

# FACTORY ROAD RECYCLING FACILITY

**Environmental Permit Application**

**Environmental Risk Assessment**

Prepared for: Holystone Group Limited  
Environmental Permit Ref: EPR/LB3209TU/A001

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## 1.0 Introduction

Holystone Group Limited has retained SLR Consulting Limited (SLR) to prepare an environmental permit (EP) application for the Factory Road Recycling Facility, Factory Road, Blaydon, Tyne & Wear, NE21 5RU, under the Environmental Permitting (England and Wales) Regulations (as amended) 2016.

### 1.1 Methodology

This ERA is an assessment of the risks to the environment and to human health that may be associated with the proposed operations at the site.

The assessment has been completed in accordance with the Environment Agency (EA) Technical Guidance '*Risk Assessments for your Environment Permit*' dated May 2018. The aim of the assessment is to identify any significant risks and demonstrate that the risk of pollution or harm will be acceptable by taking the appropriate measures to manage these risks.

This ERA uses the following approach for identifying and assessing the risks from the proposed operation:

- Step 1** Identify risks and sources of risk from your activity.
- Step 2** Where risks are identified from Step 1 then identify the receptors that could be affected
- Step 3** Identify potential pathways between the sources of risk and receptors
- Step 4** Assess the risks and check that they are acceptable. Justify appropriate measures to control your risks, if necessary.
- Step 5** Submit your assessment.

Section 2.0 of this document is a screening step to identify the risks requiring consideration as part of this assessment.

Section 3.0 identifies people or parts of the environment that could be harmed (at potentially significant risk) by the activity. The ERA for an EP application requires all receptors that are near the site and could reasonably be affected by the activities to be identified and considered as part of the assessment.

For the purposes of this ERA a 2km radius from the site's EP boundary has been adopted in reviewing potentially sensitive receptors of ecological importance along with features such as sites of cultural and natural heritage. A radius of 500m from the site's EP boundary has been adopted for all other potentially sensitive receptors (for example, residential, commercial, industrial, agricultural and surface water receptors).

Section 4.0 of this document presents the assessment and demonstrates that any risks of pollution or harm will be mitigated to manage the risk.

This ERA should be read in conjunction with the following documents submitted with this EP application:

- Non-Technical Summary (SLR Ref. 416.04370.00014/NTS);
- Drawings
  - 001 Environmental Permit Boundary
  - 002 Site Layout
  - 003 Environmental Site Setting – Local Receptors
  - 004 Environmental Site Setting – Cultural and Natural Heritage
- Operating Techniques (SLR Ref. 416.08484.00004/OT);

- Site Condition Report (SLR Ref. 416.08484.00004/SCR); and
- Dust and Emissions Management Plan (SLR Ref. 416.08484.00004/DEMP).

## 2.0 Identifying the Risks

Step 2 is a screening step to identify the potential risks to the environment from the development. The following are generally considered to require assessment for bespoke operations:

- Amenity and Accidents;
- Site Waste (Installations Only);
- Global Warming Potential;
- Odour;
- Noise; and
- Point source emissions to air, water and land.

There will be no point source emissions to groundwater, surface water, air or land resulting from the proposed changes to activities and neither will there be any site waste arising or global warming potential.

Therefore only 'Amenity and Accidents', remains applicable for assessment in this instance, and includes the consideration of odour, noise and vibration, fugitive emissions (including dust, mud, litter and pests) and accidents.

## 3.0 Site Setting and Receptors

### 3.1 Site Setting

The site lies within the town of Blaydon, which lies within the Metropolitan Borough of Tyne and Wear. The site lies adjacent to the River Tyne along the western boundary and south west of the city centre of Newcastle-upon-Tyne in a predominately industrial area. The National Grid Reference (NGR) for the site is NZ 18905 63744 and the site location is illustrated on Drawing 001.

The closest residential properties lie 520m to the south west along East View Rd. The site is accessed off Factory Road located adjacent to the south eastern site boundary, which is shared with various other businesses within the industrial area.

