

Recycling and recovery UK

Document Details

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September 2023	Version 1.0	Original produced as part of permit variation to add waste codes to the environmental permit.



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1. Introduction

- 1.1 This environmental risk assessment (ERA) has been prepared to support an application to vary the environmental permit (permit) at North Sunderland Household Waste Recycling Centre(the site) to regularise the acceptance of hazardous waste and to add the following waste codes to the environmental permit:-
 - 13 02 04* Mineral-based chlorinated engine, gear and lubricating oils
 - 13 02 05* Mineral-based non-chlorinated engine, gear and lubricating oils
 - 13 02 06* Synthetic engine, gear and lubricating oils
 - 13 02 07* Readily biodegradable engine, gear and lubricating oils
 - 13 02 08* Other engine, gear and lubricating oils
 - 15 01 01 Paper and cardboard packaging
 - 15 01 02 Plastic packaging
 - 15 01 03 Wooden packaging
 - 15 01 04 Metallic packaging
 - 15 01 05 Composite packaging
 - 15 01 06 Mixed packaging
 - 15 01 07 Glass packaging
 - 15 01 09 Textile packaging
 - 15 01 10* Packaging containing residues of or contaminated by dangerous substances
 - 15 01 11* Metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers
 - 15 02 02* Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances
 - 15 02 03 Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
 - 16 01 03 End-of-life tyres
 - 16 05 04* Gases in pressure containers (including halons) containing dangerous substances
 - 16 05 05 Gases in pressure containers other than those mentioned in 16 05 04
 - 16 06 01* Lead batteries



- 16 06 02* Ni-Cd batteries
- 16 06 03* Mercury-containing batteries
- 16 06 04 Alkaline batteries (except 16 06 03)
- 16 06 05 Other batteries and accumulators
- 17 01 07 Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
- 17 06 04 Insulation materials other than those mentioned in 17 06 01 and 17 06 03
- 17 08 02 Gypsum-based construction materials other than those mentioned in 17 08 01
- 17 09 04 Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
- 19 12 06* Wood containing dangerous substances
- 20 01 13* Solvents
- 20 01 14* Acids
- 20 01 15* Alkalines
- 20 01 17* Photochemicals
- 20 01 19* Pesticides
- 20 01 21* Fluorescent tubes and other mercury-containing waste
- 20 01 23* Discarded equipment containing chlorofluorocarbons
- 20 01 26* Oil and fat other than those mentioned in 20 01 25
- 20 01 27* Paint, inks, adhesives and resins containing dangerous substances
- 20 01 29* Detergents containing dangerous substances
- 20 01 33* Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
- 20 01 35* Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
- 20 01 37* Wood containing dangerous substances
- 1.2 Further details of the site operations are contained in the Operations & Emissions Management Plan.
- 1.3 This ERA is an assessment of the risks to the environment and human health from odour, noise, and fugitive emissions that may be associated with the site activities. The site also has a separate Accident Prevention and Management Plan that covers an assessment of reasonably foreseeable accidents on site.



2. Risk Assessment Methodology

- 2.1 This assessment follows the methodology set out in 'Risk assessments for your environmental permit' at: https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit.
- 2.2 The ERA methodology for a bespoke permit requires:
 - identification of the potential risks associated with the activity (Section 3)
 - the receptors that may be at risk (Section 4 and Table 1)
 - the possible pathways from the sources of the risk to the receptors (Tables 2 4)
 - if identified risks are considered too high, control measures are required (Tables 2 4)
- 2.3 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.
- 2.4 Environment Agency (EA) guidance requires all receptors that are near the site and that could reasonably be affected by the proposed activities, to be identified and considered as part of the assessment.
- 2.5 For the purposes of this assessment a 1km radius has been adopted in reviewing potential receptors of ecological importance along with receptors such as sites of cultural and natural heritage, residential, commercial, industrial, agricultural and surface water.
- 2.6 The risk is determined by the probability of a hazard occurring and the likely consequences of any impact. The assessment of risk considers the residual risk that remains after implementation of the preventative measures.
- 2.7 Risk assessment definitions and the risk estimation matrix are presented in Appendix A.

