



**APPLICATION FOR AN ENVIRONMENTAL  
PERMIT UNDER THE ENVIRONMENTAL  
PERMITTING (ENGLAND AND WALES)  
REGULATIONS 2016 (AS AMENDED)**

**ENVIRONMENTAL RISK ASSESSMENT**



**FORWARD WASTE MANAGEMENT  
EAST MOORS ROAD HAZARDOUS WASTE  
TRANSFER STATION, CARDIFF**

**ECL Ref: ECL.010.02.01/ERA  
Issue: Issue 1  
April 2020**

## TABLE OF CONTENTS

<b>1. INTRODUCTION</b>	<b>1</b>
1.1. Overview	1
<b>2. IDENTIFICATION OF RECEPTORS</b>	<b>2</b>
2.1. Site Settings	2
2.2. Potentially Sensitive Ecological Receptors	3
2.3. Potentially Sensitive Human Receptors	6
2.4. Risk of Flooding	8
<b>3. IDENTIFICATION OF THE RISKS</b>	<b>9</b>
3.1. Amenity Risks	9
3.2. Accident Risks	9
<b>4. ASSESSMENT OF RISKS</b>	<b>10</b>
4.1. Methodology	10
<b>5. SUMMARY</b>	<b>20</b>
5.1. Results of the Assessment	20
5.2. Conclusion	20

## APPENDIX I SOLUTEX CAN COMPACTOR 206 MACHINERY SPECIFICATION

## LIST OF TABLES

Table 1: SACs, SPA and Ramsar within 10km of the Installation Boundary	4
Table 2: Ecological Receptors within 2km of the Installation Boundary	6
Table 3: Human Receptors within 1km of the Installation Boundary	7
Table 4: Amenity Risk Assessment	11
Table 5: Accident Risk Assessment	16

## LIST OF FIGURES

Figure 1: Indicative Site Location	2
Figure 2: SPA, Ramsar and SAC identified within 10km of the Installation Boundary	3
Figure 3: SSSIs identified within 2km of the Installation Boundary	4
Figure 4: LNR identified within 2km of the Installation Boundary	5
Figure 5: Ancient Woodland identified within 2km of the Installation Boundary	5
Figure 6: Ancient Woodland identified within 2km of the Installation Boundary	7
Figure 7: Long Term Flood Risk Map – Surface Water	8

## ACRONYMS / TERMS USED IN THIS REPORT

CCTV	Closed Circuit Television
EA	Environment Agency
ECL	Environmental Compliance Limited
EMS	Environmental Management System
ERA	Environmental Risk Assessment
FPP	Fire Prevention Plan
FRS	Fire Rescue Service
FWM	Forward Waste Management Limited
Ha	Hectares
HGVs	Heavy Goods Vehicles
LNR	Local Nature Reserve
MAGIC	Multi-Agency Geographical Information for the Countryside
NGR	National Grid Reference
NNR	National Nature Reserve
NRW	Natural Resources Wales
PPMR	Planned Preventative Maintenance Routine
Ramsar	The Ramsar Convention on Wetlands of International Importance
SAC	Special Areas of Conservation
SPA	Special Protection Areas
SSSI	Sites of Special Scientific Interest

## 1. INTRODUCTION

### 1.1. Overview

- 1.1.1. Environmental Compliance Limited (“ECL”) has been commissioned by Forward Waste Management Limited (“FWM”) to prepare an Environmental Risk Assessment (“ERA”) to form part of the bespoke Environmental Permit application for a waste Installation, hereafter referred to as “the Installation” located at 122-128 East Moors Road, Cardiff, CF24 5EE.
- 1.1.2. FWM is proposing to operate Forward Waste Management East Moors Road Hazardous Waste Transfer Station accepting predominantly hazardous waste although a proportion of non-hazardous waste will also be accepted. FWM wish to accept 22,000 tonnes of hazardous waste and 3,000 tonnes of non-hazardous waste.
- 1.1.3. Consequently, FWM propose to undertake the following Scheduled Activities the Environmental Permitting (England and Wales) Regulations 2016 as amended:
- *Section 5.3. A(1)(a) - Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities—  
iv) repackaging prior to submission to any of the other activities listed in this section or in Section 5.1; and*
  - *Section 5.6. A(1) (a) Temporary Storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1., 5.2., 5.3 and paragraph (b) of this Section.*
- 1.1.4. FWM also propose to undertake two Specified Waste Operations:
- the storage of non-hazardous waste with treatment limited to manual or mechanical bulking up of waste (less than 50 tonnes per day) for onward transfer from site for disposal or recovery; and
  - crushing of hazardous empty metal receptacles, such as drums and tins prior to dispatch from site for recycling and/or recovery.
- 1.1.5. An ERA has been undertaken in accordance with Natural Resources Wales (“NRW”) ‘How to Comply with Your Environmental Compliance’ (Version 8, October 2014) and the relevant requirements of the current version of the Environment Agency (“EA”) online guidance<sup>1</sup> (updated 21<sup>st</sup> October 2019), in order to:
- *identify potential risks that site operations may present to the environment;*
  - *screen out any insignificant risks;*
  - *assess potentially significant risks in detail; and*
  - *decide on the appropriate control measures.*
- 1.1.6. Accordingly, the assessment has addressed the potential risks relating to the operation of the proposed Installation, namely:
- amenity risks (e.g. fugitive emissions to air, fugitive emissions to water, noise, odour etc.); and
  - accidents (e.g. fire, loss of containment etc.).

<sup>1</sup> EA online guidance – ‘Risk assessments for your environmental permit’. Available at <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>, updated 21<sup>st</sup> October 2019, accessed January 2020.

