Environmental Permit Variation

Environmental Risk Assessment

Berkswell Recycling Ltd

Cornets End Lane, Meriden

Prepared by:

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1.0 Introduction

SLR Consulting Limited (SLR) has been instructed by Berkswell Recycling Limited to prepare an Environmental Risk Assessment (ERA) in support of an Environmental Permit (EP) variation for their site at Cornets End Lane near Meriden in the West Midlands.

The site is operated as an open windrow composting site, treating green waste from Local Authority kerbside collections and maintenance of green spaces and from local landscapers. The variation of the permit will allow additional waste to be treated on site.

1.1 Methodology

This ERA is an assessment of the risks to the environment and to human health that may be associated with the proposed operations at the site.

This ERA has been undertaken in accordance with the Environment Agency (EA) guidance '*Risk Assessments for your Environmental Permit*[1]' last updated December 2025. The aim of the ERA is to identify any potential significant risks and demonstrate that the risk of pollution or harm will be acceptable by taking the appropriate measures to manage these risks.

This ERA uses the following approach for identifying and assessing the risks from the Installation:

Step 1 Identify risks and sources of risk from your activity.

Step 2 Where risks are identified from Step 1 then identify the receptors that could be affected.

Step 3 Identify potential pathways between the sources of risk and receptors.

Step 4 Assess the risks and check that they are acceptable. Justify appropriate measures to control your risks, if necessary.

Section 2.0 of this document is a screening step to identify the risks requiring consideration as part of this assessment.

Section 3.0 identifies the receptors (people or parts of the environment that could be harmed by the activity). All receptors that are near a site and could reasonably be affected by the activities are identified and considered as part of the assessment.

For the purposes of this ERA the following distances (from the EP boundary) have been used to identify potentially sensitive receptors for the composting site:

- A 2km radius has been adopted in reviewing potentially sensitive receptors of ecological importance; and
- A radius of 1km has been adopted for all other potentially sensitive receptors (for example residential, commercial, industrial, agricultural and surface water receptors).

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

1 https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit

2.0 Identifying The Risks

Step 2 of the ERA is a screening step to identify the potential risks to the environment from the Installation. The EA's guidance requires the following to be considered as 'Risks from your site':

- Any discharge, for example sewage or trade effluent to surface or groundwater;
- Accidents;
- Odour;
- Noise and vibration;
- Uncontrolled or unintended ('fugitive') emissions, including dust, litter, pests and pollutants that should not be in the discharge;
- Visible emissions, for example smoke or visible plumes; and
- Release of bioaerosols.

Further, for Installation and waste EP applications the EA guidance states that assessment of the following additional aspects is required, where applicable:

- Risks from air emissions;
- Risks to groundwater;
- Global Warming Impact;
- Risk to groundwater from landfill leachate;
- Risks to surface water from hazardous pollutants;
- Risks to surface water from sanitary and other pollutants; and
- Installations and waste operations must also decide how to treat, recycle or dispose of waste.

There are no point source emissions to water from the site. Site drainage is managed by collection in a large tank and then is reused on site. Excess water is tankered away to a water treatment plant.

There are no point source emissions to air from the site (other than from vehicle exhausts from site plant).

No landfill leachate is generated and there are no hazardous pollutants on site other than diesel to fuel site plant, which is stored in a bunded tank in accordance with the oil storage regulations.

Very little waste is generated on site. The purpose of the site is to recycle waste into useful product and the green waste is processed in accordance with PAS100 to produce a non-waste compost.

Global warming potential is limited to the operation of site plant. Where possible low carbon emission equipment will be used where replacement of assets is needed. The site may have a beneficial effect in relation to global warming as waste is diverted away from landfill, where it would form methane a powerful greenhouse gas, and production of compost may help reduce the requirement for peat extraction, which damages carbon sinks.

The site is unlikely to produce litter but dust, odour and pests will need to be managed.

Therefore, only the following potential impacts are considered further in this risk assessment:

- Fugitive emissions of bioaerosols and dust;

- Fugitive emissions to groundwater;
- Odour;
- Pests;
- Accidents; and
- Noise & vibration.

3.0 Site Setting and Receptors

This section identifies the potential sensitive receptors in the vicinity of the Site that could be harmed by emissions from the activities on site.

The guidance[1] requires all receptors that are near the composting site and could reasonably be affected by the proposed activities be identified and considered as part of the ERA. The following distances have been used to identify the relevant receptors:

- a 2km radius for SSSIs and other sites of cultural and ecological importance,
- a radius of 1km from the proposed permit boundary has been adopted for all other potentially sensitive receptors (for example, residential, commercial, industrial, agricultural and surface water receptors).

