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# **ENVIRONMENTAL RISK ASSESSMENT**

# for AGECROFT RECYCLING OVERMAN WAY, SWINTON

Report No 109/1C September 2024

# For

A1 Services (Manchester) Limited part of Heidelberg Materials UK Mayo House, 4 Overman Way, Agecroft Commerce Park, Swinton, Manchester, M27 8BA

# **DOCUMENT CONTROL**

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# **APPENDICES**

Appendix A - Drawings

Appendix B - Wash Plant Monitoring Plan

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# **DRAWINGS**

Drawing No 109/01 – Site Location Plan

Drawing No 109/02B – Existing Site Layout Plan

Drawing No 109/03 - Receptors

Drawing No 109/04 – Drainage Plan

Drawing No 109/05A - Proposed Site Layout Plan

### 1. INTRODUCTION

# 1.1 Report Context

- 1.1.1 Starling Environmental Limited (SEL) has been commissioned by A1 Services (Manchester) Limited (the operator) to prepare an environmental permit variation application for the waste transfer station located at Overman Way, Agecroft Commerce Park, Swinton, Salford, Greater Manchester, M27 8BQ.
- 1.1.2 The site is regulated under environmental permit EPR/JB3701XB which is a bespoke waste transfer station permit. The permit allows acceptance of a wide range of non-hazardous waste and a limited range of hazardous waste. The core business of A1 Services is dealing with construction, demolition and excavation waste to produce recycled aggregate products.
- 1.1.3 The proposed changes are:
  - Add a soil washing activity for production of recycled aggregates.
  - Increase of the annual throughput
  - Extend the site boundary to include an area of land to the west previously used for storage of building products,
  - Extend the site boundary to the south into the area previously occupied by Chartrange (Quarry Products) Limited
- 1.1.4 This report assesses the risks of the proposed changes and has been prepared following guidance available on the gov.uk website, particularly:
  - Risk Assessment for your Environmental Permit
  - Non-hazardous and inert waste: Appropriate measures for permitted facilities
  - Control & Monitor Emissions for your Environmental Permit
- 1.1.5 Risks identified in Sections 4 and 5 will be controlled through mitigation, as detailed in Section 6. Mitigation will be incorporated into the Environmental Management System.
- 1.1.6 All drawings referenced are contained in Appendix A.

# 1.2 Site Location and Surrounding Area

- 1.2.1 The site is situated off Overman Way, within Agecroft Commerce Park, Swinton, Manchester. The site location is shown on Drawing No 109/01. The national grid reference for the centre of the site is NGR SD 80489 00866.
- 1.2.2 The site was formerly part of Agecroft Colliery which was developed and operated between circa 1840 and 1991. The colliery was originally established to the north of the site but was extended to cover the site in the 1950s. The colliery closed in 1991 and was restored. The commerce park was developed between the late 1990s and early 2000's.
- 1.2.3 Agecroft Commerce Park extends to the north and west. To the east is the Manchester to Bolton railway line and beyond that the Manchester, Bolton and Bury Canal. Further industrial properties are located beyond the canal around Langley Road and the Langley Business Park. These include the Tarmac concrete batching and asphalt plant. Further east are residential properties and the River Irwell.
- 1.2.4 To the south and south-west of the site is Brindle Heath woodland, which is classed as site of biological importance (SBI) by Salford City Council. Beyond the woodland to the west and south is the suburb of Brindle Heath and Irlams o' the Heights.

## 1.3 Layout

- 1.3.1 Access to the site is from Overman Way via a set of palisade security gates. The site is bound by palisade fencing on all sides. The gates are locked outside working hours and the site is covered by 24 hour CCTV.
- 1.3.2 The site comprises a rectangular shaped parcel of industrial land covering approximately 3.7 hectares. The northern area houses an office building, garage/workshop, weighbridge and truck parking. The southern portion of the site is used for waste processing and storage. All waste operations are conducted in the yard. The site current layout is shown on Drawing No 109/02B and the proposed site layout is shown on Drawing No 109/05A.
- 1.3.3 The site is surfaced with a mixture of concrete and hardstanding, The concrete surfaced areas drain via interceptor to a water storage system, with a by-pass to sewer if the storage tanks are full, shown on Drawing No 109/04 Drainage Plan. Surfacing is shown on Drawing No 109/02B Site Layout Plan.
- 1.3.4 The permit boundary includes a strip of land to the north of the site entrance which has not been used for waste activities, just for car parking and storage.

### 2. CURRENT ACTIVITIES

- 2.1 A wide range of non-hazardous waste types are permitted for acceptance, but the majority of waste processed is Chapter 17 construction, demolition and excavation waste. The core business of A1 Services is dealing with construction, demolition and excavation waste to produce recycled aggregate products, which forms the waste streams accepted into site. Currently the only activities carried out under the permit are processing these waste types to produce aggregate products.
- 2.2 Waste is imported to site and deposited in the yard where it undergoes treatment to produce recycled aggregates.
- 2.3 Treatment consists of manual sorting and separation, crushing, screening and blending. Hardcore is crushed and then either sold as 6F5 or sent through the screening plant for further processing to produce graded stone products.
- 2.4 Products are manufactured according to a Quality Protocol and tested in accordance with end of waste. Screened soil is dispatched as waste either for recovery or landfill.
- 2.5 The annual permitted throughput for the site is 235,000 tonnes per annum.

### 3. PROPOSED CHANGES

# 3.1 Expansion of the Site Boundary to the South

- 3.1.1 The area to the south was originally part of the A1 Services permit and was transferred to Chartrange Quarry Products Limited in 2017. Chartrange entered into a lease for the area of land and carried out dry crushing and screening of inert and excavation waste under permit EPR/EB3903LV. The lease period has now ended and Chartrange have vacated the site and have no right of access.
- 3.1.2 Although they have no right of access, Chartrange Quarry Products Limited have not engaged with the operator to transfer the permit back to A1 Services. Following pre-application advice in June 2024, it was agreed with the EA that the existing A1 Services permit could be expanded to include the southern area again on the basis that Chartrange had no access to site.
- 3.1.3 This area of land will be used to house a permanent large scale wash plant which is described in Section 3.3.

## 3.2 Expansion of the Site Boundary to the West

- 3.2.1 An additional area of land to the west is to be incorporated into the permit boundary. This area, shown on the site plan, is currently delineated by its two separate uses. The northern extent is used for HGV parking and is surfaced with hardstanding. The extent of this area is marked by a concrete block wall, to the south of which is a concreted yard and building used for storage of building products. This area is concrete surfaced and drains to an underground water storage tank to provide water for site activities such as dust suppression. The tank can be bypassed when full, when water would enter into the main drainage system and off site to sewer.
- In the short term, the concreted yard will house a temporary wash plant. The wash plant will be in use until the permanent wash plant is operational, after which the area will be used for crushing, dry screening and storage of incoming waste. Further details of the washing activity are provided in Section 3.3.

# 3.3 Soil Washing

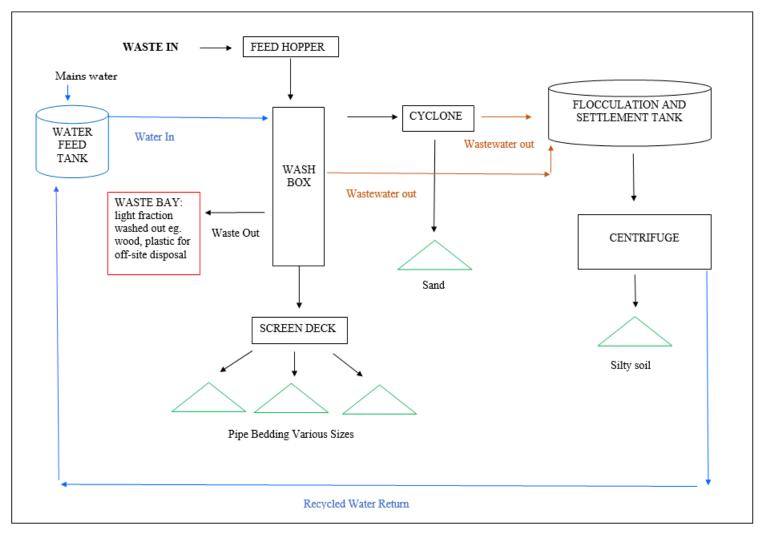
3.3.1 Proposed waste types that will be subject to soil washing are listed in Table 1 below. This list mirrors the waste types allowed under the end of waste protocol. The predominant waste types will be concrete, bricks, soil and stones from construction, demolition and excavation.

