Trinity Church	Recreational	1373	NW
St George's Church	Recreational	1393	W
Somerset Car Sales	Commercial	1409	SW
Hawkins Agri	Commercial	1409	S
Casa di Lusso Care Home	Residential/commercial	1418	E
Wellworthys Business Centre	Commercial & Industrial	1419	S
YMCA	Recreational	1445	SW
St George's Parish Centre	Recreational	1463	W
Residential Properties off Elmwood Avenue	Residential	1464	S
Riverside Estate	Commercial	1474	S
Blake Mill Business Park	Commercial & Industrial	1482	S
Chilton Trinity Village Hall	Recreational	1485	NW
Retail Park off Kings Road	Commercial	1495	NE
Groom house lodge(B&B)	Commercial	1498	NW
Bridgwater Hospital	Medical	1519	E
Bridgwater Trade Park	Commercial & Industrial	1539	N
Westover Green Community School	Education	1554	SW
Unnamed Farm in Chilton Trinity	Agricultural	1578	NW
Polden Bower School	Education	1579	E
Industrial Park off Parrett Way	Commercial & Industrial	1580	S
H Biffen & Sons Ltd	Commercial	1581	SW
Marshall Farm	Agricultural	1608	NW
Industrial Complex off Brue Avenue	Industrial	1615	S
Polden Bower School Albert St Campus	Education	1619	SW
Trinity Waters fish farm	Agricultural	1635	N
The Bower Inn	Commercial	1638	E
Westfield United Reformed Church	Non-residential	1647	SW
White Gate Farm and Bower House Farm	Agricultural	1661	E
The Polden Business Centre	Commercial	1712	N
St. John and St. Francis Church School	Education	1715	SE
PDG Machinery Services	Industrial	1748	NE
St Joseph's Catholic Primary School, Bridgwater	Education	1791	SW
Robert Blake and Elmwood Schools	Education	1802	S
Mole Valley Farmers	Commercial	1833	NE

Receptor	Type	Distance (m)	Direction
Bridgwater Bowling Club	Recreational	1862	SW
Morrisons RDF	Industrial	1869	NE
Morganians Rugby Football Club	Recreational	1909	NE

1.5 Permitted Activities

1.5.1 The listed activities proposed within this permit application are in accordance with the Environmental Permitting (England and Wales) Regulations 2016 (as amended). Schedule 1 listed activities and Directly Associated Activities (DAAs) are summarised in Table 1.5.1 below.

Table 1.5.1: Regulated Activities

Description of Activity and WFD Annex I and Annex II operations		Limits of specified activity and waste types
R3: Recycling or reclamation of organic substances which are not used as solvents **R4:** Recycling/reclamation of metals and metal compounds **R5:** Recycling/reclamation of other inorganic materials **R13:** Storage of waste pending the operations numbered R1 and R3 (excluding the temporary storage, pending collection, on the site where it is produced). **D15:** Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced.		Hazardous waste treatment shall not be undertaken at the Facility. The total quantity of waste received at the site shall not exceed 25 000tpa. Waste types to be accepted are limited to those in Appendix B of this document. Treatment consisting only of manual sorting, separation, screening, baling, shredding, crushing or compaction of non-hazardous waste into different components for disposal, (no more than 50 tonnes per day) or recovery. All asbestos wastes received shall be bagged or where necessary, wrapped. The maximum quantity of asbestos waste received at the site shall not exceed 10 tonnes per day. The maximum quantity of asbestos waste stored at the site shall not exceed 10 tonnes. There shall be no treatment or repackaging of asbestos waste. No more than a total of 50 tonnes of intact and shredded waste vehicle tyres (waste codes 16 01 03 and 19 12 04) shall be stored at the site. No more than 50t of hazardous waste shall be stored on site at any one time.
Total Waste Storage Capacity	3326 tonnes	2976t inert and non-hazardous waste ≤50t hazardous waste 300t non-compliant wastes
Waste Treatment Capacity	50 tonnes/day	Treatment consisting only of manual sorting, separation, screening, baling, shredding, crushing or compaction of non-hazardous and inert waste into different components for disposal or recovery.

1.5.2 A full description of the activities carried out on site is in the OTMP, however, an overview of the acceptance, storage and treatment operations associated with the waste transfer station is as follows:

1. Mixed non-hazardous waste acceptance and treatment. The treatment processes on site include mechanical sorting, manual sorting, screening, shredding, baling and bulking activities.

2. Inert waste acceptance and treatment consisting of screening and crushing to produce a 6F5 grade recycled aggregate in accordance with the WRAP Protocol 'Aggregates from inert waste'.

3. Hazardous waste acceptance and storage pending recovery elsewhere.

1.6 Waste Types and Operating Hours

1.6.1 The Facility will process up to 25 000 tonnes per annum of household, commercial and industrial wastes. Inert, non-hazardous and hazardous wastes are accepted at the Facility. Appendix B provides a list of all wastes to be accepted along with their EWC codes.

1.6.2 The Facility's activities will be carried out and wastes will be received at the site during the following operational hours:

- 07:00 to 18:00 hours Monday to Friday;
- 07:00 – 13:00 hours on Saturday;
- No operations or deliveries on Sundays, Bank Holidays or outside of the above hours without prior notification and authorisation.

1.7 Emissions from the Facility

1.7.1 There are no point source emissions to air, land or water from the Facility.

1.7.2 There are three point source emission to sewer from the Facility that will receive the site drainage and effluent from the site office welfare facilities. The site drainage network in the north has two separators installed which will remove oils and suspended solids from the waters prior to discharge.

1.7.3 The point source emission from the Facility is listed in Table 1.7.1 below.

Table 1.7.1: Point Source Emissions to Sewer

Water Emission Point Reference	Source of Emission	Emissions
SW1	Site drainage and site office welfare effluent from northwestern section of site and asbestos area.	Ammoniacal nitrogen, suspended solids
SW2	Site welfare effluent in southern section of site	Ammoniacal nitrogen, suspended solids
SW3	Site drainage from southern section of site	Suspended solids

2.0 Environmental Risk Assessment

2.1 Scope of Assessments Completed

2.1.1 This ERA has been compiled to determine the environmental risks posed by the Facility and to ensure there are no significant impacts on the environment or human health, in accordance with regulatory guidance. In accordance with Environment Agency guidance 'Risk assessments for your environmental permit', last updated 3rd January 2025, the following potential risks to the environment were considered and either assessed qualitatively in this document or screened out.

2.1.2 This ERA has identified the following potential risks to the environment for consideration and inclusion in the assessment, if they are likely to be present:

- point source discharges to sewer;
- fugitive emissions to air;
- fugitive emissions to land, surface waters and groundwater;
- odour impacts;
- noise and vibration impacts;
- impacts from accidents;
- pests and vermin;
- mud and litter; and
- disposal or recovery of wastes produced on site.

2.1.3 Each assessment completed is summarised below with a qualitative assessment of the risks from the Facility provided in Appendix A. Full details of control measures compared with techniques described in the sector guidance is presented in the Operational Techniques and Monitoring Plan (OTMP) referenced CRM 0182 001 PE R 006.

2.1.4 Mitigation measures have been proposed where necessary with consideration of Environment Agency Guidance 'Control and monitor emissions for your environmental permit', 24th November 2022, 'Non-hazardous and inert waste appropriate measures for permitted facilities', updated 1st August 2023 and industry best practice.

2.1.5 There are no point source emissions to air, surface water, the ground or groundwater from the operations at the Site.

2.1.6 There are no direct discharges to surface waters and the River Parrett is located 284m from the site. Therefore, the impacts on Atlantic salmon, European eel, river lamprey and sea lamprey, as identified by the EA's nature and heritage conservation screening assessment, have been screened out.

2.2 Point Source Emissions to Sewer

2.2.1 There are three point source emission to sewer from the Facility, referenced SW1 to SW3 in Table 1.7.1 above. Impacts on sensitive receptors are considered unlikely from the point source emissions to sewer.

2.2.2 The northern half of the site is served by its own dedicated drainage system. The drainage covering the northern half of site is split into three separate branches. One branch serves the vehicle washdown area and flows into a separator before being released to the foul sewerage network under a trade effluent consent.

2.2.3 The second branch serves the asbestos waste transfer area and the northwestern site compound area including the quarantine areas. These areas drain into the system and the effluent flows through a full retention separator before being released to the foul sewerage network under a trade effluent consent.

