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Forward Waste Management Limited

East Moors Waste Transfer Station,

East Moors Road, Cardiff

Environmental Permit Application

H1 Environmental Risk Assessment

SLR Ref: 407.05789.00001 /H1

December 2015

forward

Reducing waste in every way

CONTENTS

TABLES

DRAWINGS

1.0 INTRODUCTION

Forward Waste Management Limited has retained SLR Consulting Limited to prepare a Bespoke Environmental Permit Application for their East Moors Waste Transfer Facility in Cardiff, under the Environmental Permitting (England and Wales) Regulations 2010 as amended.

This H1 Environmental Risk Assessment is a simple qualitative assessment of the risks to the environment and human health from accidents, odour, noise and fugitive emissions that may be associated with the operations at the facility.

The assessment has been completed in accordance with the Environment Agency (EA) Technical Guidance EPR – H1 *'Environmental Risk Assessment for Permits (Annex A)'* dated December 2011, version 2.1. 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.

EA Technical Guidance EPR – H1 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.

For the purposes of this H1 Assessment, a 1km radius from the site's Environmental Permit boundary has been adopted in reviewing potentially sensitive receptors of ecological importance along with features such as sites of cultural and natural heritage. A radius of 500m from the site's Environmental Permit boundary has been adopted for all other potentially sensitive receptors (for example, residential, commercial, industrial and surface water receptors).

This H1 Assessment should be read in conjunction with the Non-Technical Summary, reference 407.05789.00001/NTS and Operating Techniques document, reference 407.05789.00001/OT submitted with this application.

1.1.1 Proposed Operations

It is proposed that a maximum of 10,000 tonnes per annum of hazardous waste will be accepted on site. Waste will be brought into site, deposited and stored within the designated receiving bay within the purpose built building, bulked up and loaded into larger haulage containers for forward movement to appropriately permitted waste facilities. No processing or treatment of any kind is proposed at the site.

2.0 SITE SETTING & RECEPTORS

2.1 Site Setting

The site is located off East Moors Road, within a large commercial and industrial area, to the south east of Cardiff City Centre. The National Grid Reference for the site is ST 19610 75714 and the site location is illustrated on Drawing 01. The Site Layout of the facility is illustrated on Drawing 02.

The surrounding land-use and receptors are identified on Drawing 03 Environmental Site Setting and Drawing 04 Cultural and Natural Heritage and are identified in Table 2-1 below.

The site is surrounded by industrial / commercial units with East Moors Road to the west of the Environmental Permit boundary. The Bute East Dock (Atlantic Wharf) is located approximately 260m to the west of the permit boundary.

Table 2-1 below summaries the surrounding land uses.

Table 2-1
Surrounding Land Uses

Boundary	Description
North	Industrial / commercial premises, residential properties.
East	Industrial / commercial premises, residential properties.
South	Industrial / commercial premises, Cardiff Docks.
West	Industrial / commercial premises, residential properties, train lines, Bute East Dock (Atlantic Wharf).

The immediate surrounding land use is described in further detail below:

Residential properties

The closest residential properties, off Bayside Road, lie approximately 360m to the north east of the site, across industrial / commercial premises. Further residential properties within 500m lie to the north west, west and east of the proposed waste facility.

Areas for Public and Recreational Use

The Bute East Dock (Atlantic Wharf), located approximately 260m to the west is a surface water feature that is used for recreational water sports and fishing. An area of open space / park is located approximately 240m to the north east of the permit boundary.

Industrial and Commercial Premises

Industrial / commercial premises lie adjacent to the site to the north, east and south, and 22m to the west across East Moors Road in all directions.

Major Roads and Transport Links

The site is accessed off East Moors Road adjacent to the west. Train lines are located approximately 65m to the west of the permit boundary.

The wider local road network is illustrated on Drawing 03.