## 2. IDENTIFICATION OF RECEPTORS

### 2.1. Site Settings

- 2.1.1. The Installation is located on East Moors Road, within a large commercial and industrial area to the south east of Cardiff City Centre. The Installation occupies an approximate area of 0.25ha and is centred on National Grid Reference ("NGR") 319473 175780. The Installation is located at 122-128 East Moors Road, Cardiff, CF24 5EE.
- 2.1.2. The Site Location Plan (Drawing Reference ECL.010.02.01-01) details the proposed Environmental Permit boundary (outlined in green) and is provided in Section 3 of this application submission.
- 2.1.3. Figure 1 provides the indicative location of the Installation (red outline) within the context of the surrounding environment.

**Figure 1: Indicative Site Location**



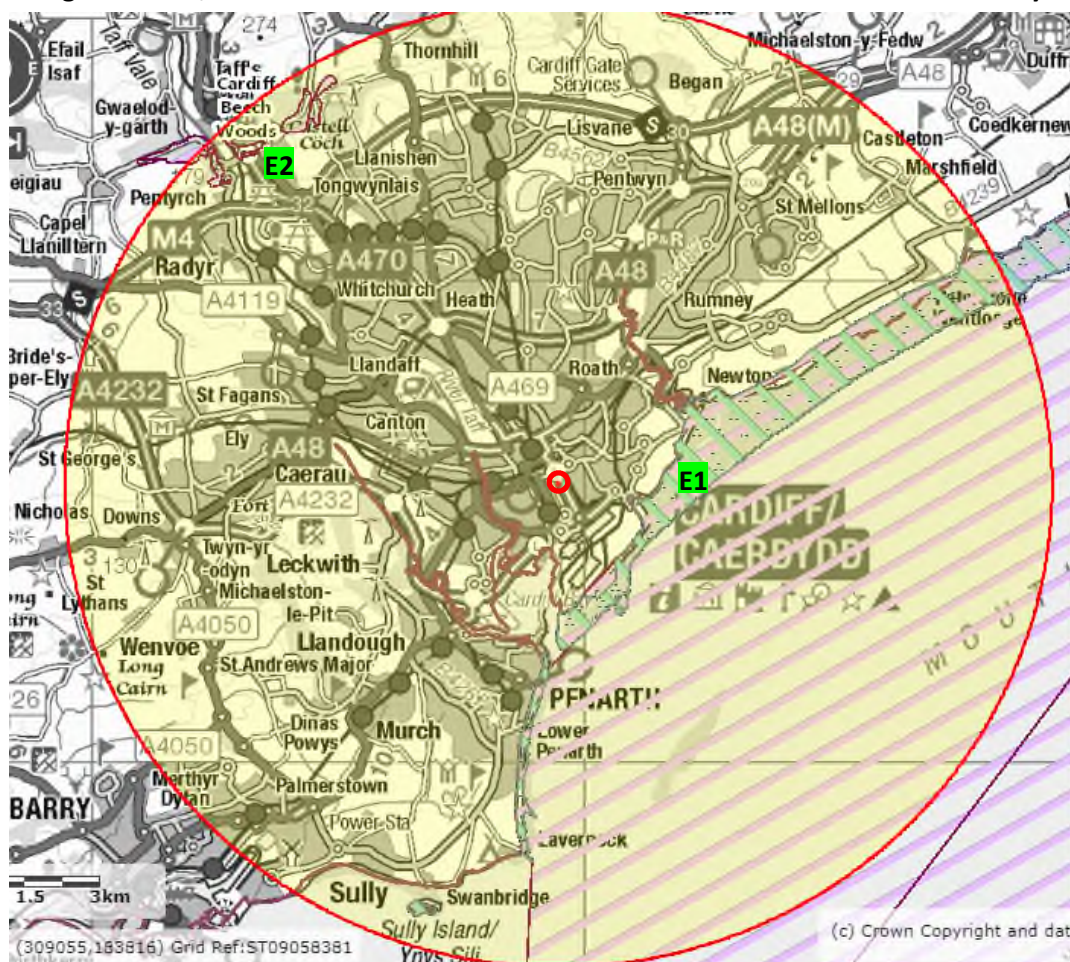
- 2.1.4. The immediate surroundings include industrial units and commercial buildings, as well as Bute East Dock and residential flats and housing beyond this.
- 2.1.5. The district and residential area of Splott within the city of Cardiff is located approximately 350m north east of the Installation. Bute East Dock is located approximately 0.19km west, the operational Cardiff Docks located approximately 1km south and Cardiff Bay is located approximately 1.3km south of the Installation. The main city centre is located 774m north west from the Installation.

- 2.1.6. The sensitive receptors within 1km of the Environmental Permit boundary are illustrated on the Sensitive Receptor Plan (ECL.010.02.01-03) which is contained in Section 3 of this application submission.

## 2.2. Potentially Sensitive Ecological Receptors

- 2.2.1. A review of the area using the Multi-Agency Geographic Information for the Countryside<sup>2</sup> ("MAGIC") online tool identified that the Installation is located within 10km of the Severn Estuary which is designated as a Special Protection Area ("SPA"), Ramsar Convention on Wetlands of International Importance ("Ramsar") and Special Area of Conservation ("SAC"). Additionally, the Installation is located within 10km of Cardiff Beech Woods, which is also designated as a SAC. The indicative locations of the identified ecological receptors are shown in Figure 2.

**Figure 2: SPA, Ramsar and SAC identified within 10km of the Installation Boundary**



Note to Figure 2:

Purple line - SAC

Green line - Ramsar

Grey shading with dots - SPA

<sup>2</sup> Department for Environment, Food and Rural Affairs ("DEFRA") MAGIC Online Mapping Tool, available at: <https://magic.defra.gov.uk/magicmap.aspx>, accessed January 2020.

