



Brookhurst Wood MBT Facility

Environmental Permit Variation - EPR/HP3238GW
Dust Emissions Management Plan

Biffa Waste Services Limited

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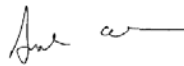
Caroline Braithwaite
Senior Environmental
Consultant

Checked by



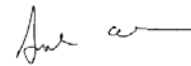
Mike Nutting
Technical Consultant to
AECOM

Verified by



Angela Graham
Associate

Approved by



Angela Graham
Project Manager

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Distribution List

# Hard Copies	PDF Required	Association / Company Name
	1	Neil Sumner / Biffa Waste Services Limited

Prepared for:

Biffa Waste Services Limited

Prepared by:

Caroline Braithwaite
Senior Environmental Consultant
E: caroline.braithwaite@aecom.com

AECOM Infrastructure & Environment UK Limited
12 Regan Way
Chetwynd Business Park
Nottingham NG9 6RZ
United Kingdom

T: +44 (115) 907 7000
aecom.com

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1. Report Context

1.1 Introduction

AECOM has been commissioned by Biffa Waste Services Limited (“the Operator” or Biffa) to prepare an application to vary the existing environmental permit (EPR/HP3238GW) to include an additional area of land in proximity to the current Mechanical and Biological Treatment (MBT) Facility for the loading, storage and dispatch of MBT outputs. The site is located at Brookhurst Wood, Horsham, West Sussex.

This document represents the Dust Emissions Management Plan and should be read in conjunction with the other supporting application reports and risk assessments.

1.2 Proposed Facility

There are no changes proposed to the existing MBT operations.

Biffa plan to extend the existing MBT Facility to include an area of land known as Site Ha to be used as a waste storage and transfer area for loose or baled refuse derived fuel (RDF) produced by the MBT process to meet the requirements of the West Sussex County Council Materials Resource Management Contract (MRMC).

The area will be operated as a trailer park whereby up to 36 empty transport trailers may be delivered to site empty and subsequently filled with RDF. It is intended that alternate bays will be used for the full and empty trailers so the drivers can drop off and collect in the same trip. The RDF will be stored for a maximum 72 hours prior to export from site to EfW's in the UK or abroad.

It is also proposed to allocate a controlled area for the storage of containerised covered CLO (Compost Like Organic), this material will be a by-product of the food waste process and will be taken to land spreading within the vicinity of the site during the week. Over weekends there will be a need to store the CLO at the site; and

No waste treatment or processing will take place as part of this activity and total waste storage (daily maximum) is estimated at 450 tonnes of RDF and estimated 100 tonnes of digestate.

2. Background

2.1 Scope of the Dust Emissions Management Plan

This Dust Emissions Management Plan (DEMP) has been developed in accordance with the Environment Agency's (EA) Dust & Particulate Emission Management Plan Guidance 'Control and Monitor emissions for your environmental permit' (updated 8th November 2018) and relates to the waste materials accepted, stored and treated at the site which may produce fugitive emissions

The guidance states that all DEMPs should as a minimum contain the following elements:

- *The plan version number and date;*
- *An introduction to the site and description of site operations;*
- *Details of local sensitive receptors, other local contributors of dust and emissions;*
- *Emission sources on site;*
- *Site abatement systems including the nomination of responsibility*
- *Suitable monitoring;*
- *Actions, contingencies and responsibilities when problems arise; and*
- *How you contact the local community and respond to complaints.*

The DEMP must also show how the principle of source, pathway, receptor model has been taken into consideration the planning of site, operations and abatement to minimise emissions including how different weather conditions may affect these activities.

This Dust Emissions Management Plan (DEMP) has been prepared to only address the management of potential dust emissions from the site processes in order to minimise the risk of pollution. A separate management plan has been prepared for Odour Management at the site.

The DEMP will specifically consider:

- Section 2 – The site setting,
- Section 3 – Assessment of pollution risk;
- Section 4 – Proposed management control and arrangements including triggers for management actions; and
- Section 5 – Monitoring, recording and reporting arrangements.

3. Overview of Process and Location

3.1 Existing Treatment Processes

The existing MBT includes the mechanical recovery of both recyclable material and residual waste for RDF, with any biodegradable material treated within the AD plant to generate electricity. The plant can also produce up to 4.5MW of electricity to power the MBT facility and export to the national grid.

The installation comprises two main elements – mechanical separation of wastes and Anaerobic Digestion (AD) which together make up the Mechanical Biological Treatment (MBT) facility. Combined treatment capacity is 327,000 tonnes per annum, of which approximately 120,000 tonnes per annum is treated via AD.

