

# Environmental Risk Assessment

Babraham Research Campus Limited

**Application Reference:** EPR/WE3374AB/A001

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## APPENDICES

REFERENCE	TITLE	DATE
Appendix A	ERA Tables	10/07/2023
Appendix B	Groundsure Report (GS-RH3-W23-LXD-38G)	29/06/2023

# 1. INTRODUCTION

This document is the Environmental Risk Assessment (ERA) that accompanies the application for a bespoke environmental permit for the site located at Babraham Hall, Babraham, Cambridge, CB22 3AT. The site is located at National Grid Reference TL 50526 50613.

The application is to encompass several waste activities, including the bulking and storage of non-hazardous and hazardous, clinical, and WEEE wastes for onward transfer to appropriately permitted operations for further recycling or disposal.

Site will also compact dry mixed recyclables and municipal wastes, to be bulked and then for transferred offsite for further recycling. Finally, a small-scale composting operation will be undertaken for the purpose of land-spreading on the surrounding pastureland to facilitate the maintenance and upkeep of the wider BRC estate.

The proposed activities at site are directly linked to the wider BRC site and the research companies that operate within the campus, and all wastes detailed within this document and those supporting the application originate from these facilities.

The proposed operations are in effect a supporting activity to the operation of the research facility; the operations are not commercial in nature and will not take in wastes outside of the wider BRC site. This is reinforced by the maximum annual throughput of 5,000 tonnes, split evenly between non-hazardous and hazardous wastes (2,500 tonnes each). It is important to note that these are indicated as maximum thresholds and it is unlikely that given the operations on site, throughput will ever near these limits.

The application has been prepared by Wiser Environment Limited on behalf of the applicant Babraham Research Campus Limited. The ERA has been produced in line with Environment Agency guidance, 'Risk assessments for your environmental permit'<sup>1</sup>.

This ERA identifies potential environmental risks and proposes mitigating measures that can reduce adverse impacts and should be read in conjunction with the other supporting documents included within the application.

## 1.1. Scope

This risk assessment is based on the source-pathway-receptor approach. All potential sources of pollution associated with waste acceptance, storage and treatment for recovery activities have been assessed against the principal receptor types identified within the site's vicinity.

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<sup>1</sup> [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit), updated 31 August 2022

The requirement for risk management measures is then dependent on a viable pathway being present between the source and the receptor. Where such pathway exists, management measures are required to reduce risk.

### **1.2. Aims**

This assessment aims to consider potential environmental hazards associated with the activity, to identify sensitive receptors which these may impact, and determine the influence management practice has on reducing risk.

## 2. SITE SETTING

### 2.1. Location



**Figure 1** Aerial image of the site, showing the permit boundary in green

The site operated by BRC is located within the wider research campus, and situated north-west the village of Babraham and approximately 9 km south-east of Cambridge. The A1307 lies approximately 755 m north-east of site and connects to the A11 located approximately 1.6 km south-east of the site boundary.

### 2.2. Humans and Property

There are a range of residential dwellings within 1 km of the permit boundary, with the closest being 45/46 Rowley Lane, approximately 135 m south from the permit boundary, followed by a Residential Close off of Sawston Rd, approximately 400 m SSW of the permit boundary. These are shown on the Sensitive Receptors plan (K436.1~20~002).

### 2.3. Environmentally Sensitive Sites

Environmentally sensitive sites include;

Sites of Special Scientific Interest (SSSI); Special Areas of Conservation (SAC); Special Protection Areas (SPA); RAMSAR sites; National Nature Reserves (NNR); Ancient

Woodlands (AW); Local Nature Reserves (LNR); County Wildlife Sites (CWS); World Heritage Sites; Areas of Outstanding Natural Beauty (AONB); National Parks; and Biodiversity Action Plan (BAP) priority habitats.