3.1 Site Setting

The Site is centred at NGR SP22856 80420.

The site is located within a quarry with a wood recycling site and quarrying activities to the north and further quarrying to the south of the site. It lies in a previously worked area of the quarry and is surrounded by bunds constructed from quarry overburden, so that it is well screened from all sides.

To the east and west the land is largely agricultural. A small area of woodland lies to the west of the site and the closest residential receptor is the farm just beyond this, which is approximately 250 from the site.

3.2 Geology, Hydrogeology and Flooding

3.2.1 Geology and Hydrogeology

British Geological Survey (BGS) data[2] indicates the following general geological sequence beneath the site.

Potentially the drift deposits have been removed as part of the quarrying activity. Where they are present, these are glaciofluvial deposits classed as a secondary A aquifer.

To the west side of the site the bedrock is the Sidmouth mudstone formation comprising a mainly red brown mudstone. To the east side of the site the bedrock is the East Tarporley siltstone formation, which typically underlies the Sidmouth mudstone and comprises interbedded siltstone mudstone and sandstone. The bedrock is classified as a secondary B aquifer.

The site is not in a source protection zone.

[2] BGS Geology viewer accessed 30th June 2026.

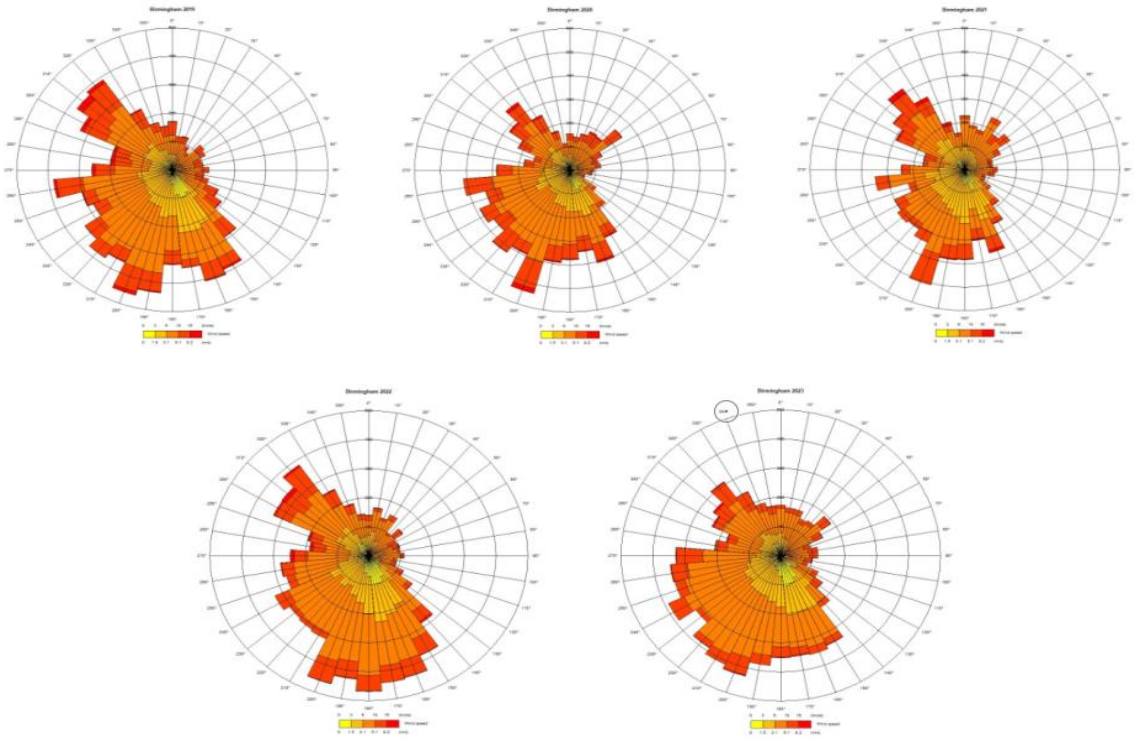
3.2.2 Flooding

The Flood Map for Planning accessed on 1st July 2026 identifies that the site is in Flood Zone 1 and therefore at very low risk of flooding from rivers and seas.

