Environmental Risk Assessment

Otterpool Waste Transfer Station Environmental Permit Application

Countrystyle Recycling Limited

Prepared by:

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Basis of Report

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1.0 INTRODUCTION

Countrystyle Recycling Limited (CRL) has retained SLR Consulting Limited (SLR) to prepare a bespoke Environmental Permit (EP) application for the proposed Otterpool Waste Transfer Station (WTS), located in Ashford, Kent under the Environmental Permitting (England and Wales) Regulations (as amended) 2016.

This Environmental Risk Assessment (ERA) is a simple assessment of the risks to the environment and human health from accidents, odour, noise and fugitive emissions that may be associated with the proposed activities at the Otterpool WTS.

1.1 Methodology

This ERA is an assessment of the of the risk to the environment and to human health that may be associated with the proposed activities at the Otterpool WTS.

The assessment has been completed in accordance with the Environment Agency (EA) Technical Guidance '*Risk Assessments for your Environmental Permit'*, last updated August 2022[1]. The aim of the assessment is to identify any significant risks and to demonstrate that the risk of pollution or harm will be acceptable by taking the appropriate measures to manage these risks. The EA Guidance requires all receptors that are near the site and could reasonably be affected by the activities to be identified and considered as part of the assessment.

This ERA uses the following approach for identifying and assessing the risks from the proposed Otterpool WTS:

Step 1 Identify and consider risks for your site and the sources of the risks.

Step 2 Identify the receptors at risk from your site.

Step 3 Identify the possible pathways from the sources of the risks to the receptors.

Step 4 Assess risks relevant to your specific activity and check they are acceptable and can be screened out.

Step 5 State what you will do to control the risks if they are too high.

Step 6 Submit your risk assessment as part of your EP application.

Section 2.0 of this document is a screening step to identify the receptors at risk as part of this assessment.

Section 3.0 identifies people or parts of the environment that could be harmed (at potentially significant risk) by the activity. The ERA for a bespoke EP application requires all receptors that are near the site and could reasonably be affected by the activities to be identified and considered as part of the assessment.

Therefore, for the purpose of this report:

- A 1km radius from the site's EP boundary has been adopted in reviewing RAMSAR, SAC, SPA and SSSIs and sensitive receptors of ecological importance along with features such as sites of cultural and natural heritage; and
- A radius of 500m from the site's EP boundary has been adopted for all other potentially sensitive local receptors (for example, residential, commercial, industrial, agricultural and surface water receptors)

[1] Risk assessments for your environmental permit - GOV.UK (www.gov.uk)

The potentially sensitive receptors are illustrated on Drawing 03 and 04, and described in Table 3-2 below.

Section 4.0 of this document presents the assessment and demonstrates that any risks of pollution or harm will be mitigated to manage the risk.

This ERA should be read in conjunction with the following documents submitted with this EP application:

- Application forms:
  - Parts A, B2, B4, and F1;
- Drawings:
  - Drawing 01 Site Location Plan;
  - Drawing 02 Environmental Permit Boundary and Site Layout;
  - Drawing 03 Local Receptors;
  - Drawing 04 Natural and Cultural Heritage.
- Non-Technical Summary (NTS);
- Operating Techniques (OT) and Waste Acceptance Procedures (WAP);
- Fire Prevention Plan (FPP);
- Dust Management Plan (DMP);
- Noise Impact Assessment and Management Plan (NIAMP); and
- H5 Site Condition Report (SCR).

2.0 Identifying the Risks

Step 2 is a general screening step to identify the potential risks to the environment from the development. The following is generally considered to require assessment for bespoke operations:

- Amenity and Accidents;
- Site Waste (installations only);
- Global Warming Potential;
- Odour;
- Climate Change;
- Noise; and
- Point source emissions to air, water and land.

There will be no point source emissions to groundwater, surface water, air or land resulting from the proposed Otterpool WTS, and neither will there be any site waste arising or global warming potential.

Therefore, only ‘Amenity and Accidents’ remains applicable for assessment in this instance, and includes the consideration of odour, noise and vibration, fugitive emissions (including dust, mud, litter and pests) and accidents.