2.2.4 In the event of emergency like a spillage or a quarantined load, the foul network outfall and the outfalls from each of the interceptors will be bunged to stop flows from entering the sewerage network. A tanker would then be called in to empty the contained liquids for off-site disposal or treatment.

2.2.5 The third branch of the drainage system serves the welfare facilities within the site office.

2.2.6 In the southern half of the site there is a separate site welfare unit which discharge directly to foul sewer. The site runoff from this area drains to storm drainage network installed along Barhams Close.

2.2.7 Only empty skips and waste that does not pose any significant risk of contaminating land, surface water or groundwater are stored in the southern section of the site.

2.2.8 The full site drainage layout is shown in the site drainage plan drawing contained within this application.

2.2.9 The residual risk from point source emissions to sewer is low.

2.3 Fugitive Emissions to Air

2.3.1 The key sensitive receptors at risk of exposure to potential fugitive emission to air from the Facility have been identified as site employees, local businesses and local residences. Environmental sensitive receptors are listed in Table 1.4.1.

2.3.2 The potential fugitive emissions to air from the proposed Facility will be the generation and release of dust. The primary sources of the emissions will be from the handling storage and treatment of the wastes, particularly soils and aggregates.

2.3.3 Activities at the Facility are managed in accordance with the Operator's management systems, including regular inspections and maintenance of the site and its control measures. A summary of the Facility's Environmental Management System (EMS) is contained within Appendix A of the OTMP referenced CRM 0182 001 PE R 006.

2.3.4 The waste pre-acceptance and waste acceptance will be used to identify any wastes with the potential to cause fugitive emissions to air before and upon arrival at the Facility. These processes will enable preventative measures to be put in place before any fugitive emissions occur. Any highly dust-generating or loose wastes will not be accepted at the site.

2.3.5 Daily site inspections will be conducted and will include the monitoring of all wastes for any fugitive emissions or potential to cause fugitive emissions such as dust or odour. Any wastes identified as causing or having the potential to cause fugitive emissions will be reported and appropriate remedial measures will be undertaken, such as damping down or removal of the waste from site if necessary.

2.3.6 All deliveries of asbestos waste will be double bagged or double wrapped and placed within the dedicated asbestos skips. The asbestos skips will be fully enclosed, signed and locked at all times, other than during deliveries. There will be no treatment or repackaging of asbestos waste carried out at the Facility.

2.3.7 Waste streams will be segregated and stored within suitably enclosed areas consisting primarily of bays and skips. Wastes which are stored in bays have their storage levels kept below the top of the bay containing them to minimise fugitive emissions of dust and litter, caused by wind whipping.

2.3.8 All plant and equipment is inspected before each use and undergoes a programme of PPM. All storage and treatment areas are also inspected daily and regularly fully emptied to enable a full inspection and cleaning of the area.

2.3.9 The Facility has a dust management plan in place, a copy of this management plan is included as part of this application.

2.3.10 The screening, shredding and crushing processes are undertaken in dedicated areas and the northwestern section of the site is surrounded to the south and east by 2.5m high concrete walls. The concrete walls are also fitted with a further 2m high extension of micro netting to limit fugitive emissions such as dusts or litter.

2.3.11 Dampening down is carried out during screening, shredding and crushing activities when required. This is achieved in the northwestern section of the site through a fixed mist-air system consisting of a control panel, water storage tanks and 3no. rain guns. The system can be operated manually or on a timed cycle depending on the weather and site conditions.

2.3.12 There is also a mobile Corgin mist cannon available at the Facility which consists of a trailer mounted mobile water bowser with a remote control and directional mist cannon head. This unit can be positioned anywhere at the Facility depending on where it is required.

2.3.13 Finally, these two systems are supplemented by several hoses and sprinklers that are available around the Facility to be utilised when required.

2.3.14 Wherever possible waste stockpiles in the open are positioned away from the direction of the prevailing wind.

2.3.15 Stockpiled materials are also dampened down when the potential for fugitive dust emissions is noted on the daily inspections. Increased inspections are carried out in periods of hot and dry weather.

2.3.16 The plasterboard bay is fitted with an impermeable cover fixed by ratchet straps. The cover is only removed during the emptying of the bay and is replaced as soon as this process is complete.

2.3.17 Materials prone to the generation of dust emissions are be prioritised for transfer off site.

2.3.18 Drop heights are minimised as much as possible for materials leaving conveyors and the buckets of excavators to ensure the potential for dust generation is minimised.

2.3.19 A site speed limit of 5mph is in place across the Facility and all drivers are instructed on the site traffic management plan upon entry to the Facility. All vehicle movements take place on hardstanding and no soft landscaping areas are present at the Facility.

2.3.20 A vehicle washdown area is present in the northwestern corner of the site and any vehicles that have delivered potentially odorous or dusty loads will be washed down in the area before leaving site via The Drove.

2.3.21 All exiting vehicles wheels are inspected for cleanliness before leaving the Facility. If, upon inspection, vehicle wheels require cleaning, they will be cleaned in the site's vehicle washdown area.

2.3.22 Internal haul roads and the site entrance and exit roads are also regularly inspected and a road sweeper is deployed to clean the roads on a weekly basis with further visits scheduled when required. In addition, the site has mobile plant capable of clearing excess mud and dust between sweeper visits as required.

2.3.23 Weather conditions are recorded at the site and future forecasts are monitored for any upcoming adverse weather conditions. Where periods of high winds are noted then activities with a high risk of dust creation will be suspended e.g. crushing.

2.3.24 The residual risk from fugitive emissions to air is low.

2.4 Fugitive Emissions to Land, Ground and Surface Waters

2.4.1 The key sensitive receptors at risk of exposure to potential fugitive emission to land, ground and surface waters from the Facility have been identified as local businesses, local residences and the underlying ground and groundwater. Environmental sensitive receptors are listed in Table 1.4.1.

2.4.2 All waste storage within bays are located on impermeable concrete hardstanding in the northern half of the site. Stockpiled inert soils and aggregates are stored in the northwestern and northeastern sections of the Facility. The northwestern area is covered by concrete hardstanding and the northeastern area is covered by a mixture of concrete, asphalt and compacted aggregate hardstanding.

2.4.3 The southern half of the site is covered by block paving but is used only for the storage of waste within skips and empty skips.

2.4.4 The northern half of the site is served by its own dedicated drainage system. The full site drainage layout is shown in the site drainage plan contained within Drawings Section of this application.

2.4.5 The Facility's surfacing and drainage system are routinely inspected for damage and routine maintenance is carried out on the site infrastructure including cleaning and emptying of interceptors. The inspection and maintenance programme for impermeable surfaces and containment facilities is contained within the Facility's EMS. Written records are maintained to record the outcomes of these inspections with copies kept in the site office.

2.4.6 No liquid wastes are accepted at the Facility but some sludges may be accepted. All sludge wastes are stored on impermeable hardstanding served by the sealed drainage system at the Facility.

2.4.7 All liquids at the Facility, including fuels and oils, are stored in containers with bunding. All liquid storage areas are located on areas of impermeable hardstanding in the northwestern and northeastern sections of the Facility.

2.4.8 Fuels and oils required for on-site vehicles and maintenance are also stored in line with the Control of Pollution (oil storage) Regulations (England) 2001, where required.

2.4.9 All liquid storage bunding is inspected daily for any signs of leakage. Any liquids detected within the bunding are emptied as soon as possible and transferred off site for disposal or treatment.

2.4.10 Any spills are cleaned up immediately and spill kits are located across the Facility and the staff are trained in their use. All incidents are reported to the site manager and recorded, including all remedial actions carried out.

2.4.11 All cleaning agents are stored within an enclosed container that is designated as the COSHH store for the Facility.

2.4.12 No underground storage is present at the Facility.

2.4.13 The residual risk from fugitive emissions to water and land is low.

2.5 Odour Impacts

2.5.1 The key sensitive receptors at risk of exposure to odour impacts from the Facility have been identified as site employees, local businesses and local residences. Environmental sensitive receptors are listed in Table 1.4.1.

2.5.2 Any highly odorous wastes will be rejected if identified as part of the waste pre acceptance and acceptance checks.

2.5.3 The site limits the acceptance of wastes which are likely to cause odour. Wastes which are potentially odorous are covered or contained and are moved off-site for onward processing at a suitably permitted facility as soon as reasonably practicable.

2.5.4 The Facility has an odour management plan in place, a copy of this management plan is included as part of this application.

2.5.5 The OMP has been prepared to:

- Establish the likely sources of odour arising from the Facility;
- Set out the procedures followed at the plant in order to prevent or minimise odour emissions; and
- Formalise the procedures for dealing with any our complaints.

