Recycling and recovery UK

Newquay

Household Waste Recycling Centre (HWRC)

1.3 Environmental Risk Assessment

December 2025

DOCUMENT DETAILS

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DOCUMENT REVIEW HISTORY

Date	Version	Summary of Changes
December 2025	1.0	Original document to support environmental permit application for a HWRC

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APPENDICES

1 INTRODUCTION

1.1.1 This Environmental Risk Assessment (ERA) has been prepared to supports an application for a new environmental permit for Newquay Household Waste Recycling Centre (HWRC), Stret Percival, Newquay TR8 4NY, Cornwall.

1.1.2 Further details of the site operations are contained in the Operations Management Plan (Document Reference 1.2).

1.1.3 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 (Document reference 1.4) that covers an assessment of reasonably foreseeable accidents on site.

2 RISK ASSESSMENT METHODOLOGY

2.1.1 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.

2.1.2 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 - 5)
- if identified risks are considered too high, control measures are required (Tables 2 - 5)

2.1.3 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.

2.1.4 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.

2.1.5 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.

2.1.6 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.

2.1.7 Risk assessment definitions and the risk estimation matrix are presented in Appendix A.

3 SOURCE OF RISK

3.1.1 The site will operate as a HWRC, accepting non-hazardous and hazardous waste types typically expected to arise from households from the public. The site has an annual waste acceptance limit of 25,000 tonnes.

3.1.2 The activities at the site will be limited to handling, storage and transfer of hazardous and non-hazardous household waste. Treatment will be limited to manual sorting, separation, , bulking and light compaction to aid transport.

3.1.3 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 on Stret Percival in Nansledan, Newquay, TR8 4NY at National Grid Reference SW 83290 60607.

4.1.2 The site is located approximately 2km southwest of the centre of Newquay. Access to the site is via the A392 to the south of the site. The land surrounding the site is predominantly agricultural and residential. The closest residential buildings are located approximately 100m west of the site boundary.

4.1.3 A search of the Multi-Agency Geographic Information for the Countryside (MAGIC) website confirms there to be no European sites of ecological significance (i.e. Special Protection Areas, Special Areas of Conservation or Ramsar Sites) or Sites of Special Scientific Interest (SSSIs) located within 1km of the site.

4.2 Receptors

4.2.1 The nearest sensitive receptors to the site are identified in Figure 2. The distance of these receptors to the site boundary and their direction relative to the site is detailed in Table 1 below.

Table 1 – Sensitive Receptors

No.	Receptor	Category	Distance (m)	Direction from site
1	Secondary A Aquifer	Groundwater	0	N/A
2	Stream running into Ponds	Surface Water	210	North
3	Ponds near Trenance Stream	Surface Water	400	North
4	Trenance Stream	Surface Water	460	North
5	Trencreek Heights	Residential	100	West

No.	Receptor	Category	Distance (m)	Direction from site
6	Crossing Mews	Residential	200	Northwest
7	Housing along access road	Residential	250	Southwest
8	Lane	Residential	280 - 1000	Southwest
9	Hendra Holiday Park	Residential/ Recreation	320	South
10	Tretherras	Residential	350 – 1000	Northwest
11	Houses off A392	Residential	490	Southeast
12	Trencreek Holiday Park	Residential/ Recreation	530	Northwest
13	Lower Trevilley	Residential	700	South
14	Gusti Vean	Residential	700	Northeast
15	Chapel Farm	Residential/ Agricultural	750	East
16	Manuels Farm and Woodlands Farm	Residential/ Agricultural	760	Southeast
17	Nansledan	Residential	810-1000	Northeast
18	Play Area (Button Drive)	Recreation	750	Northwest
19	Play Area (Bridge Close)	Recreation	800	West
20	Treloggan Industrial Estate	Industrial/ commercial	500 - 950	West
21	Trevilley Farm Shop & Cafe	Commercial/ agricultural	900	Southwest
22	Atlantic Coast Line railway Line	Infrastructure	90	North
23	A3059	Infrastructure	15	West
24	A392	Infrastructure	270	South
25	Solar Farm	Infrastructure	850	Southeast

5 RISK ASSESSMENT AND MANAGEMENT MEASURES

5.1.1 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
    - To air – including dust and particulates
    - To water – including contaminated surface water run-off
    - Pests
    - Mud and litter