3.0 Site Setting and Receptors

This section identifies the site setting and potentially sensitive receptors in the vicinity of the site.

3.1 Site Setting

The site is located on Ashford Road, Kent, TN25 6DA centred on National Grid Reference (NGR) TR 11237 36597. The town of Ashford is located approximately 11km north-west of the site.

The area surrounding the site comprises predominantly agricultural / open land. The English Channel is situated approximately 4.6km south / south-east, and the East Stour Rivers flows in a west-east direction approximately 320m north of the site at its closest point.

The site will be accessed via the A20 Ashford Road which runs adjacent to the site's northern EP boundary. The closest residential receptors are individual properties situated approximately 160m north west, 120m west, 220m south, and 240m east.

The site's location is illustrated on Drawing 01, and the EP Boundary and Site Layout are illustrated in Drawing 02. Local receptors within a 500m radius of the site are shown on Drawing 03, and Cultural and Natural Heritage Receptors on Drawing 04.

A summary of the immediate surrounding land use is provided in Table 3-1.

Table 3-1 Surrounding Land Use

Boundary	Description
North	Adjacent to the north is the A20 Ashford Road. Immediately beyond this is a commercial/industrial premises, followed by open ground, and the East Stour River.
East	Immediately to the east lies Otterpool Quarry Site of Special Scientific Interest (SSSI), followed by an individual residential property called Mink Farm. The land beyond this predominantly comprises open/agricultural land.
South	Otterpool Quarry SSSI lies immediately south of the site, followed by Upper Otterpool residential property. Open/agricultural land also lies in this direction.
West	The B2067 lies approximately 130m to the west. Land around this largely comprises open / agricultural land, in addition to Otterpool Manor, and Barrow Hill Farm Cottages residential properties, and a small commercial/industrial area.

The immediate surrounding land uses are described in further detail below.

3.1.1 Agricultural / Open Land

The area surrounding the site comprises predominantly agricultural / open land. The site is bounded to the eastern, southern and western EP boundaries by agricultural / open land.

3.1.2 Commercial and Industrial

Within 500m of the site, there are two commercial / industrial premises, as follows:

- Approximately 20m north of the site, across Ashford Road, lies a commercial premises belonging to SEVA Rail Service Limtied and 'The Airport Cafe'; and
- Approximately 180m west of the site is Invvu Construction Consultants, and stables.

3.1.3 Residential

There are a limited number of residential properties within 500m of the proposed site. The closest residential receptors are individual properties situated approximately 160m north west, 120m west, 220m south, and 240m east.

Residential properties located on the outskirts of Sellindge village are situated approximately 420m north west of the site.

3.1.4 Local Transport Network

Ashford Road (A20) runs in an east-west direction adjacent to the site's northern EP boundary. In addition to this, Otterpool Lane (B2067) lies approximately 130m west of the site, and an unnamed track is approximately 100m east of the site.

3.1.5 Surface Water Features

There are a number of surface water features within 500m of the site, comprising largely of small drains and springs. The closest of these is a small spring which lies approximately 70m east of the site at the closest point.

In addition, the East Stour Rivers flows in a west-east direction approximately 320m north.

3.2 Geology, Hydrogeology and Hydrology

3.2.1 Geology

A review of the British Geological Survey (BGS) map[2], reveals that the site is underlain by a bedrock of Hythe Formation (sandstone and limestone, interbedded). This is a sedimentary bedrock formed between 126.3 and 113 million years ago during the Cretaceous period.

There are no superficial geological deposits underlying the site.

3.2.2 Hydrogeology

3.2.2.1 Aquifer Designations

The bedrock deposits underlying the site are designated as a Principal aquifer according to the Multi-Agency Geographical Information for the Countryside (MAGIC) map[3].

There are no superficial aquifer classifications underlying the site.

3.2.2.2 Source Protection Zones

There are no Source Protection Zones classified beneath the site.