The site lies within 11m of the River Tyne which is classified as a Local Wildlife Site (LWS) along the north western site boundary.

Shibdon Pond which is designated as a Site of Special Scientific Interest (SSSI) is located approximately 760m to the south east of the site's boundary.

The surrounding land uses and local receptors within 500m and cultural and natural heritage receptors within 2km are identified on Drawing 003.

A summary of the site's immediate surrounding land uses is identified in Table 3-1 below.

**Table 3-1**  
**Surrounding Land Uses**

Boundary	Description
North	Scrap metal dealer and North East Ambulance Service NHS Trust and surrounding industrial/commercial properties.
East	Industrial premises, Factory Rd lies adjacent to the site boundary, beyond this is the A1.
South	Industrial premises, Blaydon Highway and beyond this is Shibdon Pond (Site of Special Scientific Interest).
West	River Tyne (Local Wildlife Site) and North East Ambulance Service NHS Trust, industrial premises, residential properties within and around the town of Blaydon which is situated south west of the site.

The immediate surrounding land uses are described in further detail below.

#### 3.1.1 Residential

The nearest residential properties are located 520m to the south west of the site along East View Rd.

#### 3.1.2 Commercial and Industrial Premises

The site is located within an industrial area, which includes a scrap metal facility to the north, a food wholesaler to the east, a car dealership to the south and metals recycling facility to the south west.

The North East Ambulance Service NHS Trust is located across the River Tyne, approximately 230m North of the Site.



### 3.1.3 Local Transport Network

Factory Road lies adjacent along the eastern site boundary. The A1 is situated 480m to the East of the site.

### 3.1.4 Surface Water Features

The River Tyne lies approximately 11m from the western boundary of the site.

## 3.2 Geology

A review of the British Geological Survey (BGS) map<sup>1</sup> shows that the superficial geology of the site comprises of Alluvium which consists of clay, silt, gravel and sand formation. The local environment was previously dominated by rivers.

The bedrock geology comprises of Pennine Lower Coal Measures Formation- mudstone, siltstone and sandstone. Local environment previously dominated by swamps, estuaries and deltas.

## 3.3 Hydrogeology

### 3.3.1 Aquifer Designations

The site is underlain by superficial deposits that are classified by the EA as Secondary A Aquifer. These are described by the EA as “permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers”. This is associated with the localised Alluvium.

The majority of the superficial geology beneath the site is classified by the EA as Unproductive Strata.

The bedrock geology is classified as a Secondary (A) Aquifer on the Multi-Agency Information for the Countryside (MAGIC)<sup>2</sup> website.

### 3.3.2 Groundwater Vulnerability

The site is located with an area known for groundwater vulnerability classified as medium.

### 3.3.3 Source Protection Zones

The site is not located within a Source Protection Zone (SPZ).

## 3.4 Hydrology

There are no existing natural surface water features within the site boundary.

The site lies adjacent to the River Tyne along the western boundary. The River Tyne is designated as a Main River and flows to the east where it eventually reaches the North Sea.

Based on the Flood Maps published by the EA, the site lies within a Flood Zone 1, which is classified as an ‘area with a low probability of flooding’.

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<sup>1</sup> British Geological Survey, Available at [www.bgs.ac.uk](http://www.bgs.ac.uk), accessed in May 2022

<sup>2</sup> Multi-Agency Information for the Countryside – Available at: <http://magic.gov.uk>, accessed June 2020

## 3.5 Ecology

The Multi Agency Governmental Information for the Countryside (MAGIC)<sup>3</sup> website has been assessed to determine the ecological site setting. The following ecological features have been identified within 2km of the Site:

### 3.5.1 European/International Status

A (MAGIC) internet search has been carried out and concluded that there were no Special Protection Areas (SPA), Special Area of Conservation (SAC) or RAMSAR sites located within 2km of the site.

### 3.5.2 Sites of Special Scientific Interest (SSSI)

Shibdon Pond is a Site of Special Scientific Interest (SSSI) located 760m to the south east of the Site.