2.1.1 Hydrology & Hydrogeology

Geology

The geology of the permitted site (based on British Geological Survey borehole records (4 No.) drilled in 1970) can be summarised as:

- Surface Level – approx. 11mAOD.
- Made Ground – variable depths of made ground (4m typically) comprising black clinker or sand with gravel and brick fragments (materials probably placed for levelling purposes when the site was first developed (see below for details)). It should be noted that the Groundsure/Emap report indicates the permitted site and wider site area are constructed over artificial ground.
- Firm to stiff sandy, silty Clay (Tidal Flat Deposits) with a thickness of circa 3m.
- Sandy Gravel (Glaciofluvial deposits) – circa 6m thick.
- Mudstone (Mercia Mudstone Group) – present at circa 13m depth.

Hydrogeology

Information provided within the Groundsure report (based on previous Environment Agency mapping) classifies the superficial deposits as a Secondary (Undifferentiated) aquifer and bedrock in the site area as a Secondary B aquifer. These are defined as:

Secondary Undifferentiated *- has been assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.*

Secondary B *- predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.*

Former EA mapping classified the application site as not within a Groundwater Source Protection Zone (SPZ).

No groundwater abstractions are recorded for the site or immediate surrounding area (within 1km). Surface water is reportedly abstracted from Bute East Dock (by Celsa Manufacturing (UK) limited) for evaporative cooling purposes.

No significant groundwater gradients are considered likely given the flat topography of the site area and the variable permeability of the underlying deposits.

Borehole logs suggest that groundwater levels are typically present in the made ground (typically 3-4m depth) perched above the clay. The underlying sandy gravel deposits are likely to contain a confined aquifer which may be subject to a degree of tidal influence, but this could be limited due to the distance to the sea.

Hydrology

There are no watercourses located within or in the immediate proximity of the site. The river Taff, a designated Main River, is located approximately 1.3km to the west of the site. The nearest water body is Bute East Dock (Atlantic Wharf) located 260m west/ of the site. This dock is a remnant of the Cardiff Docks area. Further docks are present 900-1,100m south of the site. Cardiff Bay is located 1,300m south west and the Severn Estuary/Bristol Chanel is located 1,300m south east at its closest point. The Severn Estuary is subject to a number of ecological designations (eg. SPA, RAMSAR, SAC).

Flooding

Mapping provided on the Natural Resources Wales website[1] shows that the site does not lie within an area at risk of flooding.

2.1.2 Ecology

European/International Sites

Natural Resources Wales Nature and Heritage Conservation Screening Report indicate that the site lies in close proximity to a number of European and nationally designated sites.

The multi designated area lies approximately 1.3km to the South-East of the site, as follows;

- Severn Estuary Site of Special Scientific Interest (SSSI);
- Severn Estuary Special Area of Conservation (SAC);
- Severn Estuary Special Protection Area SPA).
- Severn Estuary Marine Protection Area (MPA)
- Severn Estuary Ramsar (RAMSAR)

Other ecological receptors

Natural Resources Wales Nature and Heritage Conservation Screening Report also confirmed there are none of the following ecological receptors within 2 km of the permit boundary:

- Ancient Woodland;
- National Nature Reserves;
- Areas of Outstanding Natural Beauty;
- Registered Parks and Gardens;
- World Heritage Sites;
- Woodland Trust Sites; and
- National Forest.

2.1.3 Cultural Heritage

Natural Resources Wales Nature and Heritage Conservation Screening Report also confirmed there are none of the following within 1 km of the application site:

[1] https://maps.cyfoethnaturiolcymru.gov.uk accessed October 2015

- National Forest;
- National Trust Properties; and
- Registered Battlefields.

There are a number of Listed Buildings located just outside the 1km offset boundary, which are illustrated on Drawing 03 the nearest is located 450m north west of the site.

There are 3 Scheduled Ancient Monuments (SAMs) located within close proximity of the site, as follows;

- Cardiff Castel and Roman Fort located approximately 1.63 North East of the site;
- Dominican Friary located approximately 2.2km North East of the site;
- The Wrek of the Louisa located approximately 2.18km south east of the site.