2.5.6 In accordance with Environment Agency Guidance H4: Odour Management, the OMP is designed to:

- Employ appropriate methods, including monitoring and contingencies, to control and minimise odour pollution;
- Prevent unacceptable odour pollution at all times; and
- Reduce the risk of odour releasing incidents or accidents by anticipating them and planning accordingly.

2.5.7 The residual risk from odour is low.

2.6 Noise and Vibration Impacts

2.6.1 The key sensitive receptors at risk of exposure to potential noise and vibration from the Facility have been identified as site employees, local businesses and local residences. Environmental sensitive receptors are listed in Table 1.4.1.

2.6.2 All plant and equipment is inspected before each use and undergoes a programme of regular routine maintenance. Additional monthly safety compliance audits are also carried out on the plant and equipment at the Site

2.6.3 Mechanical and manual sorting, baling and bulking activities associated with the waste transfer operations are already undertaken at the site and there have been no complaints received relating to noise to date.

2.6.4 Inert screening and crushing of inert materials are generally undertaken 1 or 2 days a week and no waste processing activities take place outside of the sites operating hours.

2.6.5 Vehicles are not allowed to idle un-necessarily when on site and strict site speed limits are in force.

2.6.6 Operational procedures are in place to deal with complaints about noise and staff are trained appropriately to be able to respond to noise issues or incidents with records maintained.

2.6.7 Residual risk of emissions from noise and vibration is Low.

2.7 Accidents

2.7.1 The key sensitive receptors at risk of exposure to potential fugitive emission to land, ground and surface waters from the Facility have been identified as site employees, local businesses, local residences and the underlying ground and groundwater. Environmental sensitive receptors are listed in Table 1.4.1.

2.7.2 There is potential for exposure from accidents or incidents on site to all sensitive receptors identified.

2.7.3 Key potential hazards identified include the collision of vehicles/plant on site, fires and spillages resulting from arson and vandalism, failure of plant and equipment on site and accidental fires. Although these are recognised as potential risks, the likelihood of them occurring remains low.

2.7.4 The qualitative risk assessment provided within Appendix A of this report concludes that if appropriately managed, the residual risks posed would remain low. Proposed management and mitigation controls include the following:

- Activities will be managed and operated in accordance with a written management system contained within the Facility's EMS;
- The Facility is secured by 2m high fencing and the site entrance and exit gates are locked outside of operational hours. The Facility also has CCTV cameras and the site office and workshop both have an intruder alarm system.
- Inspections are carried out on plant and equipment on a daily basis before use and are maintained in accordance with the manufacturer's requirements.
- Smoking is not permitted in the operational areas of the site. Designated smoking areas

are signed and all staff are made aware of their location.

- All site vehicles are fitted with fire extinguishers.
- Testing is carried out on electrical equipment by fully and appropriately qualified electricians when required.
- Should maintenance require hot works to be carried out, procedures will be in place to minimise fire risk via use of operational hot works permits/permits to work.
- The Facility's management system contains a written procedure for identifying, isolating, monitoring, cooling and potentially extinguishing hot loads as soon as is practicable. Any hot loads received on site would be placed in the quarantine area.
- All waste piles are regularly inspected and dampened down and turned over, if necessary, to prevent the build-up of heat.
- Waste is regularly removed from site and the skips and bays are emptied completely. Once emptied the bays are cleaned to prevent the accumulation of older wastes.
- Waste bays are constructed of reinforced concrete and the storage levels kept below the top of the structure.
- All fuel and chemicals stored on site will be in sealed, leak resistant containers with appropriate secondary containment. Containers are regularly inspected for leaks, located on impermeable concrete hardstanding and incompatible chemicals are stored in separate locations.
- A Site Traffic Management Plan (STMP) is in place and all delivery and collection vehicle drivers briefed on the STMP before entering the Facility. The STMP will include details on speed limits, site rules and vehicle and pedestrian routes.
- Bunging of the foul drainage system outfalls to prevent the migration of any contamination or firewater migrating through this system.

2.7.5 The residual risk from accidents on site, if all identified mitigation measures are implemented, is low.

2.8 Mud, Litter, Pests and Vermin

2.8.1 Vehicle movements associated with waste import and export from the Facility can lead to fugitive emissions of waste, litter, and mud on local roads. Some of the waste types stored at the Facility also have the potential to attract pests.

2.8.2 Wastes are inspected daily for any signs of pests and odour. Storage areas are regularly fully emptied and cleaned to prevent the build-up of older wastes. During the cleaning the storage areas are also checked for their structural integrity and any required remedial works are carried out.

2.8.3 A contract is in place with a local pest control contractor who visits the Facility on a quarterly basis. If any pest issues arise between the scheduled visits the contractor will be called out to respond to these as soon as possible.

2.8.4 All exiting vehicles wheels are inspected for cleanliness before leaving the Facility. If vehicle wheels are excessively covered in mud following delivery to the Facility, they will be cleaned in the site's vehicle washdown area.

2.8.5 Internal haul roads and the site entrance and exit roads are also regularly inspected and a road sweeper is deployed to clean the roads on a weekly basis with further visits scheduled when required.

2.8.6 The site has mobile plant capable of clearing excess mud and dust from the roadways.

2.8.7 Most of the site is covered by concrete, block paving and asphalt hardstanding.

2.8.8 General housekeeping/ cleaning is an ongoing task which is undertaken throughout the operational day by various member of the team and includes daily litter picking as necessary.

2.8.9 Residual risk of emissions from pests, litter, and mud and with mitigation is low.

2.9 Wastes Generated

2.9.1 The activities carried out at the Facility are designed to optimise the recycling of these materials to ensure all wastes are dealt with as high up the waste hierarchy as possible.

2.9.2 Contingency arrangements are in place for dealing with any untreated or partially treated materials in the event of the Facility being unable to process the materials.

2.9.3 The waste hierarchy is applied to all waste generated at the Facility.

3.0 Climate Change Risk Assessment

3.1 Overview

3.1.1 This section addresses the requirements of the 'a changing climate' section of the Environment Agency Guidance, 'Develop a management system: environmental permits'.

3.1.2 The following Climate Change Risk Assessment (CCRA) and adaptation plan follows the six-stage approach described in the EA guidance, 'Climate change: risk assessment and adaptation planning in your management system, published 3rd April 2023.

3.2 Scope

3.2.1 The CCRA will describe the main climate change risks specific to the site. Each risk scenario will be assessed using the EA's risk assessment guidance to determine whether each scenario presents a high, medium or low risk using the approach described below:

1. Preparation
2. Find potential impacts
3. Complete your risk assessment
4. Find control measures
5. Write your adaptation plan
6. Monitor, record and review your plan

3.3 Regulatory Guidance

3.3.1 The risk assessments will be developed with reference to the EA's guidance 'Develop a Management System: Environmental Permits', last updated 3rd April 2023, and the following connected EA guidance notes:

- Climate change: risk assessment and adaptation planning in your management system, Plan for climate change impacts to and from your site. How to integrate climate change adaptation into your management system under an environmental permit, EA, last updated 3rd April 2023.
- Guidance – Hazardous waste and treatment: examples for your adapting to climate change risk assessment, updated May 2023
- Guidance – Non-hazardous and inert waste treatment: examples for your adapting to climate change risk assessment, updated May 2023
- Preparing for flooding: a guide for regulated sites.

3.4 Step 1: Preparation

3.4.1 Robert's Waste Limited has been operating on the site for over 40 years.

3.5 Step 2: Identifying Potential Impacts

Daily Summer Maximum Temperatures

3.5.1 This may be around 7°C higher compared to average summer temperatures now, with the potential to reach extreme temperatures as high as over 40°C with increasing frequency based on today's values.

3.5.2 This could lead to;

- Greater potential for increased waste reactions and fires involving heat-sensitive or combustible waste.
- Potential for fire if the temperature exceeds the heat rating of components in electrical equipment or components are subjected to intense and direct sunlight.
- There could be an increase in high temperature expansion and stress of plant, pipework and fittings. UV degradation of plastic pipes and hoses causing them to fail.
- Potential increased dust emissions from, for example, external waste storage and treatment areas and site roads. Reduced availability of water for dust suppression.
- Long periods of hot and dry weather could lead to a drought and may have an impact on water supplies for:
    - emergency water usage
    - cooling systems
    - fire fighting
    - processes that require water as input for example aggregate and soil washing plants
- Potential increased risk of pests and scavengers from stockpiled waste such as food and drink containers, food contaminated wastes and 'black bag' type wastes.
- Potential increased risk of wildfires impacting the site.