Waste Code	Description
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07  May include excavation from mineral workings
01 04 09	Waste sand and clay Must not include contaminated sand
10 11 03	Waste glass based fibrous material Waste without organic binders only
15 01 07	Glass packaging
17 01 01	Concrete Must not include concrete slurry
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 02	Clean glass Must not include fibreglass or glass fibre
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01 Only bituminous mixtures from the repair and refurbishment of the asphalt layers of roads and other paved areas (excluding bituminous mixtures containing coal tar and classified as waste code 17 03 01) Must not include coal tar or tarred products Must not include freshly mixed bituminous mixtures
17 05 04	Soil and stones other than those mentioned in 17 05 03  Must not contain any contaminated soil or stone from contaminated sites
17 05 06	Dredging spoil other than those mentioned in 17 05 05  Only inert aggregate from dredgings  Must not contain contaminated dredgings  Must not contain fines
17 05 08	Track ballast, soil and stones other than those mentioned in 17 05 07  Must not contain soil and stones from contaminated sites
17 09 04	Mixed construction and demolition waste other than those mentioned in 17 09 01, 17 09 02 and 17 09 03 mixed construction and demolition waste, limited to that generated from utilities trenching, consisting of sub base aggregates, and containing only material that would be described as 17 01 01, 17 03 02 and 17 05 04
19 12 05	Glass Does not include glass from cathode ray tubes
19 12 09	Minerals (eg sand, stones)  Must not contain contaminated concrete, bricks, tiles, sand, stone or gypsum from recovered plasterboard
20 01 02	Glass Must not include fibreglass
20 02 02	Garden and park waste (including cemetery waste) – soil and stones  Must not contain contaminated stones from garden and parks waste

**Table 1: Waste Types for Washing** 

# Report No 109/1C – September 2024 Agecroft Recycling, Swinton: Environmental Risk Assessment

- 3.3.2 Initially, a temporary plant will be used to wash soil/stone mixtures to produce graded stone products. Temporary plant is proposed as there is a long lead time for ordering, installing and commissioning the permanent plant. Once the permanent plant is in place the temporary plant will be off-hired and removed from site.
- 3.3.3 The temporary plant will be located in the concreted yard area shown on Drawing No 109/02B. A process flow chart for the operation is shown in Figure 1.
- 3.3.4 Soil/stone mixtures will be washed to produce sand and graded stone products. The waste is fed into a hopper and then conveyed into a wash box. Sand is removed via a cyclone and stones are separated by size to produce <10, <20 and <40 mm aggregate products.
- 3.3.5 Washwater will be fed into a settlement tank and flocculants added. From there it will be drawn into a centrifuge which separates water from solids. The solids are stored in a concrete block bay and the water is recycled back into the system.
- 3.3.6 Both roof water and yard water is harvested for use on site. Water is stored in an underground storage tank with a capacity of 75,000 L.
- 3.3.7 Harvested water is used for dust suppression. The system includes a valve to divert surplus water to foul sewer if the storage tank is full. The surplus water divert feeds into the drainage system which discharges to sewer beneath Overman Way. Details are shown on the Drainage Plan, Drawing No 109/04.
- 3.3.8 The wash plant will operate as a closed loop system, there will be no discharge of wash water into the drainage system. Water is lost as moisture in the filtercake and the system will be topped up with water from harvested surface water and mains water.
- 3.3.9 Incoming wastes will be stored in the yard. Products will be stored in bays in the yard as shown on the site layout plan.
- 3.3.10 The daily capacity of the temporary plant is around 1200 tonnes.

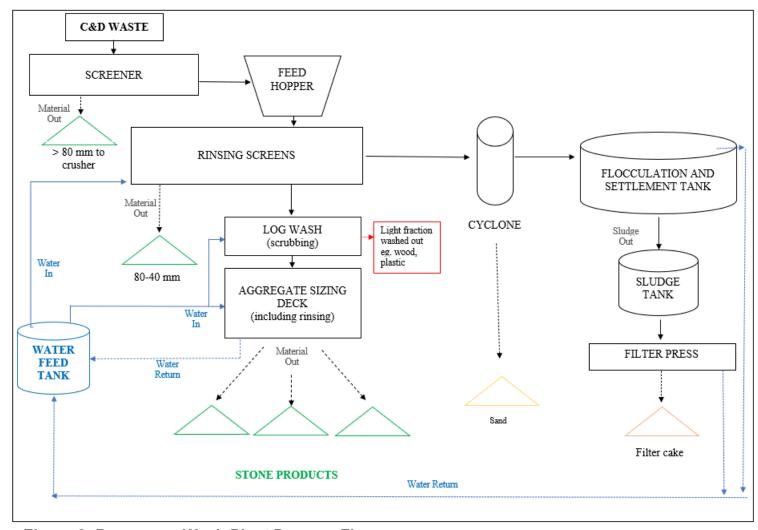


**Figure 1: Temporary Wash Plant Flow Chart** 

- 3.3.11 A permanent plant will be installed at the southern end of the site, in the area previously occupied by Chartrange. The location is shown on Drawing No 109/05A proposed site layout plan. The process flow is shown in Figure 2 and described below.
- 3.3.12 Washing of soil/stone mixtures will be carried out to produce a clean stone product. Waste will be loaded into a hopper which feeds a rinsing screen and then a log wash. Following this stone and sand is screened into separate sizes of stone (eg. <40mm, <20mm and <10 mm) and sand is recovered by a cyclone. The stone products undergo a second rinse as they are screened.
- 3.3.13 Wash water will be returned into a thickening tank where it is separated into water/sludge by flocculation. Water brims over the top of the flocculation tank and is returned to the water feed tank for reuse.
- 3.3.14 Sludge settles to the bottom of the tank and is drawn off into a sludge storage tank and sent to a filter press. Filtercake will be stored beneath the press housing in a concrete block storage bay. The filtrate is returned to the water feed tank.
- 3.3.15 The plant will be a closed loop system, there will be no discharge of water. Water is lost as moisture in the filtercake and the system will be topped up with clean water. The water source will be harvested surface water and mains water.
- 3.3.16 Incoming wastes will be stored in the temporary wash plant yard and transported to the permanent wash plant by conveyor. Products will be stored in bays in the yard as shown on the site layout plan.

# 3.4 Increase in Throughput

- 3.4.1 It is requested that the annual throughput is increased from to 750,000 tonnes per annum. The permanent wash plant will have the capacity to process up to 2,500 tonnes per day, which over a 5 day week and 48 weeks of the year, equates to 600,000 tonnes. In addition, some material will be dry screened and not processed through the wash plant, so an additional 150,000 tonnes is requested to accommodate this.
- 3.4.2 The current permit has a throughput of 235,000 tonnes per year, as does the southern area under the Chartrange permit, so there is already an established throughput of 470,000 tonnes across the wider site. The increase to 750,000 tonnes will mean an overall increase of 280,000 tonnes per year to allow maximisation of the wash plant capability.



**Figure 2: Permanent Wash Plant Process Flow** 

# 4. IDENTIFICATION OF RISKS

# 4.1 Receptors

4.1.1 The location of the site in relation to potential receptors is shown on Drawing No 109/03 and listed in Table 2 below.

