



Title:	Environmental Risk Assessment	
Report Reference:	AWSM-R04-F2	
Client:	AWSM Recycling Limited	
Submitted To:	Environment Agency	
Date:	06-02-2025	
Main Contributor:	Edward Bennett – AWSM Recycling Limited	
Report Issue History	<i>Report Reference</i>	<i>Details</i>
	AWSM-R04-F1	29-02-24 – Finalised for EA Issue
	AWSM-R04-F2	06-02-2025 – Finalised for EA Issue

## Contents

1	Introduction .....	3
1.1	Background .....	3
1.2	Summary of Proposed Operations .....	3
1.3	Report Approach & Guidance .....	3
1.4	Report Format .....	4
2	Initial Assessment .....	5
2.1	Methodology .....	5
2.2	Initial Assessment .....	5
3	Sensitive Receptors .....	9
3.1	Site Location .....	9
3.2	Sensitive Receptors.....	9
4	Environmental Risk Assessment.....	11
4.1	Methodology .....	11
4.2	Pre-Requisite Policies and Procedures .....	11
4.3	Risk Assessment Key .....	11
4.4	Risk Assessment Tables.....	13
5	Detailed Impact Assessments .....	21
5.1	Introduction .....	21
6	Conclusion.....	22

# 1 Introduction

---

## 1.1 Background

This environmental risk assessment (ERA) has been carried out in support of an Environmental Permit application for a materials storage and transfer station to be operated by AWSM Recycling Limited. The ERA systematically evaluates any potential environmental risks and associated impacts of the proposed site activities. The methodology and results documented below are to be read in conjunction with all the supporting application documentation.

## 1.2 Summary of Proposed Operations

Materials will be delivered to bulk storage tanks situated on site prior to onward recovery. Wastes will be stored individually and there will be no waste treatment on site. Bulk materials will primarily be transferred for recovery at licensed Anaerobic Digestion facilities or be recovered to land for agricultural benefit, under deployments agreed by the Environment Agency, where necessary.

In addition, operations will facilitate the transfer of waste in skips for onward travel to licensed recovery / disposal facilities.

A detailed description of the proposed operations has been provided within the application document referenced AWSM-R03-F2 – Site Information.

## 1.3 Report Approach & Guidance

The ERA undertaken follows current Environment Agency (EA) guidance for undertaking ERA's in support of permit applications [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit). This ERA follows the EA methodology by:

- Identifying and considering potential environmental risks for the site, and the sources of the potential environmental risks.
- Identifying the potential receptors (people, animals, property and anything else that could be affected by the hazard) at risk from the site.
- Identifying the possible pathways from the sources of the potential risks to the identified receptors.
- Assessing the potential risks relevant to the specific activity and evaluating whether they are acceptable and can be screened out.
- Detailing risk control measures if the potential environmental risks are considered too high.

In summary, the following risks and associated impacts were evaluated when undertaking the ERA:

- Amenity (litter / vermin / mud / fire / flood / vandalism).
- Odour.
- Noise.
- Fugitive Air Releases (dust / bioaerosols).
- Surface Water.
- Groundwater.

- Air.
- Waste Produced.
- Global Warming Potential (GWP) / Photochemical Ozone Creation Potential (POP).

#### **1.4 Report Format**

This ERA follows the format detailed below:

- Introduction.
- Initial Assessment.
- Sensitive Receptors.
- Environmental Risk Assessments.
- Environmental Impact Evaluations.
- Conclusion.

## 2 Initial Assessment

### 2.1 Methodology

The initial assessment, considers the potential environmental risks and impacts for both normal operations and abnormal/accident situations. Tables 2.2.1 and 2.2.2 below detail the results of the initial assessments and have been used to determine which combinations of operations and potential impacts require a further detailed assessment.

Where it is assessed that there is minimal or no potential for an environmental impact to occur, a brief explanation has been provided for each impact criterion and activity. For those potential risks and impacts that cannot immediately be effectively controlled further evaluation is required.:

‘RA’ indicates - further evaluation for assessing environmental risk has been undertaken as detailed in Section 4 of this report, for normal operations, abnormal operations or accident situations.

‘IA’ indicates- where more detailed evaluation of emissions is required and has been undertaken as detailed in Section 5 of this report.