3 Source of Risk

- 3.1 The proposal comprises the acceptance of waste streams that are typically permitted to be accepted at Household Waste Recycling Centres.
- 3.3 The potential risk of odour, noise and fugitive emissions from the site activities have been considered in Section 5 and are detailed in Tables 2 to 4.

4 Site Setting and Receptors

4.1 Site Setting

4.1.1 The site is located at Broad Road, Seahouses, Northumberland, NE68 7UP at National Grid Reference (NGR) NU 20960 31610. The permit boundary and site layout are presented in Figure 1 and 2 respectively.



- 4.1.2 The site is situated within a rural area located approximately 165m north west from the village centre of North Sunderland. Access to the site is achieved via an access road off Broad Road and is located to the north of the site. The closest residential receptor is located approximately 30m south from the site off Bamburgh View.
- 4.1.3 A Nature and Heritage Conservation Screen (Reference Number EPR/KP3497ZQ/V002) was requested from the EA. This screen determines the presence of any sites of nature and heritage conservation, or protected species or habitats that may be impacted by the proposal. The results of the screen found that there are five European sites of ecological significance (i.e. Special Protection Areas, Special Areas of Conservation or Ramsar sites). Details of these sites are provided in Table 1 below (receptors 19 to 22).

4.2 Receptors

- 4.2.1 Sensitive receptors within 1km of the site are identified in Figure 3. The distance of these receptors to the site boundary and their direction relative to the site is detailed in Table 1 below.
- 4.2.2 As mentioned in Section 4.1.3, receptors 19 to 22 relate to European sites that were identified by the EA through a Nature and Heritage Conservation Screen. These receptors are located over 1km from the site and therefore are not identified in Figure 3. However, the location of these sites is available in the EA's Nature and Heritage Conservation Screen report (reference EPR/KP3497ZQ/V002) dated 15th June 2023. A copy of this report is provided in Appendix B.

Table 1 - Sensitive Receptors

No.	Receptor	Category	Distance (m)	Direction from site
1	Broad Road Industrial Estate	Commercial	100	North East
2	Residential properties in North Sunderland	Residential	30	South
3	Westfield Farm Steading Holiday Cottages	Residential/Recr eational	535	North West
4	Westfield Farmhouse	Residential	605	North West
5	Westfield Paddock Touring Caravan Site	Residential/Recr eational	650	North West
6	Springhill Farm Self Catering Holiday Cottages	Residential/Recr eational	785	North West



7	Southfield Farm	Residential/Agri cultural	780	South
8	Seafield Caravan Park	Residential/Recr eational	315	North East
9	Residential area in Seahouses	Residential	580	East
10	Seahouses Primary School	Educational	585	East
11	Seafield Sports Park	Recreational	365	North East
12	Play Space	Recreational	615	North East
13	Play Space	Recreational	870	East
14	Bowling Green	Recreational	820	South East
15	Agricultural land	Agricultural	10	North & West
16	Agricultural land	Agricultural	340	South East
17	Broad Road	Public Highway	65	East
18	Main Street	Public Highway	175	South East
19	Northumbria Coast	Ramsar and SPA	1,240	North East
20	Northumberland Shore	SSSI	1,240	North East
21	Berwickshire & North Northumberland Coast	SAC	1,180	North East
22	Northumberland Marine	SPA	1,180	North East
23	Engine Burn	Surface Water	665	South West
24	Groundwater (Secondary A)	Groundwater	-	Beneath Site

5 Risk Assessment and Management Measures



- 5.1 The risk assessment and management measures are detailed in Tables 2 to 4 below. This assessment considers potential risks associated with:
 - Odour
 - Noise
 - Fugitive emissions, specifically
 - o To air including dust and particulates
 - To water including contaminated surface water run-off
 - o Pests
 - Mud and litter



Table 2 - Odour Risk Assessment

	you do that can harm and nat could be harmed		•		Assessing the Risk			
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?		
What is the agent or process with the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard come into contact with the receptor?	What measures are taken to reduce the risk? If it occurs 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		
Odour from storage of putrescible waste	Receptors 1 to 14	Air	The proposal involves the addition of waste codes that are typically accepted at HWRC facilities. The proposed waste codes are not putrescible in nature and therefore the risk of odour from the proposed waste streams is expected to be low. Nevertheless, the following measures are currently employed on site to minimise the risk of odour. Particularly malodorous wastes will be segregated and removed from site at the earliest convenience.	Low – the management procedures should prevent emissions of odour.	Medium/Low - Nuisance	Low – The management procedures employed reduce the likelihood of impact		



IMS procedures include a daily requirement for site staff to qualitatively assess odour; if perceived to be excessive, measures will be taken to identify the source of any malodourous and take appropriate remedial action.		
All complaints received associated with odour will be recorded and investigated in line with company procedures.		