3.2.3 Prevailing wind

The general direction of the wind at Berkswell Quarry is from the south or southwest. Information on wind direction and wind roses for 2019 to 2023 were sourced for the Bio-Aerosol Risk Assessment and are reproduced below.

Figure 3.1 Windroses



3.3 Receptors

The closest receptors are described below.

3.3.1 Residential

Residential properties include Mercote Hall Farm which lies approximately 250m west of the site. There are other individual residential properties along Cornets End Lane, Mercote Hall Lane and Kenilworth Road. The village of Meriden lies approximately 1,900m to the north-east and Hampton in Arden approximately 2,000m to the west.

3.3.2 Protected Habitats

The area is dominated by quarrying and agriculture with fields to the east and west of the site. There are two sites of special scientific interest (SSSIs) close to the site with the closest being Berkswell Marsh, approximately 420m to the south of the site. This SSSI comprises an area of wet woodland and fen meadow and is noted for its diverse flora.

The River Blythe SSSI lies approximately 1,370m to the west of the site. The River Blythe in this area is designated as an SSSI due to the diverse nature of the river and its substrates which provide a range of different conditions. This in turn supports a very rich and diverse range of flora and invertebrates.

There are also several Biodiversity Action Plan (BAP) priority habitats within 1km of the site. These include an area of wood pasture 670m to the southeast, an area of semi-improved grassland 170m to the south, replanted ancient woodland 570m to the south and 750m to the east and 5 areas of deciduous woodland, the closest of which is immediately to the west of the site.

3.3.3 Surface Water Features

A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) map reveals that the closest surface water features are a number of ponds and lagoons approximately 200 to 300m north of the site and 75m south of the site. It is likely these are related to surface water management around the quarry or part of the quarry restoration.

3.3.4 Listed Buildings

There are three listed buildings within 1km of the site. These are Mercote Mill Farmhouse, approximately 250m west of the site and Hornbrook Farmhouse and Barn approximately 750m northwest of the site.

3.3.5 Other

The site is on the flight path for some flights in and out of Birmingham Airport, which is approximately 4.9km to the northwest.

The sensitive receptors are summarised in Table 3.1 below:

Table 3.1 Potential receptors at Berkswell Quarry Composting Facility

NAME	DIRECTION	APPROXIMATE DISTANCE (m)
Cemex	West	500
Ready mix concrete facility	North	650
Residential property (off Cornets End Lane)	Northeast	500
Residential property (off Cornets End Lane)	East	700
Residential property (off Mercote Hall Lane)	Southeast	430
Farm and outbuildings off Kenilworth Road	Southwest	600
Farm and outbuildings (Mercote Farm)	West	250
Hornbrook Farm	Northwest	750

NAME	DIRECTION	APPROXIMATE DISTANCE (m)
A452	West	887
River Blythe (SSSI	West	1370
Berkswell Marsh SSSI	South	420
BHX Flight paths	Above the site	

4.0 Environmental Risk Assessment

This section considers the potential pathways between source and receptor and where appropriate, the assessment demonstrates how the risk of pollution or harm from the composting activities can be mitigated by measures to manage these risks and/or block the pathways.

There are no point source emissions to groundwater or land, no point source emissions to surface water and no point source emissions to air (other than mobile plant exhaust) from the application activities. Surface water runoff from the site is directed by the concrete surfacing towards the large underground drainage tank at the southern end of the site. From here the water is reused on site, for example to manage the moisture content of the windrows. Excess water is taken away by tanker to an appropriately regulated facility.

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; and
- High: exposure is probable, direct exposure likely, with few barriers.

The potential impacts are also rated as low, medium or high.

An assessment in terms of hazards posed, receptors and pathways, management of the risk and residual risks for the hazards/impacts identified above from the operation of the data centre is presented in Table 4.1, in accordance with the risks identified in Section 2 of this report.

Table 4-1: Risk Assessment and Management Plan

Receptor	Hazard	Harm	Pathway	Probability of exposure	Magnitude of risk	Justification of magnitude	Risk Management	Residual Risk
Local human population	Release of microorganisms (bio aerosols)	Harm to human health - respiratory irritation and illness.	Air transport then inhalation, ingestion or inoculation.	High	High	Composting activities produce and release bio aerosols e.g. microorganisms. There is potential for exposure to anyone living or working close to the site.	Proper management of windrows to optimise moisture and temperature for correct composting process. Avoiding turning if wind is towards nearest residential receptor. Avoiding shredding if wind is towards nearest residential receptor. Damping down as needed. Bioaerosol risk assessment completed and monitoring carried out.	Low
Local human population	Releases of particulate matter (dusts).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	Medium	Permitted waste types do not include dusts, powders or loose fibres but composting produces and is likely to release particulates. There is potential for exposure if anyone living or working close to the site.	Proper management of windrows to optimise moisture content. Avoiding turning if wind is towards nearest residential receptor. Avoiding shredding if wind is towards nearest residential receptor. Damping down as needed on stockpiles, windrows and yard area. Proper maintenance of site plant. Cleaning of site roads as needed. Delivery vehicles enclosed or sheeted.	Low