Table 2 – Odour Risk Assessment

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 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 5 to 20	Air	The permitted waste types accepted at the site are considered to contain limited putrescible waste by their nature and therefore are unlikely to generate a significant amount of odour. However, any particularly odorous wastes that are identified on site will be removed as soon as practicable. Site inspection checks 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 materials and take appropriate remedial action e.g. removal from site as soon as possible. All complaints received associated with odour will be recorded and investigated in line with company procedures.	**Low –** the management procedures should prevent emissions of odour.	**Medium/Low** - Nuisance	**Low** – The management procedures employed reduce the likelihood of impact

Table 3 – Noise Risk Assessment

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 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 site plant and site users vehicles delivering waste to and removing waste from the site	Receptors 5 to 20	Noise through the air and vibration through the ground	SUEZ operates in accordance with H&S Legislation to ensure its employees and site users are protected from the effects of noise. The site will comprise a one-way traffic management system. As such, the risk of noise generated from reversing beacons is low. In addition all plant on site is fitted with “white noise” reversing beacons which minimise the intrusive nature of the safety measure. Waste delivery and removal will be overseen by site staff to ensure it takes place in a controlled manner to keep noise and vibration generation to a minimum. All plant will be regularly and effectively maintained to prevent noise/vibration increases indicative of potential mechanical failure. IMS site inspection check sheets include a daily requirement for site staff to qualitatively assess noise; if perceived to be excessive, measures will be taken to identify the source of any noise and take	**Low** – operations occur during the daytime as stipulated in the Planning Permission.	**Medium/Low** - Nuisance	**Low** – The nature of the activity and the management procedures employed reduced the likelihood of impact.

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?
			appropriate remedial action. All complaints received associated with noise will be recorded and investigated in line with company procedures.			

Table 4 – Fugitive Emissions Risk Assessment

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 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 deposit, storage and loading operations	Receptors 5 to 20	Air transport and deposition	Permitted waste types not likely to give rise to significant amounts of dust or particulates. Some limited waste types (primarily green waste and DIY construction and demolition waste) with the potential to generate dust are accepted in low volumes. The delivery and loading of waste will be undertaken in a controlled manner to keep dust generation to a minimum and prevent any emissions beyond the permit boundary Any waste storage containers from which significant dust is emanating will be covered. Maintenance/cleaning of hard surfaced areas to ensure they remain free of dust generating materials.	**Low** – the management actions should prevent emissions of dust	**Medium / Low –** human health risk in immediate vicinity, nuisance risk to nearby vehicles and property.	**Low**

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?**
			A maximum speed limit of 10mph is set for vehicles operating on site. All waste vehicles are required to be sheeted if deemed necessary. IMS site inspection check list includes 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.			
To Water						
Contaminated water from contact with putrescible wastes Spillage/leaks of hazardous liquids and/or	Receptor 1 to 4	Run off of contaminated water	Sealed containers are used for high risk wastes which could cause contaminated run-off. The site will be provided with impermeable surfaces to prevent the transmission of potentially contaminated liquids into groundwater beneath the site. The site benefits from a foul and surface water systems .Penstock valves are also installed on both systems. The foul water drainage system serves the office welfare facilities and areas of the site on which waste is stored that may have the potential to cause contaminated run off. Foul water flows through 2 different bypass separators covering different parts of the site before draining to foul sewer.	**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

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?**
fuels/hydraulic fluids oil. Discharge of contaminated fire water			Uncontaminated surface water from roofs and road surface drains to surface water system, which passes through a full retention separator prior to discharge to groundwater via an infiltration tank. Waste oils and fuels stored within double skinned containers with bunding capacity of 110%. All deliveries of fuel will be supervised to ensure no spillages occur. All plant, equipment and site vehicles are to be properly maintained by trained personnel in accordance with the maintenance plan. This will reduce the risk of mechanical failure that may result in spills and leakages. Emergency spillage procedures are in place to ensure any oil, hydraulic fluids etc. are dealt with before they enter the drainage system. Spill kits are provided at key locations around site and site operatives will be made aware of spillage procedures. Interceptors are cleaned at suitable intervals to maintain their effectiveness. Weekly check list include a requirement for site staff to undertake visual inspections of the status of the			

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?**
			drainage.This will be recorded on the Vision App. Interceptors are checked at least twice a year and emptied and cleaned as necessary. 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 2 to 24	Air – waste dropped by birds. Land – waste removed from site by scavenging animals.	Wastes with the potential to attract pests are stored within dedicated bins / containers, which minimises the risk of pest infestation. The permitted waste types accepted at the site are considered to contain limited putrescible waste by their nature, so are less likely to attract pests. Putrescible wastes will be stored for short periods, minimising the risk of 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 attends the site at regular intervals 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.	**Low –** The nature of the majority of the waste and 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.