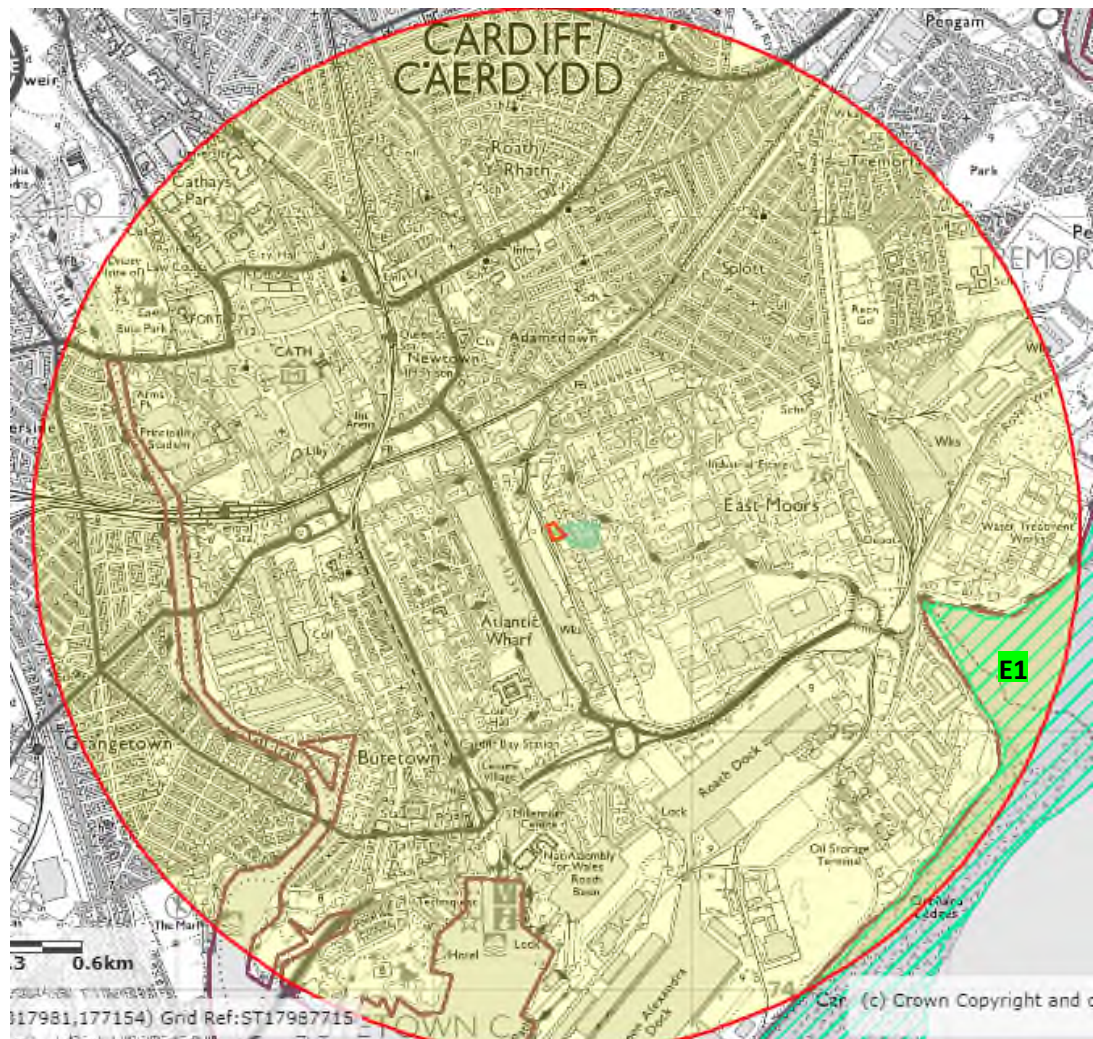
- 2.2.2. The NGR of the identified ecological receptors are listed in Table 1, together with their distance and direction from the Installation boundary.

**Table 1: SACs, SPA and Ramsar within 10km of the Installation Boundary**

Ref	Description	Designation	Easting	Northing	Distance from EP Boundary (km)	Direction
E1	Severn Estuary	SPA	320900	175503	1.40	S
		SAC				
		Ramsar				
E2	Cardiff Beech Woods	SAC	312796	181971	9.07	NW

- 2.2.3. The Severn Estuary is also designated as a Site of Special Scientific Interest ("SSSI") which is located within 2km of the Installation boundary as shown in Figure 3.

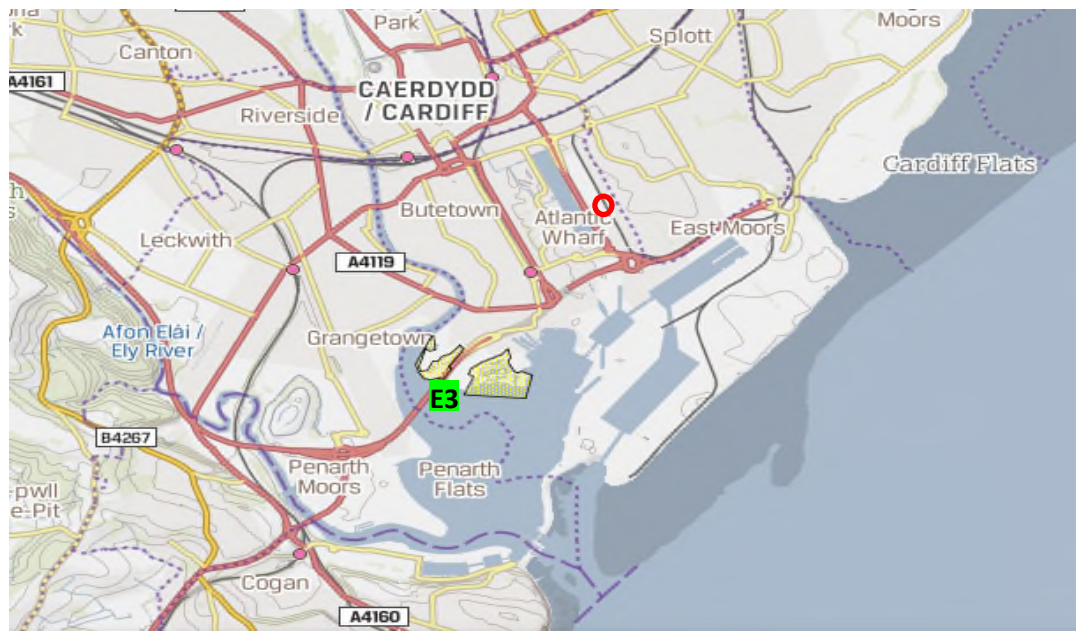
**Figure 3: SSSIs identified within 2km of the Installation Boundary**



