Recycling and recovery UK

East Devon Waste Transfer Station

Waste Transfer and Treatment

1.3 Environmental Risk Assessment

October 2024

DOCUMENT DETAILS

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DOCUMENT REVIEW HISTORY

Date	Description	Summary of Changes
March 2019	Version 1.0	Original Document.
October 2024	Version 2.0	Document reviewed and adapted to new Suez Template.

CONTENTS

TABLES

APPENDICES

1 INTRODUCTION

1.1.1 This Environmental Risk Assessment (ERA) has been prepared to support an application for an environmental permit (permit) at East Devon Transfer Station (the site).

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 is permitted as a Transfer Station (TS) and materials recycling facility (MRF) with an annual waste acceptance limit of 75,000 tonnes.

3.1.2 The predominant activity at the site is the acceptance of mixed recycling waste from household kerbside collections for manual and mechanical sorting, baling and transfer.

3.1.3 Other activities will include the acceptance of single-stream recyclable wastes for bulking and transfer.

3.1.4 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 Unit 42, Greendale Business Park, Woodbury Salterton, Exeter, Devon, EX51EW; National Grid Reference (NGR) SY 01768 89751. The site location and permit boundary are presented in site drawings (document reference 1.1).

4.1.2 The site is located approximately 10km east of Exeter city centre. The immediate surroundings of the site are industrial and commercial, with predominantly agricultural areas beyond, as identified in table 1. Access to Greendale Business Park and to the site can be achieved via the A3052 which is located to the north of the site, following signs for Unit 42 on subsequent unnamed roads. The closest residential buildings are located approximately 300m east of the site.

4.1.3 A search of the Multi-Agency Geographic Information for the Countryside (MAGIC) website confirms that there are 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) within 1km of the site.

4.2 Receptors

The nearest sensitive receptors to the site are identified in site drawings (document reference 1.1). 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
0	Ground water	Water Body	0	Beneath site
1	Grindle Brook	Water Body	50	S
2	Greendale Fishing Lake	Water Body/ Commercial	450	W

No.	Receptor	Category	Distance (m)	Direction from site
3	Greendale Business Park	Industrial/ Commercial	<50	N, E, W
4	Raceworld Indoor Carting	Commercial/ Recreational	140	SE
5	Traditional Orchard	Priority Habitat	330	E
6	Deciduous Woodland	Priority Habitat	330	E
7	NHS Vaccination Centre	Amenity	330	NE
8	Deciduous Woodland	Priority Habitat	350	W - SW
9	Mill Park Industrial Estate	Industrial/ Commercial	350	SE
10	Brooklands Caravan Park	Residential	380	E
11	Brooklands Farm	Residential/ Agricultural	430	E
12	Deciduous Woodland	Priority Habitat	440	E
13	Little Greendale Farm	Residential/ Agricultural	480	E - NE
14	Greendale House	Residential	500	NW
15	Mud-Ventures	Amenity	560	NW
16	Residential Properties	Residential	590	NE
17	Greendale Farm Shop	Commercial	600	NW
18	White Cross Village	Residential	780	NE
19	Woodbury Salterton Village	Residential	790	SW
20	Allotments	Amenity	820	S - SW
21	Froginwell Vineyard	Agricultural/ Commercial	830	NE
22	The Diggers Rest Pub	Commercial	840	SW
23	Deciduous Woodland	Priority Habitat	850	SE
24	Woodbury Salterton Church of England Primary School	Educational	850	SW
25	The White Horse Inn	Commercial	870	NE

No.	Receptor	Category	Distance (m)	Direction from site
26	Hogsbrook Farm	Agricultural	900	SE
27	Upham Farm	Residential/ Agricultural	900	N - NE
28	Bridgoods Farm	Residential/ Agricultural	920	SW
29	Traditional Orchard	Priority Habitat	930	SW
30	Woodbury Salterton Play Area	Recreational	930	SW
31	Waldrons Farm	Agricultural	940	NW
32	Winkleigh Farm	Residential/ Agricultural	950	E
33	V-Brew (Shop)	Commercial	960	E
34	Hogsbrook Wood	Ancient Woodland	960	SE
35	Downhams Farm	Agricultural	990	S - SW

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 waste	Receptors 2 to 35	Air	The site predominately accepts non-biodegradable separately collected recyclable materials that have a low potential for odour impact. Food waste delivered to site and stored in low volumes within the transfer station building, preventing the escape of odour. Under normal operations, food waste is stored for no longer than 72 hours. A very small volume of absorbent hygiene products (AHP i.e. nappies) are stored on site, which are sealed within bags to ensure a very low potential of odour generation.	**Low –** the management procedures should prevent emissions of odour.	**Medium/Low** - Nuisance	**Low** – The management procedures employed will reduce the likelihood of impact.