### 2.2 Initial Assessment

Table 2.2.1 Initial Assessment – Normal Operations			
Impact / Process – Operations	Material Delivery, Site and Dispatch Vehicles	Material Reception / Unloading / Dispatch	Material Storage / Bulking
<b>Amenity (litter / vermin / mud / fire / flood / vandalism)</b>	<p>No risk of pests as materials transferred in enclosed vessels / covered skips (where appropriate).</p> <p>No risk of mud and litter as all operational areas covered in concrete / hardstanding and kept clean.</p> <p>No foreseeable fire risk from transport operations.</p> <p>Site not located on a flood plain and is secure.</p> <p>Site roads covered in concrete.</p>	<p>No risk of mud, litter as predominately only non-stackable materials delivered to site. Stackable materials will only be handled in covered skips (where appropriate) and skips will not be unloaded, they are simply placed on the yard floor to allow pick up and transfer to another vehicle.</p> <p>Pest control in place as part of wider farm operations at the site.</p> <p>No foreseeable fire risk from transport operations.</p> <p>Site not located on a flood plain and is secure.</p>	<p>No risk of mud, litter as predominately only non-stackable materials delivered to site. Stackable materials will only be handled in covered skips (where appropriate) and skips will not be unloaded, they are simply placed on the yard floor to allow pick up and transfer to another vehicle.</p> <p>Pest control in place as part of wider farm operations at the site.</p> <p>No foreseeable fire risk from storage bulking operations as predominately only non-stackable materials delivered to site which are not combustible.</p>

Table 2.2.1 Initial Assessment – Normal Operations			
Impact / Process – Operations	Material Delivery, Site and Dispatch Vehicles	Material Reception / Unloading / Dispatch	Material Storage / Bulking
		All operations undertaken on impermeable surface within secondary containment bund.	Site not located on a flood plain. Site entrance fitted with a lockable gate and storage tanks will be fitted with padlocks to ensure they can be locked down when not in use. All operations undertaken on impermeable surface within secondary containment bund.
Odour	No potential for odour during normal operations as materials delivered in enclosed tankers / covered skips for potentially odorous waste streams.	RA	RA
Noise	RA	RA	RA
Fugitive Air Releases (Dust / Bioaerosols)	No risk of dust / bioaerosol from delivery, site and collection operations as all operational areas covered in concrete.	Potential for trivial ammonia / methane releases from non-stackable materials during transfer and loading. Non-stackable materials transferred to and from stores using dedicated transfer pipework.	Potential for trivial ammonia / methane releases from non-stackable materials stored on site. Stores covered, therefore potential for releases to impact on receptors is considered insignificant.
Surface Water	No potential releases to surface waters under normal operations.	No potential releases to surface waters under normal operations.	No potential releases to surface waters under normal operations.
Groundwater	No potential releases to ground waters under normal operations.	No potential releases to ground waters under normal operations.	No potential releases to ground waters under normal operations.
Air	No point source emissions to air other than site vehicles.	No point source emissions to air other than site vehicles.	RA
Waste	No waste generated under normal operations.	No waste generated under normal operations.	No waste generated under normal operations.
GWP / POP	Except exhausts from site vehicles, there are no point source of fugitive emission that will release GWP / POP.	Except exhausts from site vehicles, there are no point source of fugitive emission that will release GWP / POP.	No point source / fugitive emissions to air that will release GWP / POP under normal operations.