### 2.3.1. Designated Environmental Receptors

There are no designated environmentally sensitive sites within 1 km of the site, shown on the Sensitive Receptors Plan (K436.1~20~002). However, there is a singular designated environmentally sensitive sites within 2 km of the Site, summarised in the table below.

**Table 1** Designated Sites

ID	DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
-	Sites of Special Scientific Interest (SSSI) – Sawston Hall Meadows.	1.8 km	SW

The closest site protected by a statutory designation is the Sawston Hall Meadows SSSI located approximately 1.8 km South West of the site. This SSSI location is the only protected SSSI within the 2km boundary extending from the site.

### 2.3.2. Non-Statutory Designated Receptors

A series of non-statutory designated environmental sites are located within 1 km of the permit boundary and summarised in Table 1 below. The locations relative to the permit boundary are also shown on the Sensitive Receptors Plan (K436.1~20~002) with IDs that correspond to the Receptors Table (ERA2) in Section 3.2.

**Table 2** Non-Statutory Designated Sites

ID	DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
1	Priority Habitat - Deciduous Woodland	5 m	SE
2	Priority Habitat - Deciduous Woodland	20 m	NW
3	Priority Habitat - Coastal and Floodplain Grazing Marsh	90 m	E
4	Priority Habitat - Deciduous Woodland	160 m	SE
5	Priority Habitat - Deciduous Woodland	245 m	NW
6	Priority Habitat - Deciduous Woodland	250 m	N
7	Priority Habitat - Deciduous Woodland	400 m	SE
8	Priority Habitat - Traditional Orchard	510 m	SE
9	Priority Habitat - Lowland Meadow	615 m	SSE
10	Priority Habitat - Deciduous Woodland	680 m	NE

11	Priority Habitat - Deciduous Woodland	710 m	SE
12	Priority Habitat - Deciduous Woodland	760 m	N
13	Priority Habitat - Deciduous Woodland	910 m	SSE

Within the 1 km boundary of the site, there are ten non-statutory designated sites of which are priority habitats classified as Deciduous woodland, located throughout the area. A small area approximately 90 m from the site boundary has been designated as a non-statutory Coastal and Floodplain Grazing Marsh, being a priority habitat. Further priority habitats under the non-statutory designations are the Traditional Orchard located approximately 510 m South-East of the permit boundary, and Lowland Meadow located approximately 615 m South-South-East from the site.

## **2.4. Geology**

### **2.4.1. Artificial Ground and Made Ground**

There are two sources of artificial and made ground located within 1 km of the site boundary. The first being an area of undivided Made Ground located approximately 170 m East of the site, which has the rock description of an Artificial Deposit. Followed by an area of Worked Ground, located approximately 230 m East of the site and described as Void.

### **2.4.2. Superficial and Drift Geology**

One superficial deposit was identified on site, description being River Terrace Deposits – Sand and Gravel, approximately located 96 m East of the site Alluvium – Silty Clay has been identified with the. 131 m South-East of the site River Terrace Deposits, 3 – Sand and Gravel was identified,. Followed by River Terrace Deposits, 1 to 2 – Sand and Gravel, , located approximately 234 m East from the site. Two River Terrace deposits are, 3 – Sand and Gravel have been located both 360 m and 474 m West from the site,. All deposits were formed within the Quaternary geological epoch.

### **2.4.3. Bedrock and Solid Geology**

The bedrock geology on site consists of Zig Zag Chalk Formation – Chalk, formed during the Cenomanian Age. 121 m and 498 m from the site, the bedrock geology consists of Melbourn Rock Member – Chalk, formed during the Turonian Age – Cenomanian Age, 136 m South of the site, Holywell Nodular Chalk Formation – Chalk formed during the Turonian Age – Cenomanian Age has been identified. 474 m West from the site, further Zig Zag Chalk Formation was identified, formed during the Turonian Age – Cenomanian Age. These are the only bedrock formations detailed within 500 m of the site.