Winter Daily Temperatures

3.5.3 This could be 4°C more than the current average with the potential for more extreme temperatures, both warmer and colder than present.

3.5.4 Slightly higher winter maximums could generate regular odour complaints and pest infestations.

3.5.5 Lower winter temperatures could result in an increased risk of pipes (or similar) freezing.

Daily Extreme Rainfall

3.5.6 Daily rainfall intensity could increase by up to 20% on today's values. This could lead to:

- Potential for increased site surface water and localised site flooding.
- Potential for drainage systems and interceptors to be overwhelmed.

Average Winter Rainfall

3.5.7 Average winter rainfall may increase by over 40% on today's averages. This could lead to:

- Potential for increased site surface water and localised site flooding.
- There is potential for drainage systems and interceptors to be overwhelmed.

Sea Level Rise

3.5.8 Sea level rise which could be as much as 0.6m higher compared to today's level. If a site is located near the coast there is potential increased risk of flooding.

Drier Summers

3.5.9 Summers could see potentially up to 40% less rain than now. This could lead to:

- Potential increased use or reliance on mains water for dust suppression and cleaning and provision of fire water.
- Long periods of hot and dry weather could lead to a drought and may have an impact on water supplies for:
    - emergency water usage
    - cooling systems
    - fire fighting
    - dust suppression
    - cleaning
    - processes that require water as input for example aggregate and soil washing plants
- There is potential increased impact of discharge to watercourse from on-site drainage systems, where connected to watercourses.

River Flow

3.5.10 The flow in the watercourses could be 50% more than now at its peak, and 80% less than now at its lowest. This could lead to increased impact from on-site drainage systems where they are connected to watercourses.

Storms

3.5.11 Storms could see a change in frequency and intensity. The unique combination of increased wind speeds, increased rainfall, and lightning during these events provides the potential for more extreme storm impacts:

- Storms and high winds could damage building structures with increased potential for fugitive emissions such as litter.

- Potential for high winds to cause problems with stability of above ground storage tanks on jacks. This poses a risk to staff, plant infrastructure and the potential to release the contents of the storage tank.
- Potential for lightning strikes to damage buildings and infrastructure.

3.6 Step 3 and 4: Risk Assessment and Control Measures

3.6.1 See Appendix E.

3.7 Step 5: Adaptation Plan

3.7.1 See Appendix F.

3.8 Step 6: Monitor, Record and Review the Plan

Introduction

3.8.1 This section describes the monitoring carried out related to climate change impacts.

Monitoring

3.8.2 Monitoring of climate change events will be carried out to achieve the following objectives:

3.8.3 Review of the CCRA against objectives set.

3.8.4 Monitor progress in completing the mitigation actions for priority risks.

3.8.5 Review the effectiveness of the plan, the impacts identified and determine whether the plan needs to be updated.

3.8.6 Monitor climate change events to gather the following information:

- date
- weather event
- extent of incident
- damage or effect to the business or environment
- immediate action taken
- proposed prevention or mitigation measures

3.8.7 The CCRA will be reviewed by Site Management after each event which impacts operations, whether on-site or within the wider supply chain, or if new information is available which affects the CCRA, and annually.

Table 1: Point Source Emissions to Sewer

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Contaminated run-off from site surfaces including quarantine areas	Non-compliant materials delivered	Site drainage system	Local sewerage network	Medium	Medium	Medium	Pre-acceptance and acceptance checks to ensure non-compliant materials are not delivered to the Facility. Visibly non-compliant materials are to be rejected and not unloaded at the Facility. Two interceptors are fitted to the site drainage network to remove sediments and oils prior to discharge to sewer. The outfalls from the interceptors can be bunged to prevent the discharge off any impacted waters. Bunged interceptors to be emptied by vacuum tanker for offsite disposal/treatment. Interceptors are inspected and maintained regularly. They are emptied as required. Spill kits available on site and staff trained in their use. If non-compliant materials are accepted onto site e.g. error or concealed waste, they will be removed from site as soon as reasonably practicable.	Low
Release from storage tanks (fuels and oils)	Loss of containment on site	Site drainage system	Local sewerage network	Medium	Medium	Medium	Fuels and oils are stored in bunded tanks and containers. Fuels and oils required for on-site vehicles and maintenance are also stored in line with the	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
							Control of Pollution (oil storage) Regulations (England) 2001, where required. Regular inspection and maintenance of tanks. Two interceptors are fitted to the site drainage network to remove sediments and oils prior to discharge to sewer. The outfalls from the interceptors can be bunged to prevent the discharge off any impacted waters. Bunged interceptors to be emptied by vacuum tanker for offsite disposal/treatment. Interceptors are inspected and maintained regularly. They are emptied as required. Spill kits available on site and staff trained in their use.	

Table 2: Fugitive Emissions to Air

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Releases of particulate matter (dust)	Fugitive releases of dust from waste stored at the Facility;	Transportation through air then inhalation or deposition	Commercial and residential receptors; site employees;	Medium	Medium	Medium	Activities on site are managed in accordance with the operator's management systems. Good housekeeping practices are applied, such as: regular inspections and cleaning/sweeping of all paved areas and highways	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
	releases from waste delivery vehicles		watercourses.				The waste delivery loading and unloading areas and access road comprise concrete and asphalt hardstanding minimising the potential for dust to be generated by vehicles entering and exiting the site. Vehicle washdown area present on site to clean any vehicles with excessive mud prior to leaving site. Site traffic management plan in place with strict speed limit of 5mph. All storage and treatment areas are also inspected daily and regularly fully emptied to enable a full inspection and cleaning of the area. The Facility has a dust management plan in place. Wherever possible waste stockpiles in the open are positioned away from the direction of the prevailing wind. Stockpiled materials are also dampened down when the potential for fugitive dust emissions is noted on the daily inspections. Increased inspections are carried out in periods of hot and dry weather. The plasterboard bay is fitted with an impermeable cover fixed by ratchet straps. Materials prone to the generation of dust emissions are be prioritised for transfer off site.	

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
							Drop heights are minimised as much as possible for materials leaving conveyors and the buckets of excavators.	
Releases of particulate matter (dust)	Fugitive releases from waste treatment activities	Transportation through air then inhalation or deposition	Commercial and residential receptors; site employees; watercourses.	High	Medium	High	The waste pre-acceptance and waste acceptance will be used to identify and reject any wastes with the potential to cause fugitive emissions to air before and upon arrival at the Facility. Regular inspections and maintenance of equipment to ensure they continue to operate at optimum conditions. The Facility has a dust management plan in place. The screening, shredding and crushing processes are undertaken in dedicated areas and the northwestern section of the site is surrounded to the south and east by 2.5m high concrete walls. The concrete walls are also fitted with a further 2m high extension of micro netting. Dampening down is carried out during screening, shredding and crushing activities when required. This is achieved in the northwestern section of the site through a fixed mist-air system consisting of a control panel, water storage tanks and 3no. rain guns. The system can be operated manually or on a timed cycle depending on the weather and site conditions.	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
							There is also a mobile Corgin mist cannon available at the Facility which consists of a trailer mounted mobile water bowser with a remote control and directional mist cannon head. This unit can be positioned anywhere at the Facility depending on where it is required. These two systems are supplemented by several hoses and sprinklers that are available around the Facility to be utilised when required. Drop heights are minimised as much as possible for materials leaving conveyors and the buckets of excavators. Where periods of high winds are noted then activities with a high risk of dust creation will be suspended e.g. crushing.	
Releases of particulate matter (Asbestos)	Fugitive releases of asbestos from waste stored at the Facility	Transportation through air then inhalation or deposition	Commercial and residential receptors; site employees; watercourses.	High	High	High	All deliveries of asbestos waste will be double bagged or double wrapped and placed within the asbestos skips. The asbestos skips will be fully enclosed, appropriately signed and locked at all times, other than during deliveries. Additional locked fencing is also placed around the asbestos skips that is only unlocked during delivery or collection. There will be no treatment or repackaging of asbestos waste carried out at the Facility.	Low