3.2.3 Hydrology

3.2.3.1 Groundwater Vulnerability

The Groundwater Vulnerability layer on MAGIC map reveals that the site lies within an area classified as 'high vulnerability'.

[2] British Geological Society, geology viewer map https://geologyviewer.bgs.ac.uk/ accessed in October 2023

[3] Multi-Agency Geographical Information for the Countryside Map, available at www.magic.gov.uk, accessed in October 2023

3.2.3.2 Flood Zone

The Flood Map for Planning[4] confirms that the Site lies within Flood Zone 1, which is defined as "*land having a less than 1 in 1,000 annual probability of river or sea flooding*".

3.3 Ecology

3.3.1 European / Internationally Designated Sites

3.3.1.1 Sites of Special Scientific Interest (SSSI)

There are three SSSIs which lie within a 2km radius of the site. The SSSI's are described as follows;

- Otterpool Quarry SSSI lies adjacent to the site's eastern and southern boundaries. The quarry is designated for the Cretaceous Hythe Beds;
- Gibbin's Brook SSSI is located approximately 1,500m north of the site and is designated for areas of marshy grassland found there; and
- Lympne Escarpment SSSI is situated approximately 1,700m south of the site and is designated for the Kentish ragstone, grassland, and woodland found there.

3.3.2 Other Receptors

A review of MAGIC map identifies that none of the following receptors are located within 2km of the site:

- Ramsar;
- Special Areas of Conservation;
- Special Protection Area; and
- Marine Conservation Zone.

3.3.3 Nationally / Locally Designated Sites

The following national designated sites were identified within 2km of the site;

3.3.3.1 Ancient Woodland;

There are four areas of ancient woodland within 2km of the site. The closest of these is Harringe Brooks Wood which lies 750m south-west of the site.

3.3.3.2 Area of Outstanding Natural Beauty (AONB); and

Kent Downs AONB is located to the east and south of the site, approximately 1,500m east of the site at the closest point.

3.3.4 Other Receptors

A review of MAGIC map identifies that none of the following receptors are located within 2km of the site:

- Local Nature Reserve; and
- National Nature Reserve.

[4] Gov.uk, Flood Map for Planning, available at https://flood-map-for-planning.service.gov.uk/, accessed in October 2023

3.4 Cultural Heritage

A review of MAGIC confirmed that the following receptors were present within a 2km radius of the site:

3.4.1.1 Listed Buildings

There are a number of listed buildings within 2km of the proposed site. The closest of each listed building grade are as follows:

- Grade II listed Otterpool Manor, is located 150m to the west;
- Grade I listed Barns at Westenhanger Manor, is located 1,050m to the north-east; and
- Grade II* listed French House, located 1,760m south.

3.4.1.2 Scheduled Monuments

There are five schedule monuments located within 2km of the proposed site boundary. The closet of these is ‘Round barrow approximately 400m north-east of Upper Otterpool Farmhouse, also known as barrow 136’, located 330m to the east.

3.4.1.3 Registered Park or Garden

There are two registered parks and gardens within 2km of the site;

- Sandling Park, located 1,355m to the south-west; and
- Port Lympne, located 1,520m to the east.

3.4.2 Other Receptors

A review of MAGIC map identifies that none of the following receptors are located within 2km of the site:

- World Heritage Sites;
- Registered Battlefields;

3.5 Receptors

Local receptors within 500m of the site are recorded in Table 3-2 below, along with natural and cultural receptors within 2km.

Table 3-2 Receptors

Receptor Name	Receptor Type	Direction	Approximate Distance from Permit Boundary (m)
Local Receptors within 500m of the proposed EP boundary, as shown on Drawing 03			
Principal Aquifer	Aquifer	N/A	N/A
Agricultural / Open Land	Agricultural / Open Land	East, south, west	Adjacent
Ashford Road (A20)	Local Transport Network	North	Adjacent
The Airport Cafe	Commercial / Industrial	North	20
Spring	Surface Water Features	East	70
Unnamed Track	Local Transport Network	East	100
Otterpool Manor	Residential Property	West	120
Otterpool Lane (B2067)	Local Transport Network	West	130
Barrow Hill Farm Cottages	Residential Property	North west	160
Invvu Construction Consultants	Commercial / Industrial	West	180
Upper Otterpool Farm	Residential Property	South	220
Mink Farm	Residential Property	East	240
East Stour River	Surface Water Features	North	320
Sellindge Village	Residential Properties	North west	420
Ecological and Cultural Heritage Receptors within 2km of the proposed EP boundary as shown on Drawing 04			
Otterpool Quarry	SSSI	East, west	Adjacent
Otterpool Manor	Grade II Listed Building	West	150