## 2.5. Hydrogeology

A single Aquifer within superficial deposits is identified on site, and a further one located 474 m West of the site, both of the Secondary A designation:

*“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. These are generally aquifers formerly classified as minor aquifers.”*

A single Aquifer within bedrock deposits is identified and another further Aquifer identified 474 m West of the site, both of the classification Principal:

*“Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers.”*

## 2.6. Hydrology

**Table 3** Surface Water Features

DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
River Granta (Inland river not influenced by normal tidal action)	225 m	E
Small Pond/Area or Surface Water Within Babraham Research Campus	530 m	SE
Small Ditch or Brooke within Residential Area 6	930 m	E

## 2.7. Flood Risk

### 2.7.1. Risk of Flooding from Rivers and Sea

There is no risk of coastal flooding at the site due to the geographical location. There is a medium risk of flooding from rivers within 125 m of the site, meaning there is less than 1 in 30 but greater than or equal to a 1 in 100 chance in any given year of a flooding event occurring.

### 2.7.2. Surface Water Flooding

The UK Government website to check flood risk states that there is a Very Low risk of surface water flooding at the site<sup>2</sup>. The highest risk of surface water flooding identified on site is a 1 in

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<sup>2</sup> [Check the long term flood risk for an area in England - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

30 year event to a depth of 0.1 m to 0.3 m. the highest risk identified within 50 m of the site is a 1 in 30 year event to a depth of 0.3 m to 1 m.

### **2.7.3. Groundwater Flooding**

There is an assigned 'Moderate' risk of groundwater flooding on site and surrounding the site based on a 1 in 100-year return period and a 5m Digital Terrain Model (DTM).

### **2.8. Air Quality**

The site is not located within an Air Quality Management Area (AQMA).

### **2.9. Nature of Risk Assessment**

This document provides a broad and general assessment of the risk factors considered to be of significance for the site, and an evaluation of the impact from the principal risk factors to receptors within the site vicinity.

### 3. METHODOLOGY

#### 3.1. Hazard Identification

A hazard is something with potential to cause harm to something else. Table ERA1 below identifies the principal hazard types which may be associated with the proposed activity; and indicates where hazards are identified and determined to be of significant potential risk to determine further assessment. Potential hazards from this activity are as follows:

ERA1 Identified Hazard Types

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK	REQUIRES FURTHER ASSESSMENT
Odour	Odour	<ul style="list-style-type: none"> <li>• Waste delivery</li> <li>• Waste storage</li> <li>• Waste processing</li> <li>• Material dispatch</li> </ul>	<ul style="list-style-type: none"> <li>• Composting operation</li> <li>• Possible odour from municipal/clinical wastes</li> <li>• All other waste groups stored on site not considered odorous and stored in containers so reduces risk</li> <li>• Limited storage periods</li> </ul>	<p style="text-align: center;">✓</p> <p style="text-align: center;">ERA 8 below</p>
Point Source Emissions to Air	None	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• No point source emissions to Air from the facility</li> </ul>	No
Fugitive Emissions to Air	Dust and Particulate Matter	<ul style="list-style-type: none"> <li>• Waste delivery</li> <li>• Waste compaction process</li> <li>• Waste dispatch</li> </ul>	<ul style="list-style-type: none"> <li>• Dust and particulate matter very low risk due to waste types and containerisation.</li> <li>• Surrounding area is largely open agricultural fields so reduced risk to sensitive receptors.</li> </ul>	<p style="text-align: center;">✓</p> <p style="text-align: center;">ERA 8 below</p>
	Litter and Debris	<ul style="list-style-type: none"> <li>• Waste delivery</li> <li>• Waste compaction process</li> <li>• Waste dispatch</li> </ul>	<ul style="list-style-type: none"> <li>• Limited risk owing to nature of waste and processes on site.</li> </ul>	<p style="text-align: center;">✓</p> <p style="text-align: center;">ERA 9 below</p>
Fugitive Emissions – Pests	Pests, vermin, scavengers	<ul style="list-style-type: none"> <li>• Waste storage (compostable and municipal waste)</li> </ul>	<ul style="list-style-type: none"> <li>• There is a potential for composting material and municipal waste to attract pests</li> </ul>	<p style="text-align: center;">✓</p> <p style="text-align: center;">ERA 10 below</p>
Fugitive Emissions – Mud and Debris	Mud & debris	<ul style="list-style-type: none"> <li>• Vehicles entering and leaving site</li> </ul>	<ul style="list-style-type: none"> <li>• Mud tracked in to/out of site by vehicles</li> </ul>	<p style="text-align: center;">✓</p> <p style="text-align: center;">ERA 11 below</p>
Fugitive Emissions – to Water	Contaminated runoff	<ul style="list-style-type: none"> <li>• Run-off from stored waste</li> <li>• Surface water run-off</li> <li>• Fire waters</li> </ul>	<ul style="list-style-type: none"> <li>• Wastes will be stored in impermeable containers and on an impermeable site surface</li> <li>• All hazardous wastes will be stored in appropriate containers</li> <li>• Wastes stored on site will be on impermeable area with sealed drainage.</li> </ul>	<p style="text-align: center;">✓</p> <p style="text-align: center;">ERA 12 below</p>
Accidents	Transferring substances	<ul style="list-style-type: none"> <li>• Waste delivery</li> <li>• Waste compaction processing</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of waste from vehicle or containers</li> </ul>	<p style="text-align: center;">✓</p> <p style="text-align: center;">ERA 13 below</p>