Table 3: Fugitive Emissions to Land, Ground and Surface Water

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Contaminated run-off from site surfaces including quarantine areas	Non-compliant materials delivered	Site drainage system	Local sewerage network	Medium	Medium	Medium	Pre-acceptance and acceptance checks to ensure non-compliant materials are not delivered to the Facility. Visibly non-compliant materials are to be rejected and not unloaded at the Facility. No liquid wastes are accepted at the Facility. All potentially polluting materials are contained within bunded areas and located on impermeable surfaces. Two interceptors are fitted to the site drainage network to remove sediments and oils prior to discharge to sewer. The outfalls from the interceptors can be bunged to prevent the discharge off any impacted waters. Bunged interceptors to be emptied by vacuum tanker for offsite disposal/treatment. Interceptors are inspected and maintained regularly. They are emptied as required. Spill kits available on site and staff trained in their use. Non-compliant materials to be removed from site as soon as reasonably practicable.	Low
Release from storage tanks (fuels and oils)	Loss of containment on site	Site drainage system	Local sewerage network	Medium	Medium	Medium	Fuels and oils are stored in bunded tanks and containers, which are located on impermeable surfacing.	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
							Fuels and oils required for on-site vehicles and maintenance are also stored in line with the Control of Pollution (oil storage) Regulations (England) 2001, where required. Regular inspection and maintenance of tanks. Two interceptors are fitted to the site drainage network to remove sediments and oils prior to discharge to sewer. The outfalls from the interceptors can be bunged to prevent the discharge off any impacted waters. Bunged interceptors to be emptied by vacuum tanker for offsite disposal/treatment. Interceptors are inspected and maintained regularly. They are emptied as required. Spill kits available on site and staff trained in their use.	

Table 4: Odour

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Odour from feedstock while transported	Delivery and collection vehicles	Transportation through air then	Site employees; Local residents.	Low	Medium	Medium	Any highly odorous wastes will be rejected if identified as part of the waste pre acceptance and acceptance checks.	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
to/from the Facility		inhalation or deposition					Wastes which are potentially odorous are covered or contained and are moved off-site for onward processing at a suitably permitted facility as soon as reasonably practicable. Activities on site are managed in accordance with the operator's management systems. This includes regular inspections and maintenance of equipment to ensure they continue to operate at optimum conditions. OMP in place to prevent and minimise odorous releases.	
Release of odours stored at the Facility and during treatment	Fugitive releases of odours during storage and treatment processes	Transportation through air then inhalation or deposition	Site employees; Local residents.	Low	Medium	Medium	Any highly odorous wastes will be rejected if identified as part of the waste pre acceptance and acceptance checks. Wastes which are potentially odorous are covered or contained and are moved off-site for onward processing at a suitably permitted facility as soon as reasonably practicable. Activities on site are managed in accordance with the operator's management systems. This includes regular inspections and maintenance of equipment to ensure they continue to operate at optimum conditions. OMP in place to prevent and minimise odorous releases.	Low

Table 5: Noise and Vibration

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Noise	Plant and equipment producing noise including vehicle movements	Transportation through air	Local residential and commercial receptors.	Low	Medium	Low	All plant and equipment is inspected before each use and undergoes a programme of PPM. Vehicles are not allowed to idle un-necessarily when on site and strict site speed limits are in force.	Low
Vibration	Vibration from plant and equipment at the Facility including vehicle movements	Transportation through the ground	Local residential and commercial receptors.	Low	Medium	Low	All plant and equipment is inspected before each use and undergoes a programme of regular routine maintenance. Vehicles are not allowed to idle un-necessarily when on site and strict site speed limits are in force.	Low

Table 6: Accidents

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Vehicle Collision/ impact	All on-site hazards: wastes, machinery and vehicles	Direct Physical Contact	Drivers; site employees; local residents;	Low	High	Medium	Vehicle movements are scheduled and directed onto site by staff. Activities on-site are managed and operated in accordance with a management system (which includes site rules and traffic management plan).	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
			local environmental receptors.				A speed limit of 5mph is enforced across the site and signage is clearly displayed at the entrance.	
Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Unauthorised Access	Transportation through air then inhalation/ deposition; Release of contaminants through surface water drainage system.	Site employees; local residential and commercial receptors; ecological receptors; watercourses.	Low	High	Medium	The Facility is secured by 2m high fencing and the site entrance and exit gates are locked outside of operational hours. The Facility also has CCTV cameras and the site office and workshop both have an intruder alarm system. All visitors must first report to the site office for an induction and be escorted across the site if required. Oils and fuels are stored in lockable tanks with bunding. Activities are managed and operated in accordance with a management system which includes fire and spillage procedures. Outfalls from the site drainage interceptors will be bunged to prevent off-site migration of impacted waters.	Low
Accidental fire causing the release of pollution to air, water or land	On site machinery. Combustion of stored wastes.	Transportation through air. Surface water or percolation through soil	Commercial and residential receptors; site employees; watercourses.	Low	High	Medium	All plant and equipment on site are maintained to the manufacturer's specification, with details incorporated into the site's EMS. Drainage can be sealed to contain firewater on-site. Smoking is not permitted in the operational areas of the site. Designated smoking areas	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
							are signed and all staff are made aware of their location. All site vehicles are fitted with fire extinguishers. Testing is carried out on electrical equipment by fully and appropriately qualified electricians when required. Should maintenance require hot works to be carried out, procedures will be in place to minimise fire risk via use of operational hot works permits/permits to work. The Facility's management system contains a written procedure for identifying, isolating, monitoring, cooling and potentially extinguishing hot loads as soon as is practicable. Any hot loads received on site would be placed in the quarantine area. All waste piles are regularly inspected and dampened down and turned over, if necessary, to prevent the build-up of heat. Waste is regularly removed from site and the skips and bays are emptied completely. Once emptied the bays are cleaned to prevent the accumulation of older wastes. Waste bays are constructed of reinforced concrete and the storage levels below the top of the structure.	

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Plant and equipment breakdown and/or failure causing releases of potentially polluting substances	On site plant and equipment	Transportation through air, Surface water drainage system, percolation through soil	Commercial and residential receptors; site employees; watercourses.	Medium	Medium	Medium	All plant and equipment on site are maintained to manufacturer's specification and regularly integrity checked. All details are incorporated into the site's EMS. Waste directed to an alternative site where necessary.	Low
Accidental release of potentially polluting substances through flooding	Loss of containment, contaminated flood water	Percolation through soils or direct run-off from site entering surface watercourses	Local residential and commercial receptors; ecological receptors; watercourses.	High	High	High	Chemicals and oils are stored in impermeable containers and are provided with secondary containment. Site benefits from local flood defences, which are in the process of being upgraded. Wastes can be directed to an alternative site where necessary.	Low

Table 7: Mud, Litter, Pests and Vermin

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Mud	Mud from vehicle movements	Transportation over land (roadways)	Local residential and	Low	Medium	Low	All exiting vehicles wheels are inspected for cleanliness before leaving the Facility. If vehicle wheels are excessively covered in	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
			commercial receptors; site employees.				mud following delivery to the Facility, they will be cleaned in the site's vehicle washdown area. All delivery vehicle movements will take place on concrete or asphalt hardstanding. Internal haul roads and the site entrance and exit roads are also regularly inspected and a road sweeper is deployed to clean the roads on a weekly basis with further visits scheduled when required. The site has mobile plant capable of clearing excess mud and dust from the roadways.	
Litter	Litter from operations	Transportation through the air and over land	Local residential and commercial receptors.	Low	Medium	Low	Feedstocks are delivered loose, with no packaging, in covered wagons or trailers. A high standard of housekeeping will be maintained through regular checks for any litter and debris. Wastes generated will generally be stored securely in skips or bays. Any issues identified will be recorded, investigated and appropriate remedial action will be taken as soon as practicable.	Low
Attraction of pests	Wastes stored at the Facility	Transportation through the air and over land	Local residential and commercial receptors;	Medium	Medium	Medium	Wastes are inspected daily for any signs of pests and odour. Storage areas are regularly fully emptied and cleaned to prevent the build-up of older wastes.	Low

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
			site employees.				A contract is in place with a local pest control contractor who visit the Facility on a quarterly basis. If any pest issues arise between the scheduled visits the contractor will be called out to respond to these as soon as possible.	