Table 2.2.2 Initial Assessment – Abnormal Operations			
Impact / Process – Operations	Material Delivery, Site and Dispatch Vehicles	Material Reception / Unloading / Dispatch	Material Storage / Bulking
<b>Amenity (litter / vermin / mud / fire / flood / vandalism)</b>	<p>No risk of pests as materials transferred in enclosed vessels / covered skips (where appropriate).</p> <p>No risk of mud and litter as all operational areas covered in concrete / hardstanding and kept clean.</p> <p>No foreseeable fire risk from transport operations.</p> <p>Site not located on a flood plain and is secure.</p>	<p>No risk of mud, litter as predominately only non-stackable materials delivered to site. Stackable materials will only be handled in covered skips (where appropriate) and skips will not be unloaded, they are simply placed on the yard floor to allow pick up and transfer to another vehicle.</p> <p>Pest control in place as part of wider farm operations at the site.</p> <p>No foreseeable fire risk from transport operations.</p> <p>Site not located on a flood plain and is secure.</p> <p>All operations undertaken on impermeable surface within secondary containment bund.</p>	<b>RA</b>
<b>Odour</b>	<b>RA</b>	<b>RA</b>	<b>RA</b>
<b>Noise</b>	<b>RA</b>	<b>RA</b>	<b>RA</b>
<b>Fugitive Air Releases (dust / bioaerosols)</b>	No risk of dust / bioaerosol from delivery, site and collection operations as all operational areas covered in concrete / hardstanding.	Potential for trivial ammonia / methane releases from non-stackable materials during transfer and loading. Non-stackable materials transferred to and from stores using dedicated transfer pipework.	<b>RA</b>
<b>Surface Water</b>	<b>RA</b>	<b>RA</b>	<b>RA</b>
<b>Groundwater</b>	<b>RA</b>	<b>RA</b>	<b>RA</b>
<b>Air</b>	No point source emissions to air other than site vehicles.	<b>RA</b> (as part of odour assessment)	<b>RA</b> (as part of odour assessment)
<b>Waste</b>	<b>RA</b>	<b>RA</b>	<b>RA</b>

Table 2.2.2 Initial Assessment – Abnormal Operations			
Impact / Process – Operations	Material Delivery, Site and Dispatch Vehicles	Material Reception / Unloading / Dispatch	Material Storage / Bulking
<b>GWP / POP</b>	Except exhausts from site vehicles, there are no point source of fugitive emission that will release GWP / POP.	Except exhausts from site vehicles, there are no point source of fugitive emission that will release GWP / POP.	No point source / fugitive emissions to air that will release GWP / POP under normal operations.



### 3 Sensitive Receptors

#### 3.1 Site Location

The site is located at the following address: Lane Head Farm, Lanehead Lane, Hutton Magna, County Durham, England, DL11 7HF.

The centre of the site is at National Grid Reference (NGR): NZ 12251 11889.

Site plans outlining the site location and the receptors identified below can be found in the supporting document referenced – AWSM-R07-F2.

#### 3.2 Sensitive Receptors

Table 3. 1 below details sensitive receptors identified within a 2 kilometre radius (unless otherwise specified), of the proposed site boundaries. For clarity only the closest receptor in each direction is listed.

Table 3.1 - Sensitive Receptors			
Receptor Classification	Compass Direction	Approx Distance from the Proposed Installation <sup>1</sup>	Plan Reference <sup>2</sup>
Human Occupied Receptors (within 1 km)			
Residential.	NE	c. 0.56 km	R1
	SE	c. 0.24 km	R2
	SW	c. 0.72 km	R3
Industrial / Commercial / Offices.	None identified within 1 km closer than the above receptors.		
Habitat Receptors <sup>3</sup>			
Ramsar (England) (within 5km).	None identified within 5 km.		
Brignall Banks SSSI (England) (within 5km).	NW	c. 3.75 km	Not shown on plan due to distance from the site.
Special Areas of Conservation (England) (within 5km).	None identified within 5 km.		
Special Protection Areas (England) (within 5km).			
Local Nature Reserve (England).	None identified within 2 km.		
National Nature Reserve (England)	None identified within 2 km.		
Ancient Woodland.	None identified within 2 km.		
Water Resource Receptors (within 1 km)			
Land Drain.	W	c. 0.32 km	W1

Table 3.1 - Sensitive Receptors			
Receptor Classification	Compass Direction	Approx Distance from the Proposed Installation <sup>1</sup>	Plan Reference <sup>2</sup>
Hutton Beck.	N	c. 0.76 km	W2
Land Drain.	E	c.0.84 km	W3
Land Drain.	SE	c.0.75 km	W4
Ground Water <sup>3</sup> .	The site is located on a Secondary Aquifer.		
	The site is not within a Source Protection Zone or a Drinking Water Safeguard Zone.		
Flood Risk.	Flood zone 1 = Locations in flood zone 1 have a low probability of flooding. This means in any year land has a less than 0.1% chance of flooding from rivers or the sea		
Other Receptors			
Highways and Transportation <sup>4</sup> .	S	c. 0.17 km	T1
Air Quality Management Areas <sup>5</sup> .	Site is not located within an Air Quality Management Area.		
Scheduled Monuments (within 1km).	None identified within 1 km.		
<b>Table Notes:</b>			
*: Closest receptor identified from the proposed Permit Boundary.			
1: Distance shown measured using Ordnance Survey data provided by Promap.			
2: Locations shown on Sensitive Receptor Plan within document Ref AWSM-R07-F2.			
3: Habitat / Groundwater Source Protection Zones areas identified using the MAGIC Website, February 2024.			
4: Closest local road network only.			
5: AQMA locations reviewed through DEFRA’s website – February 2024.			