The site is designed with in-built safety systems to ensure that risks associated with:

- on-site traffic movements and tipping are minimised;
- dust associated with handling of waste is minimised and controlled; and
- noise is controlled and minimised.

3.1.1 Waste Reception Area

All incoming solid waste is tipped in the reception area. The area comprises of a large flat concrete floor which is separated into two discrete sections. The section on the West side of the building receives only general waste from Household Waste Recycling Sites (HWRS) and this waste is tipped directly on to the concrete floor and stored until processed. The section to the East of the building receives residual bin waste and contains two large pits which the waste is tipped into and stored until processed. Three shredders are located in the hall, which are loaded with waste by overhead crane or mobile plant to shred the material before it is conveyed to the process area.

The reception area is fully enclosed within a building which is fully clad and roofed. The waste reception area of the building is accessed by vehicles via one of eleven automatic fast acting doors located along the southern elevation of the building. Under normal operations, vehicles will reverse straight back into the building, the door they entered through will close and then the vehicle will discharge their load either into a pit (there is a safety system that allows the pit barrier to open while the vehicle reverses in) or on to the floor in the case of the HWRS section. HWRS vehicles should be able to reverse fully into the tipping bays such that they can pull forward slightly to aid in ejecting the load but still remaining inside the building.

Doors are programmed not to be open for longer than 2 minutes at a time under normal operating procedures. The site was not designed to operate with only one door open at a time. As such current door operation is correct and is considered as normal operations. Vehicles move through the process quickly and don't normally need to be parked. However, should a vehicle need to be parked, this will be on the site road directly in front of the waste reception area. Parking times will be kept to a minimum to ensure that the maximum turnaround time of 20 minutes as required by our contract with WSCC is not exceeded. There is no time limit for a vehicle to be parked as long as it is suitably sheeted. However, each event will be assessed on a case-by-case basis and acted on accordingly should the parking time exceed 30 minutes. Vehicles discharging in the residual waste area will remain sheeted until fully in the building. Vehicles discharging in the HWRS area will un-sheet outside the building to minimise the driver's working time near the shredder which is a hazardous area.

Odour and dust extraction vents are positioned at high level in the hall to remove general odour, and above the pit loading bays to extract odour generated by tipping vehicles. The air within the hall is kept under extraction to ensure no odour escapes from the building.

All waste received is weighed in over a weighbridge and the results recorded in the Biffa internal database. Reports showing the daily and annual tonnages can be extracted from this system.

Should the site be unable to receive waste for any reason, in agreement with West Sussex County Council, the waste will be diverted to the Biffa Redhill Landfill site.

Brief description of the material stored in the reception hall excluding the MSW and HWRS wastes are as follows:

Table 3-1 Waste Types Stored in Reception Hall

Waste type	Removed	Odour type
Ferrous	Every 2 nd or 3 rd working day	General waste
Non-ferrous	Once every two weeks	General waste
Organics	Reprocessed daily and at weekends	General waste
Loose RDF	Every working day	General waste
Rejects/Grit	Every working day	General waste
Digestate	Every working day	Earthy

3.1.2 Mechanical Pre-Treatment (MPT)

The mechanical pre-treatment area is located in the process building, separated from the reception area by a concrete fire wall. The mechanical pre-treatment equipment consists of screens, magnets, separators, and conveyors which are used to separate the incoming waste to extract organic fraction for AD treatment, recyclables, and RDF. The remaining residual material is sent to landfill.

Recyclables and landfill material are discharged into hook lift skips which are removed through fast acting doors in the north elevation of the building. RDF can either be loaded into enclosed trailers which are then driven out of the building through fast acting doors, or alternatively can be baled, wrapped and stored within the permitted area prior to removal from site to a third-party contractor.

The organic fraction is conveyed through a fire wall into the wet pre-treatment system. A bypass line is provided to load the organic fraction into hook lift skips if wet pre-treatment is unavailable.

3.1.3 Wet Pre-Treatment (WPT)

The wet pre-treatment area is located in the northeast corner of the process building, in its own enclosed area. The purpose of WPT is to mix the incoming organic material with water to create a pumpable slurry suitable for AD treatment. This mixing takes place in four large mixers which are loaded with water and organic material and mixed with a high-speed agitator for approximately three minutes to create a homogenous slurry. Heavy material which drops to the bottom of the mixer is discharged to the Bay 15 mixer heavies skip, and the mixed substrate is pumped out to the star screen.