Ref	Receptor	Direction from	Approximate Distance from site (m)
	Residential		
	Properties in Brindle Heath	SW	120 – 1 Km
	Properties off Langley Road	E, NE	200
	Virginia Drive (new development)	E	280
1	Properties in Agecroft Suburb	NW	635 – 1 Km
	Properties in Pendleton Suburb	SE	320 – 1 Km
	Properties in Kersal Suburb	NE, E	645 – 1 Km
	Properties in Irlams O'th'height Suburb	SW	675 – 1 Km
	Industrial/Commer		
	A1 Hazardous Waste Transfer Station	E	Adjacent
	Foxhall Waste Asbestos Waste Transfer Station	N	50
	Manchester Tippers & Aggregates (Waste Soil	E	60
	Treatment)		
2	Churchill Enviro Ltd (Waste Soil Treatment)	E	140
_	Industrial premises off Lamplight Way	W	30
	Industrial premises on Agrecroft Commerce Park	W	Adjacent - 500
	Industrial premises on Langley Mill Business Park	E	35 – 890
	& Orchard Trading Estate		
	HMP Forest Bank (Prison)	N	930
	Major Roads/ Transpor		
3	Bolton to Manchester Rail Line	E	Adjacent
	Broad Street (A6)	SW	565
	Public Rights of W	_	A !!
4	Swinton & Pendlebury Definitive Footpath 23	E	Adjacent
	Swinton & Pendlebury Definitive Footpath 21	E	390
	Amenity/Recreation	E E	270
	Northern Cemetery	E	400
E	Salford Sports Village Playing fields off Duchy Road	SW	225
5		N	580
	Playing field off Agecroft Road  Caravan Park	S	510
	Waterways	3	310
	Manchester/Bolton/Bury Canal	Е	40
6	River Irwell	Ē	330
	Ecological Sites	_	
	Manchester/Bolton/Bury Canal Site of Biological	E	40
7	Interest	_	. •
·	Brindle Heath Junction Site of Biological Interest	S, SW	Adjacent
	Educational Institut		,
	Summerville Primary School	SW	635
_	Pendleton Sixth Form College	SW	815
8	St George's C of E Primary School	SE	700
	St Sebastians RC Primary School	SE	850
	Hospitals/ Health Care In		
9	Priory Healthcare	S	800

Table 2: Potential Receptors Within 1 km

**Note:** Measurements have been taken from the operational site boundary and do not include the permit area to be surrendered.

4.1.2 The closest residential properties are in Brindle Heath, approximately 120 m from the site boundary. However these properties are well screened from the site by dense woodland.

#### **Surface Water**

- 4.1.3 The Manchester, Bolton, Bury Canal is approximately 40 m east of the northeastern site boundary. The canal no longer operates as a functional waterbody as it is partially infilled, but it serves as a wildlife area and is designated as a Site of Biological Interest by Salford Council.
- 4.1.4 The closest surface water course is the River Irwell approximately 330 m to the east. The EA's Data Catchment Explorer website shows the site to be within the Irwell (Croal to Irk) Water Body<sup>1</sup>, which is reported as having moderate ecological status.

#### Groundwater

- 4.1.5 The underlying bedrock and superficial strata is designated as a 'secondary A aquifer', which is described by the EA as consisting of "predominantly lower permeability strata which may in part have the ability to store and yield limited amounts of groundwater by virtue of localised features such as fissures, thin permeable horizons and weathering". The underlying groundwater vulnerability is listed as 'medium'.
- 4.1.6 The site is not within a groundwater source protection zone.

### **Ecological Receptors**

- 4.1.7 A conservation screening report was provided by the EA through preapplication advice. This reported on nature and heritage conservation sites and/or protected species that must be considered in the application and is contained in Appendix C.
- 4.1.8 The report identified two local wildlife sites, Brindle Heath Junction woodland and the Manchester, Bolton, Bury Canal. It also identified an unnamed protected species within Brindle Heath woodland.
- 4.1.9 Searches using the DEFRA magic map identified a number of ecological sites within 2 km of the site and one European habitats site within 10 km. These are listed in Table 3 below.

<sup>&</sup>lt;sup>1</sup> https://environment.data.gov.uk/catchment-planning/WaterBody/GB112069061451

Site	Designation	Distance & Direction
Manchester/Bolton/Bury Canal	LWS	40 m E
Brindle Heath Junction	LWS	Adjacent, S and SW
River Irwell	LWS	330 m E
Grassland & Heath off Clively Avenue	LWS	1.7 km NW
Marsh near Clifton Junction	LWS	1.6 km NW
Kersal High School Grounds	LWS	1.7 km NE
The Cliff/Kersal Dale	LNR	1 km NE
Kersal Moor	LNR	1.4 km NE
Rochdale Canal	SAC	8.5 km E

## Table 3: Ecological Sites

LWS = local wildlife site

LNR = local nature reserve

SAC = Special Area of Conservation

SSSI = Site of Special Scientific Interest

4.1.10 The Rochdale Canal SAC is approximately 8.5 km east at its closest point. The canal seems to be designated primarily because of the presence of an aquatic plant as detailed in the following extract from the citation<sup>2</sup>:

> 'Rochdale Canal supports a significant population of floating waterplantain Luronium natans in a botanically diverse waterplant community which also holds a wide range of pondweeds Potamogeton spp. The canal has predominantly mesotrophic water. This population of Luronium is representative of the formerly more widespread canal populations of northwest England'.

4.1.11 As there are no European sites within 2 km of the site, the SAC is outside the zone of influence of site operations and a habitats assessment is not required

#### 4.2 **Baseline Conditions**

#### Wind Direction

- 4.2.1 Figure 3 shows a wind rose for data collected at Manchester Airport which is the closest recording station at approximately 15 km south of the site.
- 422 This shows the wind direction to be predominantly from the south, west and south-west.

<sup>&</sup>lt;sup>2</sup> https://sac.jncc.gov.uk/site/UK0030266

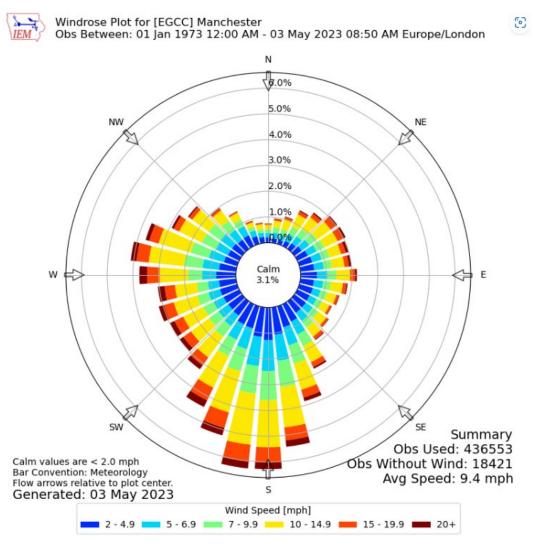


Figure 3: Wind Rose

## Rainfall

4.2.3 Reference has been made to Met Office data for Woodford in Greater Manchester available on the met office website<sup>3</sup>, This is the nearest climate recording station to the site at approximately 20 km south. Total average annual rainfall during the period 1991 to 2020 was 868 mm. The number of days of rainfall greater than or equal to 1 mm was 156 days.

# **Air Quality**

4.2.4 According to the DEFRA interactive map tool<sup>4</sup> the site is not located within an Air Quality Management Area (AQMA).

<sup>&</sup>lt;sup>3</sup> https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gcqrqyr80

<sup>4</sup> https://uk-air.defra.gov.uk/agma/maps/

# Potential for Flooding

4.2.5 According to the 'Flood map for planning' tool on the gov.uk website, the site is situated in Flood Zone 1, an area with a low probability of flooding.

# 4.3 Compliance History

- 4.3.1 The site has a very good compliance history and no history of complaints from neighbours. The site is located within an industrial estate and surrounded by industrial operators.
- 4.3.2 The industrial estate is operational 24 hours per day and the setting is appropriate for a waste management activity.

### 4.4 Identification of Hazards

- 4.4.1 Potential hazards from the proposed changes to activities have been identified as:
  - Noise and Vibration from operation of the wash plant and HGVs
  - Dust generated in dry conditions from processing operations, stockpiles and site roads
  - Mud on the road deposited on the public highway by outgoing vehicles
  - Uncontained run-off surface water run-off which may contain suspended solids from stockpiled waste and site roads;
  - Accidents (fire, acceptance of contaminated material, spillage of fuel/oil or escape of water from the washing operations)
- 4.4.2 The nature of wastes accepted at the site will result in negligible generation of odour due to the lack of biodegradable and/or odorous material.
- 4.4.3 Likewise, the wastes will not generate litter or attract birds, vermin or insects.
- 4.4.4 The operation is not considered to pose a risk to air (excepting fugitive dust) due to the nature of waste materials that are accepted.
- 4.4.5 An Emissions Management Plan has been prepared to assess the risks from dust emissions and present mitigation and control measures. This is presented as Report No 109/2B and is included with the application.
- 4.4.6 Two noise impact assessments have been produced: one assessing the temporary wash plant noise plus crushing and screening, and another that assesses noise from the permanent wash plant with crushing and screening.