2.1.4 Receptors

Table 2-2 and Drawing 03 show the locations of receptors that are considered to be potentially sensitive and could reasonably be affected by the waste management activities.

Table 2-2
Identified Receptors

Receptor Name	Receptor Type	Direction from Site	Approximate Distance from site boundary (at nearest point)
Identified receptors within 500m of the Environmental Permit Boundary as shown on Drawing 03 Sources, Pathways and Receptors			
Residential properties nearest at Bayside Road	Residential	North East	360m
East Moors Road and wider local road network	Local Road Network	East	18m
Industrial / commercial units within Industrial Estates	Light Industrial	North, South, East and West	Adjacent(22m)
Steel Mill	Heavy Industry	West	150
Areas of Open Space	Recreational	North, South, East and West	150m
Railway Lines	Transport network	West	100m
Bute East Dock (Atlantic Wharf)	Surface water features	West	260m
Identified receptors within 2km of the Environmental Permit Boundary as shown on Drawing 004 Cultural and Natural Heritage			
Severn Estuary	Site of Special Scientific Interest	South East	1.3km
Severn Estuary	RAMSAR	South East	1.3km
Severn Estuary	Severn Estuary Marine Protection Area	South East	1.3km
Severn Estuary	SAC and Inshore SAC with Marine Components	South East	1.3km
Severn Estuary	SPA	South East	1.3km

3.0 H1 OVERVIEW AND APPROACH

This H1 environmental risk assessment complies with regulatory guidance[2] and uses the following approach for identifying and assessing the risks in four steps

Step 1 Identify risks from your activity.

Step 2 Where risks are identified from Step 1 then assess the risks and check that they are acceptable using the relevant modules provided as annexes to the H1 Guidance.

Step 3 Justify appropriate measures to control your risks, if necessary.

Step 4 Present your assessment.

Step 1 is a screening step to identify the potential risks to the environment from the proposed development. The Environment Agency H1 Guidance identifies modules (annexes) that the Environment Agency considers would likely require assessment for the majority of sites as follows:

(a) Amenity and Accidents

(d) Surface Water

(f) Air

(g) Site Waste

(h) Global Warming Potential

(j) Groundwater

(k) Cost Benefit Analysis (if needed)

There are however no point source emissions to surface water, groundwater or air resulting from the permit application and neither will there be any site waste arisings or global warming potential resulting from the proposed development. Therefore only annexe 'a' 'amenity and accidents', is considered to be 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 in relation to the proposed development.

Step 2 identifies people or parts of the environment that could be harmed (at potentially significant risk) by the activity. Where appropriate, the assessment demonstrates how the risk of pollution or harm can be mitigated by measures to manage these risks (Step 3).

The following tables present the assessment (Step 4) in terms of hazards posed, receptors and pathways, along with management and residual risks for the following hazards:

- Odour;
- Noise & Vibrations;
- Fugitive Emissions (including dust, mud, litter and pests); and
- Accidents.

[2] Environment Agency H1 Environmental Risk Assessment for Permits (and appendices) V2.1 December 2011.

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**	**Consequence**	**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 this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Odours from the acceptance of waste	Potentially sensitive receptors as listed in Table 2-2, including industrial / commercial premises, residential premises, surface water features including the Atlantic Wharf and sites of ecological, cultural and natural heritage.	Air.	The proposed waste is not considered to be significantly odorous in nature. All receipt, storage and reloading of the waste will be carried out within a building with roller shutter doors. Strict waste acceptance procedures will be adhered to, to ensure only permitted wastes are accepted on site. The site will be monitored for odours by site personnel throughout the working day. In the event that odours are detected, investigations will be undertaken to determine the cause and appropriate remedial action taken. In the event that odorous waste is delivered to site it will be segregated & removed at the earliest opportunity. It will be re-loaded into the delivery vehicle or loaded into a sealable container. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document 407.05789.00001/OT).	Negligible	Odour nuisance and loss of amenity.	**Not significant**