The star screen separates out large materials such as plastics and textiles, which are conveyed back to the mechanical pre-treatment system to be deposited into the RDF output line. The remaining liquid substrate drops into the sand trap.

The sand trap is designed to let sand, grit and glass settle out of the material. This is carried out of the base of the sand trap by large screws. Any remaining light material which floats to the top is removed with paddles and joins the star screen lights to be sent as RDF. The remaining substrate flows into a buffer tank.

From the buffer tank the substrate passes through a second hydro-cyclone to separate out any remaining fine inert material. Then the substrate is pumped through two macerators before being discharged into the hydrolysis tank.

Rejects such as sand and grit from the mixers and sand traps are deposited into hook lift skips, which are removed from the building through fast acting doors in the north elevation of the plant.

3.1.4 Anaerobic Digestion (AD)

The liquid substrate is pumped from WPT forward into the Hydrolysis Tank. This is a large 5,400m³ insulated storage tank, designed to create a homogenous mixture suitable for AD, and to start the AD process. The

tank is mixed continuously by a large mechanical agitator, and key process parameters such as temperature and pH are continuously monitored by the control room personnel. Prior to digestion, material needs to be pasteurised in order to meet Animal By-Products Regulations. Pasteurisation is carried out in two banks of three insulated tanks, each with a capacity of circa 40m³ of substrate. The substrate from hydrolysis passes through two heat exchangers to bring the temperature up to in excess of 70degC and is deposited into one of the pasteurisation tanks where it is held for an hour to ensure pathogens such as salmonella and e- coli are killed off.

Once this has been successfully achieved, substrate is discharged from the pasteurisation tank and cooled by passing through two heat exchangers into one of the five 5,400m³ insulated digesters. Residence time in the digester is around 28 days, during which time the material is broken down by bacteria in the material to generate a methane rich biogas, which is extracted from the top of the tank.

Following AD, the substrate is pumped to the aeration tank. This purpose of this tank is to aerate the material through sparge pipes located in the bottom of the tank through which air is pumped. This stops the digestion process to halt the production of biogas.

3.1.5 Dewatering and Drying

Dewatering is carried out by three centrifuge decanters located on the top floor of the dryer building. Polymer flocculation is added to the substrate to increase the moisture driven out of the solid material.

A large hot air dryer is located on the ground floor of the dryer building. Heat from the CHP engines and/or boiler is used to heat air, which is blown through the body of the dryer whilst the dewatered material is passed through it. The effect is to further dry the material. The dryer will only be used when required and can be by-passed to send dewatered material straight to the container loading station. The dryer is currently not in use.

3.1.6 Energy Generation

As biogas is generated in the digesters, the gas is forced out of the top of the digester and down a pipeline to the gas storage bag located on the gas island in the north-east corner of the site. The storage bag holds a constant pressure in the system and buffers the fluctuations in gas production, providing a steady supply of gas to the engines.

When gas is demanded by the engines, or the gas bag is full and needs to be emptied, the gas is drawn out of the gas bag, and through a gas dryer which condenses moisture out of the gas. Following this the gas is blown either to the engines, or to be flared if engines are unavailable.

The site has three CHP engines, which are fuelled by biogas and generate electricity for export to the grid. The engines generate heat through exhaust gas heat exchangers, and the engine radiators. This heat is recovered for use in the process.

3.2 Proposed Facility

The proposed new area is designed to store RDF, either loose or baled ready for future onward transport off-site for recovery in the UK or abroad, as described below:

- The site design is to manage up to 36 Haulage vehicles with sealed containers (e.g. RoRo or shipping container) or curtain sider trailers which will be used for the onward transport of either baled or loose RDF for further processing. The trucks will be delivered to site empty, and a full trailer will be collected.
- Alternate bays will be used for the full and then empty trailers so the drivers will be informed by the weighbridge at the MBT to drop the empty trailer in bay 1 and collect the full trailer from bay 2. This way the MBT Operations and Logistics team will be able to control the trailers ensuring that there is a good rotation of the trailers.
- All trailers will either be sealed curtain-siders or sealed containers such as Ro-Ros or shipping containers. All loading of vehicles will take place in the MBT building as described in 3.6.6.1 of the Management and Technical Plan.