Table 3 - Noise Risk Assessment

_	lo that can I uld be harm	narm and what ned	Managing the Risk	,	Assessing the Ris	k
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What is the agent or process with the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard come into contact with the receptor?	What measures are taken to reduce the risk? If it occurs 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
Noise and vibration from vehicles delivering and removing waste at the site	Receptors 1 to 14	Noise through the air and vibration through the ground	Although the proposal involves the addition of waste codes, there will be no changes to the annual throughput or storage capacity at the site. As such, the risk of noise and vibration is not expected to increase. However, the following measures are currently employed on site to minimise the risk of noise and vibration. H&S Legislation is in place to ensure SUEZ protects its employees from the effects of noise. All noise generating activities will be confined to the operational hours that are stipulated within the planning permission with the exception of emergency repairs.	Low – operations occur during the daytime as stipulated in the extant Planning Permission.	Medium/Low - Nuisance	Low – The management procedures employed reduced the likelihood of impact.



The delivery and loading of waste will take place in a controlled manner to keep noise/vibration to a minimum.

A maximum speed limit of 5mph is set for vehicles operating on site. This will minimise the generation of excessive noise arising from higher vehicle speeds. Clear signage will be established across the site to reinforce the vehicle speed limit.

HWRC collection/bulking vehicles will be fitted with 'white noise' reversing beacons which minimise the intrusive nature of the safety measure.

Daily checks via the Vision app include a requirement for site staff to qualitatively assess noise levels; if perceived to be excessive the action causing the emission will be halted.

All complaints received associated with odour will be recorded and investigated in line with company procedures.



Table 4 – Fugitive Emissions Risk Assessment

What do you do	o that can ha uld be harme		Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What is the agent or process with the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard come into contact with the receptor?	What measures are taken to reduce the risk? If it occurs 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
To Air					'	
Dust and Particulates during waste handling and storage operations.	Receptors 1 to 18	Air transport and deposition	The proposal involves the addition of waste codes to the environmental permit. Although some of the proposed waste codes may present a risk of dust, it's key to note that the site is already permitted to accept waste codes that pose a potential risk to dust. In addition, there are no proposed changes to the operational characteristics of the site including the storage capacity or annual throughput. As such, the risk of dust is not expected to increase as a result of the proposed changes.	Low – the management actions should prevent emissions of dust	Low – human health risk in immediate vicinity, nuisance risk to nearby vehicles and property.	Negligible



Nevertheless, the following measures are currently employed on site to minimise the risk of dust and particulates. Any activities causing particulates emissions from the facility will be immediately suspended until climatic conditions improve and/or appropriate dust suppression measures are implemented. Maintenance/cleaning of hard surfaced areas to ensure they remain free of dust generating materials. A maximum speed limit of 5mph is set for vehicles operating onsite. Further dust suppression measures will be identified and implemented if there is any risk identified of dust emanating past the site boundary, with attention to meteorological conditions which may exacerbate potential dust issues. IMS procedures include a daily requirement for site staff to qualitatively assess dust; if perceived to be excessive measures will be taken to identify the source of any dust/particulates and take appropriate remedial action. Weekly checks via the Vision app include a requirement for site staff to undertake visual inspections of the status of the storage containers to ensure continuing integrity and fitness