### 3.5.3 Local Nature Reserves

There are three Local Nature Reserves located within a 2km radius of the site:

- Shibdon Pond situated approximately 760m south east of the site.
- Sugley Dene is situated approximately 800m North of the site.
- Denton Dene is situated approximately 1.1km north east of the site.

### 3.5.4 Local Wildlife Site

The River Tyne which is located adjacent along the western boundary of the site has been designated as Local Wildlife Site (LWS).

### 3.5.5 Ancient Woodlands;

There are four areas of ancient woodland located within a 2km radius of the site:

- Unnamed woodland situated approximately 780m North of the site, covering an area of 4.1ha.
- Denton Dene situated approximately 1.1km north east of the site, covering an area of 5.7ha.
- Path Head Wood situated approximately 1.2km West of the site, covering an area of 2.7ha.
- Unnamed woodland situated approximately 1.6km North of the site, covering an area of 3.5ha

The search also confirmed that there were none of the following ecological receptors located within 2km of the site:

- Woodland Trust Sites;
- National Parks;
- Areas of Outstanding Natural Beauty; and
- National Forest.

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<sup>3</sup> <http://magic.defra.gov.uk/>, accessed July 2019.

## 3.6 Cultural and Heritage

### 3.6.1 Listed Building

There are numerous listed buildings within 2km of the site's boundary. The closest is the Church of St Cuthbert, a Grade II listed building located approximately 480m to the south west of the site within the Blaydon town centre.

### 3.6.2 Registered Battlefields

There is one registered battlefield located 1.5km West of the site. This is the registered battlefield for the Battle of Newburn Ford 1640, which is approximately 342 hectares in size.

### 3.6.3 Scheduled Monuments

Magic identified one scheduled monument within a 2km radius of the site . 'Hadrian's Wall and vallum in wall mile 7, Scotswood section of vallum 75m long at Denton Dene' scheduled monument is situated approximately 1.9km north west of the site.

A further 6 scheduled monuments which are all part of Hadrian's Wall are situated just beyond 2km north east of the site.

### 3.6.4 World Heritage Site

Frontiers of the Roman Empire (Hadrian's Wall) is a designated World Heritage Site situated 1.8km North of the Site.

The search on MAGIC confirmed that the following features do not lie within 1km of the site:

- Registered Park and Garden.

## 3.7 Identified Receptors

Table 3-2 and drawing 003 identify the receptors which are considered to be potentially sensitive and could reasonably be affected by activities at the site.