#### 5. RISK ASSESSMENT

# 5.1 Methodology

- 5.1.1 Overall risk is a combination of the severity of an event and the likelihood that it will occur. Probability of occurrence is designated as:
  - Probable expected to occur based on previous occurrences
  - Likely expected to occur due to proposed changes
  - Possible this may occur, it may or may not have happened occasionally in the past
  - Unlikely not expected to occur
  - Very Unlikely has never and is not expected to occur.
- 5.1.2 The magnitude of risk is determined by the probability of exposure and the severity of the consequences, whereby:
  - High severe and long lasting environmental effects to the wider locality
  - Medium effects to the local environment and community
  - Low minor, short lived effects just beyond the site boundary
  - Negligible no discernible effect beyond the site boundary
- 5.1.3 An event could have a high probability of occurring but have minor environmental consequences; therefore it will be designated as a low risk. Likewise a risk with severe consequences could be unlikely to occur and will be designated as a low risk. A high risk designation would be assigned to an event that has severe consequences and is expected to occur.

#### 5.2 Assessment

5.2.1 The risks associated with the identified hazards have been assessed and are presented in Tables 4 to 9, including mitigation and control measures.

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Noise from incoming and outgoing HGVs for additional throughput	Surrounding industrial operators; closest residents in Brindle heath(SW) and	Air (noise) Vibration (ground)	Nuisance noise from delivery vehicles	Unlikely: the site is within an industrial estate with 24 hour operations and noise does not currently impact the surrounding operators.	Low	Noise impact assessment determined effects to be 'low'     Noise Management Plan in place to control noise emissions	Low
Noise from aggregate processing (engine noise, reversing warning noise, material handling, crushing, washing & screening)	Langley Road (E)		Nuisance noise detected beyond the site boundary from processing operations during daytime working hours	Possible: The closest residents in Brindle Heath are well screened by dense woodland. Residents to the east are screened from the site by intervening industrial operations to the east of the railway (Tarmac).  There is no history of noise complaints or issues following operation of external crushing and screening plant since 2012.	Low	Site access is concrete surfaced and maintained to prevent potholes and minimise noise generated by vehicles;      Vehicle drivers to adhere to 10 mph speed limit      All machinery & plant maintained as per manufacturer's specifications for efficient running      Noise only during daytime working hours, no night time operations;      Vehicles delivering waste to the site will be utilised to backfill with product to reduce HGV movements	Low

Table 4: Assessment of Risks from Noise and Vibration

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Mud on the roa	d Public highway (Overman Way)	Material carried on vehicle wheels and axles on leaving the site.	Mud carried onto public highway which could be a skid hazard for motorists.	Possible	Medium	<ul> <li>A wheel wash is to be in place for vehicles exiting the site</li> <li>Concreted site surface regularly swept with a road sweeper;</li> <li>Overman Way also swept with road sweeper</li> </ul>	Low

Table 5: Assessment of Risks from Mud on the Road

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Surface water run-off carrying sediment from stockpiled waste, products and site surface	MBB canal, River Irwell Underlying ground & aquifer	Flow off site and into waterways	Increased sediment load reducing water quality	Unlikely as there is no pathway between the site and the waterways; all surface water drains to sewer in the concreted yard areas or soaks into the hardstanding areas.	Low	Run-off drains to sewer unless harvested for use on site	Low
Spillage or leakage of wash plant water; leaching of contaminants from filtercake		Concentrated contaminants in recycled wash water or filtercake soak into underlying ground	Build up of contaminants in groundwater, deteriorating water quality	Possible - may be possibility of concentration effect in recycled wash water	Medium	A programme of sampling and testing of recycled water and filtercake will be undertaken to establish if contaminants are becoming concentrated.      Filtercake will be stored on a concreted surface and in a covered bay beneath the filter press housing to shelter from rainfall      Spillages will be contained in a sump within the concreted area and returned to the plant	Low

Table 6: Assessment of Risk from Uncontained Run-off

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Dust from operation of the wash plant  Dust from vehicle movements carrying additional throughput	Closest residents, commercial neighbours	Dust generated and carried beyond the site boundary  Dust carried off site on wheels or from waste loads, or dust generated from dusty roads	Annoyance to neighbours, loss of amenity, reduction in air quality and possible health impacts	Unlikely as the washing activity provides inherent dampening  Possible	Low	A Dust Emissions Management     Plan has been prepared to assess     the risk from dust and propose     mitigation and controls      Products are stored in bays to     minimise wind whipping      Stockpiles are damped down with a     bowser during dry conditions      Site access road is checked daily,     swept with a road sweeper which	Low
Dust from dry processing of additional throughput		Dust generated from crushing of additional waste				Provides dampening.     Site surface is dampened with a bowser     All loads are covered on entering and exiting site	

Table 7: Assessment of Risks from Dust

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Non-compliant waste types, eg hazardous dust from importation & processing of contaminated material	Site staff, neighbouring employees and residents	Air	Inhalation of contaminated dust	Unlikely as hazardous material not included on permit but may accidentally be imported	Medium	Permit conditions preclude acceptance of hazardous materials  Waste acceptance controls & preacceptance procedures will prevent acceptance of noncompliant waste types  In the event that non-conforming waste is unloaded the waste will be consigned to a quarantine area to await re-loading & removal offsite	Low
	Surface water	Uncontrolled Run-off	Contamination of controlled waters				
Spillage or leakage of fuel, oils & coolants Minor (< 5 litres) Major (> 5 litres)	e of fuel, off site into coolants surface water Canal and River	Contamination of Canal and River	Very unlikely due to topography and distance	Low	Concreted surface drains to an interceptor which separates oil from the discharge     Fuel stored in bunded tanks in concreted yard area	Low	
	Underlying ground and groundwater	Percolates through hardstanding into Secondary A aquifer	Contamination of aquifer	Unlikely as fuel storage in concrete yard area, not on hardstanding	Low	<ul> <li>Vehicles inspected as part of daily checks for leaks</li> <li>Tank inspection procedure</li> <li>Oil stored in bunded area in workshop</li> <li>Spillage procedure detailed in the EMS</li> </ul>	

Table 8 (continued overleaf): Assessment of Risk from Accidents

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Spillage of sludge/ wastewater from wash plant	MBB Canal and River Irwell	Spillage or misconnection causes wastewater or sludge to flow off site	Increased sediment load in the river; reduction in water water quality	Unlikely due to distance from site. Topography would keep spillages in centre of site. Additional separation of site from River Irwell by railway means no pathway to River.	Low	The permanent wash plant will be sited on a concrete base which drains to a central sump to contain any spillages. Water is pumped from the sump back up into the plant The temporary wash plant will be sited in the concreted yard with sealed drainage	Low
	Underlying ground and groundwater	Percolates through hardstanding into Secondary A aquifer	Contamination of aquifer	Unlikely from temporary plant as yard is concrete surfaced. Possible from permanent plant as this area is hardstanding only	Medium		
Fire and firewater	Closest residents and neighbouring businesses	Overland flow of firewater; Increased airborne particulates from smoke	Contaminated firewater flows off site; Smoke causes nuisance and respiratory effects to local residents	Unlikely - the risk of fire is very low as the material processed is mainly noncombustible.	Low	<ul> <li>Permitted activities do not allow flammable materials to be accepted on site and burning of waste not allowed on site.</li> <li>The site has a no-smoking policy</li> </ul>	Low
Flooding		Site floods and waste is washed off-site, adding sediment to the water environment	Waste material may be washed out of the site	Unlikely: The site is in Flood Zone 1 (low probability)	Very Low	Topography of the site drains to the centre so water would pond on site	Very Low

Table 8 continued: Assessment of Risk from Accidents

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Litter	Closest residents, commercial neighbours and wider environment	Litter in waste blown beyond site boundary	Litter in the neighbourhood reducing amenity	Unlikely – waste types will be construction and demolition waste and would not include easily windblow items of litter such as paper and plastic	Low	<ul> <li>Waste acceptance procedures are in place to ensure only suitable waste types are accepted.</li> <li>Permitted waste types are restricted to non-putrescible and non-hidegradable waste</li> </ul>	Very low
Odour		Dispersion of odours from odorous waste	Odour in the local area and reduction in air quality and amenity	Unlikely – waste types will not be biodegradable so would not generate odours or attract pests	Low		
Pests		Pest attracted to waste or imported inside loads of waste	Pest dispersed in local area, annoying neighbours and disturbing habitats				

Table 9: Assessment of Risks from Litter, Odour and Pests

#### 6. MITIGATION AND CONTROL

6.0.1 Risks assessed as medium or high will require mitigation and control. Proposed measures are outlined below and have been incorporated into the EMS.