			for purpose. If damage or other problems are identified they are rectified as soon as possible.			
To Water		<u>'</u>			<u>'</u>	1
Contaminated rainwater from contact with waste oil and batteries Oil, fuel or hydraulic fluid spillage onto site surfacing	Receptors 19 to 24	Run off of contaminated water	The site is provided with impermeable concrete surfaces and sealed drainage system to prevent the transmission of potentially contaminated liquids into groundwater beneath the site. All oil storage on site takes place in accordance with relevant legislation and in suitably bunded containers. Emergency spillage procedures are in place to ensure any oil, hydraulic fluids etc are dealt with before they enter the drainage system. A supply of spill kits will be located around the site. Interceptors and drainage system are cleaned at suitable intervals to maintain their effectiveness. Batteries will be stored in battery boxes that will contain any spillage of acid batteries and prevent water ingress. Batteries will be held within storage boxes pending removal by a carrier holding the relevant Waste Carrier's Licence,	Low – The engineered systems and infrastructure are designed to prevent any discharge of contaminated rainwater run off	Medium – contamination of local water bodies and/or groundwater	Low - due to the design of the site



			responsible manner. The batteries will be taken to an appropriate permitted/registered facility. The hardstanding and drainage system are inspected as required by the sites IMS. The results of inspections are recorded. Any remedial actions required are recorded in the site diary. Weekly checks via the Vision app include a requirement for site staff to undertake visual inspections of the status of the drainage. The drainage is emptied and cleaned at least twice a year; if damage or other problems are identified they are rectified as soon as possible.			
Pests						
Scavenging birds or animals attracted to site and carrying waste off site. Flies and vermin breeding in waste stockpiles.	Receptors 1 to 23	Air – waste dropped by birds. Land – waste removed from site by scavenging animals.	The proposal involves the addition of waste codes to the environmental permit. The proposed waste codes are not putrescible in nature and therefore the risk of pests from the proposed waste streams is expected to be low. Nevertheless, the following measures are currently employed on site to minimise the risk of pests.	Low – The management actions should reduce the risk	Medium - Nuisance, property damage and risk of vermin spread infections.	Low – the management procedures in place reduce likelihood of impact.



			Any wastes found to contain flies on entry to the site will either be treated appropriately with the fly spray treatment or removed from the site as quickly as possible. All wastes with potential to attract pests will be stored in			
			dedicated storage containers which will minimise the risk of pest infestation.			
			Putrescible wastes will generally be stored for a short period. This will minimise the risk of fly infestation.			
			Routine inspections are undertaken as required by our IMS and appropriate action will be taken in the event that the inspections indicate the presence of any pests or vermin.			
			A pest control contractor will be appointed to attend the site at regular intervals (to be determined) by the contractor in accordance with IMS procedures. Additionally, the pest control contractor will be called to site to deal with any vermin/pest related problems that may arise between scheduled visits.			
Mud/Litter						
Litter, debris and mud on the public highway.	Receptors 17 and 18 (for mud)	Debris, mud and litter tracked onto	The site benefits from a hardstanding surface and therefore it is unlikely that any vehicle will track over any mud while they are on site.	Low – the management actions should	Medium - Nuisance and potential health and safety hazard	Low – The management procedures in place



Receptors 1	local	IMS procedures require that all vehicles leaving the site are	prevent	caused by waste on	minimise the
to 23 (for	highways by	inspected for cleanliness, any vehicles not reaching the	materials being	the highway.	likelihood of impact.
litter)	vehicles	required standard will be manually cleaned before leaving	tracked/dropped		
	leaving the	site to prevent material being tracked onto local highways.	onto local		
	site.	Remedial arrangements will be employed in response to any	highways		
		specific instances of significant mud/debris being tracked			
		onto local highways.			
		Site staff will regularly undertake litter picking as required.			



6 Conclusion

- 6.1 The risk assessments in Tables 2 to 4 identify appropriate mitigation measures to control the potential environmental risks from the proposed activities. All identified risk mitigation measures will be incorporated within the management system for the site.
- The environmental risk assessment indicates that provided the risk mitigation measures identified in the tables above are implemented, the overall environmental risks can be summarised in Table 5 below.