**Table 3-2  
 Identified Receptors**

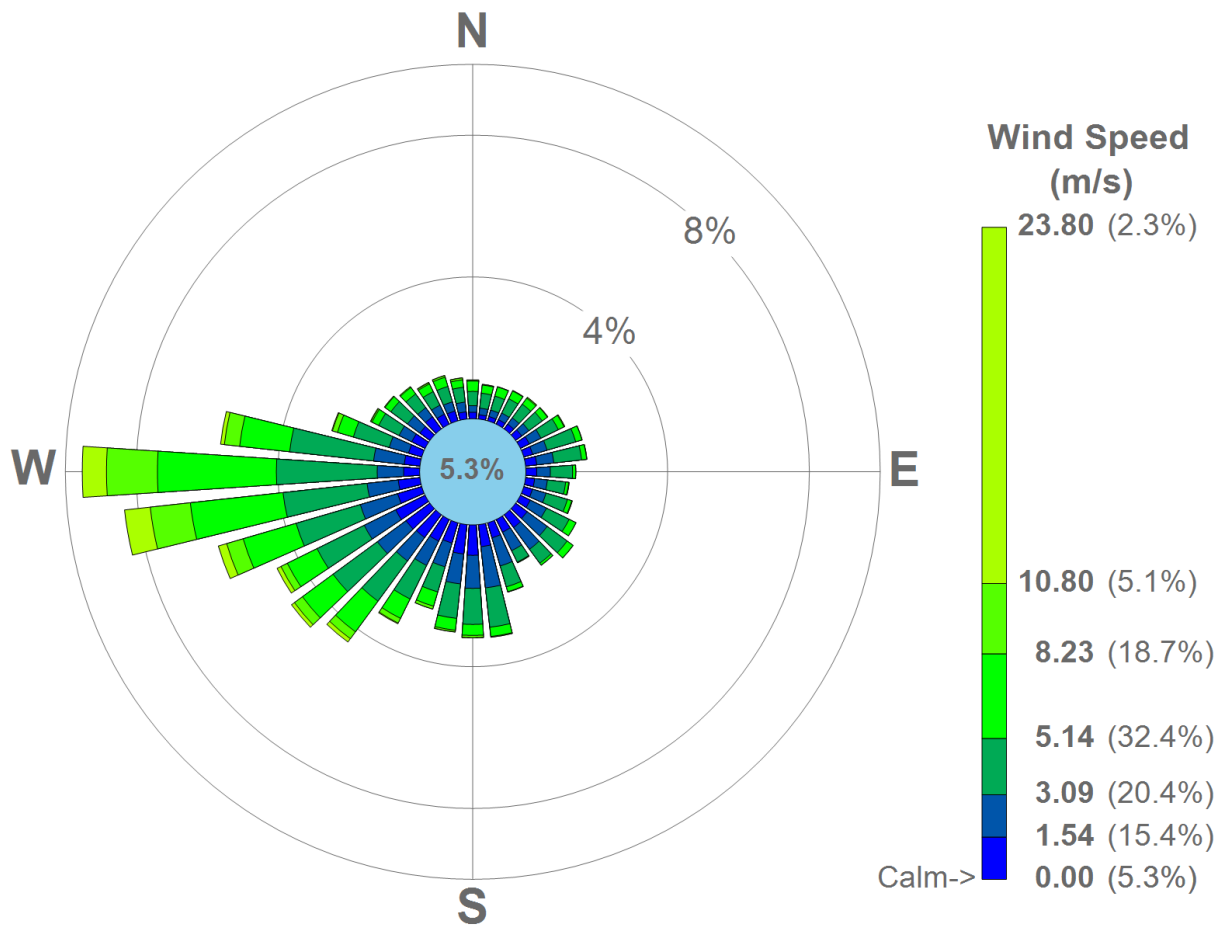
Receptor Name	Receptor Type	Direction from Site	Approximate Distance from Site Boundary at closest point (in metres)
<b>Local receptors located within 500m of the EP boundary as shown on Drawing 003</b>			
Factory Road	Local Transport Network	South east	Adjacent
Scrap metal dealer	Industrial/Commercial	North	Adjacent
Food Wholesaler	Industrial/Commercial	East	77
Metal Recycling Facility	Industrial/Commercial	South	89
Car Dealership	Industrial/Commercial	South	150
Counselling Services	Industrial/Commercial	East	220

Receptor Name	Receptor Type	Direction from Site	Approximate Distance from Site Boundary at closest point (in metres)
North East Ambulance Service NHS Trust	Industrial/Commercial	North	230
A1	Local Transport Network	East	480
<b>Ecology and Cultural and Natural Heritage identified within 2km of the EP boundary as shown on Drawing 003</b>			
River Tyne LWS	Local Wildlife Site	West	11
Church of St Cuthbert	Listed Building	South west	480
Shibdon Pond	Site of Special Scientific Interest (SSSI)/ Local Nature Reserve	South east	760
Unnamed Woodland	Ancient Woodland	North	780
Sugley Dene	Local Nature Reserve	North	800
Denton Dene	Local Nature Reserve/ Ancient Woodland	North east	1100
Path Head Wood	Ancient Woodland	West	1200
Battle of Newburn Ford	Registered Battlefield	West	1500
Unnamed Woodland	Ancient Woodland	North	1600
Frontiers of the Roman Empire (Hadrian's Wall)	World Heritage Site	North	1800
Hadrian's Wall and vallum in wall mile 7, Scotswood section of vallum 75m long at Denton Dene.	Scheduled Monument	North east	1900

### 3.8 Windrose

Figure 3-1 shows the wind patterns 2014-2017 as identified by the Newcastle meteorological station. The most prominent wind direction is from the West. Winds from all other directions are relatively infrequent with slightly more frequent winds from the south west.