Receptor	Hazard	Harm	Pathway	Probability of exposure	Magnitude of risk	Justification of magnitude	Risk Management	Residual Risk
Local human population	Releases of particulate matter (dusts).	Nuisance - dust on cars, clothing etc.	Air transport then deposition.	Low	Low	Permitted waste types do not include dusts, powders or loose fibres. Few sensitive receptors close to site.	Proper management of windrows optimise moisture content. Avoiding turning if wind is towards nearest residential receptor. Avoiding shredding if wind is towards nearest residential receptor. Damping down as needed.	Low
Local human population	Releases of particulate matter (dusts) and microorganisms (bio aerosols).	Gastro-intestinal illness.	Air transport then deposition on garden fruit/vegetables and then ingestion.	Medium	Medium	Permitted waste types do not include dusts, powders or loose fibres but composting is likely to release particulates and bioaerosols. There is potential for exposure if anyone living or working close to the site	Good waste acceptance keeps hazardous materials out of the site. Proper management of windrows optimise moisture and temperature for correct composting process. Damping down as needed on stockpiles, windrows and yard area. Proper maintenance of site plant. Cleaning of site roads as needed. Bioaerosol risk assessment completed and monitoring carried out.	Low

Receptor	Hazard	Harm	Pathway	Probability of exposure	Magnitude of risk	Justification of magnitude	Risk Management	Residual Risk
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents	Vehicles entering and leaving site	Low	Medium	Local residents often sensitive to mud on roads. Checks of the public highway are undertaken and should debris be observed it is collected.	All delivery vehicles sheeted or enclosed. Road swept as necessary. Concrete surfacing throughout site.	Low
Local human population	Odour	Nuisance, loss of amenity.	Air transport then inhalation	High	High	Composting produces and is likely to release odour. There is potential for exposure if anyone living or working close to the site Local residents often sensitive to odour.	Good waste acceptance procedures to exclude food waste or highly odorous waste. Proper management of windrows to prevent anaerobic conditions. Avoiding shredding or turning when wind direction is towards the nearest residential receptor. Odour management plan in place.	Low

Receptor	Hazard	Harm	Pathway	Probability of exposure	Magnitude of risk	Justification of magnitude	Risk Management	Residual Risk
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep or harm.	Noise through the air and vibration through the ground.	Medium	Medium	Local residents often sensitive to noise and vibration.	Mechanical operations take place only during the working day. Plant properly maintained. Site screened by its location in the quarry and the perimeter bunds.	Low
Local human population	Scavenging animals and scavenging birds.	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land.	Low	Medium	Permitted wastes are not likely to attract scavenging animals and birds.	Pest management plan in place. Good waste acceptance procedures to exclude food waste from site. Proper management of windrows with regular turning. Regular visit by pest contractor.	Low

Receptor	Hazard	Harm	Pathway	Probability of exposure	Magnitude of risk	Justification of magnitude	Risk Management	Residual Risk
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity.	Air transport and over land.	Medium	Medium	Insect pests can multiply on permitted wastes, particularly in summer months when waste is odorous and attracts flies.	Pest management plan in place. Good waste acceptance procedures to exclude food waste from site. Proper management of windrows with regular turning. Regular visit by pest contractor. Daily inspections in summer months.	Low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury.	Direct physical contact.	Low	Medium	Permitted waste types are non-hazardous therefore only a medium magnitude risk is estimated.	Site security in place to prevent unauthorised access including perimeter bunds. CCTV in place. Site manned during working day and locked at night.	Low

Receptor	Hazard	Harm	Pathway	Probability of exposure	Magnitude of risk	Justification of magnitude	Risk Management	Residual Risk
Groundwater	Fugitive emissions to groundwater	Pollution	Infiltration through soil	Medium	Medium	Site is not on a principal aquifer or in a source protection zone	Entire site has impermeable concrete surfacing with sealed drainage. Kerbs to prevent run-off from the concrete pad. Surfacing inspected and maintained.	Low

5.0 Conclusion

With the control measures in place there should be no significant impacts on local receptors from the operation of the site. The site operates in accordance with the Environment Agency's appropriate measures and a Fire Prevention Plan, Odour Management Plan and Pest Management Plan are in place.