**Note to Figure3:**  
Turquoise line - SSSI

- 2.2.4. According to the Lle Geo-Portal for Wales<sup>3</sup>, there are no National Nature Reserves (“NNRs”) within 2km of the Installation boundary. However, Cardiff Bay Wetlands and Hamadryad Park is designated as a Local Nature Reserve (“LNR”) and is located within 2km of the Installation boundary as shown in Figure 4.

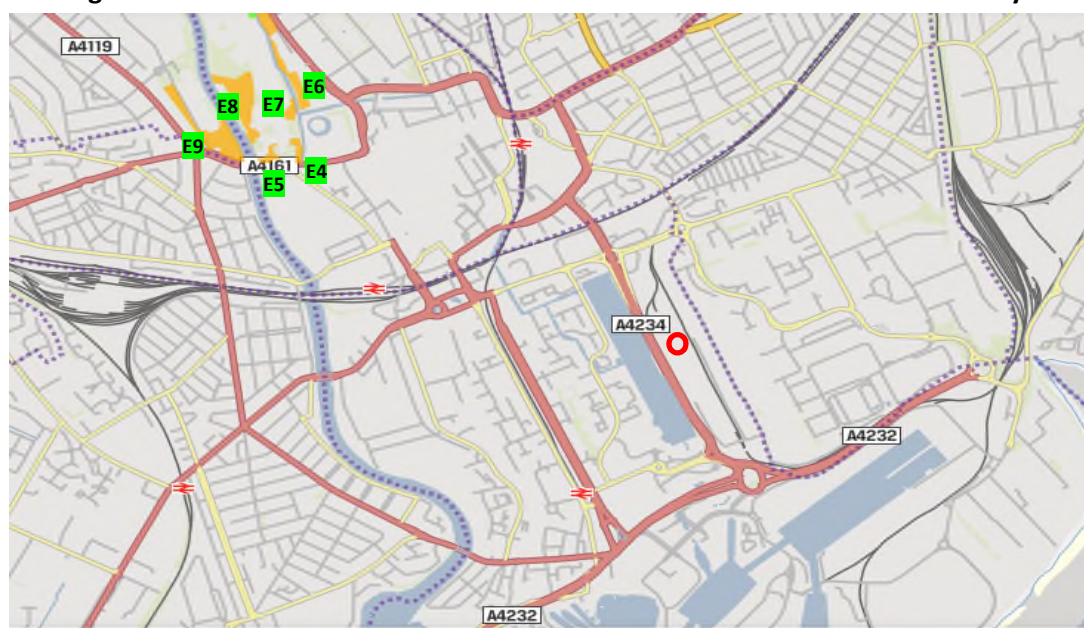
**Figure 4: LNR identified within 2km of the Installation Boundary**



Note to Figure 4: Yellow shading - LNR

- 2.2.5. 6 ancient woodland sites have been identified within 2km of the Installation boundary and are shown in Figure 5.

**Figure 5: Ancient Woodland identified within 2km of the Installation Boundary**



Note to Figure 5: Orange shading – Restored Ancient Woodland

<sup>3</sup> Lle Geo-Portal for Wales Mapping Tool, available at: <https://lle.gov.wales/catalogue?t=1&lang=en>, accessed January 2020.

- 2.2.6. The NGR of the identified ecological receptors within 2km are listed in Table 2, together with their distance and direction from the Installation boundary.

**Table 2: Ecological Receptors within 2km of the Installation Boundary**

Ref	Description	Designation	Easting	Northing	Distance from EP Boundary (km)	Direction
E1	Severn Estuary	SSSI	320900	175503	1.40	S
E3	Local Nature Reserve	LNR	318901	174258	1.60	SW
E4	Adjacent to West Gate of Cardiff Castle	Restored Ancient Woodland	317956	176467	1.65	NW
E5	Adjacent to Cardiff Bridge		317868	176478	1.72	NW
E6	Adjacent to National Tennis Centre		317948	176727	1.72	NW
E7	Adjacent to Cardiff Castle		317931	176674	1.73	NW
E8	Adjacent to Priory		317783	176550	1.84	NW
E9	Nr. Sophia Gardens		317711	176472	1.86	NW