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK	REQUIRES FURTHER ASSESSMENT
			<ul style="list-style-type: none"> <li>Spillage of waste material during compaction</li> </ul>	
	Plant or equipment failure	<ul style="list-style-type: none"> <li>Waste delivery</li> <li>Failure of compacting machinery</li> <li>Failure of containers and tanks</li> </ul>	<ul style="list-style-type: none"> <li>Spillages from vehicles bringing waste to site – unlikely due to waste type and storage</li> <li>Damage to elements of process</li> </ul>	
	Flooding	<ul style="list-style-type: none"> <li>Flood risk from rivers or sea</li> <li>Surface water flooding</li> <li>Groundwater flooding</li> </ul>	<ul style="list-style-type: none"> <li>Flood zone 1 so very little risk</li> <li>Moderate risk of groundwater flooding</li> </ul>	
	Vandalism	<ul style="list-style-type: none"> <li>Unauthorised access</li> </ul>	<ul style="list-style-type: none"> <li>Risk of damage to machinery vital for process or storage containment</li> </ul>	
	Fire	<ul style="list-style-type: none"> <li>Stored waste</li> <li>Mobile plant/process equipment</li> </ul>	<ul style="list-style-type: none"> <li>Uncontrolled emissions of smoke and fire water</li> </ul>	
Noise and Vibration	Transferring substances	<ul style="list-style-type: none"> <li>Delivery of waste</li> <li>Compaction processing</li> <li>Material dispatch</li> </ul>	<ul style="list-style-type: none"> <li>Delivery of waste and vehicle movements is limited due to the amount of waste storage taken</li> <li>Site is located in agricultural area and only waste deliveries come from within site 'Babraham Research Campus'</li> <li>Site is only active within typical work hours so non-disruptive</li> </ul>	<p style="text-align: center;">✓ ERA 14 below</p>

### **3.2. Receptors**

A receptor is the object (e.g., person, organism, resource, or property) impacted by a hazard. For example, odour may cause offence to a human (the receptor). When identifying receptors which may be at risk from the site, the following have been considered:

- Ancient woods
- Locations used to grow food or to farm animals or fish
- Drain and sewer systems
- Factories and other businesses
- Fields and allotments used to grow food
- Footpaths
- Roads and railways
- Groundwater beneath the site
- Homes, or groups of homes
- Playing fields and playgrounds
- Private drinking water supplies
- Regionally important geological sites
- Schools, hospitals, and other public buildings
- Water
- Conservation and habitats protected areas and areas of scientific interest