#### 6.1 Noise and Vibration

- 6.1.1 **N**oise impact assessments have been carried out for the site including on site noise monitoring, monitoring at receptors and Soundplan modelling in accordance with BS4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound. This determined a low impact from both the temporary wash plant and the permanent wash plant and increased throughput.
- 6.1.2 Noise and vibration risks associated with operations have been determined as low for the closest residential receptors owing to their distance from the source and existing background noise. This is mitigated further by carrying out operations only during the working day.
- 6.1.3 Noise will be minimised by working to a noise management plan.

#### 6.2 Mud on Road

- 6.2.1 Risks associated with mud on the road have been determined as medium.
- 6.2.2 This is mitigated to low risk by the use of a wheel wash. The EMS will include procedures for the removal of any accidental deposit by a road sweeper, as well as regular checks and sweeping of the site entrance.

#### 6.3 Control of Run-off

- 6.3.1 Surface water run-off from the concreted yard area is directed towards a silt trap interceptor before discharge to sewer.
- 6.3.2 Water from the temporary wash plant area will be stored in an underground storage tank and reused on site for the wash plant and dust suppression.
- 6.3.3 The area footprint beneath the permanent wash plant will be concreted and laid to a fall with any run-off, drips and spillages drained to a sump in the centre. Contents of the sump will be returned to the wash plant.
- 6.3.4 The storage areas will be compacted hardstanding and used to store incoming waste and processed material.
- 6.3.5 There is no pathway for water to run off site into the River Irwell or the BBM Canal.

# 6.4 Waste Acceptance

- 6.4.1 Unsuitable waste will be prevented from being accepted into the site by checks carried out as part of the waste acceptance procedures, summarised below and contained in the EMS.
- 6.4.2 Pre-Acceptance waste enquiries shall include information on the origin of the waste and whether it is from a contaminated site. When an enquiry is received, a member of the management team may carry out a site visit to inspect the waste. Photographs of the site and any stockpiles are taken. If the waste consists only of hardcore it will be accepted on the basis of the visual inspection.
- 6.4.3 In the case of waste which contains soil, classed as EWC 17 05 04, waste from greenfield sites will be accepted without analysis. Waste from brownfield sites will require chemical analysis to confirm that the soil is not contaminated. This is assessed by a member of the management team. Contaminated waste will not be accepted.
- 6.4.4 If the waste is accepted as suitable it will be booked into site and undergoes further checks when it arrives.
- 6.4.5 Waste which is found to be unsuitable after delivery will be rejected.

## 6.5 Sampling and Testing of Washwater

- 6.5.1 A programme of testing will be carried out to establish concentration of contaminants in washwater and identify whether these are becoming concentrated by recycling the washwater.
- 6.5.2 It is proposed to take monthly samples of washwater and filtercake and results will be reviewed after six months.
- 6.5.3 It is proposed to test for the following parameters:
  - Arsenic
  - Chromium
  - Cadmium
  - Copper
  - Lead
  - Nickel
  - Tin
  - Zinc
  - Total Petroleum Hydrocarbons (TPH)
  - PAH 16
  - pH

- 6.5.4 Sampling will be carried out by a trained competent technician and samples will be submitted to an accredited laboratory for analysis. A wash plant monitoring plan has been included in Appendix B.
- 6.5.5 The aim of the monitoring plan is to:
  - Characterise the washwater
  - Build up a picture of variation
  - Establish if contaminants are becoming concentrated
- 6.5.6 If contaminants are observed to be building up then an action plan will be proposed to reduce contaminants to an acceptable level.

#### 6.6 Control of Dust

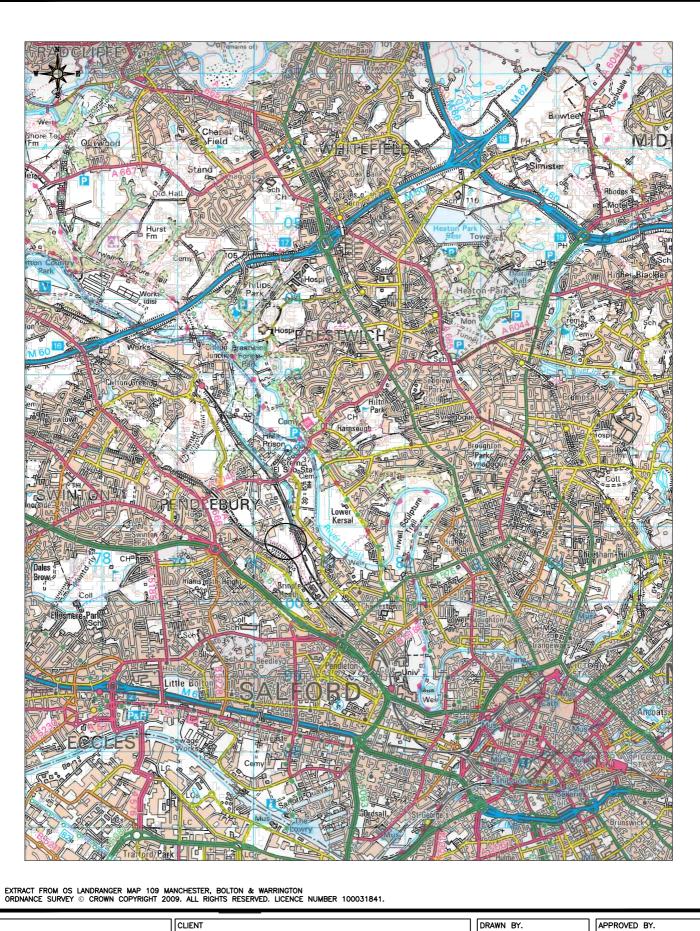
- 6.6.1 Risks from fugitive dust emissions were assessed as medium and a Dust Emissions Management Plan has been produced to demonstrate how dust will be managed to reduce the risk to an acceptable level.
- 6.6.2 The washing activity is inherently dampening so will not raise dust. Crushing will be carried out under dust suppression to prevent dust from being generated. The stockpile of incoming waste and products could become dusty when dry and will be managed by positioning of stockpiles and bays to prevent wind whipping and damping down.
- 6.6.3 Dust monitoring will be carried out daily and contingency actions are in place to prevent dust emissions from occurring.

### 7. CONCLUSIONS

- 7.1 The risks to the environment from the proposed activity have been determined and where required mitigation has been proposed to reduce the risks to an acceptably low level.
- 7.2 Noise will be minimised by the maintenance of plant and the use of silencers, maintenance of roads and working within the permitted operational hours.
- 7.3 Risks from surface water run-off will be minimised through containment and primary treatment to remove sediment and catch any fuel or oil spillages in a silt trap interceptor.
- 7.4 Risks from accidents will be reduced through effective management of the site through an Environmental Management System, including waste acceptance procedures to prevent importation of contaminated waste.
- 7.5 Risks from mud on the road will be mitigated through use of a wheel wash and regular road sweeping.
- 7.6 Risk from dust will be controlled by damping down, housekeeping and monitoring.
- 7.7 In conclusion it has been demonstrated that the risks posed by the proposed operation can be mitigated so they will not have a significant impact on the surrounding environment.