Table 5 - Summary of Environmental Risk

Hazard	Overall Risk	Detailed Management Plan Required?		
Odour	Low	No – Proposed waste codes are not putrescible in nature and therefore the risk of odour is not expected to increase as a result of this variation. Nevertheless, the risk of odour has been addressed as part of the Environmental Risk Assessment.		
Noise	Low	No – There are no proposed changes to the annual throughput or storage capacity at the site and therefore the risk of noise and vibration is not expected to increase as a result of this variation. Nevertheless, the risk of noise has been addressed as part of the Environmental Risk Assessment.		
Pests	Low	No – Proposed waste codes are not putrescible in nature and therefore the risk of pests is not expected to increase as a result of this variation. Nevertheless, the risk of pests has been addressed as part of the Environmental Risk Assessment.		
Dust	Low	No – not requested by the EA during pre-application discussions. In addition, the EA's 'Control and monitor emissions for your environmental permit' guidance indicates that a Dust Management Plan is not required for HWRCs. Nevertheless, the risk of dust has been addressed as part of the Environmental Risk Assessment.		
Mud/Litter	Low	No - not requested by the EA during pre-application discussions. Nevertheless, the risk of mud and litter has been addressed as part of the Environmental Risk Assessment.		



Figures



Figure 1

North Sunderland HWRC - Location Plan





Figure 2

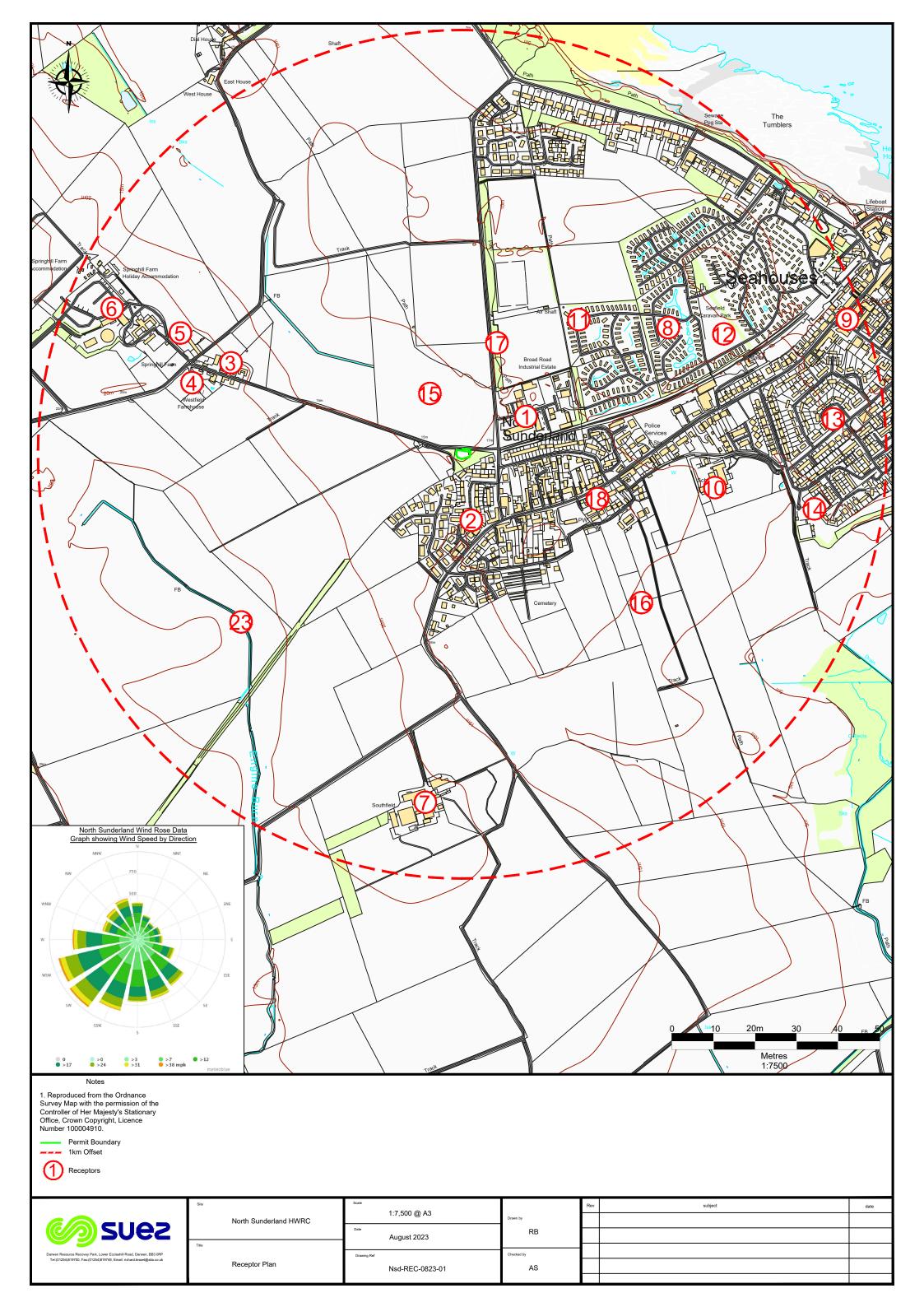
North Sunderland HWRC - Site Layout





Figure 3

North Sunderland HWRC – Receptor Plan





Appendix A

Risk Assessment Definitions and Risk Estimation Matrix



Risk Assessment Definitions

Hazard: A property or situation that in particular circumstances could lead to harm.

Probability: The chance that a hazard will evolve and that the hazard will follow a pathway to a receptor:

Probability	Definition
High (H)	Will definitely occur
High/Medium (H/M)	High possibility of occurrence
Medium (M)	Likely to occur
Medium/Low (M/L)	Low possibility of occurrence
Low (L)	Very unlikely to occur

Consequence: The adverse effects or impacts of a hazard being realised upon a receptor:

Probability	Definition
High (H)	Possible irreparable damage to environmental resources and or human life
High/Medium (H/M)	Possible irreparable damage to environmental resources
Medium (M)	Possible damage to environmental resources which are limited within a regional context
Medium/Low (M/L)	Possible effects might be transient damage to environmental resources which are commonplace on a regional basis and alternative resources are readily available