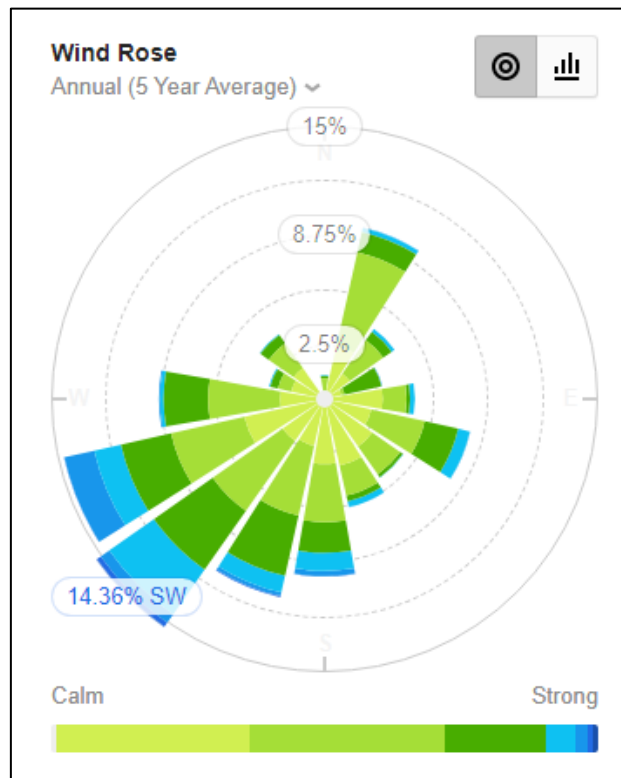
Sensitive receptors within 1 km of the permit boundary are shown on the Site Setting Plan (K436.1~20~002). The IDs on the Sensitive Receptors Plan correspond to the Receptors Table (ERA2) below.

ERA2 Receptors

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
HUMANS AND PROPERTY	-	Site Workers	On site	-
	-	Site Visitors	On site	-
	<b>INHABITANTS OF RESIDENTIAL PROPERTIES</b>			
	1	45/46 Rowley Lane	135 m	S
	2	Residential Close off of Sawston Rd	400 m	SSW
	3	42 High Street	690 m	SE
	4	Residential Dwellings off High Street	695 m	SE
	5	Residential Dwelling 'The Close'	750 m	ESE
	6	Oak Ln and High Street Residential Dwellings	945 m	ESE
	7	Residential Dwelling off A1307 Cambridge Rd	970 m	N
	<b>SENSITIVE PUBLIC USE</b>			
	1	Babraham Church of England Primary School	485 m	SE
	2	Babraham Nursery	895 m	E
	<b>COMMERCIAL USE</b>			
	1	Continuation of Babraham Research Campus Site	5 m	SW
	2	Continuation of Babraham Research Campus Site	5 m	SE
	3	Continuation of Babraham Research Campus Site	225 m	E
	4	KWA Architects (Cambridge) and George Inn	785 m	SE
	5	Construction Site - Bennett Wy and Railway Cl	950 m	WSW
	<b>PUBLIC RIGHTS OF WAY</b>			
	1	Public Right of Way - Footpath	160 m	E
	2	Public Right of Way - Footpath	435 m	S
	3	Public Right of Way - Footpath	610 m	SW
	<b>ROADS AND RAILWAYS</b>			
	1	Rowley Ln	140 m	SSW
	2	Sawston Rd	545 m	SW
	3	Babraham High Street	600 m	SE
	4	A1307 - Cambridge Road	755 m	NE
	<b>RECREATIONAL AREAS</b>			
	1	Open Field by Babraham Cricket Club	290 m	SSE
	2	Babraham Cricket Club	450 m	SSE
	3	Open Field by Babraham Research Campus and Residential Dwelling (5)	515 m	E
<b>AGRICULTURAL AND ALLOTMENTS</b>				
1	Allotments Alongside the Site	<5 m	E	
WATER	<b>SURFACE WATER</b>			
	-	River Granta	225 m	E