# **APPENDIX A**

# **Drawings**



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A1 SERVICES (MANCHESTER) LIMITED

M.Y.B

PPROVED BY. C.G

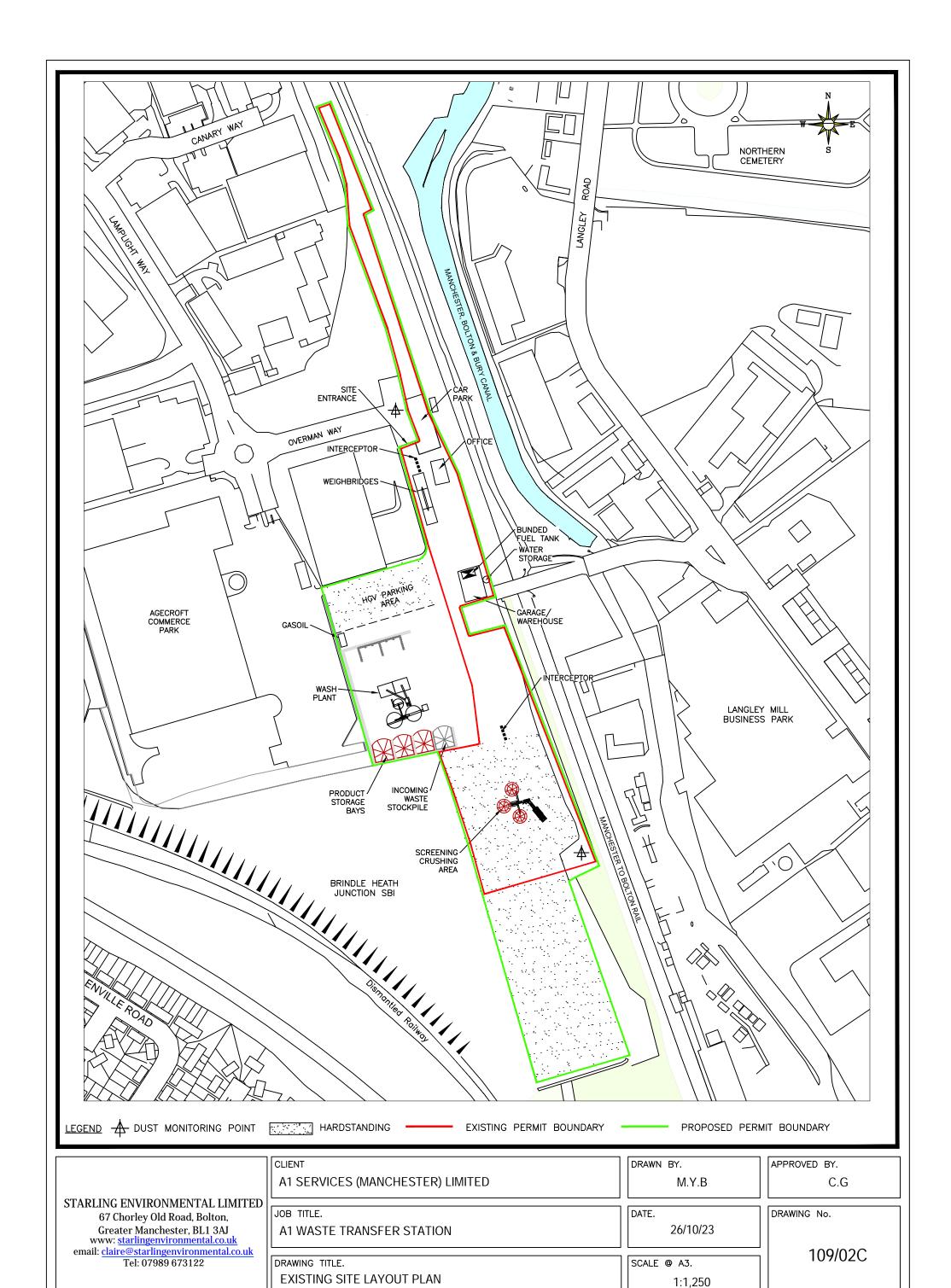
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A1 WASTE TRANSFER STATION

26/10/23

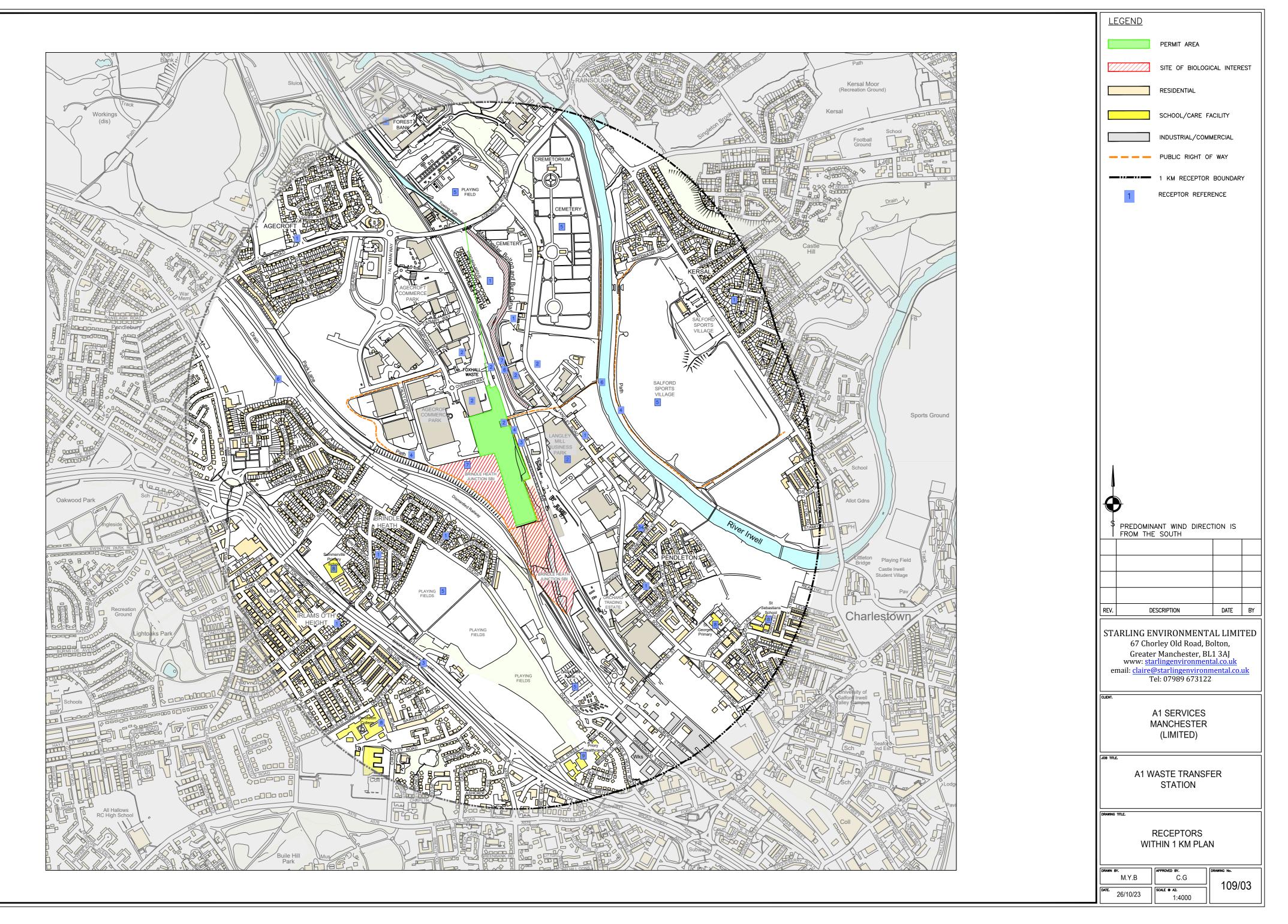
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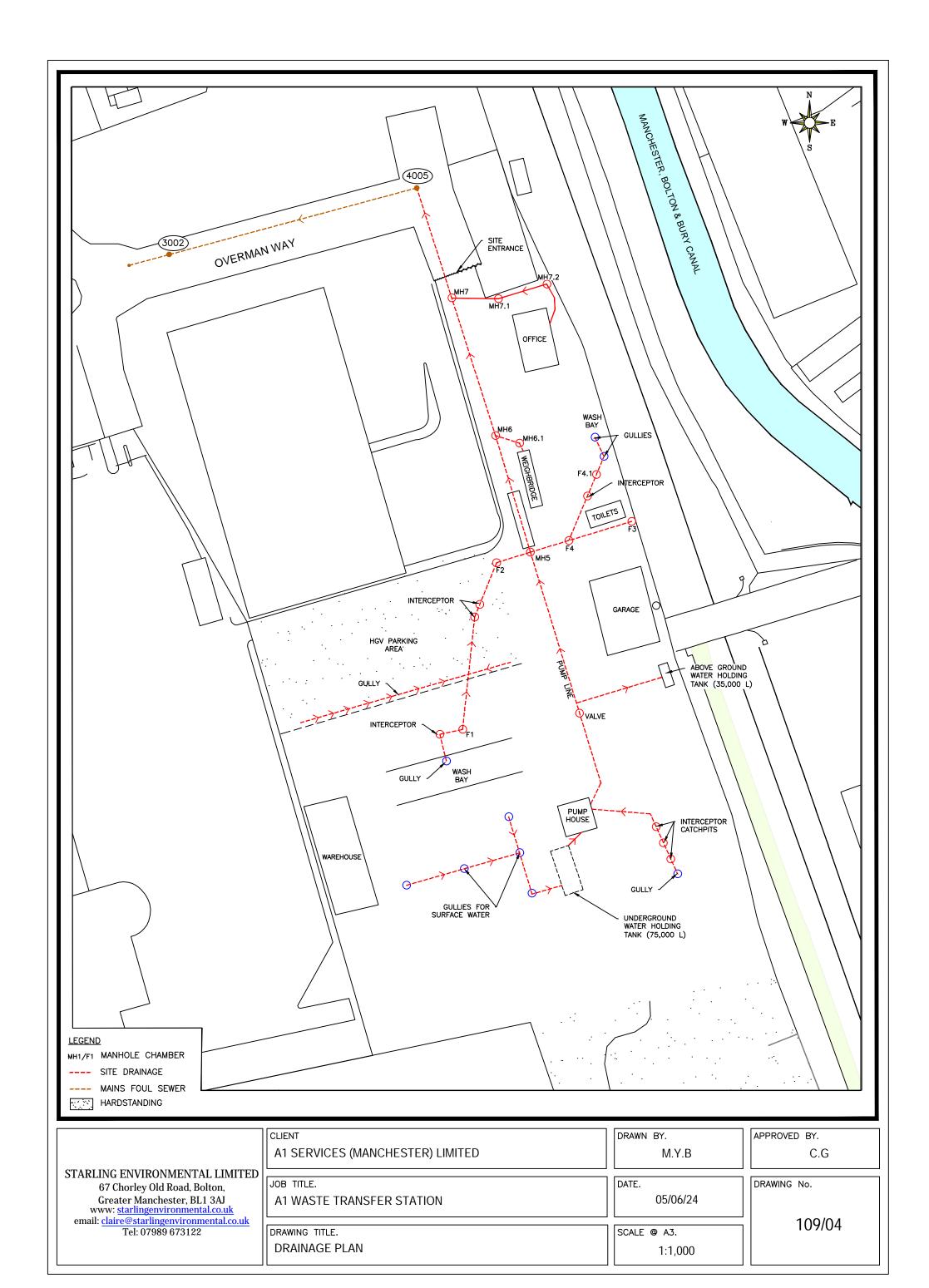
DRAWING TITLE.
SITE LOCATION PLAN