			These and stored within enclosed bins, further preventing odour nuisance. AHP waste is stored for no longer than two weeks. Storage of all other wastes on site are not deemed associated with odour generation. Any wastes causing an immediate amenity risk in respect of odour are considered unauthorised waste and the application of waste acceptance and inspection procedure from the IMS reduces the risk of accepting this waste. Malodourous wastes that are identified on site will be removed as soon as practicable. IMS site inspection checklist or Vision App includes 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. Areas of site used to store waste that may contain odorous material will be cleaned at the discretion of the site manager as and when this is required. All complaints received associated with odour will be recorded and investigated in line with company procedures.			
Odour from the physical treatment of waste	Receptors 2 to 35	Air	Putrescible waste is not treated on site. Treatment of other wastes on site are not deemed associated with odour generation. Any wastes causing an immediate amenity risk in respect of odour are considered unauthorised waste and the application of waste acceptance and inspection procedure from the IMS reduces the risk of accepting this waste. Malodourous wastes that are identified on site will be removed as soon as practicable.	**Low –** the management procedures should prevent emissions of odour.	**Low -** Nuisance	**Negligible**

			IMS site inspection checklist or Vision App includes 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

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 mobile plant and vehicles collecting, processing, and delivering waste from, on, and to the site.	Receptors 2 to 35	Noise through the air and vibration through the ground	H&S Legislation is in place to ensure SUEZ protects its employees from the effects of noise. All plant will be regularly and effectively maintained to prevent noise/vibration increases indicative of potential mechanical failure. Mobile plant on site is fitted with “white noise” reversing beacons which minimise the intrusive nature of the safety measure. A maximum speed limit of 10mph is set for vehicles onsite. This will minimise the generation of excessive noise arising from higher vehicle speeds. Site operations are designed to facilitate traffic movement and	**Low** – operations occur during the daytime as stipulated in the Planning Permission.	**Medium** – Nuisance	**Low** – The management procedures employed will reduce the likelihood of impact.

			minimise reversing manoeuvres. This reduces noise and vibration arising from moving, queueing an idling of vehicles. Site staff ensure the delivery, processing and loading of waste takes place in a controlled manner so that noise and vibration generation is kept to a minimum. The site is underlain by an impermeable concrete hardstanding which attenuates any vibration generated from site operations detectable beyond the permitted area. The integrity of the concrete hardstanding is inspected in accordance with the IMS. IMS site inspection checklist or Vision App includes 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 appropriate remedial action. All complaints received associated with noise will be recorded and investigated in line with company procedures.			
Noise and vibration from the physical treatment of waste.			H&S Legislation is in place to ensure SUEZ protects its employees from the effects of noise. All plant will be regularly and effectively maintained to prevent noise/vibration increases indicative of potential mechanical failure. All physical treatment of waste is taken place inside the main transfer station building. The site is underlain by an impermeable concrete hardstanding	**Low** – operations occur during the daytime as stipulated in the Planning Permission.	**Medium** – Nuisance	**Low** – The management procedures employed will reduce the likelihood of impact.

			which attenuates any vibration generated from site operations detectable beyond the permitted area. The integrity of the concrete hardstanding is inspected in accordance with the IMS. IMS site inspection checklist or Vision App includes 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 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 from waste during deposit, processing, storage and loading operations.	Receptors 2 to 35	Air transport and deposition	The site operates under a site-specific Dust Management Plan (Document reference 2.2). Permitted waste types do not include dusts, powders or loose fibres. The delivery and loading of waste will be undertaken in a controlled manner to keep dust generation to a minimum. Any waste storage containers from which significant dust is emanating will be covered.	**Medium/ Low** – the management actions should prevent emissions of dust	**Medium –** human health risk in immediate vicinity, nuisance risk to nearby vehicles and property.	**Medium**

