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Environmental Risk Assessment

v1.0

Environmental and sustainability solutions provided to

Newbourne Farm Composting Limited

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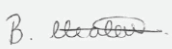	

REVISION LOG

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0.1	Initial draft	06/03/2025
0.2	Update following info request	17/03/2025
0.3	Internal review	31/03/2025
0.4	Update following client review	16/04/2025
1.0	First issue	05/06/2025

CONTENTS

1.0 INTRODUCTION

This Environmental Risk Assessment has been produced in support of a permit variation application for Newbourne Farm Composting Limited (heron referred to as 'Newbourne Farm'), who operate a continuous turned block composting facility, to increase the throughput of material at the site from 25,000 tonnes up to 40,000 tonnes and for the addition of the treatment of inert soils. This document provides a full environmental risk assessment for the proposed increased throughput of 40,000 tonnes and the treatment of inert soils.

1.1 Site Address

Newbourne Farm Composting,
Rockbourne,
Fordingbridge,
SP6 3NT

1.2 Operational Location

Site Grid Reference: Easting 410848, Northing 118613

1.3 Reason for Application

Newbourne Farm are seeking consent to vary their bespoke installation environmental permit to increase the annual throughput of green waste material at the site from 25,000 tonnes up to 40,000 tonnes and to treat up to 9,000 tonnes per annum of inert soil waste on site. In order to do this, the site will be accepting additional European Waste Catalogue (EWC) codes which must be added to the site permit. The treatment of the inert soils will be processed within the existing site boundary, and blended with the 10mm compost, to produce a BS 3882 certified topsoil.

1.4 Assessment Process

The Guidance "Risk assessments for your environmental permit" produced by the Environment Agency and DEFRA outlines a five-step process for assessing the site activity and the risk to local amenity to successfully produce an Environmental Risk Assessment:

1. Identify and consider risks for your site, and the sources of the risks.
2. Identify the receptors (people, animals, property and anything else that could be affected by the hazard) at risk from your site.
3. Identify the possible pathways from the sources of the risks to the receptors.
4. Assess risks relevant to your specific activity and check they're acceptable and can be screened out.

5. State what you'll do to control risks if they're too high.

This risk assessment will identify the potential human and environmental impacts that could result from the activity of this energy from waste plant. Risk assessments will be carried out for the following hazards:

- Odour;
- Fugitive emissions (including dust and pests);
- Visible plumes;
- Noise;
- Fire.

Sector Guidance Note 2.8[1] page 76, point 8, states that there should be an accident plan in place which identifies the likelihood of consequences of accidents and also identifies the actions required to prevent accidents and mitigate any consequences. Assessment of potential accidents at the facility and the consequential effects on sensitive receptors have been accounted for in this document.

[1] Environment Agency. Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste. Sector Guidance Note S5.06