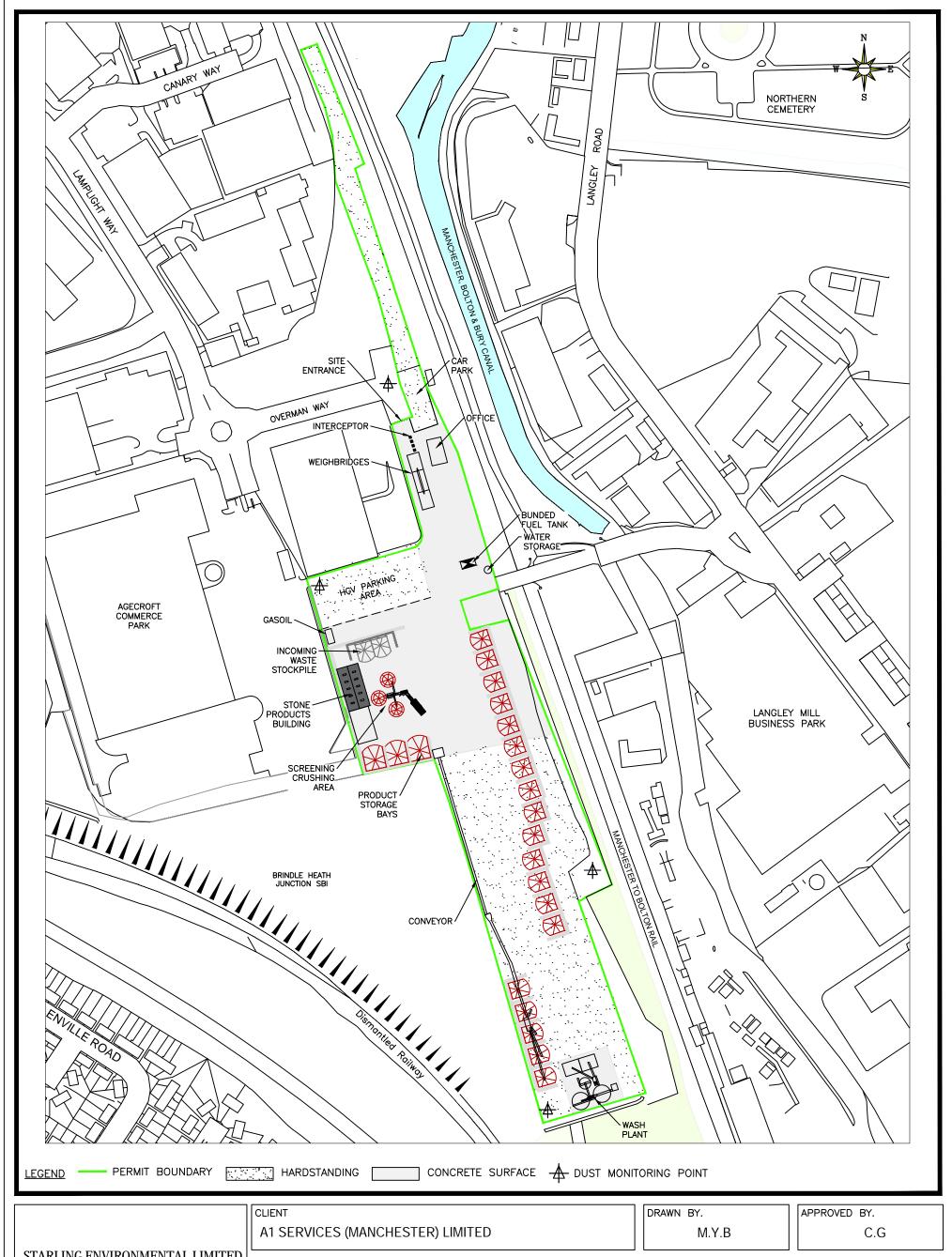
SCALE **®** A4. 1:50,000 109/02











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Greater Manchester, BL1 3AJ www: starlingenvironmental.co.uk email: claire@starlingenvironmental.co.uk Tel: 07989 673122 JOB TITLE. A1 WASTE TRANSFER STATION DATE. 03/07/2024

DRAWING No.

DRAWING TITLE.

PROPOSED SITE LAYOUT PLAN

SCALE @ A3. 1:1,250 109/05A

# **APPENDIX B**

Wash Plant Monitoring Plan

#### 1.0 GENERAL

This monitoring plan is in place to achieve the following goals:

- Characterise the washwater and filtercake
- Build up a picture of variation
- · Establish if contaminants are becoming concentrated

Monitoring will be carried out by trained, competent personnel.

### 2.0 WASHWATER MONITORING

# 2.1 Sampling Location

Temporary plant: samples of wash water will be taken from the point where it returns from the centrifuge

Permanent plant: samples .ash water will be taken from the point where it weirs over the lip of the settlement tank.