The site has concrete surfacing and sealed drainage to prevent emissions to groundwater. Windrows are properly managed to limit the potential for dust, odour and pests. Good waste acceptance procedures are in place so that only green waste is received on site.

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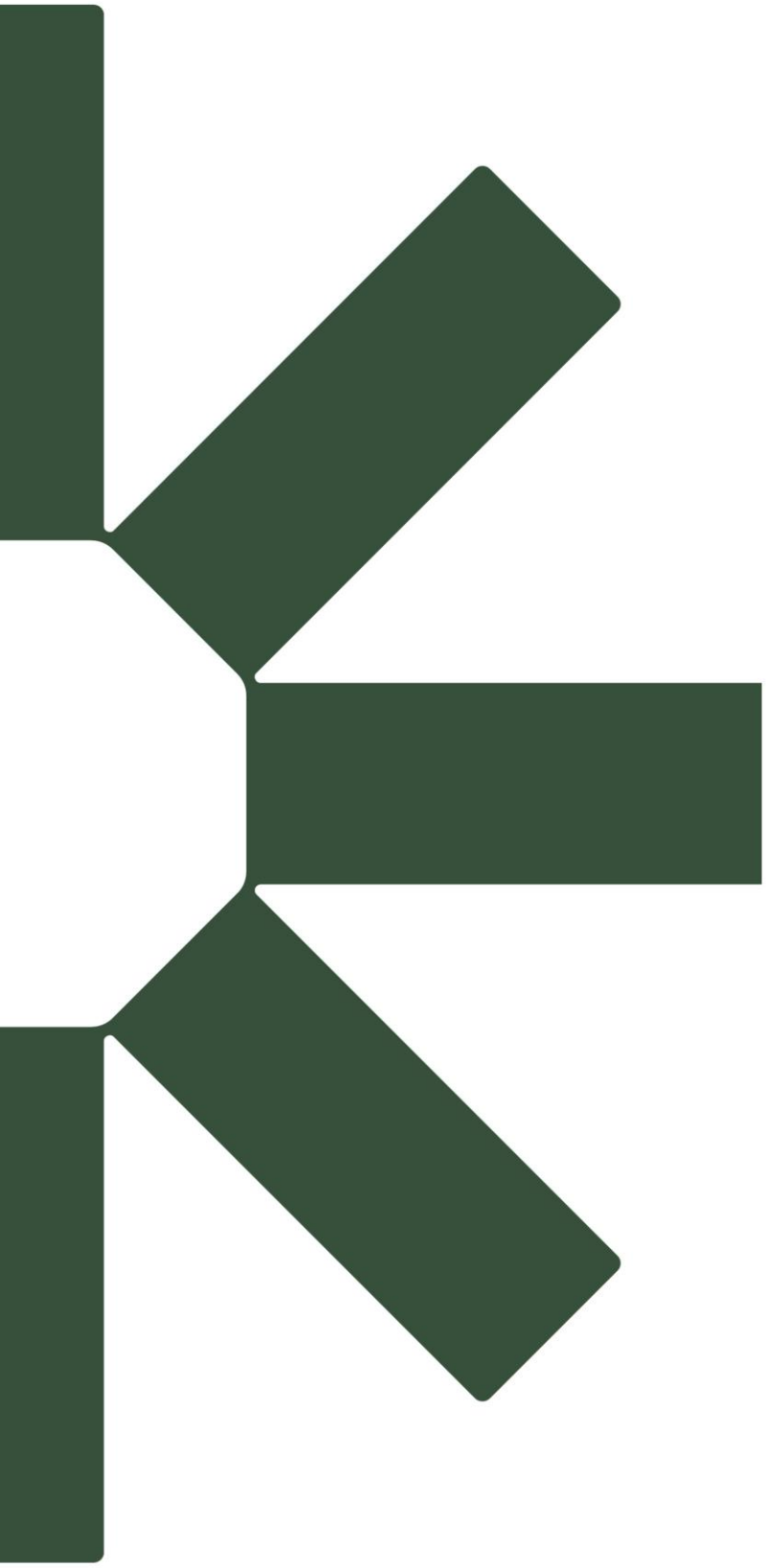

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