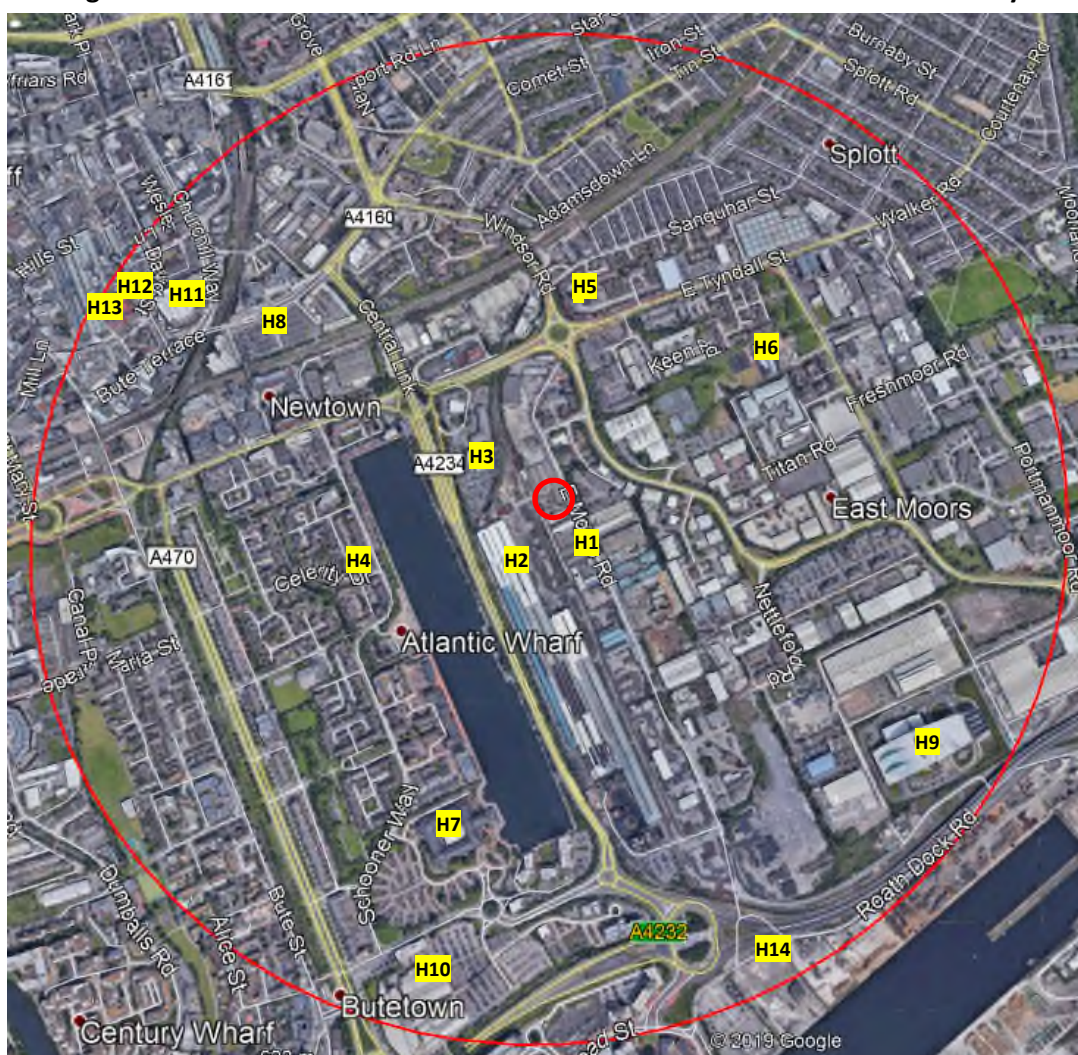
- 2.2.7. In addition to the SACs, SPAs, Ramsar, SSSIs, NNRs, LNRs, ancient woodland, other potentially sensitive land uses within 1km of the Installation were also considered. A review of the area using the MAGIC tool and Lle Geo-Portal for Wales indicated that none of the following sensitive land uses are located within a 1km radius of the Installation:

- Areas of Outstanding Natural Beauty;
- Groundwater Source Protection Zones;
- Marine Conservation Zones;
- Scheduled Monuments;
- National Parks; and/or
- Nitrate Vulnerability Zone.

## 2.3. Potentially Sensitive Human Receptors

- 2.3.1. Fourteen potentially sensitive human receptors have been identified within 1km of the Installation boundary which displayed in Figure 6 and outlined in Table 3.

**Figure 6: Ancient Woodland identified within 2km of the Installation Boundary**



**Table 2: Human Receptors within 1km of the Installation Boundary**

Ref	Name	Easting	Northing	Distance from Permit Boundary (km)	Direction
H1	Industrial Units on East Moors Road	319601	175603	0	N, E & S
H2	CELSA Rod and Bar Mill	319492	175494	0	W
H3	Sinclair Volkswagen	319326	175875	0.08	NE
H4	Residential housing (Schooner Way and beyond)	319128	175688	0.33	W
H5	Residential housing (E Tyndall St – Splott and beyond)	319508	176170	0.35	NE
H6	Ysgol Glan Morfa	319880	176069	0.41	NE
H7	Cardiff Council Building	319300	175164	0.56	SW
H8	NCP Car Park	318919	176143	0.59	NE
H9	Viridor Trident Park (Energy From Waste)	320186	175316	0.68	SE

**Table 3: Human Receptors within 1km of the Installation Boundary (Cont.)**

Ref	Name	Easting	Northing	Distance from Permit Boundary (km)	Direction
H10	Red Dragon Centre	319335	175002	0.77	SW
H11	Cardiff Motorpoint Arena	318725	176205	0.77	NW
H12	Cineworld Cinema	318614	176190	0.88	NW
H13	St. David's Shopping Centre	318561	176157	0.90	NW
H14	Cardiff Docks	320066	175023	0.96	SE

## 2.4. Risk of Flooding

2.4.1. As shown on the NRW Long Term Flood Risk Map<sup>4</sup> provided in Figure 7, the Installation is predominantly located within an area categorised as possessing very low surface water flood risk which is defined by NRW as having less than 0.1% of flooding from surface waters. A small area in the east of the Installation site is categorised as possessing low surface water flood risk which is defined as having between 0.1% and 1% chance of flooding.

**Figure 7: Long Term Flood Risk Map – Surface Water**



**Note to Figure 7:** No Shading – Very Low Risk, Yellow Shading – Low Risk, Orange Shading– Medium Risk and Dark Orange Shading – High Risk

2.4.2. The NRW Long Term Flood Risk Map shows that the Installation is not at risk from flooding from rivers or seas.

<sup>4</sup> NRW Long Term Flood Risk Maps, available at: <https://naturalresources.wales/evidence-and-data/maps/long-term-flood-risk/?lang=en>, accessed January 2020.