	-	Small Pond/Area or Surface Water Within Babraham Research Campus	525 m	SE
	-	Small Ditch or Brooke within Residential Area 6	930 m	E
	<b>GROUNDWATER</b>			
	-	Bedrock Aquifer: MAGIC - Principal	On site	-
	-	Superficial Aquifer: MAGIC – Secondary A	On site	-
<b>ENVIRONMENTALLY SENSITIVE SITES</b>	<b>DESIGNATED SITES</b>			
		Sites of Special Scientific Interest (SSSI) – Sawston Hall Meadows.	1.8 km	SW
	<b>NON-DESIGNATED SITES</b>			
	1	Priority Habitat - Deciduous Woodland	5 m	SE
	2	Priority Habitat - Deciduous Woodland	20 m	NW
	3	Priority Habitat - Coastal and Floodplain Grazing Marsh	90 m	E
	4	Priority Habitat - Deciduous Woodland	160 m	SE
	5	Priority Habitat - Deciduous Woodland	245 m	NW
	6	Priority Habitat - Deciduous Woodland	250 m	N
	7	Priority Habitat - Deciduous Woodland	400 m	SE
	8	Priority Habitat - Traditional Orchard	510 m	SE
	9	Priority Habitat - Lowland Meadow	615 m	SSE
	10	Priority Habitat - Deciduous Woodland	680 m	NE
	11	Priority Habitat - Deciduous Woodland	710 m	SE
12	Priority Habitat - Deciduous Woodland	760 m	N	
13	Priority Habitat - Deciduous Woodland	910 m	SSE	
<b>HERITAGE SITES</b>	<b>LISTED BUILDINGS &amp; PARKS</b>			
	1	Parish Church - St Peter's Church - Grade 1 Listed Building	205 m	E
	2	Babraham Hall - Grade 2 Listed Building	490 m	E
	3	Church Farmhouse - Grade 2 Listed Building	560 m	S
	4	Nine Grade 2 Listed Buildings	790 m	SE

### 3.3. Prevailing Wind Direction



**Figure 2:** Andrewsfield wind rose. Annual 5-year average, 2018-2023 ([willyweather.co.uk](http://willyweather.co.uk)).

The closest observing station where wind statistic data is available is at Andrewsfield, approximately 30 km Southeast of the permit boundary. Figure 2 presents the wind statistics on a wind rose as an annual average using data from the previous 5 years (2018-2023). The wind rose indicates that the sensitive receptors located towards the north-east of the site are potentially at greatest risk from hazards transmitted through the air.

### 3.4. Pathways

The pathway is the means by which the hazard reaches the receptor and forms the link between the two. For example, a dust hazard may reach a receptor by travelling through air, with the air therefore being the pathway.

The source-pathway-receptor link must be present for there to be a risk. Management measures applied at the site act to minimise the overall risk by impeding or removing the pathway.



### ERA3 Pathways

RECEPTOR	HAZARD	PATHWAY
<b>Humans and Property</b>	Odour	Transmitted through the air
	Dust and Particulate Matter	Transmitted through the air
	Noise	Transmitted through the air
	Birds, Vermin & Insects	Physical travel
	Fire	Physical contact and spread
<b>Groundwater</b>	Contaminated runoff	Infiltration through the ground
<b>Surface Water</b>	Contaminated runoff	Direct discharge from site
<b>Environmentally Sensitive Sites</b>	Dust and Particulate Matter	Transmitted through the air
	Noise	Transmitted through the air
	Fire	Physical contact and spread
<b>Atmosphere</b>	Dust and Particulate Matter	Transmitted through the air

### 3.5. Risk

Assessment of risk is based on the probability of receptor exposure to the identified hazards and the consequences of such exposure. The initial assessment of risk is made assuming no risk management practices are applied.