## 4 Environmental Risk Assessment

### 4.1 Methodology

The risk assessment has been undertaken for each potential environmental risk identified in the tables set out in section 2.2 above, for normal operations, abnormal operations and accident situations, where **RA** has been stated. The risk classification assigned has been evaluated by assessing the likelihood of an incident occurring and the severity of impact should it occur, using the following methodology.

Table 4.1 – Environmental Risk Scoring Matrix		
Score	Description	Definition
<b>Probability of an event occurring</b>		
1	Very Low	Extremely unlikely to occur (<1 per 10 years)
2	Low	Unlikely to occur (<1 per year)
3	Moderate	Could occur (1 per year)
4	High	Could occur frequently (>1 per year)
5	Very High	Could occur continuously
<b>Severity of impact should the event occur</b>		
1	Very Low	Negligible impact
2	Low	Minor impact (contained in localised area on site & recoverable)
3	Moderate	Medium impact (contained within site boundary & recoverable)
4	High	Major impact (spread off site &/or difficult to recover)
5	Very High	Major impact (spread off-site & long term/permanent damage)

The Probability (P) and Severity (S) scores assigned to each item are then multiplied together to provide a total risk assessment score (R):

$$\text{Risk} = \text{Probability} \times \text{Severity}$$

$$R = P \times S.$$

Scores are considered to be high or low risk using the following risk classification:

**< 10 – Low Risk – Insignificant**

**≥10 – High Risk - Significant Risk**

Where the residual risks are found to be significant a more detailed assessment will be undertaken, or improvements i.e. additional control measures implemented, to mitigate the risks will be recommended within the conclusions section of this report.

### 4.2 Pre-Requisite Policies and Procedures

The procedures and policies to be implemented at the site to minimise the potential for environmental risk that form part of the site's Environmental Management System (EMS) are summarised within the document referenced AWSM-R05-F2. These policy and procedures, along with the identified impact control measures, have been considered when calculating the residual risk.

### 4.3 Risk Assessment Key

The tables set out below detail the risk assessments undertaken based on the methodology outlined above, for all activities and associated impacts recorded as a 'RA' in Tables 2.2.1 and 2.2.2.

Table 4.3 below summaries the abbreviations and notes associated with the risk assessments.

<b>Table 4.3 – Table Key</b>	
<b>Letter / Symbol</b>	<b>Abbreviation</b>
P	Probability
S	Severity (Impact / Consequence)
R	Risk Level
N	Normal
A	Abnormal
E	Emergency (accident).
General Notes – <ol style="list-style-type: none"> <li>1. This is an Environmental Risk Assessment. No account of Health and Safety risk assessments (human receptors) have been considered in the tables below.</li> <li>2. All contingency planning requirements are dealt with in the Environmental Accident Management Plan and associated procedures.</li> </ol>	

## 4.4 Risk Assessment Tables

Table 4.4.1: Material Delivery, Site and Dispatch Vehicles						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
<b>Odour &gt; Air &gt; Humans</b>  Closest human occupied receptor is c.240 metres from site.	Spillages of materials that are left to degrade.	A / E	<ul style="list-style-type: none"> <li>Implementation of a Regulator approved Odour Management Plan.</li> <li>Spill kits on site.</li> <li>Materials delivered and dispatched in contained / covered vessels.</li> </ul>	1	4	4
<b>Noise &gt; Air &gt; Humans</b>  Closest human occupied receptor is c.240 metres from site.	Noise from material transport vehicles.	N / A / E	<ul style="list-style-type: none"> <li>Transport vehicles maintained under service contract.</li> <li>Drivers instructed not to rev engines unnecessarily or accelerate excessively when leaving site.</li> <li>Vehicles maintained under service contracts to minimise the potential of noise emissions from vibrating parts.</li> <li>Site speed limit.</li> <li>Site access road well maintained.</li> </ul>	2	3	6
<b>Surface Water &gt; Ground / Groundwater Watercourses</b>  Closest human occupied receptor is c.240 metres from site.	Vehicle fuel containment failure, or collision leading to significant spillage of materials, including vehicle fuels and oils that escape off site into surface waters.	A / E	<ul style="list-style-type: none"> <li>Site speed limit enforced.</li> <li>Vehicles maintained under service contract.</li> <li>Vehicles driven by trained drivers.</li> <li>Spill kits on site.</li> </ul>	1	4	4
	Fuel leaks from parked vehicles that escape off site into surface waters.	A / E	<ul style="list-style-type: none"> <li>Vehicles maintained under service contract.</li> <li>Vehicles parked concrete or hard standing.</li> </ul>	1	4	4