**Figure 3-1**  
**Newcastle Meteorological Station, 2014-2017**



## 4.0 Environmental Risk Assessment

The following tables in this section assess the site in terms of potential hazards posed, receptors and pathways, along with management and assessment of the identified risks.

The probability of exposure is the likelihood of the receptors being exposed to the hazard, and is defined as low, medium or high. These terms are qualified as follows;

- Low: exposure is unlikely, barriers in place to mitigate against exposure.
- Medium: exposure is fairly probable, barriers to exposure less controllable.
- High: exposure is probable, direct exposure likely with few barriers.

The methodology outlined in Section 1.2 of this report is the basis on which it is determined whether the proposed EP application will lead to significant impacts on the surrounding environment. Where a conclusion of 'not significant' has been reached, it is proposed that the mitigation and management measures that will be in place at the site will be sufficient to ensure that there will be no impact at the surrounding environment.

**Table 4-1 Odour Risk Assessment and Management Plan**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Acceptance, processing and storage of wastes	<p>Potentially sensitive receptors as listed in Table 3-2, including industrial / commercial premises, surface water features, transport infrastructure, River Tyne LWS, Shibdon Pond SSSI/ LNR, Denton Dene LNR, Sugley Dene LNR, A registered battlefield, world heritage site and various listed buildings.</p> <p>As illustrated on Drawings 003 and 004.</p>	Air	<p>The waste types to be accepted on site are not considered to be putrescible or contain readily degradable residues.</p> <p>The waste types to be accepted, are inert in nature and are not considered to be odorous.</p> <p>The soil washing process will not produce odorous emissions and is an inherently enclosed process.</p> <p>Strict waste acceptance procedures will be adhered to, to ensure only permitted wastes are accepted on site.</p> <p>The site will be monitored for odours by site personnel throughout the working day. If odours are detected, investigations will be undertaken to determine the cause and appropriate mitigation measures will be actioned.</p> <p>The Site Manager will be responsible for implementing risk management measures in accordance with Sheerness' EMS as outlined in the Operating Techniques document.</p>	Negligible	Odour Nuisance and loss of amenity.	<b>Not significant – due to the type of waste accepted on site (inert in nature)</b>

**Table 4-2 Noise Risk Assessment and Management Plan**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
<p>Vehicle movements (site access road and internal haul roads).</p> <p>Operation of fixed and mobile plant (processing waste)</p>	<p>Potentially sensitive receptors as listed in Table 3-2, including industrial / commercial premises, surface water features, transport infrastructure, River Tyne LWS, Shibdon Pond SSSI/ LNR, Denton Dene LNR, Sugley Dene LNR,</p> <p>A registered battlefield, world heritage site and various listed buildings.</p> <p>As illustrated on Drawings 003 and 004.</p>	Air	<p>The site is situated in a commercial/industrial area with the nearest residential receptors located 520m to the south west within the town of Blaydon.</p> <p>Site operations will be restricted to hours specified in the planning consent. Speed limits will be implemented for all vehicles using the site and traffic calming measures will be implemented to enforce speed limits. Site access and operational areas will be maintained and repaired to minimise emissions of noise due to uneven and poor surfacing.</p> <p>All fixed and mobile plant will be maintained and repaired to the manufacturers specifications to minimise unnecessary noise emissions.</p> <p>If horns or alarms are deemed to cause unacceptably high levels of noise, alternative technologies will be explored and implemented.</p> <p>Plant will be fitted with noise silencers if necessary.</p>	<p>Mobile. Intermittent throughout the day.</p> <p>Low</p>	Noise nuisance and health risk to human receptors during daytime hours.	<b>Not significant</b>



What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>Auditory inspections will be carried out by site personnel daily and in response to complaints. If noise levels are deemed a nuisance, investigations will be undertaken to determine the cause and appropriate mitigation measures will be implemented.</p> <p>The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques document.</p>			

