Biffa Waste Services Limited

Environmental Permit Application
Environmental and Accident Risk Assessment

Middlesbrough Transfer Station

December 2023 (revision 1 – May 2024)

Contents:

Appendices:
Appendix EARA1 – Risk Assessment Matrix

1. SCOPE

This document presents an assessment of the risks to the environment and amenity posed by the operation of Middlesbrough Waste Transfer Station, Brunel Road, Skippers Lane Industrial Estate, Middlesbrough, TS6 6JA.

This risk assessment has been undertaken in accordance with the Environment Agency (EA) Guidance on 'Risk Assessments for your Environmental Permit'; published 1st February 2016 (updated 31 August 2022).

2. SITE SETTING

This Environmental and Accident Risk Assessment (EARA) relates to the operation of the Middlesbrough Waste Transfer Station, Brunel Road, Skippers Lane Industrial Estate, Middlesbrough, TS6 6JA. The site extends over an area of ~10,600m^2 and is centred on National Grid Reference (NGR) NZ 52792 20225. Since the site is situated on the Skippers Lane Industrial Estate, the immediate surrounding land use is primarily industrial. The site is located 3km east of Middlesbrough, and 8.5km southwest of Redcar.

Biffa is applying for a change to a bespoke permit and although there will be no changes to the permitted R and D code activities already covered by the existing Standard Rules permit, the bespoke permit variation application will look to allow wider storage of material in the external bays and externally in containers. The site intends to utilise the three external bays for storage of glass, mixed C&D, and scrap metal. In addition to this, storage of wood, plasterboard and bonded asbestos in containers stored externally.

Biffa is proposing to accept non-hazardous industrial and commercial waste streams for bulking and manual (including plant assisted) sorting for subsequent transfer off site to other Biffa permitted treatment facilities for recovery. In addition to non-hazardous wastes, bonded asbestos will be accepted for transfer off site for disposal. The waste storage areas will comprise impermeable surfacing with a sealed drainage system. The maximum annual throughout will be 75,000 tonnes.

The site is accessed by site staff and visitors via a security gate located on Brunel Road, off the A66 which runs parallel to the north of the site. There is a car parked labelled accordingly and is located on the right upon entry to the site. Collection vehicles enter the site via Webb Road (off Brunel Road) and drive directly onto the Weighbridge opposite the entrance gate. The site entrance and all the other permitted areas of the site are covered by suitable hard standing such as concrete or tarmac, and the perimeter of the site is kerbed.

Middlesbrough Waste Transfer Station was previously operated under a Standard Rules 2008 No.3 permit, located on Brunel Road, and operated as a non-hazardous household, commercial and industrial transfer station with treatment. This permit was issued to Biffa Waste Services Limited on 14th June 2010. Biffa Waste Services ('Biffa') are now applying for a change to a bespoke environmental permit for the site which will replace the current standard rules permit.

The engineered surfaces within the external operational area will be installed in such a way that all surface water run-off from external operational areas is collected via a series of drains whereby it is then directed (via a series of drainage channels) to the combined drain on Brunel Road, with the exception of the glass bay which benefits from a sleeping policeman across the front of the bay to ensure any potential residues present on the glass are contained within the bay. This drainage system is cleaned regularly, and any potentially contaminated residue is disposed of to a suitably permitted facility.

According to the UK Government Flood Risk check the site is located in a very low risk area for flooding from rivers and the sea and surface water, meaning that the area has a chance of flooding of less than 0.1% each year. The site is not located within a Source Protection Zone, and the site is situated in a low category groundwater vulnerability area, areas that provide the greatest protection to groundwater from pollution. They are likely to be characterised by low-leaching soils and/or the presence of low-permeability superficial deposits.

3. SENSITIVE RECEPTORS

Sensitive receptors within 1km of the Environmental Permit boundary have been identified and checked using the approved Multi Agency Governmental Information for the Countryside (MAGIC) interactive mapping tool.

MAGIC provides geographic information about the natural environment from across government departments. This information which is available includes those rural, urban, coastal, and marine environments across Great Britain.

The searches confirmed that there are none of the following ecological, cultural and heritage receptors within 1km of the site's boundary:

- Ramsar's;
- Sites of Special Scientific Interest (SSSI's);
- Special Areas of Conservation;
- Special Protection Area's (SPA);
- Ancient Woodland;
- Areas of Outstanding Natural Beauty;
- National Nature Reserves; and
- National Parks;
- World Heritage Sites;
- Scheduled Monuments;
- Registered Battlefields; and
- Registered Parks and Gardens.

Table 1 identifies the potential sensitive receptors that have been identified through a desktop study of the locality of Middlesbrough Transfer Station, and are therefore considered to be potentially sensitive and could reasonably be affected by the activities occurring on site.

Table 1: Identified Sensitive Receptors within 1km of Middlesbrough Transfer Station

Receptor Name	Receptor Type	Direction from Site	Approximate distance from Site boundary at closest point (m)
Public Greenspace	Fields	North	180m
Residential properties in South Bank	Residential Properties	West	1000m
Industrial premises on Skippers Lane Industrial Estate	Commercial / Industrial	Adjacent / Surrounding the site	0 - 100m
Brunel Road	Highways	West	100m
Webb Road	Highways	South	60m
Owens Road	Highways	East	40m
Middlesbrough Road	Highways	North	200m
Cleveland Retail Park	Retail	Southeast	480m
Residential properties at Brambles Farm	Residential	Southwest	500 - 1000m
A66	Major Roadway	North	485m
AVG Biogas plant	Industrial	North	851m
Railway line	Transport link	North	945m
St. Peter's Catholic College	School	East	1000m
Spencer Beck	Woodland	South	480m
Church of Saint Peter	Listed Building	Northeast	785m
War memorial circa 5m SW of Church of Saint Peter	Listed Building	Northeast	773m
War memorial	Listed Building	Northeast	925m
1 Millbank Street	Listed Building	Northeast	825m