Table 4.4.1: Material Delivery, Site and Dispatch Vehicles						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
<b>Ground Water &gt; Groundwater</b>  Underlying ground / groundwater. Site located on a secondary aquifer and not within a Source Protection of Drinking Water safeguard zone.	Vehicle fuel containment failure, or collision leading to significant spillage of materials, including vehicle fuels and oils that escape off site into surface waters.	A / E	<ul style="list-style-type: none"> <li>Site speed limit enforced.</li> <li>Vehicles maintained under service contract.</li> <li>Vehicles driven by trained drivers.</li> <li>Spill kits on site.</li> </ul>	1	4	4
	Fuel leaks from parked vehicles that escape off site into surface waters.	A / E	<ul style="list-style-type: none"> <li>Vehicles maintained under service contract.</li> <li>Vehicles parked concrete or hard standing.</li> <li>Spill kits on site.</li> </ul>	1	4	4
<b>Waste &gt; Production of Waste</b>	Waste generated from the clean-up of spilt materials from vehicles.	A / E	<ul style="list-style-type: none"> <li>Spill kits available to minimise waste.</li> <li>Staff trained in spill containment and control procedures.</li> <li>Dedicated containers used for the clean-up and handling of waste to ensure waste generation is kept to a minimum.</li> </ul>	1	3	3

Table 4.4.2: Material Reception / Unloading / Dispatch						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
<b>Odour &gt; Air &gt; Humans</b>	Spillages of materials that are left to degrade.  Odours released from agitation of stored materials during delivery.	N / A / E	<ul style="list-style-type: none"> <li>Implementation of a Regulator approved Odour Management Plan.</li> <li>Spill kits on site.</li> </ul>	1	4	4

Table 4.4.2: Material Reception / Unloading / Dispatch						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
Closest human occupied receptor is c.240 metres from site.			<ul style="list-style-type: none"> <li>Materials delivered and dispatched in contained / covered vessels.</li> <li>Non-stackable materials delivered to covered stores.</li> <li>Stackable materials that have odour potential delivered in covered skips.</li> <li>Deliveries and collections supervised.</li> <li>Stores fitted with carbon filters to abate displaced gases.</li> <li>Carbon filters inspected and carbon replaced in line with monitoring regime to ensure its effectiveness.</li> </ul>			
<b>Noise &gt; Air &gt; Humans</b>  Closest human occupied receptor is c.240 metres from site.	Noise from material transport vehicles.	N / A / E	<ul style="list-style-type: none"> <li>Transport vehicles and pumps maintained under service contract.</li> <li>Drivers instructed not to rev engines unnecessarily or accelerate excessively when leaving site.</li> <li>Vehicles maintained under service contracts to minimise the potential of noise emissions from vibrating parts.</li> <li>Site speed limit.</li> <li>Site access road well maintained.</li> </ul>	2	3	6
<b>Surface Water &gt; Ground / Groundwater &gt; Watercourses</b>	Vehicle fuel containment failure, or collision leading to significant spillage of materials, including	A / E	<ul style="list-style-type: none"> <li>Site speed limit enforced.</li> <li>Vehicles maintained under service contract.</li> <li>Vehicles driven by trained drivers.</li> </ul>	1	4	4