- The RDF will be stored for a maximum 72 hours (i.e. from a Saturday pm to Tuesday am following a bank holiday).
- The area where the trailers will be parked will be controlled for run off into the site lagoon. Flow from the lagoon which will be tested to ensure it can be released to the surface water system. If that is not the case, then the run-off water will be transferred to the MBT for processing.
- It is also proposed to allocate a controlled area for the storage of containerised covered CLO, this material will be a by-product of the food waste process and will be taken to land spreading within the vicinity of the site during the week, Over the weekends CLO will need to be stored ahead of transport from the site. The rainwater run-off from this area will be contained and processed at the MBT. This is shown as the area as a magenta coloured box on drawing 21501-KP-GF-DR-S-3011 -01 (Appendix A).
- Total waste storage (daily max) is estimated at 450 tonnes of RDF and estimated 100 tonnes of digestate.
- The area will not be utilised for any waste processing activities.

3.3 Acceptance of Waste

3.3.1 Hours of Acceptance

Waste will be accepted in accordance with the site Planning Permission as detailed in Table 3-2 and exported as detailed in Table 3-3 below.

Table 3-2: Hours of Waste Acceptance

Position	Responsibility
Monday to Friday:	07:00 to 16:30
Saturday:	07:00 to 12:00
Sunday:	Closed for deliveries
Saturday following public holiday:	07:00 to 15:00
Public Holidays:	07:00 to 15:00

Table 3-3: Material Export Hours

	Hours for Materials Export
Monday to Friday:	07:00 to 18:00
Saturday:	07:00 to 18:00
Sunday:	Closed for exports
Saturday following public holiday:	07:00 to 18:00
Public Holidays:	07:00 to 15:00

3.3.2 MBT Accepted Waste Types

Waste types are not changing as a result of this application. Approved EWC codes for the MBT are in the current Environmental Permit EPRHP3238GW). These are included in Appendix E of the Management Plan.

3.4 Mobile Plant

The following table lists the type of typical mobile plant and equipment used on site plus the emission ratings:

Table 3-4: Site Mobile Plant

Description	Make	Model	Emission Rating
Front Loading Shovel	Caterpillar	938M	USEPA Tier 4
Materials Handler	Caterpillar	MH3026 WST	USEPA Tier 4
Materials Handler	Caterpillar	MH3022 WST	USEPA Tier 4

Description	Make	Model	Emission Rating
Fork Lift Truck	JCB	4x4	Tier 4
Fork Lift Truck	JCB	4x2	Tier 4
MEWP (Long Reach)	Mitsubishi	H25	Tier 4
(x2) MEWP	Mitsubishi	Star 10	(electric)

All such plant is subject to planned preventative maintenance in accordance with the manufacturer’s recommendations. In the event that such plant needs to be replaced, then selection of the replacement plant will include consideration of the vehicle emissions standards.

3.5 Site Location

The proposed area is to be situated adjacent to the south of the existing ATRF and proposed MWRF to be operated by Biffa, within the Brookhurst Wood Landfill Site and lies approximately 135m to the west of the existing MBT. The Brookhurst Wood site is located approximately 4km to the north from the centre of Horsham. The village of Warnham is 1.5km to the south-west of the site and Kingsfold is 2km to the north.

The centre of the proposed area is located at grid reference National Grid Reference (NGR) TQ 17110 34790 at Brookhurst Wood, Langhurstwood, Horsham, West Sussex.

Figure 1 shows the location of the treatment and recycling site:

Figure 1 Site Location Plan



The setting is regarded as predominantly rural. In the immediate neighbourhood, there are a scattering of farmhouses and other isolated dwellings to the west of the site.

- To the east there is a former residential property, known as 'Graylands' which has been converted for office use.
- To the north there is the Broadlands Business Park, which accommodates 11,000 square metres of office development.
- To the south are older buildings from the original Warnham Brickworks and the Warnham railway station. The main Dorking to Horsham railway line runs along the western border of the landfill site and the vehicular entrance to the landfill is by the Langhurstwood Road to the east.

Residential communities within 2km of the site include Horsham, Warnham, Kingsfold and Holbrook. These are found to the south, west, north and east respectively. Horsham is the largest community in the Horsham District, with a population of approximately 45,750.

There is a scattering of farmhouses and other isolated dwellings to the north, east and west of the site. These include Graylands Lodge and Graylands Farm to the east of the site boundary, Cox Farm and Andrew's Farm to the west and Gunbarn/The Nowhere Houses to the north west. A further dwelling 'Bramblehurst' abuts the site to the south east, adjacent to the site access from Langhurstwood Road. A small row of dwellings lies to the south of this.