Receptor Name	Receptor Type	Direction	Approximate Distance from Permit Boundary (m)
Round Barrow	Scheduled Monument	East	340
Bell Barrow	Scheduled Monument	North	490
Remains of the Causeway of the south Westenhanger Castle	Scheduled Monument	East	590
Harringe Brooks Wood	Ancient Woodland	South west	750
Westenhanger Castle	Scheduled Monument	North west	960
Barns at Westenhanger Manor	Grade I Listed Building	North east	1050
Sandling Park	Registered Park and Garden	South west	1355
Gibbin's Brook	SSSI	North	1500
Kent Downs	AONB	East, south	1500
Port Lympne	Registered Park and Garden	East	1520
Aldergate / Hillhurst Wood	Ancient Woodland	South west	1670
Lympne Escarpment	SSSI	South	1700
Folks Wood	Ancient Woodland	East	1700
French House	Grade II* Listed Building	South	1760
Kiln Wood	Ancient Woodland	East	1800

3.6 Windrose

A windrose from the site's nearest meteorological station is presented within the Odour Management Plan.

4.0 ENVIRONMENTAL RISK ASSESSMENT

The following tables assess the site in terms of potential hazards posed, receptors and pathways along with management and assessment of the identified risks.

The probability of exposure is the likelihood of the receptors being exposed to the hazard and is defined as low, medium, or high. These terms are qualified as follows:

- Low: exposure is unlikely, barriers in place to mitigate against exposure.
- Medium: exposure is fairly probable, barriers to exposure less controllable.
- High: exposure is probably, direct exposure likely with few barriers.

The methodology outlined in Section 1.1 of this report is the basis on which it is determined whether the proposed Otterpool WTS will lead to significant impact on the surrounding environment. Where a conclusion of ‘not significant’ has been reached, it is proposed that the mitigation and management measures that will be in place at the site will be sufficient to ensure that there will be no impact at the surrounding environment.

Table 4-1 Odour Risk Assessment and Management Plan

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**	**CONSEQUENCES**	**WHAT IS THE OVERALL RISK**
WHAT HAS THE POTENTIAL TO CAUSE HARM?	**WHAT IS AT RISK/WHAT DO I WISH TO PROTECT?**	**HOW CAN THE HAZARD GET TO THE RECEPTOR?**	**WHAT MEASURES WILL YOU TAKE TO REDUCE THE RISK? WHO IS RESPONSIBLE FOR WHAT?**	**HOW LIKELY IS THE CONTACT?**	**WHAT IS THE HARM THAT CAN BE CAUSED?**	**WHAT IS THE RISK THAT STILL REMAINS? THE BALANCE OF PROBABILITY AND CONSEQUENCE**
Odour from receipt and handling of wastes including clinical waste and food waste Odour from the storage of wastes including clinical waste and food waste	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors.	Air	The proposed side will accept, predominantly non-hazardous mixed waste including co-mingled recyclable materials, bulky waste, paper and cardboard, residual waste, street sweepings, garden waste, clinical waste, and food waste. Whilst most of the waste has a low odour potential, it is recognised that the clinical waste and food waste have a higher odour management potential. The site will be operated in accordance with the CRL prepared OMP, which is included as part of the EP application. Odour mitigation and management measures as detailed in the OMP are summarised below: • Clinical waste types will be kept segregated from the other wastes streams at all times; • All wastes will be accepted, and stored within a dedicated WTS building. The WTS building will be fully enclosed, to ensure ingress of odour from the building is minimised; • Fast-acting roller shutter doors will be installed on the WTS building, and kept closed during tipping and unloading of wastes; • Strict waste acceptance procedures will be adhered to, to ensure only permitted wastes are accepted on site; • All waste storage containers and bays within the WTS building will be clearly labelled to ensure the segregation of waste; • Odour masking sprays will be fitted within the WTS building; • Potentially odorous wastes will be a stored for minimal periods of time, with clinical waste stored for a maximum of 5 days. The site will be monitored for odours by site personnel throughout the working week. In the event that odours are detected, investigations will be undertaken to determine the cause and appropriate remedial action taken. The Site Manager will be responsible for implementing risk management measures in accordance with the Operating Techniques (OT) document (402.065068.00001/OT), and OMP.	Low	Odour Nuisance and loss of amenity.	Low