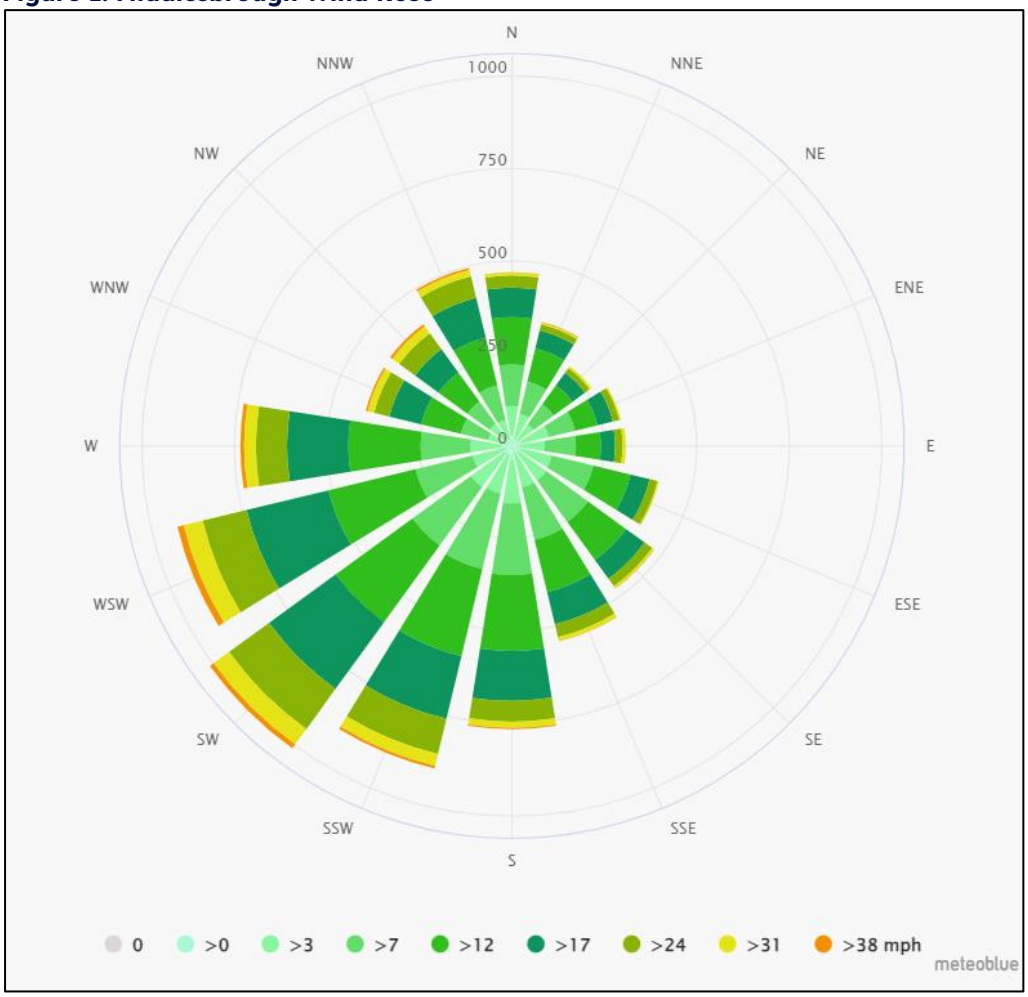
Church of St John the Evangelist	Listed Building	Northeast	987m

4. METEOROLOGICAL CONDITIONS

The local wind speed and direction data has been obtained for Middlesbrough. This dataset is deemed the most appropriate for use in order to characterise the site due to its proximity to the site, approximately 3km east of the facility. Therefore, wind patterns in Middlesbrough are likely to be similar to those experienced at the Middlesbrough transfer station.

Simulated historical wind data has been utilised from the Meteoblue archive. This information is based on 30 years of hourly weather model simulations in order to typify the meteorological conditions likely at the site. The wind rose, as shown by Figure 1 shows how many hours per year the wind blows from any given direction on each of the 16 points of a compass.

Figure 1: Middlesbrough Wind Rose



The wind rose indicates that the predominant wind directions are from the southwest quadrant, and the prevailing wind is from the southwest.

5. RISK ASSESSMENT

The risk assessment will be prepared using the widely accepted source-pathway-receptor methodology, and is the preferred method specified in the EA guidance.

Where any complete source-pathway-receptor linkage exists, the magnitude of any such risks is qualified by the probability and consequence of an such risk occurring.

The criteria to be adopted for the risk assessment are detailed in Table 2 below.

Table 2: Risk Assessment Criteria

Probability ⇨ Consequence ⇩	**Very Low**	**Low**	**Moderate**	**High**
Very Low	Negligible	Very Low	Low	Low-Moderate
Low	Very Low	Low	Low-Moderate	Moderate
Moderate	Low	Low-Moderate	Moderate	High
High	Low-Moderate	Moderate	High	Very high

An environmental and accident risk assessment for the Middlesbrough Transfer Station is presented in Appendix EARA1 – Risk Assessment Matrix. The assessment covers the following potential risks:

- Fugitive emissions to air (dust and particulates);
- Odour;
- Litter;
- Mud and Debris on the road;
- Scavenging Birds, Vermin and Insects;
- Noise & Vibration;
- Fugitive emissions to water;
- Accidents; and
- Protected Habitats & Species.

6. CONCLUSION

It is concluded that the transfer station activities and associated risks are unlikely to have any adverse effects on the receptors within the vicinity of the site.