There are eight residential properties on the western side of Langhurstwood Road between its junction with the A246 and the site entrance and a recent converted farm building residential development on the eastern side of Langhurstwood Road.

3.6 Other Local Contributors of Potential Dust Emissions

Other potential sources of dust generation within the locality of the site include the adjacent landfill, Britaniacrest Recycling and Weinerberger brickworks. The location of these sources is shown on Drawing 60586541-BHW-DEMP-001 Sensitive Dust Receptors and Other Dust Sources which is attached in Appendix A

4. Assessment of Pollution Risk

4.1 Introduction

This section outlines the approach taken to evaluate the dust risks associated with the operation of the existing MBT and proposed extension operations. The impact evaluation process has made reference to the appropriate guidance within:

- Environment Agency Guidance, “*Risk Assessments for Your Environmental Permits*” Environment Agency “A Practical Guide to Environmental Risk Assessment for Waste Management Facilities”;
- IAQM “Guidance on the Assessment of Mineral Dust Impacts for Planning”; and
- IAQM “Guidance on the Assessment of Dust from Demolition and Construction”.

4.2 Risk Assessment Methodology

In respect of this DEMP Risk Assessment the source-pathway-receptor model has been used as shown in the flowchart on the following page. The risk assessment follows relevant guidance as detailed above and includes:

- a. Source characterisation (section 4.3 below) has been completed to identify the potential dust hazards and risks associated with the operation of the treatment and recycling plant;
- b. Pathway evaluation (section 4.4 below) has been completed giving due consideration to the distance and direction of the receptors relative to the prevailing wind direction and days when rain fell at levels sufficient to suppress dust. The site is relatively flat with no bunds on the boundary although existing vegetation on the boundary will be retained where possible; and
- c. Receptor evaluation (section 4.5 below) to review the sensitivity of receptors that could be impacted by the dust hazards and risks from the operation of the treatment and recycling plant. This covers residential, commercial and industrial human receptors.

The risk assessment conclusion is then presented at section 4.6 below.

A risk and mitigation matrix that evaluates the individual dust hazards and risks in terms of the probability of occurrence and the severity of the impact on the identified receptors without implementation controls and mitigations is tabulated and presented in Appendix B. This matrix goes on to summarise the dust management plan approach that will be used to mitigate the identified risks.

4.3 Source Characterisation

4.3.1 Hazard Identification

The hazard identification process draws on AECOM's knowledge of dust impact assessment on similar plants and applications.

4.3.2 Emission Sources

Activities associated with the existing MBT treatment processes and the new external waste transfer and storage area with the potential to generate dust, can be divided into the following operations:

- Receipt of wastes either for processing through the MBT;
- Waste processing through the MBT;
- Roads and onsite vehicle movements;
- Storage of incoming waste and output materials; and
- Waste handling activities.

These activities are reviewed further in Table 4-1 below where the dust risk from each source is categorised as small, medium or large in accordance with the IAQM guidance.

Table 4-1: Categorisation of Source Magnitude

Magnitude of Source	Description
Large	<ul style="list-style-type: none"> Source of release covers a large area (>10,000 m²). Dusty waste type. More than 10 items of mobile plant active at any one time. Formation of stockpiles >8m in height. >50 HGV vehicles delivering/collecting from site per day.
Medium	<ul style="list-style-type: none"> Source of release covers a moderate area (2,500 to 10,000 m²). Moderately dusty waste type. 5 to 10 items of mobile plant active at any one time. Formation of stockpiles 4 - 8m in height. 10 - 50 HGV vehicles delivering/collecting from site per day.
Small	<ul style="list-style-type: none"> Source of release covers a large area (<2,500 m²). Material type with large grain size. Less than 5 items of mobile plant active at any one time. Formation of stockpiles <4m in height. <10 HGV vehicles delivering/collecting from site per day.

Taking the above into consideration, we have concluded that the dust source potential for both the MBT Treatment processes and the external waste transfer and storage area would be low on the basis that:

- While magnitude in terms of source area (sqm) would be in the medium range of potential contaminants and the materials accepted have a low dust potential;
- The main processing and handling activities associated with the incoming wastes and residues will be undertaken inside the fully enclosed MBT building;
- Waste to be stored on the new waste transfer and storage area will be loaded onto curtain sided trailers for baled RDF, into enclosed containers for loose RDF and into containers/RoRo for CLO which are filled and covered within the MBT building before transfer to Site Ha;
- Based on experience from the operation of the MBT facility the proposed mitigation measures would be effective leading to little or no residual dust emissions.