2.0 ASSESSMENT

P = Possibility C = Consequence M = Magnitude

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Airborne particulates generated during composting recovery process and by the movement of vehicles onsite.	Inhalation and ingestion.	Human Health	Low	High	Med	Potential for frequent and long-term exposure to sensitive receptors (apart from licence holder/operator and employees).	• The site will be kept clean and dust suppression will be used as and when needed. • Material will be assessed by site prior to processing and water can be added if required to increase the moisture content. • Material will be maintained at a moisture content of between 40-65% during the composting recovery process. Monitoring of visible emissions will occur during site operations. • A site speed limit of 5mph will be enforced for vehicles. • Dust Management Plan.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Airborne particulates generated during the physical treatment of Non-Hazardous Waste: conditioning and screening of imported soil wastes and by movement of vehicles onsite.	Inhalation and ingestion.	Human Health	Low	High	Med	Potential for frequent and long-term exposure to sensitive receptors (apart from licence holder/operator and employees).	• The site will be kept clean and dust suppression will be used as and when needed. • Screening or blending of material will not take place during excessively windy conditions. • Blending of inert soil with compost will be carried out in a controlled manner, with consideration given to the potential for dust generation at all times. • A site speed limit of 5mph will be enforced for vehicles. • Dust Management Plan • Fugitive Emissions Management Plan.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Airborne dust particulates.	Deposition from air.	Human Health	Med	Low	Med	Potential for frequent and long term exposure to sensitive receptors (apart from licence holder/operator and employees).	• Most waste inputs will have high moisture content so the production of dust will be minimal. • The site will be kept clean and dust suppression will be used as and when needed. • Material will be assessed by site prior to processing and water can be added if required to increase the moisture content. • Daily site inspections • Dust suppression as and when required. • Dust Management Plan.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Noise from machinery.	Air transport.	Human Health	Med	High	Med	Neighbouring residents and businesses often sensitive to noise and likely to complain.	• Machinery maintenance schedule. • All machinery is designed to work efficiently and not produce excessive noise. • All machinery is switched off when not in use. • The location of the site means the likelihood of causing noise nuisance is unlikely. • Site vehicles are fitted with white noise reversing alarms. • Fugitive Emissions Management Plan. • Equipment is fitted with effective silencers where possible. • Appropriate PPE provided to staff.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Fugitive releases of litter.	Air transport.	Human Population	Med	Low	Med	Local residents/local farmers/local businesses sensitive to litter and likely to complain.	• Wastes are inspected on arrival and turned away if contamination levels exceed levels stated in the sites Standard Operating Procedures. • Daily inspection of site and removal of litter	Low
Fugitive releases waste, litter and mud on local roads.	Vehicles entering and leaving site.	Human Population	Med	Med	Med	Local residents often sensitive to mud on roads and likely to complain.	• Daily inspection of site roads and surrounds for debris. • Access road swept when required.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Odour from recovery operations.	Air transport.	Human Population	Low	Med	Med	Local businesses and residents often sensitive to odour and likely to complain if unpleasant odour.	• Excessively odorous waste is not accepted onto site. • Housekeeping and removal of spillages and debris. • Daily odour monitoring on site, around the site boundary and investigation of incidents. • Maintain aerobic conditions. • Regular turning of composting block and temperature control. • Complaints procedure and investigation. • Odour Management Plan.	Low
Fire.	Spontaneous combustion of dry materials.	Site operators and assets	Low	High	Low	Moisture of material is maintained.	• Fire Prevention Plan • Compost moisture contained between 40-65%.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Smoke from a fire.	Air transport.	Human Population	Low	Med	Med	Local residents / businesses often sensitive to odour and likely to complain. Fires can be deliberate or accidental.	• Licensed activities do not permit burning of waste. • Accident Management Plan details consequences and control of fires. • Fresh waste and composting block will be monitored for hot spots. • Fire suppression equipment located on site. • Fire Prevention Plan.	Low
Scavenging birds and animals.	Air transport and over land.	Human Population	Med	Med	Med	Scavenging birds and vermin attracted to site and affecting neighbouring businesses and residents.	• Pest control measures implemented across site e.g. bait boxes. • Visual inspection for signs of pests is carried out as part of site walkover. • Contractual arrangements in place with professional pest controller for regular checks. • Housekeeping.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Pests e.g. flies.	Air transport and over land.	Human Population	Med	Med	Med	Insect pests can multiply on some permitted waste types particularly in summer months.	• Pest control measures implemented across site. • Visual inspection for signs of pests is carried out as part of site walkover. • Contractual arrangements in place with professional pest controller. • Housekeeping.	Low
All on site hazards particularly relating to material handling and storage activity.	Direct physical contact.	Human Population	Low	Med	Med	Waste types are non-hazardous.	• Signs outlining onsite risks. • All wastes to be accepted are non-hazardous.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Leachate with high organic content	Surface runoff	Surface Water	Med	Low	Med	Waste types are non-hazardous.	• All material stored on an impermeable pavement and contained drainage. • Accident Management Plan and emergency procedures outline a methodology for loss of site liquid wastes/leachate to surface waters.	Low
Leachate from material with high organic content.	Direct surface run off from site pad.	Surface Water	Med	Med	Med	Waste types are non-hazardous. Potential leachate spill into low flow watercourse. Harm is temporary and reversible.	• All material stored on an impermeable pavement and contained drainage. • Rainwater falling on the treatment and storage areas is collected in the drainage infrastructure along with washing water and is stored in the underground 54,500-litre drainage tank to be recirculated into the composting process as required or discharged off-site via the swale..	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
							• Fugitive Emissions Management Plans. • Accident Management Plan.	
Leachate with high organic content.	Permeate flow through soil.	Groundwater	Low	High	High	Site located outside groundwater source protection zones.	• Impermeable pavement. • Contained drainage system. • Rainwater falling on the treatment and storage areas is collected in the drainage infrastructure along with washing water and is stored in the underground 54,500-litre drainage tank to be recirculated into the composting process as required or or discharged off site via the swale. • Fugitive Emissions Management Plan.	Low