Low (L)	The effects are negligible or might cause very slight temporary deterioration in the current environmental resource quality.



Risk:

A combination of the probability, or frequency of occurrence of a defined hazard and the consequence and magnitude of impact. The general High (H), High/Medium (H/M), Medium (M), Medium/Low(M/L) and Low (L) ratings listed in the risk assessment tables are for use as a guide only based on:

Matrix for the Estimation of the Risk							
	Consequence						
Probability of the Risk	High	High/Medium	Medium	Medium/Low	Low		
High	High	High	High/Medium	Medium	Medium		
High/Medium	High	High/Medium	Medium	Medium	Medium		
Medium	High/Medium	Medium	Medium	Medium	Medium/Low		
Medium/Low	Medium	Medium	Medium	Medium/Low	Low		
Low	Low	Low	Low	Low	Negligible		



Appendix B

Copy of EA's Nature and Heritage Conservation Screen (EPR/KP3497ZQ/V002)



Screening Report: Bespoke Waste

Reference EPR/KP3497ZQ/V002

NGR NU 20946 31618

Buffer (m) 20

Date report produced 15/06/2023

Number of maps enclosed 4

The nature and heritage conservation sites and/or protected species and habitats identified in the table below must be considered in your application.

Nature and heritage conservation sites	Screening distance (m)	Further Information
Special Areas of Conservation (cSAC or SAC)	1000	Joint Nature Conservation Committee
Berwickshire & North Northumberland Coast		
Special Protection Area (pSPA or SPA)	1000	Joint Nature Conservation
Northumbria Coast		Committee
Northumberland Marine		
Ramsar	1000	Joint Nature Conservation
Northumbria Coast		Committee
Sites of Special Scientific Interest (SSSI)	1000	Natural England

Northumberland Shore

Please note we have screened this application for protected and priority sites, habitats and species for which we have information. It is however your responsibility to comply with all environmental and

planning legislation, this information does not imply that no other checks or permissions will be required.

Please note the nature and heritage screening we have conducted as part of this report is subject to change as it is based on data we hold at the time it is generated. We cannot guarantee there will be no changes to our screening data between the date of this report and the submission of the permit application, which could result in the return of an application or requesting further information.

Special Areas of Conservation





Special Protection Areas





Ramsar Sites





Sites of Special Scientific Interest