A detailed site plan showing site layout including site surfaces, location of storage area and processing areas, location of wheel wash and visual monitoring points is provided in Appendix A.

Table 4-2: Emission Sources

Source Description			Likely Pollutant	Containment/Release Point	Intensity at or Near Release Point	Pattern of Release	Potential to Impact Local Receptors
Source	Type of Emission	Dust Risk					
Receipt of Wastes – MBT	Fugitive	Low	Total Suspended Particulates and potential for respirable fraction.	<p>The MSW material to be treated will be offloaded directly to the MBT reception pit and the HWRS material will be discharged onto the designated area on the reception hall floor.</p> <p>Discharge activities take inside an enclosed building equipped with fast acting roller doors and is maintained with negative pressure.</p> <p>Vehicles will be closed or covered when laden to limit dust emissions on highways and to surrounding environment.</p>	Any emission likely to occur will be at low level and be contained within the MBT facility.	Low level of release contained within the MBT area.	Unlikely as any release should be contained within covered vehicles until the point of tipping. Waste reception area is an enclosed building.
Waste Processing at the MBT	Fugitive	Low	Total Suspended Particulates and potential for respirable fraction	<p>Dust may cause fugitive emissions due to drop heights and the mechanical movement of materials through the process.</p> <p>MPT/WPT halls are located in an enclosed building equipped with fast acting roller doors and is maintained with negative pressure.</p>	During dry conditions dust emissions may be noticeable above drop points at the end of conveyors	Low level of release contained within the MBT area.	Release is enclosed in building.
Roads and onsite vehicle movements	Fugitive	Low	Total Suspended Particulates and potential for respirable fraction	<p>Haulage vehicles entering the site when laden should be sheeted to limit dust emission on highways and to surrounding environment. Vehicles with limited or partial load coverage may cause additional particulate release when driving at speed.</p> <p>Vehicles using unsurfaced /poorly maintained haul routes or driving at speed can cause soil particles to become airborne giving rise to nuisance.</p> <p>Vehicle emissions can contain particulate matter</p>	During dry conditions dust emissions may be noticeable at ground level along the transport route.	Release only expected in very dry conditions and then is likely to settle quickly close to source.	In windy conditions there is potential for fugitive release to carry to receptors. The site will interrupt the pathway by utilising road sweeper to maintain site housekeeping, haulage vehicles will be sheeted, a 10 mph speed limit will be enforced and haulage vehicles exiting the site will be required to pass through the wheel wash.
Storage of process outputs in MBT Treatment building	Fugitive	Low	Total Suspended Particulates and potential for respirable fraction	<p>Most process outputs will be contained within skips or as baled RDF. Dust may cause fugitive emissions due to the mechanical movement of loose RDF materials to storage stockpiles or when loading containers.</p> <p>MPT/WPT halls are located in an enclosed building equipped with fast acting roller doors and is maintained with negative pressure.</p>	During dry conditions dust emissions may be noticeable during material handling and movement.	Low level of release contained within the MBT area.	Release is enclosed in building.
Storage of waste in external waste transfer and storage area	Fugitive	Low	Total Suspended Particulates and potential for respirable fraction	<p>Containers are loaded with RDF inside the MBT building and material will be fully contained and sealed prior to moving to the storage area.</p> <p>Baled RDF is shrink wrapped and loaded onto curtain-sided trailers in or adjacent to the MBT building and curtains secured prior to moving to the storage area.</p> <p>CLO material will be loaded into closed containers within the MBT prior to moving to the storage area.</p>	All waste will be covered by sheeting or baled waste will be wrapped.	Only dust on the outside of containers is likely to be released during windy conditions,	In windy conditions there is potential for fugitive release to carry to receptors. To minimise releases, incoming wastes will be stored in bays constructed from concrete block walls. All waste is wrapped or covered.

Source Description			Likely Pollutant	Containment/Release Point	Intensity at or Near Release Point	Pattern of Release	Potential to Impact Local Receptors
Source	Type of Emission	Dust Risk					
				No loading or handling or processing of loose materials will take place in the external area.			