**Table 4-3 Fugitive Risk Assessment and Management Plan**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
<b>To Air:</b>						
Dust from: <ul style="list-style-type: none"> <li>• Processing operations.</li> <li>• Waste storage.</li> <li>• Vehicle Movements.</li> <li>• Crushing.</li> </ul>	Potentially sensitive receptors as listed in Table 3-2, including industrial / commercial premises, surface water features, transport infrastructure, River Tyne LWS, Shibdon Pond SSSI/ LNR, Denton Dene LNR, Sugley Dene LNR, A registered battlefield, world heritage site and various listed buildings.	Air	A DEMP has been prepared as part of the permit application and is included in Section 6. The DEMP includes the following: <ul style="list-style-type: none"> <li>• Overview of operations and potential for dust emissions;</li> <li>• Potential dust effects;</li> <li>• Review of meteorological conditions;</li> <li>• Local sources of dust;</li> <li>• Institute of Air Quality Management (IAQM) assessment of dust impacts;</li> <li>• Control of dust emissions;</li> <li>• Site management;</li> <li>• Complaints procedure; and</li> <li>• Contingency action plan.</li> </ul>	Medium	Dust nuisance	<b>Not Significant</b>

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
	As illustrated on Drawings 003 and 004.		The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques and the approved DEMP.			
<b>To Water</b>						
<b>Treatment and Storage</b>	Surface water, including the River Tyne.  As illustrated on Drawings 003 and 004.	Land and surface water	The site will be fully covered with impermeable concrete surfacing.  The soil washing operation benefits from a separate drainage system that collects any surface or process water within sumps located below the plant. This water is then recirculated back into the soil washing process ensuring that this drainage system is separate and contained from the remainder of the site.  The types of waste stored will typically be inert with low potential to create contaminated surface water under normal operating conditions. Filter cake produced from soil washing will be stored within a bay directly below the plate filter press. The filter cake is removed from the bay on a daily basis and	Low	Contamination of surface water and groundwater.	<b>Not significant</b>

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>no material will be left in the bay overnight or over a weekend.</p> <p>The filter cake will be routinely tested to understand the properties of the material before it is transferred offsite to a suitably licensed facility for further recovery or disposal. It is likely due to the nature of the soils being treated at the washing plant, that the filter cake will be non-hazardous in nature.</p> <p>The site surfacing will be inspected daily to ensure it is in good condition. Any weaknesses will be repaired immediately using temporary solutions and with permanent measures implemented as soon as practicable.</p> <p>The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques document.</p>			
<b>Pests</b>						
Birds, vermin and pests	Potentially sensitive receptors as listed in Table 3-2, including industrial / commercial premises, surface water	Via air (flies) or over ground (vermin).	The proposed waste types to be accepted at the site will not attract birds, vermin & pests. Waste acceptance procedures will ensure that only authorised wastes are accepted.	Negligible	Nuisance, loss of amenity and harm to human health.	<b>Not Significant</b>

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
	<p>features, transport infrastructure, River Tyne LWS, Shibdon Pond SSSI/ LNR, Denton Dene LNR, Sugley Dene LNR,</p> <p>A registered battlefield, world heritage site and various listed buildings.</p> <p>As illustrated on Drawings 003 and 004.</p>					
<b>Mud/Litter</b>						
Mud from vehicle movements.	<p>Site Access Road (Factory Road)</p> <p>See Drawing 003.</p>	Land	<p>The site will benefit from good housekeeping and all areas of the site will be maintained/cleaned daily.</p> <p>All vehicles and mobile plant leaving operational areas will be checked to ensure that they are clear of loose</p>	Medium	Mud on road, road safety	<b>Not significant</b>