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Risk Management**	**Residual Risk**
Fire on site leading to run off from polluted fire fighting waters.	Direct and indirect run off.	Groundwater	Med	High	Med	Fires can be deliberate or accidental.	• Impermeable pavement. • Contained drainage system. • Accident Management Plan. • Fire Prevention Plan.	Low
P = Possibility C = Consequence M = Magnitude								

3.0 ACCIDENT MANAGEMENT

3.1 Emergency Contacts

Emergency Services:	999
Local Police:	101
Fire Brigade:	Hampshire & Isle of Wight Fire and Rescue Service – 023 8064 4000 (main office) 023 8038 6390 (out of office hours – 5pm to 9am, and weekends)
Environment Agency Hotline:	0800 807 060
Health & Safety Executive:	0845 345 9905
Electricity Supplier:	EDF Energy UK
Local Authority:	Fordingbridge Town Council - 01425 654134 Hampshire County Council - 0300 555 1389
Waste Disposal Contractor:	CB Skips
Gas Supplier:	N/A
Sewerage Undertaker:	Septic Tank – Rob Beale
Fuel Supplier:	Northover

3.2 Out of Hours

Permit Holder:	Rodney Hill
Site Manager:	Rodney Hill
Company Owner:	Rodney Hill

3.3 Environmental Accident Management Plan

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Consequences**	**Actions to be taken**
Plant Failure (Hydraulic Leaks, Damaged equipment)	Potentially polluting liquids leak into the building where the plant is housed or onto the hard surfaced ground outside.	Environment	Low	Med	Low	Low - Very little likelihood of occurrence. All equipment subject maintenance regime. Site has a sealed drainage system.	Potentially polluting liquids flow onto hard surfaced area of facility.	• Stem leak if possible. • Inform site manager. • Isolate spill using spill control kits or adsorbent material. • Monitor leak and prevent any liquid from entering drains. • Drain any contaminated tanks, clean any spillage and dispose of waste as appropriate. • Monitor external areas to ensure no further contamination. • Record the incident. • Inform Local Authority or Environment Agency if necessary. • Review Operations and Management System.

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Consequences**	**Actions to be taken**
Severe Weather	Flooding Wind damage Ice/frost	Plant & Equipment Site Conditions	Low	Med	Low	Low - Flooding unlikely due to location of site and existing drainage system already present on site. All plant securely fixed with some housed inside a building.	Damage to plant and equipment	• Cease operations if required. • Assess damage. • Mitigate any pollution caused. • Inform site manager. • Inform Local Authority or Environment Agency if necessary. • Repair damage. • Record incident.
Arson/ Vandalism	N/A	Plant & Equipment Site Conditions	Low	Med	Low	Low - Site to be as secure as possible. all plant locked when not manned. All doors and gates locked outside working hours. Security checks/supervision of people entering the site is carried out during normal working hours.	Damage to equipment Fire Litter	• Assess damage. • Mitigate any damage/pollution caused (following fire plan). • Inform site management. • Inform Police. • Inform Local Authority if required. • Record incident. • Review site security.

Pollutant Model			Judgement				Action	
Source	**Pathway**	**Receptor**	**P**	**C**	**M**	**Justification of Magnitude**	**Consequences**	**Actions to be taken**
Fire	Spread from source of ignition	Site buildings Local Residents	Low	Med	Med	Med - No ignition sources permitted near flammable material. Fuel must be stored in a way to prevent fire. Appropriately stored waste and limited sources of ignition. Fuel is stored in a dedicated double bunded tank capable of storing 110% of the tank's volume.	Fire could spread to site buildings and potentially to neighbouring sites, subject to wind direction and strength. Potential for severe damage to property and potential loss of life from fire/smoke inhalation.	• Raise alarm on site. • Call 999. • Ensure personnel are alerted evacuated and accounted for from danger area, following the fire evacuation plan. • If safe, switch off electricity/fuel supplies. • Inform site management. • Liaise and follow instructions of emergency team making them aware of any hazards on site. • Any fire water treated/disposed of appropriately.
P = Possibility C = Consequence M = Magnitude								