# 2.2 Sampling Procedure

Samples will be collected from the sample point by holding a sampling bottle directly under the flow of water. Sample bottles are filled in compliance with the instructions provided by appropriate UKAS accredited laboratory. Any preservatives required for particular samples are pre-filled in the bottle by the laboratory.

Bottle labels are filled in to include the site name, date, monitoring point or location reference. A chain of custody is completed for the sample.

Once collected, samples are placed in a cool box containing freezer blocks to keep them at a consistent temperature. They are then taken to an appropriate UKAS accredited laboratory.

Samples are tracked from site and through the laboratory process using a chain of custody form, this is included when the samples are sent to the laboratory. This typically includes information regarding the sample number, type, date, time of sampling and the analyses to be performed.

# 2.3 Analytical Parameters

Wash water samples will be analysed for the following suite:

pH
Electrical Conductivity
Dissolved Organic Carbon
Metals (As, Cd, Cu, Cr, Pb, Ni, Sn & Zn)
Total TPH
Total PAHs

#### 3.0 FILTERCAKE MONITORING

# 3.1 Sampling Location

Temporary plant: samples of filtercake will be taken from the storage bay

Permanent plant: samples of filtercake will be taken from below the filter plant housing, where filtercake is dropped and stored.

# 3.2 Sampling Procedure

Samples will be collected by scooping the filtercake into containers provided by the laboratory.

Samples will be labelled, stored and submitted to an accredited laboratory for testing as described in section 2.2 above.

# 3.3 Analytical Parameters

Filtercake samples will be analysed for the following suite:

pH Total Organic Carbon Metals (As, Cd, Cu, Cr, Pb, Ni, Sn & Zn) Total TPH Total PAHs

# 4.0 SAMPLING FREQUENCY, DATA RECORDING AND REVIEW

It is proposed to take monthly samples for the first six months and then the frequency will be reviewed.

When results are received from the laboratory they will be reviewed by the Technical Advisor, filed securely and logged onto a master spreadsheet.

After six months of data collection a report will be produced on the characterisation and variability of the washwater and filtercake and the monitoring plan will be reviewed.

If contaminants are observed to be building up then an action plan will be proposed to reduce contaminants to an acceptable level.

# **APPENDIX C**

**Conservation Screening Report** 

# **Nature and Heritage Conservation**

# Screening Report: Bespoke Waste

Reference EPR/JB3701XB/P001

**NGR** SD 80489 00866

Buffer (m) 100

Date report produced 08/11/2023

Number of maps enclosed 2

# 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.

Sites and Features within	Screening	Further Information
screening distance	distance	
	(m)	
Local Wildlife Sites (LWS) (see man	200	Appropriate Wildlife Trust

al Wildlife Sites (LWS) (see map Appropriate Wildlife Trust below) Brindle Heath Junction

**Screening Further Information Protected Habitats within** screening distance distance (m) **Deciduous woodland** up to 50m

Natural England

Reference: Bespoke waste screen

Version: 6.0

Security Marking: OFFICIAL

Page 1 of 2

Unfortunately, we cannot provide you with the details of all protected species. This is because we either have not been given permission by the owner of the species data, or they have asked us not to identify the species as they are vulnerable. In these instances, you must contact the relevant organisation listed above. A small administration charge may be incurred for this service.

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

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

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.

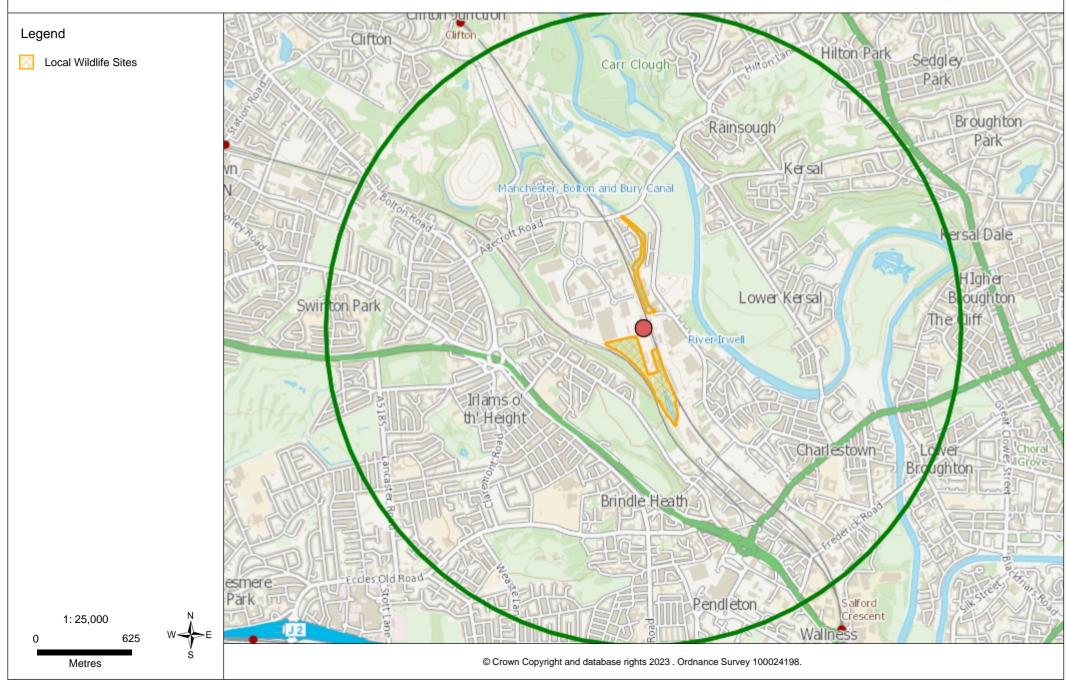
**Please note** we have screened this application for features for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be required.

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

Version: 6.0

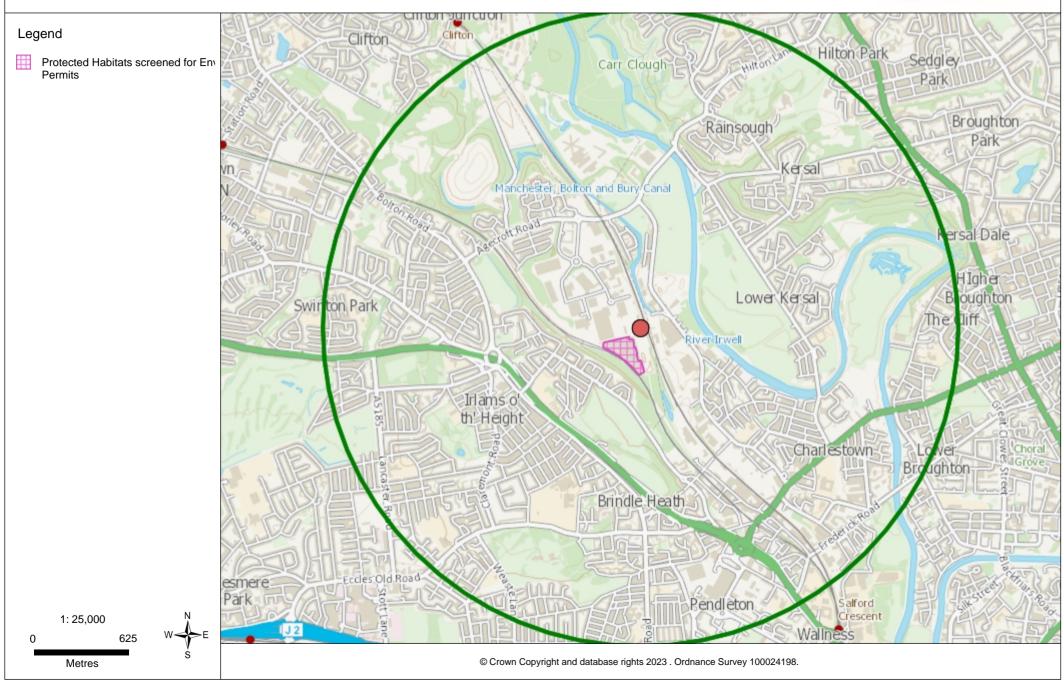
# Local Wildlife Sites





# **Protected Habitats**







Starling Environmental Limited