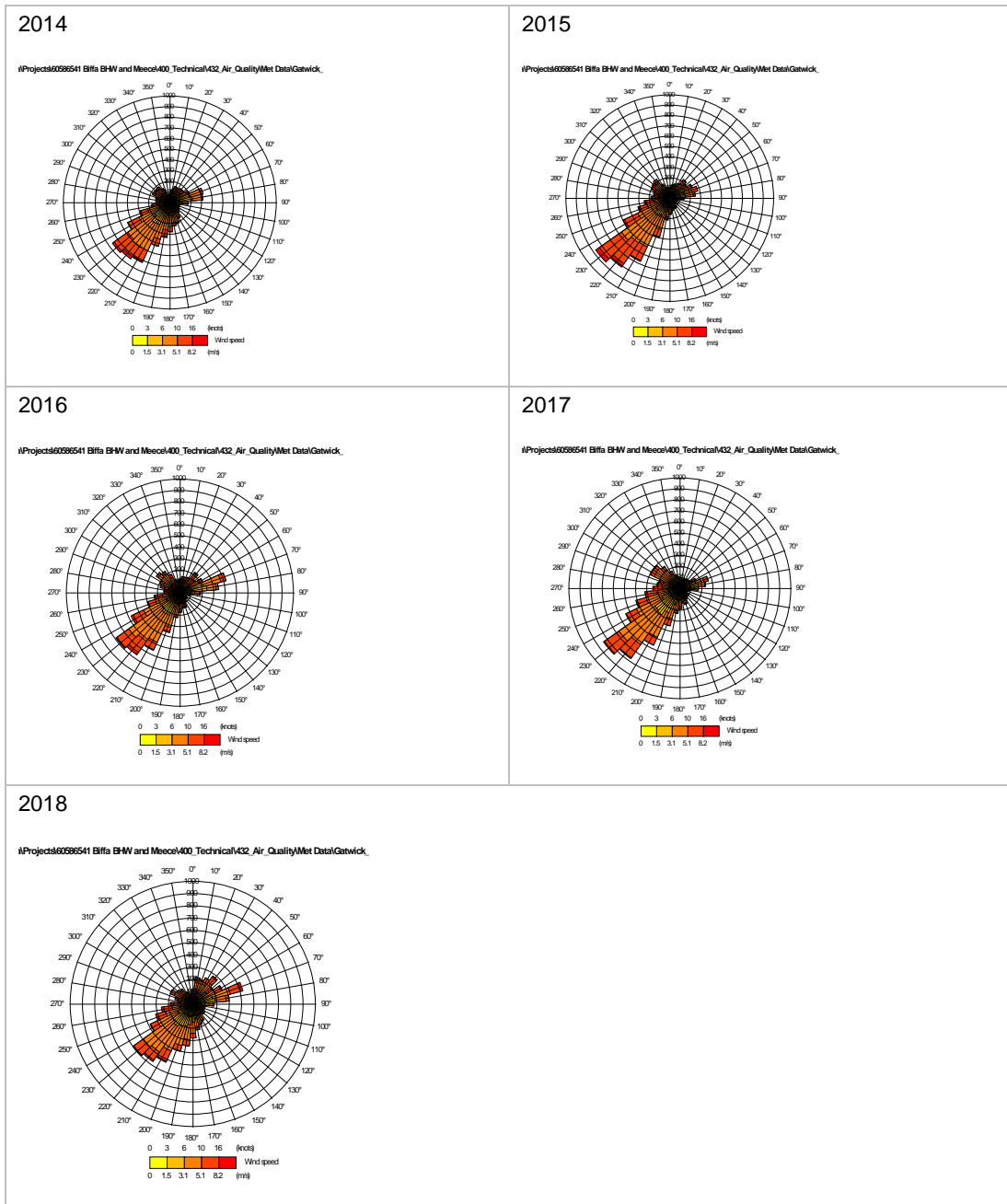
4.4 Evaluation of Pathway Effectiveness

Pathway effectiveness is a function of the receptor distance from the source (i.e. how far will dust have to travel) and the prevailing weather conditions (i.e. frequency the receptor is downwind of the site, wind speed and presence of rain will determine how far particulate matter will be distributed).

4.4.1 Meteorological Conditions

Research¹ has shown that winds greater than 3m/s are capable of suspending and carrying dusts. Windrose diagrams for 2014 to 2018 inclusive are provided for the site. All years show similar patterns with the predominant wind pattern of winds coming from the South West and heading North East. This wind Direction also shows the strongest wind speeds recorded over the 5 year period. Wind from the north east and south east occur relatively infrequently (<5% of the time).

Figure 2 Windrose



¹ K. W. Nicholson (1988) A review of particle re-suspension. Atmospheric Environment Volume 22, Issue 12, 1988, Pages 639-2651

The frequencies of wind in each direction was determined based on the five year average meteorological data along with the frequency of the wind speeds in those directions. These are presented in Table 4-3 below.