Appendix B - Waste Codes Accepted at the Facility

Roberts Waste Limited - Waste Types	
Waste Codes	**Description**
01	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	**wastes from physical and chemical processing of metalliferous minerals**
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 10
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	**WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING**
02 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
02 01 10	waste metal
02 03	**wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 04	materials unsuitable for consumption or processing
02 04	**wastes from sugar processing**
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 05	**wastes from the dairy products industry**
02 05 01	materials unsuitable for consumption or processing
02 06	**wastes from the baking and confectionery industry**
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 07	**wastes from the production of alcoholic and non- alcoholic beverages (except coffee, tea and cocoa)**

Roberts Waste Limited - Waste Types	
Waste Codes	**Description**
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 04	materials unsuitable for consumption or processing
03	**WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
10	**WASTE FROM THERMAL PROCESS**
10 01	**wastes from power stations and other combustion plants (except 19)**
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 24	sands from fluidised beds
10 02	**wastes from the iron and steel industry**
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 03	**wastes from aluminium thermal metallurgy**
10 03 02	anode scraps
10 03 05	waste alumina
10 03 16	skimmings other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29

Roberts Waste Limited - Waste Types	
Waste Codes	**Description**
10 04	**wastes from lead thermal metallurgy**
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	**wastes from zinc thermal metallurgy**
10 05 01	slags from primary and secondary production
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	**wastes from copper thermal metallurgy**
10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09
10 07	**wastes from silver, gold and platinum thermal metallurgy**
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	**wastes from other non-ferrous thermal metallurgy**
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	**wastes from casting of ferrous pieces**
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	**wastes from casting of non-ferrous pieces**
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 14	waste binders other than those mentioned in 10 10 13

Roberts Waste Limited - Waste Types	
Waste Codes	**Description**
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	**wastes from manufacture of glass and glass products**
10 11 03	waste glass-based fibrous materials
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 12	**wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 01	waste preparation mixture before thermal processing
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 13	**wastes from manufacture of cement, lime and plaster and articles and products made from them**
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
11	**WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS, NON-FERROUS HYDROMETALLURGY**
11 01	**wastes from chemical surface treatment and coating of metals and other materials (e.g. galvanic processes, zinc coating**
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	**wastes from non-ferrous hydrometallurgical processes**
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	**wastes from hot galvanising processes**
11 05 01	hard zinc
11 05 02	zinc ash
12	**WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS**
12 01	**wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 17	waste blasting material other than those mentioned in 12 01 16

Roberts Waste Limited - Waste Types	
Waste Codes	**Description**
15	**WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING OTHERWISE SPECIFIED**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	**absorbents, filter materials, wiping cloths and protective clothing**
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	**WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
16 01	**end of life vehicles from different means of transport (including off road machinery) and wastes from dismantling of end**
16 01 03	end-of-life tyres
16 03	**off-specification batches and unused products**
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 11	**waste linings and refractories**
16 11 02	carbon-based linings and refractories from metallurgical processes other than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes other than those mentioned in 16 11 05
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	**wood, glass and plastic**
17 02 01	wood
17 02 02	glass

Roberts Waste Limited - Waste Types	
Waste Codes	**Description**
17 02 03	Plastic
17 03	**bituminous mixtures, coal tars and tarred products**
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	**metals (including their alloys)**
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	**insulation materials and asbestos-containing construction materials**
17 06 01*	insulation materials containing asbestos
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 06 05*	construction materials containing asbestos
17 08	**gypsum-based construction material**
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09	**other construction and demolition wastes**
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPERATION OF WATER FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE**
19 01	**wastes from incineration or pyrolysis of waste**
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	**wastes from physico/chemical treatment of waste (including dechromatation, decyanidation, neutralisation)**
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 12	**wastes from the mechanical treatment of waste (e.g. sorting, crushing, compacting, pelletizing) not otherwise specified**

Roberts Waste Limited - Waste Types	
Waste Codes	**Description**
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**separately collected fractions (except 15 01)**
20 01 01	paper and cardboard
20 01 02	glass
20 01 10	clothes
20 01 11	textiles
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
02 02 02	soil and stones
20 03	**other municipal wastes**
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	bulky waste

Figure 8: Monthly Wind Speed Statistics and Directions

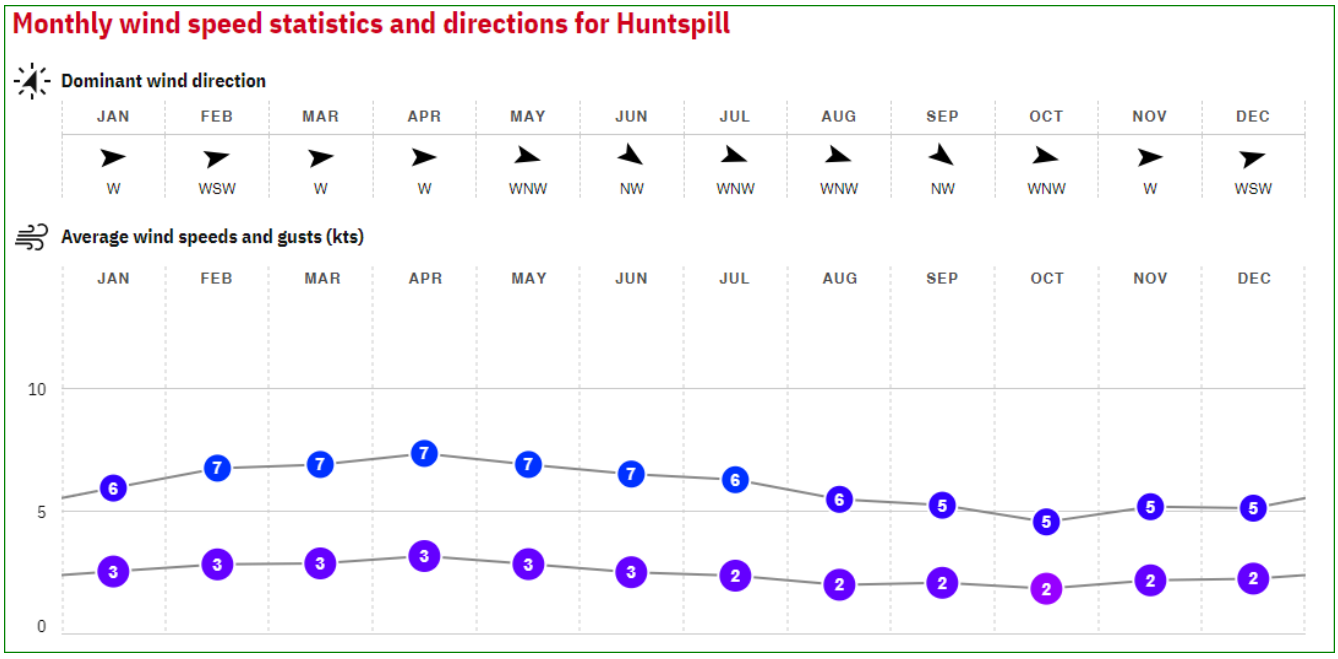
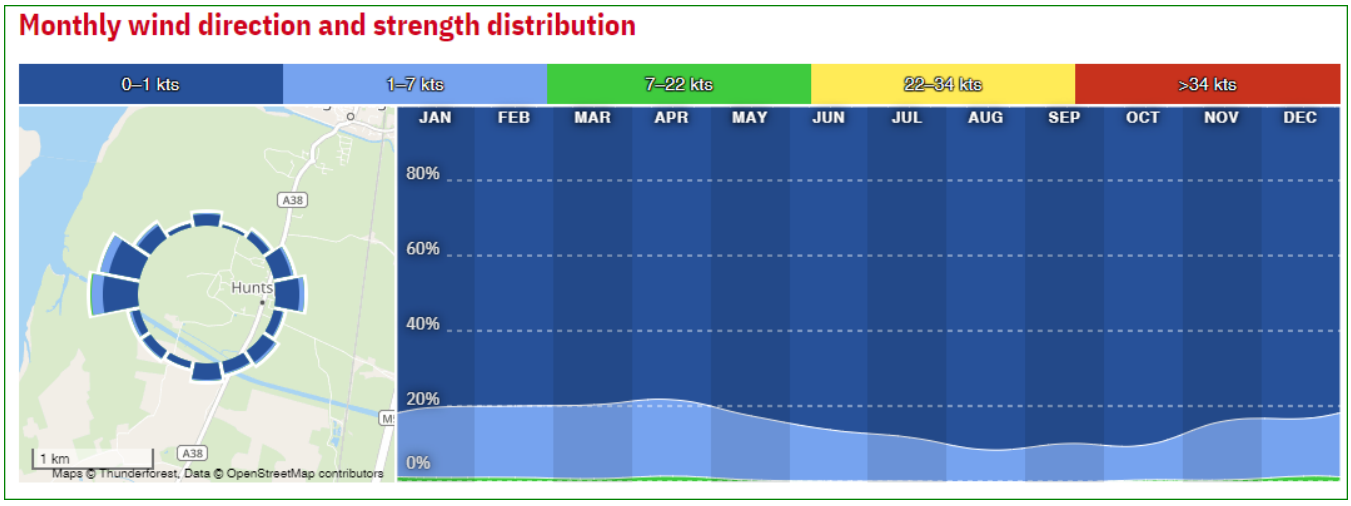


Figure 9: Monthly Wind Direction and Strength Distribution



Appendix D – Nature and Heritage Conservation Screening

Nature and Heritage Conservation

Screening Report: Bespoke Waste

Reference	**EPR/DB3201XT/P001**
NGR	**ST 30424 37976**
Buffer (m)	**70**
Date report produced	**16.09.2024**
Number of maps enclosed	**1**

This nature and heritage conservation report

The nature and heritage conservation sites, protected species and habitats, and other features identified in the table below **must be considered in your application**.