Table 4.4.2: Material Reception / Unloading / Dispatch						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
Closest human occupied receptor is c.240 metres from site.	vehicle fuels and oils that escape off site into surface waters.		<ul style="list-style-type: none"> <li>Spill kits on site.</li> </ul>			
	Fuel leaks from standing vehicles that escape off site into surface waters.	A / E	<ul style="list-style-type: none"> <li>Vehicles maintained under service contract.</li> <li>Vehicles stand on concrete or hard standing.</li> </ul>	1	4	4
	Spillage during delivery / collection transactions that escapes off site into ground / ground waters.	A / E	<ul style="list-style-type: none"> <li>Deliveries / collections made by suitably trained members of staff.</li> <li>Delivery and collection procedures implemented as part of the EMS.</li> <li>Spill kits on site.</li> <li>Stores constructed to CIRIA 759 standards.</li> <li>All transfer and storage operations undertaken within a secondary containment system, built to CIRIA 736 and on an impermeable surface.</li> </ul>	2	4	8
<b>Ground Water &gt; Groundwater</b>  Underlying ground / groundwater. Site located on a secondary aquifer and not within a Source Protection of Drinking Water safeguard zone.	Vehicle fuel containment failure, or collision leading to significant spillage of materials, including vehicle fuels and oils that escape off site into ground / groundwaters.	A / E	<ul style="list-style-type: none"> <li>Site speed limit enforced.</li> <li>Vehicles maintained under service contract.</li> <li>Vehicles driven by trained drivers.</li> <li>Spill kits on site.</li> </ul>	1	4	4
	Fuel leaks from standing vehicles that escape off site into ground / ground waters.	A / E	<ul style="list-style-type: none"> <li>Vehicles maintained under service contract.</li> </ul>	1	4	4



Table 4.4.2: Material Reception / Unloading / Dispatch						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
			<ul style="list-style-type: none"> <li>Vehicles stand on concrete or hard standing.</li> <li>Spill kits on site.</li> </ul>			
	Spillage during delivery / collection transactions that escapes off site into ground / ground waters.	A / E	<ul style="list-style-type: none"> <li>Deliveries / collections made by suitably trained members of staff.</li> <li>Delivery and collection procedures implemented as part of the EMS.</li> <li>Spill kits on site.</li> <li>Stores constructed to CIRIA 759 standards.</li> <li>All transfer and storage operations undertaken within a secondary containment system, built to CIRIA 736 and on an impermeable surface.</li> </ul>	2	4	8
Waste > Production of Waste	Waste generated from the clean-up of spilt materials from vehicles.	A / E	<ul style="list-style-type: none"> <li>Spill kits available to minimise waste.</li> <li>Staff trained in spill containment and control procedures.</li> <li>Dedicated containers used for the clean-up and handling of waste to ensure waste generation is kept to a minimum.</li> </ul>	1	3	3
	Materials delivered to site that are not in compliance with the Permit.	A / E	<ul style="list-style-type: none"> <li>Deliveries are made following strict pre-acceptance and acceptance procedures to ensure operations are undertaken in accordance with the Permit.</li> </ul>	1	3	3

Table 4.4.3: Material Storage / Bulking						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
<b>Vandalism &gt; Amenity &gt; Humans / Ground &amp; Surface Waters</b>  Closest watercourse is c.320 metres from site.  Site located on a secondary aquifer and not within a Source Protection of Drinking Water safeguard zone.	Vandalism of storage tanks resulting in the escape of materials off site.	A / E	<ul style="list-style-type: none"> <li>Access to site is secure.</li> <li>Farm fitted with CCTV and remote alarm notification systems.</li> <li>Stores constructed to CIRIA 759 standards.</li> <li>All transfer and storage operations undertaken within a secondary containment system, built to CIRIA 736 and on an impermeable surface.</li> <li>All stores fitted with lockable valves which are locked and secured when not in use.</li> </ul>	1	5	5
<b>Odour &gt; Air &gt; Humans</b>  Closest human occupied receptor is c.240 metres from site.	Some of the materials that are stored on site are potentially odorous.  Materials stored on site for prolonged period and left to degrade. Failure of store covers leading to odour releases.	N / A / E	<ul style="list-style-type: none"> <li>Implementation of a Regulator approved Odour Management Plan which outlines the length of time materials are held on site. Operations are of low volume with quick stock turnover.</li> <li>Stores constructed to CIRIA 759 standards.</li> <li>Store integrity inspected as part of sites Infrastructure Monitoring Programmes implemented as part of the EMS.</li> <li>Stores fitted with carbon filters to abate displaced gases.</li> </ul>	2	4	8