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>waste. Before leaving the site, vehicles will be checked to ensure that their load is secure. The site will be cleaned daily with a road sweeper and the site will benefit from a power wash if vehicles need to be washed down before leaving.</p> <p>The following measures will be undertaken to prevent tracking of mud and debris across the site:</p> <ul style="list-style-type: none"> <li>• The general site tidiness will be checked daily in line with the OT and EMS;</li> <li>• The impermeable surfacing will be cleaned daily with brooms/mobile plant/hose down to prevent the build-up of mud and debris; and</li> <li>• Daily visual inspection of the site by Site Management will identify any problems associated with mud and debris which will be cleaned up as soon as possible. A road brush (Road Sweeper) is available for road-cleaning purposes as required.</li> </ul> <p>The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques document.</p>			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Litter from waste	<p>Potentially sensitive receptors as listed in Table 3-2, including industrial / commercial premises, surface water features, transport infrastructure, River Tyne LWS, Shibdon Pond SSSI/ LNR, Denton Dene LNR, Sugley Dene LNR,</p> <p>A registered battlefield, world heritage site and various listed buildings.</p> <p>As illustrated on Drawings 003 and 004.</p>	Air	<p>The proposed waste types to be accepted at the site will not produce litter.</p> <p>Waste acceptance procedures will ensure that only authorised wastes are accepted.</p> <p>Vehicles will be sheeted or enclosed where possible.</p> <p>The site and its immediate surrounding will be inspected daily, and action will be taken to maintain the area free of significant accumulations of litter and debris.</p> <p>The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques document.</p>	Negligible	Nuisance and loss of amenity	<b>Not significant</b>





**Table 4-4 Accidents Risk Assessment and Management Plan**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Spillage and Leakage of fuels and oils	Local land quality, surface water and groundwater	Runoff and percolation through ground	<p>Drums or tanks used for the storage of fuel and maintenance oil, will be stored over drip trays or within a bunded area bund capable of containing at least 110% of the volume of the largest container within the bund or 25% of the total tank volume within the bund, whichever is the greater.</p> <p>Drip trays/bunds will be inspected visually daily by the site staff to ensure their continued integrity and to identify the requirement for any remedial action.</p> <p>Materials suitable for absorbing and containing minor spillages will be maintained on site. Minor spillages will be cleaned up immediately, using sand or proprietary absorbent. and will be placed in containers for off-site disposal.</p> <p>Site staff will undertake daily monitoring for evidence of spillage and leakage.</p> <p>In the event of a major spillage immediate action will be taken to contain the spillage and prevent liquid from entering surface water drains and the unsurfaced ground. The spillage will be cleared immediately and placed in containers for off-site disposal and the EA will be notified.</p>	Low	Contamination of land, groundwater and surface water	<b>Not significant</b>

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques document.			
Fire	<p>Potentially sensitive receptors as listed in Table 3-2, including industrial / commercial premises, surface water features, transport infrastructure, River Tyne LWS, Shibdon Pond SSSI/ LNR, Denton Dene LNR, Sugley Dene LNR,</p> <p>A registered battlefield, world heritage site and various listed buildings.</p> <p>As illustrated on Drawings 003 and 004.</p>	Air (smoke) Ground (spillages and firewater)	<p>The waste types accepted on site will not readily burn due to the inherent inert nature of the material.</p> <p>The plant inspection schedule will include checks of electrical equipment within the site to ensure that any faults are identified, reported and repaired. Smoking will not be permitted in the operational areas of the site.</p> <p>Holystone’s working practices will ensure assessment of fire hazards and training of employees in fire prevention, e.g. use of fire extinguishers and emergency procedures.</p> <p>No waste shall be burned on the site and any fire at the site will be treated as an emergency.</p> <p>Actions to be taken in the event of a fire:</p> <ul style="list-style-type: none"> <li>• Notify the Fire &amp; Rescue Service immediately and the EA as soon as practicable;</li> <li>• Isolate the burning area and attempt to extinguish the fire utilising the on-site fire extinguishers, if it is safe to do so;</li> </ul>	Low	Harm to human health and the environment and nuisance	<b>Not significant</b>