A matrix is used to determine overall risk and uses the following definitions:

#### ERA4 Probability of Exposure

PROBABILITY OF EXPOSURE
<b>HIGH</b> – <i>exposure is probable</i> : direct exposure likely with no / few barriers between hazard, source and receptor.
<b>MEDIUM</b> – <i>exposure is fairly probable</i> : feasible exposure possible, barriers to exposure less controllable.
<b>LOW</b> – <i>exposure is unlikely</i> : several barriers exist between hazards source and receptors to mitigate against exposure.
<b>VERY LOW</b> – <i>exposure is very unlikely</i> ; effective, multiple barriers in place to mitigate against exposure.

#### ERA5 Consequences of Exposure

CONSEQUENCES OF EXPOSURE
<b>HIGH</b> – <i>the consequences are severe</i> : sufficient evidence that short or long term exposure may result in serious damage.
<b>MEDIUM</b> – <i>consequences are significant</i> ; sufficient evidence that exposure to hazard may result in damage that is not severe in nature and reversible once exposure ceases (e.g. irritant).
<b>LOW</b> – <i>consequences are minor</i> ; damage not apparent though reversible adverse changes may occur.
<b>VERY LOW</b> – <i>consequences are negligible</i> ; no evidence of adverse changes following exposure.

Comparison between probability and consequence provides the overall risk which is reached as follows:

### ERA6 Assessing Overall Risk

		CONSEQUENCES			
		Very Low	Low	Medium	High
LIKELIHOOD	High	Low	Medium	High	High
	Medium	Low	Medium	Medium	High
	Low	Low	Low	Medium	Medium
	Very Low	Very Low	Low	Low	Low

### 3.6. Risk Management

Risk management practices for the key hazards identified above are summarised in Section 4 of this ERA. The information presented below is supported by various documents and this is clearly indicated within each table presented. In addition, risk management measures have been developed with reference to relevant guidance documents, the following being of particular note:

- Environmental Management – Guidance: Risk assessment for your environmental permit<sup>3</sup>
- Guidance: Noise and vibration management: environmental permits<sup>4</sup>
- Guidance: Control and monitor emissions for your environmental permit<sup>5</sup>
- Sector Guidance Note S5.06: Recovery and disposal of hazardous and non-hazardous waste.<sup>6</sup>

This risk assessment details the key management measures for identified risks.

### 3.7. Residual Risk

The application of management practice results in a residual risk which is detailed in Section 4 of this document.

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<sup>3</sup> [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit), Updated 31 August 2022

<sup>4</sup> [Noise and vibration management: environmental permits - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/noise-and-vibration-management-environmental-permits), Updated 31 January 2022

<sup>5</sup> [Control and monitor emissions for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit), Updated 24 November 2022

<sup>6</sup> [Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/sector-guidance-note-s506-recovery-and-disposal-of-hazardous-and-non-hazardous-waste), Updated 10 October 2018

## 4. RISK ASSESSMENT

The key hazards identified for the activity have been subject to a risk assessment against management practice. Each hazard is assessed in a separate table (Appendix A). The information presented is, as appropriate, supported by other documents and these are referenced.

Many of the hazards identified in the tables located in Appendix A relate to 'Environmental Risk Points (ERP)' identified throughout the processes:

### ERA7 Environmental Risk Points (ERP)

REFERENCE	PROCESS
ERP1	Material receipt
ERP2	Material storage pending treatment
ERP3	Treatment processes
ERP4	Material dispatch

## 5. APPENDICES

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## **Appendix A**

Environmental Risk Assessment Tables

(10/07/2023)

## **Appendix B**

Groundsure Environmental Report

[GS-RH3-W23-LXD-38G]

(29/06/2023)