Table 4-2 Noise Risk Assessment and Management Plan

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**	**CONSEQUENCES**	**WHAT IS THE OVERALL RISK**
WHAT HAS THE POTENTIAL TO CAUSE HARM?	**WHAT IS AT RISK/WHAT DO I WISH TO PROTECT?**	**HOW CAN THE HAZARD GET TO THE RECEPTOR?**	**WHAT MEASURES WILL YOU TAKE TO REDUCE THE RISK? WHO IS RESPONSIBLE FOR WHAT?**	**HOW LIKELY IS THE CONTACT?**	**WHAT IS THE HARM THAT CAN BE CAUSED?**	**WHAT IS THE RISK THAT STILL REMAINS? THE BALANCE OF PROBABILITY AND CONSEQUENCE**
Noise from the delivery and handling of waste at the site.	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors.	Air	The site is located within an area largely surrounded by agricultural / open land. The closest sensitive receptor to noise is 'The Airport Café' located 20m north, and the closest residential receptor is Otterpool Manor located 120m west of the site. The noise risk from the proposed activities in this EP application has been assessed in a NIAMP which was carried out in accordance with the guidance contained in British Standard 4142:2014. The following procedures will be in place at the site, as detailed in the NIAMP to ensure that noise from the acceptance and handling of waste on site is minimised; • All waste will be accepted and stored within an enclosed WTS building; • Site operations will be restricted to hours specified in the planning consent; • All plant will be switched off when not in use; • Plant will be selected & operated to minimise noise. All site plant and machinery will be operated and maintained in accordance with manufacturer's specifications; • If horns or alarms on site plant or infrastructure, or delivery vehicles are deemed to cause unacceptably high levels of noise, alternative technologies will be explored and implemented; • Speed limits will be implemented for vehicles using the site; • Traffic calming measures will be implemented to enforce speed limits; and • Site access roads and operational areas will be maintained and repaired to minimise emissions of noise due to uneven and poor surfacing. Auditory inspections will be carried out daily & in response to complaints. A record of the inspection findings and any complaints will be made in the site diary. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document 402.065068.00001/OT), and NIAMP.	Low	Noise disturbance and loss of amenity.	Low