### **3. IDENTIFICATION OF THE RISKS**

#### **3.1. Amenity Risks**

3.1.1. Taking into account the nature of the activities that will be undertaken at the proposed Installation, the main amenity risks identified are as follows:

- fugitive emissions to air (dust);
- fugitive emissions to water;
- odour;
- noise; and
- general amenity risks (litter and pests).

3.1.2. Note that as the proposed activities do not involve any point source emissions i.e. process contributions to air, land or water, no assessment has been undertaken. The environmental risks in relation to fugitive emissions to air and water have been assessed in Section 4 of this ERA.

#### **3.2. Accident Risks**

3.2.1. The main potential accident risks have been identified as:

- fire;
- loss of power/system failure;
- loss of containment of potentially polluting materials; and
- vandalism.

## **4. ASSESSMENT OF RISKS**

### **4.1. Methodology**

4.1.1. The risk assessments have been undertaken using the following approach for amenity and accident risks:

- identification of hazards associated with the risk that have the potential to cause harm;
- identification of potential receptors i.e. what is at risk (for the purposes of this assessment, typical potential receptors have been identified)?
- pathway i.e. how can the hazard get to the receptor?
- risk management measures employed to reduce the risk to an acceptable level;
- probability of exposure i.e. how likely is this contact?
- consequence i.e. what is the harm that can be caused?
- assessment of overall risk.

4.1.2. The assessments for the amenity and accident risks identified above are presented in Tables 4 and 5 respectively.

**Table 4: Amenity Risk Assessment**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>Emissions to Air</b>						
<i>Fugitive Emissions to Air (e.g. dust)</i>						
Dust emissions from delivery of waste materials, during main storage and removal of waste material off-site.	Human population in surrounding area (see Section 2.3 of this ERA).	Release to Air – windblown dispersion in atmosphere.	<p>Materials will be delivered to the Installation via Heavy Goods Vehicles (“HGVs”) and within sealed containers/drums depending on the waste material being transported.</p> <p>The waste will be unloaded directly into the designated waste bay located either internally or externally within the Installation. All external storage bays will be covered by steel supported corrugated sheeting to minimise any fugitive emissions to air reaching sensitive receptors.</p> <p>Daily visual inspection of fugitive emissions will be undertaken by the Site Manager/Senior Chemist and/or deputy to monitor to identify and record any activities that are either resulting in dust emissions or have the potential to give rise to dust emissions which could escape the Installation Environmental Permit boundary.</p> <p>The daily monitoring checks together with any actions taken to address any identified issues will be recorded in the Site Diary.</p>	<p>Low</p> <p>Risk management measures should prevent release from reaching the identified receptors</p>	Possible dust nuisance	Not significant if risk management measures are strictly adhered to

**Table 5: Amenity Risk Assessment (Cont.)**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>Emissions to Water</b>						
<i>Emissions to Water – Surface Water</i>						
Fugitive emissions to surface water	Controlled waters	Via site drainage system	<p>There are no process contributions to surface water associated with the proposed activities. Only clean surface runoff (i.e. rainwater) will enter storm drains which in turn connects to the foul sewer drainage network before leaving the Installation (see foul water risk management measures below).</p> <p>The drainage arrangements are shown on the Drainage Arrangements Plan (ECL.010.02.01-05) contained in Section 3 of this submission.</p>	Low	Contamination of controlled waters	Not significant if risk management measures are strictly adhered to
<i>Emissions to Water – Foul Sewer</i>						
Fugitive emissions to foul sewer	Welsh Water Effluent Treatment Plant and subsequently, controlled waters	Via site drainage system	<p>There are no process contributions i.e. point source emissions to foul sewer associated with the proposed activities. Only clean surface runoff (i.e. rainwater) will be discharged to the foul sewer as part of the proposed activities, in addition to effluent from welfare facilities.</p> <p>The northern, eastern and western boundary benefits from a bund wall.</p> <p>All external storage concrete block bays will be covered by steel supported corrugated sheeting and will benefit from an impermeable rollover policeman to prevent any rainwater from entering the drainage network.</p> <p>All potentially polluting liquids will be banded to 25% of the total contents held within each bay.</p> <p>Any residual liquid resulting from the crushing of empty hazardous containers will be directed to a banded IBC ready for disposal to an appropriately licenced Facility.</p> <p>Any spillage will be dealt with in accordance with the Installation's spill response procedure. All employees will be suitably trained and spill kit materials will be strategically located throughout the site.</p>	Low	Contamination of Effluent Treatment Plant and subsequent contamination of controlled waters	Not significant if risk management measures are strictly adhered to

**Table 6: Amenity Risk Assessment (Cont.)**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>Odour</b>						
Odorous emissions to atmosphere from waste.	Human population in surrounding area (see Section 2.3 of this ERA)	Release to air – windblown dispersion in atmosphere	<p>The proposed waste codes to be accepted at the Installation are not considered to be significantly odorous in nature. The Installation will only accept and process waste with no organic matter present. Strict waste acceptance procedures will be adhered to in order to ensure only permitted wastes are accepted at the Installation.</p> <p>Daily inspections will be undertaken by the Site Manager/Senior Chemist to monitor odour at a number of locations within the Installation and will be recorded in the Site Diary. In the event that odours are detected, investigations will be undertaken to determine the cause and appropriate remedial action taken. The findings and associated action will be recorded in the Site Diary.</p> <p>In the event that odorous waste is delivered to site, it will be segregated and stored within the designated Quarantine Area bay within the main building to prevent any odour from reaching sensitive receptors. The waste will be removed from site at the earliest opportunity. It will be re-loaded into the delivery vehicle if possible or loaded into a sealable container.</p>	<p>Low</p> <p>The risk management measures should prevent odours developing and reaching the identified receptors</p>	Possible odour nuisance	Not significant if risk management measures are strictly adhered to