			Periodic maintenance/cleaning of hard surfaced areas to ensure they remain reasonably free of dust generating materials. A maximum speed limit of 10mph is set for vehicles on site. All collection vehicles are required to be sheeted or netted where possible. 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 site inspection checklist or Vision App 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.			
Dust and particulates from the physical treatment processes			The site operates under a site-specific Dust Management Plan (Document reference 2.2). Treated waste types do not include dusts, powders or loose fibres. All physical treatment of waste is taken place inside the main transfer station building. The loading of waste into the MRF will be undertaken in a controlled manner to keep dust generation to a minimum.	**Medium/ Low** – the management actions should prevent emissions of dust	**Medium –** human health risk in immediate vicinity, nuisance risk to nearby vehicles and property.	**Medium**

			Periodic maintenance/cleaning of hard surfaced areas to ensure they remain reasonably free of dust generating materials. 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 site inspection checklist or Vision App 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 rainwater from contact with wastes	Receptors 0 to 2	Run off of contaminated water	Wastes with the potential to create harmful discharges from contact with rainwater will be stored within covered areas / containers Batteries, textiles and AHP wastes are stored in weatherproof containers appropriate for the waste, and WEEE waste is stored in metal containers. Waste treatment is undertaken within the transfer station building, preventing contact with any rainwater. The site is provided with impermeable concrete surfaces to prevent the transmission of potentially contaminated liquids into groundwater beneath the site.	**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

			External glass and bale storage areas are bunded and drain to foul sewer. Bale storage is covered, preventing any contact with rainwater. A sealed surface water drainage network is present on site, which includes a bypass interceptor prior to discharge to the Greendale Industrial Estate's surface water sewer system. IMS site inspection checklist or Vision App includes a requirement for site staff to undertake visual inspections of the status of the drainage. The results of the inspections are recorded. Any remedial actions required are recorded in the site diary.			
Storage of oil, fuel, or hydraulic fluid	Receptors 0 to 2	Run off of contaminated water	Diesel fuel storage and filling does not take place on the site. All oils and chemicals are provided with secondary containment, within a dedicated storage area. The site is provided with impermeable concrete surfaces to prevent the transmission of potentially contaminated liquids into groundwater beneath the site. 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 absorbent granules and spill kits are stored in strategic locations around site. A sealed surface water drainage network is present on site, which includes a bypass interceptor prior to discharge to the Greendale Industrial Estate's surface water sewer system.	**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

			The drainage system and interceptors are cleaned at suitable intervals to maintain effectiveness. IMS site inspection checklist or Vision App includes a requirement for site staff to undertake visual inspections of the status of the drainage. The results of the inspections are recorded. Any remedial actions required are recorded in the site diary.			
Pests						
Scavenging birds or animals attracted to site and carrying waste off site. Flies and vermin breeding in waste stockpiles.	Receptors 2 to 35	Air – waste dropped by birds. Land – waste removed from site by scavenging animals.	Waste acceptance procedure include a requirement for incoming waste to be checked for fly infestation either at the weighbridge or as the load is tipped Putrescible wastes are stored within the building to prevent access by scavenging animals, birds, etc. Tight controls of the waste levels will prevent long residency time at the site which will minimise the possibility of attracting vermin. Waste storage times for putrescible waste likely to attract pests and vermin are limited to 72 hours over a bank holiday. Vehicles will be sheeted/netted if necessary, when entering/leaving the site to minimise the risk of pests. Any wastes found to contain flies on entry to the site will either be treated appropriately with fly spray or rejected from the site.	**Low –** The management actions should reduce the risk	**Medium** - Nuisance, property damage and risk of vermin spread infections.	**Low** – the management procedures in place will reduce the likelihood of impact.

			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 appropriate 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.			
Mud/Litter						
Litter, debris and mud on the public highway.	Receptors 2 to 35	Debris, mud and litter tracked onto local highways by vehicles leaving the site.	There are no particular mud issues associated with the site due to the impermeable surface of the site, Greendale Industrial Estate, and local highways. Site staff complete cleaning, sweeping and litter picking as part of housekeeping operations in accordance with the IMS. This reduces the migration of mud, debris and litter across site and beyond the permitted area. Any excessive spillage of waste anywhere within the site or on the adjacent highway will be dealt with immediately by sweeping of the surface and litter picking if required. The site has perimeter fencing which prevents the escape of debris and litter beyond the site permitted area.	**Low** – the management actions should prevent materials being tracked/dropped onto local highways	**Medium** - Nuisance and potential health and safety hazard caused by waste on the highway.	**Low** – The management procedures in place will reduce the likelihood of impact.

			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 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. 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.			

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	Medium	Yes
Mud/Litter	Low	No

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