Table 4-3 Fugitive Emissions Risk Assessment and Management Plan

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**	**CONSEQUENCES**	**WHAT IS THE OVERALL RISK**
WHAT HAS THE POTENTIAL TO CAUSE HARM?	**WHAT IS AT RISK/WHAT DO I WISH TO PROTECT?**	**HOW CAN THE HAZARD GET TO THE RECEPTOR?**	**WHAT MEASURES WILL YOU TAKE TO REDUCE THE RISK? WHO IS RESPONSIBLE FOR WHAT?**	**HOW LIKELY IS THE 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 from vehicle movements and operation of plant machinery. Dust from acceptance, handling, and storage of waste.	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors.	Air	The proposed side will accept, predominantly non-hazardous mixed waste including co-mingled recyclable materials, bulky waste, paper and cardboard, residual waste, street sweepings, garden waste, clinical waste, and food waste. Due to the nature of these wastes, the potential risk of dust emissions from acceptance handling and storage of the wastes are low. The site will be operated in accordance with the CRL prepared DMP, which is included as part of the EP application. Dust mitigation and management measures as detailed in the DMP are summarised below: • All waste will be accepted to and stored within a fully enclosed WTS building; • The WTS building will have fast action roller shutter doors that will be closed during tipping and waste handling; • Speed limits will be implemented for vehicles using the site; • Traffic calming measures will be implemented to enforce speed limits & reduce emissions of dust; • Site access roads and operational areas will be maintained and repaired to minimise emissions of dust due to uneven and poor surfacing; • All roads and operational areas will be swept where necessary to reduce dust emissions; • All vehicles delivering waste to the site shall be sheeted to minimise emissions of dust; and • Drop heights will be minimised to prevent emissions of dust. Daily visual monitoring will be carried out by all members of staff throughout their shift with any potential emissions of dust reported to the Site Manager. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (402.065068.00001/OT) and the DMP.	Negligible.	Nuisance and harm to human health	Negligible
Bioaerosols from the storage of wastes	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors.	Air	It is recognised that the acceptance and storage of green waste, and food waste could lead to the release of bioaerosols. To prevent the release of bioaerosols, all waste will be stored internally within the fully enclosed WTS building.	Negligible.	Nuisance and harm to human health	Negligible

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**	**CONSEQUENCES**	**WHAT IS THE OVERALL RISK**
WHAT HAS THE POTENTIAL TO CAUSE HARM?	**WHAT IS AT RISK/WHAT DO I WISH TO PROTECT?**	**HOW CAN THE HAZARD GET TO THE RECEPTOR?**	**WHAT MEASURES WILL YOU TAKE TO REDUCE THE RISK? WHO IS RESPONSIBLE FOR WHAT?**	**HOW LIKELY IS THE CONTACT?**	**WHAT IS THE HARM THAT CAN BE CAUSED?**	**WHAT IS THE RISK THAT STILL REMAINS? THE BALANCE OF PROBABILITY AND CONSEQUENCE**
			The WTS building will benefit from roller shutter doors that will be closed during waste tipping, and handling. No treatment of waste will occur, and the waste will be stored for a minimal length of time (max 5 days). During storage, minimal handling and compaction of the waste will occur. Strict waste acceptance procedures will be implemented to ensure that only permitted wastes are accepted on site. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (402.065068.00001/OT).			
To Water:						
Contaminated run off.	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors. Groundwater.	Land	All waste will be stored on impermeable surfacing, within the fully enclosed WTS building. This will minimise the exposure of wastes to the elements and reduce the risk of contaminated run off and generation of dirty process water. All areas of the site where the storage of waste occurs, will benefit from a sealed drainage system. Dirty process water will be collected within the sealed drainage system, preventing uncontrolled risk of contaminated run off from the site. Water will discharge from the site through an oil interceptor. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (SLR Ref: 402.065068.00001/OT).	Low	Contamination	Very Low
Pests						
Birds, pests and insects.	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors.	Land, Water and Air	Strict waste acceptance procedures will be implemented to ensure that only authorised wastes are accepted. In the event that non-conforming wastes are delivered to site, they will be isolated and removed from site at the earliest opportunity. All waste will be stored within the fully enclosed WTS building, minimising the risk of pests. Timeframes for storage of wastes will be kept as low as practically possible, and all waste is stored for a maximum of 5 days. In the event that birds, vermin & insects are identified at the site, a specialist pest control contractor will be employed to undertake remedial measures.	Low	Nuisance, potential risk to health	Negligible