**Table 4: Amenity Risk Assessment (Cont.)**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>Noise</b>						
Vehicle movements, tipping of waste and processing (crushing) activities	Human population in surrounding area (see Section 2.3 of this ERA)	Release to Air.  Installation is close enough to human sensitive receptors for noise to be potentially audible.	<p>The Installation is located within an industrial setting. The nearest residential receptors are located approximately 0.33km west of the Installation boundary.</p> <p>The operational hours of the Installation will be Mon-Fri 07.00-17.00 and in exceptional circumstances Sat 08.00-12.00. The Installation will not operate on Sundays or Public Holidays.</p> <p>The Installation is accessed via East Moors Road and all vehicles will have to adhere to the site speed limit of 5mph.</p> <p>No other waste treatment or processing will occur at the Installation other than the crushing of containers. A copy of the crusher specification is provided in Appendix I of this ERA.</p> <p>All unloading activities will be supervised by a FWM competent person to reduce the generation of noise.</p> <p>All site plant and equipment will be operated by competent FMW personnel and in accordance with the manufacturer's specification. All plant and equipment will be covered by the PPMR which will be contained within the Environmental Management System ("EMS") to ensure adequate maintenance of any parts of the plant or equipment whose deterioration may give rise to increases in noise. A copy of the PPMR is contained in Section 7 of this application submission.</p> <p>A site inspection will be undertaken daily by the Site Manager/Senior Chemist to monitor and record any activities that could give rise to noise outside the Installation boundary. This will be recorded in the Site Diary.</p>	Low/Medium.  The risk management measures should prevent noise reaching the identified receptors	Possible noise nuisance	Not significant if risk management measures are strictly adhered to

**Table 4: Amenity Risk Assessment (Cont.)**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>General Amenity Risks</b>						
Litter releases, pests moving off site and presence of track out/ waste debris.	Human population in surrounding area (see Section 2.3 of this ERA)	Releases to air/windblown (litter and flies) or via air and land (vermin and mud).	<p>Due to the nature of waste to be accepted, the generation of litter is deemed to be unlikely. Nevertheless, the perimeter fencing will limit the escape of any possible litter emissions.</p> <p>All storage areas are located internally or in external covered bays to prevent the escape of waste.</p> <p>The proposed wastes to be accepted are unlikely to attract pests, such as birds, rodents or flies. Additionally, the short turnaround time of all waste will prevent pest habitat formation. In the unlikely event that pests are identified on site, a specialist pest management company will be appointed to provide advice and undertake any remedial action required.</p> <p>The Installation is entirely surfaced with impermeable concrete and strict housekeeping standards will be upheld.</p> <p>Daily inspections of the Installation will be undertaken and any observed litter and sources of track out will be removed to prevent the accumulation of any litter or debris. This will be recorded in the Site Diary by the Site Manager/Senior Chemist.</p>	<p>Low</p> <p>The risk management measures should prevent litter, mud or pests reaching the identified receptors</p>	Possible adverse health effects and nuisance	Not significant if risk management measures are strictly adhered to

**Table 7: Accident Risk Assessment**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>Fire</b>						
Fire at the site.	Human and ecological sensitive receptors population in surrounding area (see Section 2.2 and 2.3 of this ERA)	Release to air – windblown dispersion in atmosphere	<p>The Installation will operate in accordance with Fire Prevention Plan (“FPP”) (ECL.010.02.01/FPP) which is has been submitted in Section 8 as part of this permit application. This provides detailed fire control measures, however, a summary is provided below.</p> <p>The pre-acceptance and acceptance procedures will ensure no non-permitted waste is accepted at the Installation. Any waste that is identified will be removed and quarantined.</p> <p>Fire detection alarm system by a UKAS accredited company will be installed, maintained and tested according to Fire and Rescue Service (“FRS”) recommendations.</p> <p>Preventative maintenance on all equipment is undertaken to prevent any faults occurring.</p> <p>Designated smoking areas are in place with smoking prohibited in all buildings and waste storage areas.</p> <p>Emergency procedures including emergency response in the event of a fire will be implemented as part of the EMS.</p> <p>Training will be provided to all personnel in relation to preventing fires and identifying fire risks with provision of manual extinguishers. Firefighting training will be provided to nominated personnel.</p>	Medium	Combustion gases (smoke) and localised nuisance.	Not significant if risk management measures detailed in the FPP are strictly adhered to

**Table 5: Accident Risk Assessment (Cont.)**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>Fire (Cont.)</b>						
Releases of potentially contaminated firewater.	Human and ecological sensitive receptors population in surrounding area (see Section 2.2 and 2.3 of this ERA)	Via surface water or foul water drainage networks	<p>Firewater containment measures are detailed in the FPP (ECL.010.02.01/FPP) submitted in Section 8 as part of this permit application submission.</p> <p>Firewater will be contained using bunds and booms and the firewater would then be tankered off site to an appropriately licenced Facility.</p> <p>Drain mats will be deployed to prevent any firewater from entering the drainage system.</p>	<p>Low</p> <p>Risk management measures should prevent any release from reaching the identified receptors</p>	Contamination of controlled waters	Not significant if risk management measures detailed in the FPP are strictly adhered to
<b>Spillage of Potentially Polluting Substances</b>						
Leakage of fuel oil from site vehicles, such as Fork Lift Trucks ("FLT").	Human and ecological sensitive receptors population in surrounding area (see Section 2.2 and 2.3 of this ERA)	Via surface water or foul water drainage networks	<p>No fuel oil will be stored at the Installation. Site vehicles will be refuelled at FWM's adjacent site at East Moors Waste Transfer Station (Permit Ref: EPR/AB3099FT). The transfer of fuel oil will be covered by the existing EMS procedure at the Facility. Additionally, all chemicals, such as lubrication oils associated with the maintenance of plant and machinery will also be stored at the other site.</p> <p>Plant and equipment will be subject to regular maintenance and servicing to ensure that they are in good working order as per the Installation's PPMR contained in Section 7 of this application submission.</p> <p>Regular site inspections will be undertaken to observe any spillages and to undertake any remedial action required. Any spillage will be dealt with in accordance with the Installation's spill response procedure which will form part of the EMS. All employees will be suitably trained in the procedure and spill kits will be strategically located throughout the site.</p>	<p>Low</p> <p>Risk management measures should prevent any release from reaching the identified receptors</p>	Contamination of controlled waters	Not significant if risk management measures are strictly adhered to