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**	**Consequence**	**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 this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Noise from vehicular movements (site access) Noise from operation of site plant due to loading and unloading of materials	Potentially sensitive receptors as listed in Table 2-2, including industrial / commercial premises, residential premises, surface water features including the Atlantic Wharf and sites of ecological, cultural and natural heritage.	Air.	The site is located within an industrial setting. The nearest residential receptors are located approximately 360m to the north east of the site. The site is accessed via East Moors Road to the west. No waste treatment or processing will occur on site. Speed limits will be implemented for vehicles using the site. Site access & haul roads and operational areas will be maintained and repaired to minimise emissions of noise due to uneven and poor surfacing. Plant will be selected & operated to minimise noise. All site plant and machinery will be operated and maintained in accordance with manufacturer's specifications. Auditory inspections will be carried out regularly & 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 operating procedures document 407.05789.00001/OT).	Mobile. Intermittent throughout the day. Medium.	Noise nuisance and loss of amenity.	**Not significant**

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**	**Consequence**	**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 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 from: Vehicle movements Waste storage Dusty wastes Waste deposition Waste surfaces	Potentially sensitive receptors as listed in Table 2-2, including industrial / commercial premises, residential premises, surface water features including the Atlantic Wharf and sites of ecological, cultural and natural heritage.	Air	Site access & haul roads and operational areas will be maintained and repaired to minimise emissions of dust due to uneven and poor surfacing. All waste handling activities will take place within the confines of the building. All roads and operational areas will be swept where necessary to reduce dust emissions. All vehicles delivering waste to the site shall be sheeted or waste will be transported in sealed containers to minimise emissions of dust. Drop heights will be minimised to prevent emissions of dust. Daily, visual inspection at all areas of the site and site Environmental Permit boundary will be carried out by site personnel. In the event that significant visual dust is observed at the permit boundary of the site action will be taken to suppress the dust. A record of the inspection findings & remedial action taken will be made in the	Medium	Dust nuisance	**Not significant**

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 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 this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			site diary. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document (SLR Ref: 407.05789.00001/OT).			
To Water						
Runoff from stockpiles & site surfaces Percolation of contaminated water	Surface water: Atlantic Wharf located approximately 260m to the west.	Overland Percolation through the ground	All waste will be stored on impermeable surfacing within the building. Strict waste acceptance procedures will ensure that only permitted waste types are accepted on site. In the event that non-conforming wastes are delivered to site, the waste will be isolated and removed from site at the earliest opportunity. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document (SLR Ref: 407.05789.00001/OT).	Low	Contamination of surface water and groundwater.	**Not significant**

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 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 this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Pests						
Birds, vermin and insects.	Potentially sensitive receptors as listed in Table 2-2, including industrial / commercial premises, residential premises, surface water features including the Atlantic Wharf and sites of ecological, cultural and natural heritage.	Via air (flies) or over ground (vermin).	Waste types accepted on site are unlikely to attract birds, vermin and insects. Waste storage will be within the confines of the building. Waste acceptance procedures will ensure that only authorised wastes are accepted. In the event that birds, vermin & insects are identified at the site, a specialist pest control contractor will be employed to undertake remedial measures. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document (SLR Ref: 407.05789.00001/OT).	Negligible	Nuisance, loss of amenity and harm to human health.	**Not significant**
Mud/Litter						
Litter from waste	Potentially sensitive receptors as listed in Table 2-2, including industrial / commercial premises, residential premises, surface water features including the Atlantic Wharf and sites of ecological, cultural and natural heritage.	Airborne litter	Given the nature of the waste type accepted on site the generation of litter is unlikley. Waste acceptance procedures will ensure that only authorised wastes are accepted. All waste handling will occur within the 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.	Low	Nuisance and loss of amenity	**Not significant**