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**	**CONSEQUENCES**	**WHAT IS THE OVERALL RISK**
WHAT HAS THE POTENTIAL TO CAUSE HARM?	**WHAT IS AT RISK/WHAT DO I WISH TO PROTECT?**	**HOW CAN THE HAZARD GET TO THE RECEPTOR?**	**WHAT MEASURES WILL YOU TAKE TO REDUCE THE RISK? WHO IS RESPONSIBLE FOR WHAT?**	**HOW LIKELY IS THE CONTACT?**	**WHAT IS THE HARM THAT CAN BE CAUSED?**	**WHAT IS THE RISK THAT STILL REMAINS? THE BALANCE OF PROBABILITY AND CONSEQUENCE**
			The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (SLR Ref: 402.065068.00001/OT).			
Mud/Litter						
Litter from waste	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors.	Air	The following management techniques will be employed at the site, to ensure that the risk of generation of litter from wastes is minimised: • Strict waste acceptance procedures will ensure that only authorised wastes are accepted; • The site will benefit from good housekeeping and all areas of the site will be cleaned on a daily basis; • All site vehicles leaving operational areas will be inspected to ensure that they are clear of loose waste; • All wastes will be accepted to and stored within an enclosed WTS building. The site and its immediate surrounding will be inspected on a daily basis and action will be taken to maintain the area free of significant accumulations of litter and debris. Any excessive litter material at the facility or on the highways will be cleared using a mechanical sweeper and/or litter picker if required. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (SLR Ref: 402.065068.00001/OT).	Low	Nuisance from litter. Dangerous conditions on roads.	Negligible
Mud from vehicle movements	Local Road Network	Transferral of mud on vehicles wheels	All access roads and operational areas will be tarmacked, and as such the risk of mud trackout from traffic and plant machinery movements will be low. Despite this, the following management techniques will be employed at the site, to ensure that the risk of mud track out is minimised: • Areas of hardstanding and impermeable surfacing will be maintained free of significant quantities of mud and debris; • All vehicles will be covered when loads are entering and exiting the facility; • Roads will be swept and cleaned whenever necessary; and • In the event that mud, debris or waste arising from the site is deposited outside the site, the affected area will be cleaned, and traffic will be isolated from sources of mud and debris within the site.	Low	Nuisance from mud. Dangerous conditions on roads.	Negligible

What Do You Do That Can Harm and What Could Be Harmed			Managing The Risk	Assessing The Risk		
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			Daily visual inspection of the site by site management will identify any problem with mud which will be cleaned up as soon as possible. Where necessary road cleaning equipment will be deployed. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (SLR Ref: 402.065068.00001/OT).			

Table 4-4 Accidents Risk Assessment and Management Plan

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**	**CONSEQUENCES**	**WHAT IS THE OVERALL RISK**
WHAT HAS THE POTENTIAL TO CAUSE HARM?	**WHAT IS AT RISK/WHAT DO I WISH TO PROTECT?**	**HOW CAN THE HAZARD GET TO THE RECEPTOR?**	**WHAT MEASURES WILL YOU TAKE TO REDUCE THE RISK? WHO IS RESPONSIBLE FOR WHAT?**	**HOW LIKELY IS THE CONTACT?**	**WHAT IS THE HARM THAT CAN BE CAUSED?**	**WHAT IS THE RISK THAT STILL REMAINS? THE BALANCE OF PROBABILITY AND CONSEQUENCE**
Leakage of fuel and oils	Local surface water features including rivers, streams and drains. Groundwater.	Runoff and percolation through ground	All areas of the site to be used for waste storage, and handling will benefit from impermeable surfacing and a sealed drainage system. All waste will be stored within the enclosed WTS building, which will benefit from impermeable surfacing and sealed drainage. Tanks used for the storage of fuel and maintenance oil, will be constructed so that any leaks/spillages will be contained. Tanks will be surrounded by a leakage containment bund capable of containing at least 110% of the volume of the largest tank within the bund or 25% of the total tank volume within the bund, whichever is the greater. Storage tanks will be constructed to the appropriate British Standard. Tanks will be inspected visually on a daily basis by the site staff to ensure the continued integrity of the tanks and identify the requirement for any remedial action.	Low	Contamination of surroundings	Low