In the further information column, there are links which give more information about the site or feature type and indicate where you are able to self-serve to get the most accurate site boundaries or feature locations.

Most designated site boundaries are available on Magic map. Using Magic map allows you to zoom in and see the site boundary or feature location in detail, Magic map also allows you to measure the distance from these sites and features to your proposed boundary. Help videos are available on Magic map to guide you through.

Where information is not publicly available, or is only available to those with GIS access, we have provided a map at the end of this report.

Protected Species within screening distance	Screening distance (m)	Further Information
Atlantic Salmon	up to 500m	Appropriate Local Record Centre (LRC) National Biological Network (NBN)
European Eel		

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

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

The following nature and heritage conservation sites, protected species and habitats, and other features have been checked for, where they are relevant for the permit type requested, but have not been found within screening distance of your site unless included in the list above.

Special Areas of Conservation (cSAC or SAC), Special Protection Area (pSPA or SPA), Marine Conservation Zone (MCZ), Ramsar, Sites of Special Scientific Interest (SSSI), National Nature Reserve (NNR), Local Nature Reserve (LNR), Local Wildlife Sites (LWS), Ancient Woodland, relevant species and habitats.

Please note we have screened this application for features 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.

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

Protected Species

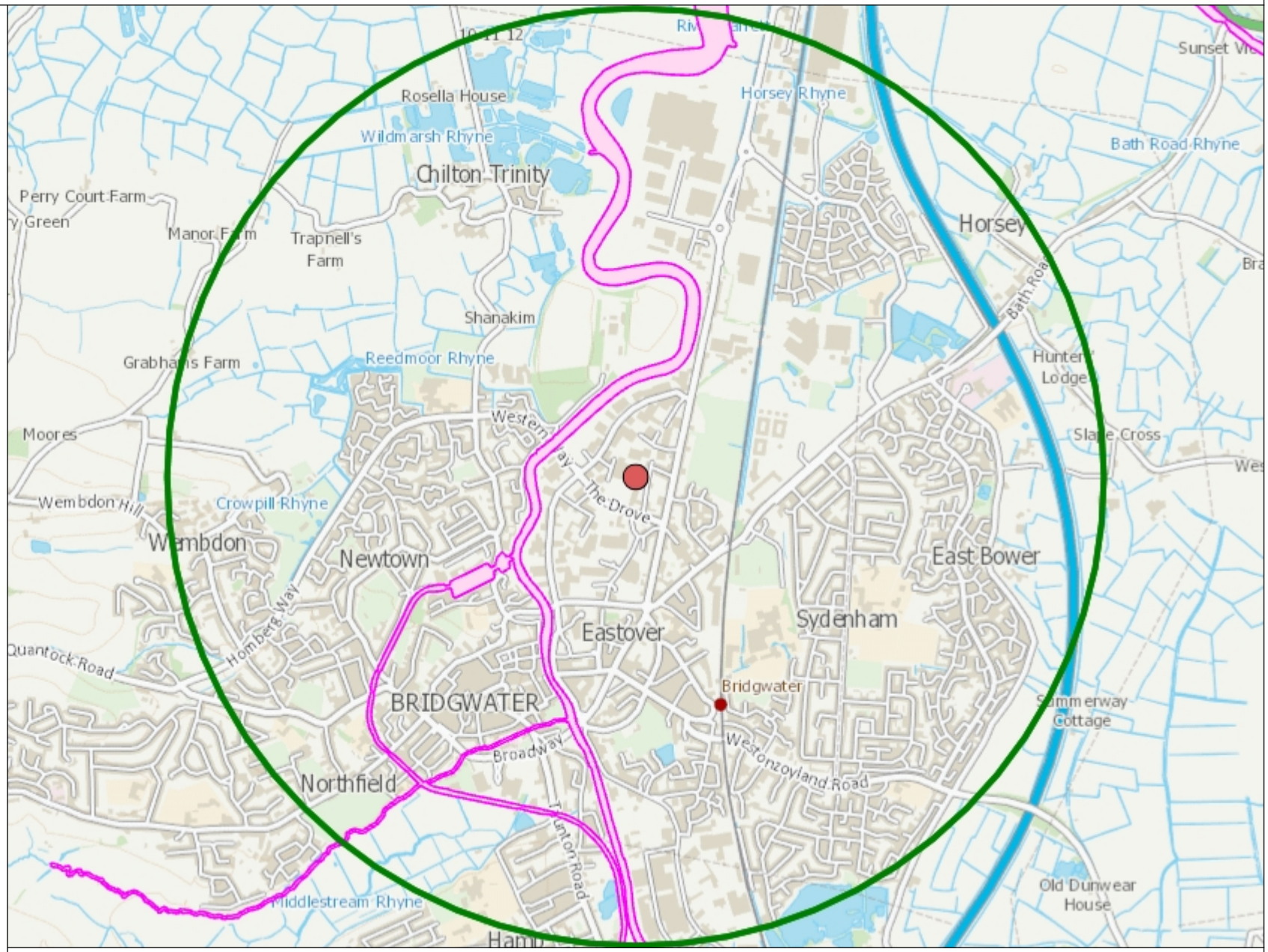
Environment Agency

Legend

Protected species screened for Env Permits - complete set

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

Fish migratory routes screened for Environmental Permits



1: 25,000

0 625

Metres

N W E S

Appendix E – Climate Change Risk Assessment

The impact of each climate change scenario identified in Section 3 above has been assessed using the following criteria;

Likelihood of Impact		Severity of Impact	
Low	Unlikely	**Low**	Low impact with minor, temporary effects on the environment or human health.
Medium	Low to medium likelihood	**Medium**	Moderate impact with medium-term effects on the environment or human health.
High	Likely	**High**	Moderate to severe impact with potential for long-lasting damage to the environment or human health

The two figures are then multiplied to give each risk category. Each impact can then be prioritised as follows:

Likelihood Score	Severity	Risk Category
Low	Low	Low
Low	Medium	Medium
Low	High	Medium
Medium	Low	Low
Medium	Medium	Medium
Medium	High	High
High	Low	Medium
High	Medium	High
High	High	High

Table 10: Climate change Risk Assessment

Ref	Impact	Likelihood	Severity	Risk	Control Measures
	Summer Daily Maximum Temperatures				
1	Potential for increased fires involving combustible waste stockpiles.	High	Medium	High	Fire management plan and emergency response procedures in place. Staff training with suitable fire marshals present. Waste piles will be kept to a maximum height of 3m to encourage heat loss. Moisture and temperature monitoring of feedstocks with moisture adjustment, if required.
2	Potential for fire if the temperature exceeds the heat rating of components in electrical equipment or components are subjected to intense and direct sunlight.	Low	Medium	Medium	Reviewing the heat rating of components that have high workloads or are likely to be exposed to direct sunlight and heat. Maintain equipment in line with manufacturers recommendations. Shading electrical equipment if it is subject to direct sunlight for prolonged periods of time.
3	Potential increase in high temperature expansion and stress of plant, pipework and fittings. UV degradation of plastic pipes and hoses causing them to fail.	Low	Medium	Medium	Regular inspection and preventative maintenance of site, plant and equipment. Preventing prolonged UV exposure of plastic pipes and hoses by re-routing them in conduits. Replacing exposed pipes and hoses with metal or other types of material less susceptible to photo-degradation.
4	Potential increased dust emissions from processing areas, stockpiled material and site roads. Reduced availability of water for dust suppression.	Medium	Medium	Medium	Regular site cleaning and use of dust suppression systems. Identifying other types of dust suppression that does not require large volumes of water, for example calcium magnesium acetate. Exploring options for capturing, collecting and storing uncontaminated rainwater from roofs and yard areas

Table 10: Climate change Risk Assessment

Ref	Impact	Likelihood	Severity	Risk	Control Measures
					during high rainfall periods and store it for use in dust suppression systems.
5	Long periods of hot and dry weather could lead to a drought and may have an impact on water supplies for: Emergency water usage including Fire fighting; Site cleaning; and Dust suppression.	Medium	High	High	Reviewing the current level of water usage to determine whether this can be reduced and how it can be reduced for example re-circulation. Exploring options for water harvesting and storage at the site for use in onsite processes Reviewing which systems and processes have a critical need for water and what the baseline requirements are. Discussions with water utilities about the supply of water and any likely drought restrictions Reviewing fire suppression plans including water, and considering what alternative means of firefighting are when water is scarce.
6	Increased pests and flies.	Medium	Medium	Medium	Contractor available to provide pest control services. Site inspections and waste acceptance procedures in place. Regular cleaning and disinfection of waste storage areas. Waste is removed from site regularly on a first in first out basis.
7	Increase in odour.	Low	Medium	Medium	Odour Management Plan in place. Odour sources are covered or enclosed providing protection against elements. Waste removed regularly from site. Regular site cleaning to prevent build up of older wastes.
8	Potential increased risk of wildfires impacting the site.	Low	High	Medium	Cutting back and managing vegetation along the site boundaries.