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<ul style="list-style-type: none"> <li>Prevent, if possible, contaminated drainage from entering surface/groundwater; and</li> <li>Evacuate the site if the fire is not containable.</li> </ul> <p>The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques document.</p>			
Vandalism and Security	Harm to Human Receptors, Ecological Receptors, Commercial/industrial receptors, Land and Water		<p>The following security measures will be in place for the site:</p> <ul style="list-style-type: none"> <li>Site perimeter: the site will benefit from 2.2m fencing and the storage bays around the perimeter;</li> <li>CCTV: the site will benefit from a CCTV system;</li> <li>Security gates: the site gate will be locked when the site is not in use;</li> <li>Inspection: the gate and fencing extending around the site will be inspected regularly by the operations staff to identify deterioration, damage or the need for any repairs;</li> <li>Maintenance and repair: fencing and the gate will be maintained and repaired to ensure</li> </ul>	Low	Theft, Plant failure, harm to human health	<b>Not significant</b>

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>their continued integrity. If damage is sustained, repairs will be made by the end of the working day. If this is not possible, suitable measures will be taken to prevent any unauthorised access to the site and permanent repairs will be affected as soon as practicable;</p> <ul style="list-style-type: none"> <li>• Authorised access system: all visitors to the site will be required to register in the visitor’s book and sign out again on exit to minimise the risk of unauthorised visitors being present on-site; and</li> <li>• Monitoring techniques: operational procedures, including regular inspections, will ensure continual monitoring of security provision at the site.</li> </ul> <p>In the event of a breach of security at the site, the cause will be investigated, and appropriate mitigation measures implemented. Records to be maintained include inspections and maintenance of security fencing and the gate, breaches of security, investigations and actions taken.</p>			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques document.			
Unauthorised Waste Acceptance	<p>Potentially sensitive receptors as listed in Table 3-2, including industrial / commercial premises, surface water features, transport infrastructure, River Tyne LWS, Shibdon Pond SSSI/ LNR, Denton Dene LNR, Sugley Dene LNR, a registered battlefield, world heritage site and various listed buildings.</p> <p>As illustrated on Drawings 003 and 004.</p>	<p>Via air (odours)            Overland (to sewers, surface and groundwater )</p>	<p>Waste will be subject to strict waste acceptance procedures to identify, reject and/or segregate potentially non-conforming waste.            Only waste authorised by the EP will be accepted at the Site.            All wastes will be subject to inspection and checking against the declaration on the waste transfer note.            If unauthorised waste is delivered to the site, it will be segregated and stored in a designated quarantine area prior to export from site.            The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques document.</p>	Low	Nuisance, harm to human health	<b>Not significant</b>

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Flooding	<p>Potentially sensitive receptors as listed in Table 3-2, including industrial / commercial premises, surface water features, transport infrastructure, River Tyne LWS, Shibdon Pond SSSI/ LNR, Denton Dene LNR, Sugley Dene LNR,</p> <p>a registered battlefield, world heritage site and various listed buildings.</p> <p>As illustrated on Drawings 003 and 004.</p>	Flood waters over land	<p>The Site lies within a Flood Zone 1, which is defined as “land having a less than 1 in 1,000 annual probability of river or sea flooding”, and therefore has a very low probability of flooding.</p> <p>An evacuation plan will be implemented in the unlikely event of flooding.</p> <p>The Site Manager will be responsible for implementing risk management measures in accordance with appropriate procedures outlined in Operational Techniques.</p>	Medium	Contaminated flood waters impacting land in, ecological and commercial areas	<b>Not significant</b>

## 5.0 Conclusion

This ERA has been undertaken in accordance with EA guidance. The assessment is provided as part of the environmental permit application to the EP for Factory Road Recycling Facility.

This qualitative risk assessment has considered odour, noise, fugitive emissions, dust, releases to water, litter, and potential for accidents and incidents. A DEMP has been produced and included within the application due to the potential for fugitive dust emissions.

The assessments conclude that with the implementation of the risk management measures described above and within the DEMP, potential hazards from the permit application are not likely to be significant and no further assessment is required.

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