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WHAT HAS THE POTENTIAL TO CAUSE HARM?	**WHAT IS AT RISK/WHAT DO I WISH TO PROTECT?**	**HOW CAN THE HAZARD GET TO THE RECEPTOR?**	**WHAT MEASURES WILL YOU TAKE TO REDUCE THE RISK? WHO IS RESPONSIBLE FOR WHAT?**	**HOW LIKELY IS THE CONTACT?**	**WHAT IS THE HARM THAT CAN BE CAUSED?**	**WHAT IS THE RISK THAT STILL REMAINS? THE BALANCE OF PROBABILITY AND CONSEQUENCE**
			Minor spillages will be cleaned up immediately, using sand or proprietary absorbent to clean up liquids and placed in alternative containers. Materials suitable for absorbing and containing minor spillages will be maintained on site. The site staff will undertake daily monitoring for evidence of spillage and leakage. Alongside regular visual inspections, the tanks will be fitted with level indicators to prevent overfilling. In the event of a major spillage immediate action will be taken to contain the spillage and prevent liquid from entering surface water drains and the unsurfaced ground. The spillage will be cleared immediately and placed in containers for off-site disposal and the EA will be notified. The Site Manager will be responsible for implementing risk management measures in accordance with OT document (SLR Ref: 402.065068.00001/OT).			
Unauthorised waste	Sensitive receptors listed in Table 3-2 including residential, commercial, recreational, ecological and agricultural receptors.	Via air (odours) Overland (to sewers, surface and groundwater)	Upon delivery waste will be subject to strict waste acceptance procedures to identify, reject and/or segregate potentially non-conforming waste. Only waste authorised by the permit will be accepted at the site. All wastes will be subject to inspection and checking against the declaration on the waste transfer note. In the event that unauthorised waste is delivered to the site, the waste will be segregated and stored in a designated quarantine area prior to export from site, to an alternative suitably permitted facility. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (402.065068.00001/OT).	Low	Odour nuisance Water contamination	Low
Fire	Sensitive receptors listed in Table 3-2 including residential, commercial, recreational, ecological	Air and Land	The site will be operated in accordance with CRL's FPP which is included with this EP application.	Low	Harm to human health, harm to operations, pollution of surroundings.	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**	**CONSEQUENCES**	**WHAT IS THE OVERALL RISK**
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	and agricultural receptors. Site personnel.					
Flooding	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors. Site personnel.	Land	The EA website confirms that the site lies within a Flood Zone 1, which means it has a low probability of flooding. Evacuation procedures will be implemented in the event of flooding. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (SLR Ref: 402.065068.00001/OT).	Low	Harm to human health, contamination of groundwater and surface water.	Very low
Security and Vandalism	Sensitive receptors listed in Table 3-2 including residential, commercial, agricultural recreational and ecological receptors.	Air, Land and Water	The site will benefit from the following security measures: • The site will be manned during operational hours by site staff who will undertake inspections of the site; • An internal and external CCTV monitoring system which can be monitored on site or remotely; and • A 2.4m high steel palisade security fence, surrounding the EP boundary. The site will be inspected daily by the operations staff to identify deterioration and damage and the need for any repairs. The site will be maintained and repaired to ensure its continued integrity. In the event that damage is sustained repairs will be made by the end of the working day. If this is not possible, suitable measures will be taken to prevent any unauthorised access to the site and permanent repairs will be affected as soon as practicable. All visitors to the site will be required to register in the visitor's book and sign out again on exit. This minimises the risk of unauthorised visitors being present at the site. Operational procedures, including regular inspections, ensure continual monitoring of security provision at the site. The Site Manager will be responsible for implementing risk management measures in accordance with the OT document (SLR Ref: 402.065068.00001/OT).	Low	Nuisance, Contamination and harm to human health.	Low

5.0 CONCLUSION

This ERA has been undertaken as described by the EA regulatory guidance. The assessment is provided as part of the application for an bespoke environmental permit for the Otterpool Waste Transfer Station.

This qualitative risk assessment, in addition to the specific impact assessments and management plans, has considered odour, noise, fugitive emissions, dust, releases to water, litter, and potential for accidents and incidents. The assessment concludes that with the implementation of the risk management measures described above, and in the separate management plans potential hazards from the proposed development are not likely to be significant and no further assessment is required.