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 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 this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			Any excessive litter material at the facility or on the highways will be cleared by the end of the working day. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document (SLR Ref: 407.05789.00001/OT).			
Mud on roads	Local road network including East Moors Road	Transferral of mud on vehicle wheels	Impermeable surfacing will be maintained free of significant quantities of mud and debris. All vehicles leaving the operational areas will be cleaned as necessary to remove loose waste. Roads will be swept and cleaned whenever necessary. In the event that mud, debris or waste arising from the site is deposited outside the site, the affected area will be swept. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document (SLR Ref: 407.05789.00001/OT).	Low – due to nature of waste type and location within industrial setting.	Mud on road, road traffic accidents.	**Not significant**

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**	**Consequence**	**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 this contact?**	**What is the harm that can be caused?**	**What is the risk that still remains? The balance of probability and consequence**
Unauthorised waste	Potentially sensitive receptors as listed in Table 2-2, including industrial / commercial premises, residential premises, surface water features including the Atlantic Wharf and sites of ecological, cultural and natural heritage.	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 consignment / 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. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document (407.05789.00001/OT).	Low	Odour nuisance Water contamination	**Not significant**
Fire	Potentially sensitive receptors as listed in Table 2-2, including industrial / commercial premises, residential premises, surface water features including the Atlantic Wharf and sites of ecological, cultural and natural	Air, water runoff	The waste proposed to be accepted at the site is not considered to be highly combustible in nature. All plant will be subject to regular inspection which will include checks of electrical equipment within the site to ensure that any faults are identified and repaired. Smoking will not be permitted in the operational areas of the site.	Low.	Nuisance (smoke and fumes) and harm to human health. Water contamination (runoff)	**Not significant**

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 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 this contact?**	**What is the harm that can be caused?**	**What is the risk that still remains? The balance of probability and consequence**
	heritage.		The operators working practices will ensure assessment of fire hazards and training of employees in fire prevention, e.g. in the use of fire extinguishers and emergency procedures. No waste shall be burned on the site and any fire at the site will be treated as an emergency. Actions to be taken in the event of a fire: • Notify the fire brigade immediately and Natural Resources Wales as soon as practicable; • Isolate the burning area and attempt to extinguish the fire utilising the on site fire extinguishers, if safe to do so; • Prevent, if possible, contaminated site drainage from entering any unsurfaced ground; and • Evacuate the site if the fire is not containable. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document (SLR Ref: 407.05789.00001/OT).			
Spillage and Leakage	Local land quality, surface water and groundwater.	Runoff and percolation through ground	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	Low	Contamination of groundwater and surface water	**Not significant**

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 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 this contact?**	**What is the harm that can be caused?**	**What is the risk that still remains? The balance of probability and consequence**
			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 regular basis by the site staff to ensure the continued integrity of the tanks and identify the requirement for any remedial action. 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 regular 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 Natural Resources Wales will be notified.			

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 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 this 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 operating procedures document (SLR Ref: 407.05789.00001/OT).			
Security and Vandalism	Personnel on site, emergency service workers		The doors to the facility will be locked whenever the site is unattended. The site consists of the building and site access with a lockable roller door at the entrance to the building. The building will be inspected regularly by the operations staff to identify deterioration and damage and the need for any repairs. The building 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. Operation procedures, including regular inspections, ensure continual monitoring of security provision at the site.	Low	Nuisance and harm to human health. Contamination of land and surface water.	**Not significant**

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 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 this 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 operating procedures document (SLR Ref: 407.05789.00001/OT).			
Flooding	Site Personnel	Overland	Natural Resources Wales' website confirms that the site does not lie within an area which is at risk of flooding. The Site Manager will be responsible for implementing risk management measures in accordance with the operating procedures document (SLR Ref: 407.05789.00001/OT).	Medium	Inundation of site with flood water	**Not significant**

4.0 CONCLUSION

This environmental risk assessment has been undertaken as described by regulatory guidance EPR H1[3]. The assessment is provided as part of the application for an environmental permit application for the East Moors Waste Transfer Station.

This qualitative risk assessment 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, potential hazards from the proposed development are not likely to be significant and no further assessment is required.

[3] Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, v2.1 December 2011

5.0 CLOSURE

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Forward Waste Management Limited. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.