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?**
			Should a container start to cause nuisance by vermin/infestation, the container will be removed as soon as practicable to a suitably licensed facility.			
Mud/Litter						
Litter escaping the site boundary, debris and mud on the public highway.	Receptors 2 to 24	Debris, mud and litter tracked onto local highways by vehicles leaving the site.	The roadways leading up to the site and within the site are surfaced with tarmac, and operational areas are surfaced with concrete, making the generation of mud highly unlikely. A street sweeping vehicle will be contracted in to attend to any specific instances of mud/debris being tracked onto local highways and site staff will regularly undertake litter picking as required. Vehicles will be sheeted/netted if necessary when entering/leaving the site to prevent fugitive emissions of litter/waste materials onto the public highways. IMS procedures require that all haulage vehicles leaving the site are inspected for cleanliness; any vehicles not reaching the required standard will be manually cleaned before leaving site to prevent material being tracked onto local highways.	**Low** – the management actions should prevent materials escaping the site boundary	**Medium** – Loss of amenity, nuisance and potential health and safety hazard caused by waste on the highway.	**Low** – The management procedures in place minimise the likelihood of impact.

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?
			Waste materials with the potential to generate litter are stored within containers. IMS procedures require site staff to assess litter levels on an ongoing basis. Site staff will regularly undertake litter picking as required.			

6 CONCLUSION

6.1.1 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.

6.1.2 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
Noise	Low	No
Pests	Low	No
Dust	Low	No
Mud/Litter	Low	No

FIGURES

Figure 1

Indicative Layout Plan

N

A3059

NO ENTRY

HGV ONLY

FUEL TANK

6.0m

6.0m

MOBILE PLANT AREA

H

1

UPPER FENCED AREA

2 3 4 5 6 7 8 9 10 11

H

12 13

28

30

24

STOP

STOP

UPPER LEVEL

STAFF PARKING

M/CYCLE

14 GAS

22

FRIDGES & FREEZERS 15

TYRES 16

17 18 19 20 21 23 25 26 27

20FT CONTAINER

RE-USE SHOP

40FT CONTAINER

29

31

WELFARE OFFICE

CYCLE STORE

0 5 10 15 20m 30 40 50

Metres
1:500

Notes

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Permit Boundary

Quarantine Area

Soft Landscaping/Unmade Ground

Smoking Area

H Fire Hydrant

Rev	subject	date

suez

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Tel:(01254)819700, Fax:(01254)819749, Email: richard.bisset@suez.com

Site
Newquay HWRC

Title
Indicative Site Layout Plan

Scale
1:500@A3

Date
November 2025

Drawing Ref
Nwq-LAY-1125-01

Drawn by
JA

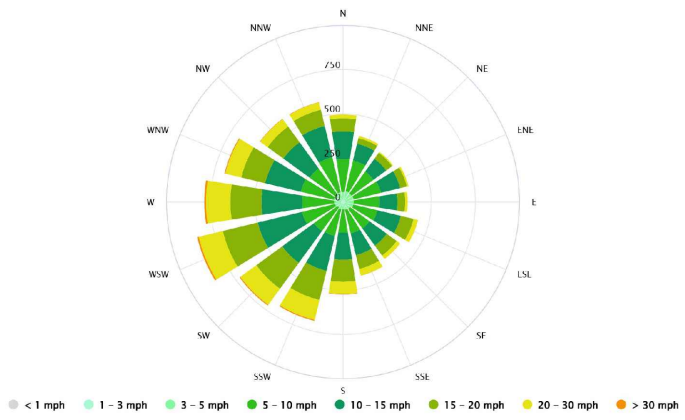
Checked by
KH

Figure 2

Site Receptor Plan

Newquay
50.42°N, 5.07°W (31 m asd).
Model: ERA5T.

Newquay Wind Rose Data
Graph showing Wind Speed by Direction



Notes

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Permit Boundary
1km Offset
1 Receptors

0 100 200m 300 400 500
Metres
1:7500

suez
Darwen Resource Recovey Park, Lower Eccleshill Road, Darwen, BB3 0RP
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Site	Newquay HWRC
Title	Site Receptor Plan
Scale	1:7500 @ A3
Date	November 2025
Drawing Ref	Nwq-REC-1125-01
Drawn by	JA
Checked by	KH

Rev	subject	date

APPENDICES

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:

Consequence	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 common place 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