Table 10: Climate change Risk Assessment

Ref	Impact	Likelihood	Severity	Risk	Control Measures
					Clearing vegetation from around areas where combustible and flammable wastes or substances are stored Monitoring vegetation surrounding the site during spells of hot and dry weather Identifying areas of the site, wastes and equipment that are at greatest risk from wildfires and reviewing fire prevention plan to address these. Identifying processes and areas of the site where sparks and heat may be generated and potentially ignite dry vegetation and taking steps to prevent this.
9	Frozen onsite roadways may restrict access for staff and emergency vehicles.	Low	Medium	Medium	Gritting and clearing contractors available to clear internal roads and external access/egress roads, if required.
10	Damage to site infrastructure from snow-loading.	Low	Medium	Medium	No history of significant snowfall. Robust structures built to withstand severe weather conditions.
	Winter Daily Temperatures				
11	Slightly higher winter maximums could generate regular odour complaints and pest infestations	Medium	Medium	Medium	Odour Management Plan in place. Odour sources are covered or enclosed providing protection against elements. Waste removed regularly from site. Regular site cleaning to prevent build up of older wastes. Contractor available to provide pest control services.
12	Lower winter temperatures could result in an increased risk of pipes (or similar) freezing.	Low	Low	Low	Regular inspection and preventative maintenance of site, plant and equipment. Install insulation if inspections deem it required

Table 10: Climate change Risk Assessment

Ref	Impact	Likelihood	Severity	Risk	Control Measures
	Daily extreme rainfall				
13	Localised flood events	High	High	High	Fuel tanks are regularly inspected and bunded. Fuels, oils and chemicals are contained securely within the workshop building. Contingency plan in place to divert feedstocks if site is overwhelmed. Site benefits from local flood defences which are undergoing future expansion based on anticipated climate change calculations.
14	Potential for drainage systems to be overwhelmed	Medium	High	High	Site signed up to EA's flood warning system. Routine preventative maintenance and inspection of drainage infrastructure. Waste reception, storage and treatment areas are provisioned with separate drainage system. Review of drainage system capacity.
15	Reduced access or egress due to site flooding	Medium	High	High	Emergency plan in place including staffing contingency. Contingency arrangements in place to divert wastes. Site benefits from local flood defences which are undergoing future expansion based on anticipated climate change calculations.
	Average Winter Rainfall				
16	Increased site surface water and risk of localised site flooding.	High	Medium	High	Site signed up to EA's flood warning system Surface water drainage regularly checked for blockages and separators emptied.

Table 10: Climate change Risk Assessment

Ref	Impact	Likelihood	Severity	Risk	Control Measures
17	Potential for drainage systems and interceptors to be overwhelmed.	Medium	Medium	Medium	Routine preventative maintenance and inspection of drainage infrastructure. Waste reception, storage and treatment areas are provisioned with separate drainage system.
18	Potential for increased incidents involving water-reactive wastes.	Low	Low	Low	Water-reactive wastes are not accepted at the site.
	Sea Level Rise				
19	If a site is located near the coast there is potential increased risk of flooding.	Medium	High	High	The site is located approximately 320m from the River Parrett which is tidal. Site benefits from local flood defences which are undergoing future expansion based on anticipated climate change calculations.
20	Localised issues with surface water discharge leading to backing up and worsening site flooding.	Medium	Medium	Medium	Monitor and review drainage during high tide events and review drainage options if backing up occurs. The site is at a medium risk of annual surface water flooding.
	Drier Summers				
21	Long periods of hot and dry weather could lead to a drought and have an impact on water supplies for; emergency use, cooling systems, fire fighting, dust suppression and site cleaning.	Medium	High	High	Reviewing the current level of water usage to determine whether this can be reduced and how it can be reduced for example re-circulation. Exploring options for water harvesting and storage at the site for use in onsite processes Reviewing which systems and processes have a critical need for water and what the baseline requirements are. Discussions with water utilities about the supply of water and any likely drought restrictions

Table 10: Climate change Risk Assessment

Ref	Impact	Likelihood	Severity	Risk	Control Measures
					Reviewing fire suppression plans including water, and considering what alternative means of firefighting are when water is scarce.
	Changing River Flow Rates				
22	Reduced dilution available in receiving watercourse in the event of a spill, increasing potential for damage from pollution.	Low	Low	Low	Containment and secondary containment are in place to prevent spills. Accident Management Plan in place. Spill procedures.
	Storms				
23	Damage to building structures and tanks resulting in increased potential for accidental and fugitive emissions.	Low	High	Medium	Robust structures built to withstand severe weather conditions. Buildings and other site structures are inspected for integrity at least annually and after a major storm. Any repairs are undertaken in a timely manner. Good housekeeping practices including regular cleaning to ensure particulates on surfaces are minimised, production of litter which can escape off site is minimised. Preparation for disruption to electrical supplies. Investigating preventative measures such as wind breaks or moving any waste piles to more sheltered areas if required.
24	Potential for lightning strikes to damage building and infrastructure	Low	High	Medium	The likelihood of lightning strikes at the site will continue to be assessed but in the 40 years of operating at the site there have not been incidences of lightning strikes.

Table 10: Climate change Risk Assessment

Ref	Impact	Likelihood	Severity	Risk	Control Measures
					Robust infrastructure.

Introduction

The mitigation plan has been developed in line with the methodology guidelines provided in ISO 14090: Adaptation to climate change — Principles, requirements and guidelines.

Based on the risk assessment completed in Section 4, the following mitigation measures in Table 5.1.1 have been identified for each impact deemed to be of medium risk of above.

Table 11: Climate Change Mitigation Plan

Ref	Impacts (A)	Further Mitigation Measures	Residual Risk After Proposed Mitigation
2	Potential for fire if the temperature exceeds the heat rating of components in electrical equipment or components are subjected to intense and direct sunlight.	Review the heat rating of components that have high workloads or are likely to be exposed to direct sunlight and heat.	Low
		Shade electrical equipment if it is subject to direct sunlight for prolonged periods of time.	Low
3	Potential increase in high temperature expansion and stress of plant, pipework and fittings. UV degradation of plastic pipes and hoses causing them to fail.	Prevent prolonged UV exposure of plastic pipes and hoses by re-routing them in conduits.	Low
		Replace exposed pipes and hoses with metal or other types of material less susceptible to photo-degradation.	Low
4	Potential increased dust emissions from processing areas, stockpiled material and site roads. Reduced availability of water for dust suppression.	Explore options for capturing, collecting and storing uncontaminated rainwater from roofs and yard areas during high rainfall periods and store it for use in dust suppression systems.	Low
5	Long periods of hot and dry weather could lead to a drought and may have an impact on water supplies for: Emergency water usage including Fire fighting; Site cleaning; and Dust suppression.	Explore options for water harvesting and storage at the site for use in onsite processes	Low
20	Localised issues with surface water discharge leading to backing up and worsening site flooding.	Carry out updated flood risk assessment for the site.	Low
21	Long periods of hot and dry weather could lead to a drought and have an impact on water	Explore options for water harvesting and storage at the	Low

Ref	Impacts (A)	Further Mitigation Measures	Residual Risk After Proposed Mitigation
	supplies for; emergency use, cooling systems, fire fighting, dust suppression and site cleaning.	site for use in onsite processes	

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