**Table 5: Accident Risk Assessment (Cont.)**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>Spillage of Potentially Polluting Substances (Cont.)</b>						
Loss of containment of waste oils/chemicals during storage or crushing operations.	Human and ecological sensitive receptors population in surrounding area (see Section 2.2 and 2.3 of this ERA)	Via foul water drainage network	<p>All storage vessels will be inspected on arrival at the site as part of the acceptance procedure to ensure that they are in good condition with no obvious signs of leakage or loss of integrity. Any evidence of the above will result in the waste not being accepted at the Installation.</p> <p>The northern, eastern and western boundary benefits from a bund wall. All external storage concrete block bays will be covered by steel supported corrugated sheeting and will benefit from an impermeable rollover policeman. Additionally, all potentially polluting liquids will be banded to 25% of the total contents within each waste storage bay.</p> <p>Any residual liquid resulting from the crushing of empty hazardous containers will be directed to a banded IBC ready for disposal to an appropriately licenced Facility.</p> <p>The bay block walls, kerbing and barriers will be in place to prevent the risk of vehicle collision with storage vessels.</p> <p>Regular site inspections will be undertaken to observe any spillages and to undertake any remedial action required.</p> <p>Any spillage will be dealt with in accordance with the Installation's spill response procedure which will form part of the EMS. All employees will be suitably trained in the procedure and spill kits will be strategically located throughout the site.</p>	Low  Risk management measures should prevent any release from reaching the identified receptors	Contamination of Effluent Treatment Plant and subsequent contamination of controlled waters	Not significant if risk management measures are strictly adhered to

**Table 5: Accident Risk Assessment (Cont.)**

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<b>Loss of Power/System Failure</b>						
Accumulation of waste materials waiting to be processed creating potential for particulate emissions	Human population in surrounding area (see Section 2.3 of this ERA)	Release to air – windblown dispersion	<p>The Installation has pre-determined storage capacity limits which will not be exceeded in the event of major system failure/loss of power.</p> <p>Transport hauliers will be contacted to ensure no additional waste is accepted until all operations recommence.</p> <p>The PPMR includes maintenance and inspection of all process equipment to ensure good working order to reduce the risk of complete system failure.</p> <p>Competent personnel will inspect all equipment prior to recommencement of activities and the acceptance of waste.</p>	<p>Low</p> <p>Risk management measures should prevent any release from reaching the identified receptors</p>	Potential dust nuisance	Not significant if risk management measures are strictly adhered to
<b>Vandalism</b>						
Vandalism or unauthorised access resulting in any of the above.	Any of the above.	Any of the above.	<p>The Installation is secured by perimeter walls and fencing and large entrance gate which is locked out of hours.</p> <p>A remote closed-circuit television (“CCTV”) monitoring system will be in place which will survey all areas of the Installation.</p> <p>Key members of staff are also on call to attend site out of hours if required.</p>	<p>Low</p> <p>Risk management measures should prevent any release from reaching the identified receptors</p>	Any of the above.	Not significant if risk management measures are strictly adhered to

## **5. SUMMARY**

### **5.1. Results of the Assessment**

- 5.1.1. The results of both the amenity and accident risk assessments (Tables 4 and 5) indicate that none of the risks relating to the operation of the proposed Installation will be significant if it is operated and managed in accordance with the EMS, PPMR and risk management measures detailed.
- 5.1.2. As the Installation is proposing to store combustible waste as defined by NRW, a risk of fire has been identified. Therefore, a Fire Prevention Plan (ECL.010.02.01/FPP) has been prepared and is contained within Section 8 of this application submission. The Fire Prevention Plan details the appropriate mitigation measures to prevent the risk of fire at the Installation and should be read in conjunction with this ERA.

### **5.2. Conclusion**

- 5.2.1. The risks in terms of accident and amenity risk can be considered not significant providing all risk management measures are implemented and strictly adhered to.

# **APPENDIX I**

## **SOLUTEX CAN COMPACTOR 206**

### **MACHINERY SPECIFICATION**

# Solutex Drum Compactors

## CAN CRUSHER

Pneumatic Can crusher for cans up to 30 litre capacity. Semi-automatic cycle. Fitted with safety interlock.

## HIGHLIGHTS

Economic unit ideal for paint tins

ATEX Approved II 3GD

Easy to use

Ideal for small workshops, car bodyshops etc

## INSTALLATION

Supplied ready to use,

Simply connect to compressed air supply.

## CONTACT US

For more information on any of our products or services please contact us :



[info@solutex.co.uk](mailto:info@solutex.co.uk)



+44 (0) 1691 622225



Reduce  
waste



Specification	
Compaction force	1600 kgs at 8 bar
Compaction cycle	Semi-automatic
Cycle time	25 secs
Compaction chamber size	370 x 350 x 580 mm high
Overall dimensions	500 x 450 x 1780 mm high
Weight	100 kgs
Power	Pneumatic

[www.solutex.co.uk](http://www.solutex.co.uk)



Can Compactor 206

2020