Table 4.4.3: Material Storage / Bulking						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
			<ul style="list-style-type: none"> <li>Carbon filters inspected and carbon replaced in line with monitoring regime to ensure its effectiveness.</li> </ul>			
<b>Noise &gt; Air &gt; Humans</b>  Closest human occupied receptor is c.240 metres from site.	Noise from site pumps / stirrers.	N / A / E	<ul style="list-style-type: none"> <li>Site equipment installed and maintained in line with manufactures instructions.</li> </ul>	1	3	3
<b>Fugitive Releases – Dust / Bio Aerosols &gt; Air &gt; Humans</b>  Closest human occupied receptor is c.240 metres from site.	Failure of store covers leading to fugitive releases of ammonia.	A / E	<ul style="list-style-type: none"> <li>Stores constructed to CIRIA 759 standards.</li> <li>Store integrity and covers inspected as part of sites Infrastructure Monitoring Programmes implemented as part of the EMS.</li> </ul>	1	4	4
<b>Surface Water &gt; Ground / Groundwater &gt; Watercourses</b>  Closest human occupied receptor is c.240 metres from site.	Failure of storage systems leading to significant loss of materials entering surface water.	A / E	<ul style="list-style-type: none"> <li>Stores constructed to CIRIA 759 standards.</li> <li>Store integrity and covers inspected as part of sites Infrastructure Monitoring Programmes implemented as part of the EMS.</li> <li>All transfer and storage operations undertaken within a secondary containment system, built to CIRIA 736 and on an impermeable surface.</li> </ul>	1	5	5

Table 4.4.3: Material Storage / Bulking						
Potential Risks <sup>1</sup>			Control Measures	Assessment		
Environmental Risk > Pathway > Receptors	Initiating Event	Condition N/A/E	Risk Management Controls <sup>2</sup>	Residual Risk		
				P	S	R
<b>Ground Water &gt; Groundwater</b>  Underlying ground / groundwater. Site located on a secondary aquifer and not within a Source Protection of Drinking Water safeguard zone.	Failure of storage systems leading to significant loss of materials entering ground water.	A / E	<ul style="list-style-type: none"> <li>Stores constructed to CIRIA 759 standards.</li> <li>Store integrity and covers inspected as part of sites Infrastructure Monitoring Programmes implemented as part of the EMS.</li> <li>All transfer and storage operations undertaken within a secondary containment system, built to CIRIA 736 and on an impermeable surface.</li> </ul>	1	5	5
<b>Waste &gt; Production of Waste</b>	Waste generated as a result of non-permitted materials discharged into stores.	A / E	<ul style="list-style-type: none"> <li>Deliveries are made following strict pre-acceptance and acceptance procedures to ensure operations are undertaken in accordance with the Permit.</li> <li>No ad hoc deliveries of materials to site.</li> </ul>	1	3	3

## 5 Detailed Impact Assessments

---

### 5.1 Introduction

The screening assessment detailed above demonstrates that none of the proposed activities and associated emissions require a detailed Impact Assessment of potential impacts under normal or abnormal operations.

## 6 Conclusion

The Environmental Risk Assessment identified a number of processes and activities on site that have the potential to create an environmental impact on identified environmentally sensitive receptors, under normal, abnormal and emergency (accident) scenarios.

The results of the Environmental Risk Assessment have been summarised in Table 6.1 below.

<b>Table 6.1 Environmental Risk Assessment Summary</b>	
<b>Impact</b>	<b>Significance / Further Assessment</b>
Amenity (litter / vermin / mud / fire / flood / vandalism).	Insignificant impact - no further assessment required.
Odour.	Insignificant impact - no further assessment required.
Noise.	Insignificant impact -no further assessment required.
Fugitive Air Releases (dust / bioaerosols).	Insignificant impact - no further assessment required.
Surface Water.	Insignificant impact - no further assessment required.
Groundwater.	Insignificant impact - no further assessment required.
Air.	Insignificant impact - no further assessment required.
Waste Produced.	Insignificant impact - no further assessment required.
Global Warming Potential (GWP) / Photochemical Ozone Creation Potential (POP).	No potential GWP / POP Sources- no further assessment required.