Table 4-3: Percentage Frequency of Wind Direction

Direction Wind From	Frequency as %	Calm 0 – 0.3 m/s	Light 0.3– 3.5 m/s	Gentle 3.5 -5.5 m/s	Moderate 5.5 – 8 m/s	Fresh 8 – 10.8 m/s	Gale >10.8
N	9.47	0.42	6.63	2.27	0.5		
NNE	5.94	0.37	3.41	1.52	0.76	0.25	
NE	4.00	0.31	3.03	0.76	0.19		
ENE	3.71	0.47	2.65	0.95	0.1		
E	0.74	0.29	0.45				
ESE	3.35	0.38	2.65	0.38	0.22		
SE	3.30	0.31	1.52	1.14	0.45		
SSE	6.85	0.33	3.22	2.84	0.19	0.57	
S	8.15	0.61	4.73	2.27	0.38	0.72	0.05
SSW	15.74	0.38	8.71	5.3	1.52	0.19	0.02
SW	14.20	0.47	7.2	4.92	1.89	0.19	
WSW	11.41	0.31	7.39	3.41	0.57		
W	4.03	0.47	3.41	0.57			
WNW	1.71	0.29	1.52	1.14			
NW	1.33	0.37	1.14		0.02		
NNW	0.00	-					

In addition to wind, consideration has to be given to rain as rainfall is a natural dust suppressant. Research² has indicated that rainfall of greater than 0.2mm per day is considered sufficient to effectively suppress wind-blown dust emissions. The data presented in Table 4-4 presents average rainfall data for the area (based on 2015 Rainfall Data for the Catchment Area (Station 41014) from the UK National River Flow Archive) and indicates that typically in any month there may be approximately 20 days in which dust control measures may need to be applied in the absence of sufficient rainfall to control fugitive dust emissions. This highlights the need for monitoring of weather forecasts in order to be proactive in the application of dust control measures.

Table 4-4: Average Rainfall

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	107.30	58.80	16.50	17.70	63.90	33.30	44.60	107.80	60.80	62.60	70.10	88.60
Days of rainfall ≥1mm	16.00	7.00	5.00	6.00	11.00	3.00	6.00	13.00	7.00	9.00	19.00	16.00

As the direction and speed of wind along with the presence of rain can affect how far dust may be carried from the site these have been used to evaluate the effectiveness of the pathway in section 4.4.2 below.

4.4.2 Effectiveness of the Pathway

Applying the methodology outlined in the IAQM Guidance on the Assessment of Mineral Dust Impacts (2016), site specific meteorological conditions and individual receptor distances were used to evaluate the effectiveness of the individual pathways. The site is reasonably flat and no additional bunds or planting is proposed on site boundary that may impact dispersion of dust.

The frequencies from Table 4-3 above of moderate to high wind speeds that have the potential to carry airborne dust on a dry day were assigned to a frequency category and then taking into consideration with the distance of each receptor from the site, the effectiveness of the pathway for each individual receptor was determined.

The frequency categorisation of winds carrying dust was determined using the IAQM categories as summarised in Table 4-5 below.

² Leeds University. Good Quarry. <http://www.goodquarry.com/article.aspx?id=55&navid=2>

Table 4-5: Categorisation of Frequency of Potentially Dusty Winds

Frequency Category	Criteria
Infrequent	<ul style="list-style-type: none"> Frequency of winds > 5 m/s from the direction of dust source is < 5% on dry days
Moderately Frequent	<ul style="list-style-type: none"> Frequency of winds > 5 m/s from the direction of dust source is between 5% and 12 % on dry days
Frequent	<ul style="list-style-type: none"> Frequency of winds > 5 m/s from the direction of dust source is between 12% and 20% on dry days
Very Frequent	<ul style="list-style-type: none"> Frequency of winds > 5 m/s from the direction of dust source is >20% on dry days

Based on the data in Table 4-3 above, winds from the SW and SSW at speeds which dust can be carried from the site would occur moderately frequently. Wind from all other directions at speeds which dust can be carried from the site would occur infrequently.

In relation to the categorisation of the receptor distance from the dust source, was completed on the following basis:

Table 4-6: Categorisation of Receptor Distance from Source

Distance Category	Criteria
Distant	<ul style="list-style-type: none"> Receptor is >800m from the dust source
Intermediate	<ul style="list-style-type: none"> Receptor is between 401m and 800m from the dust source
Close	<ul style="list-style-type: none"> Receptor is <400m from the dust source.

Based on the above the receptors for the site which are discussed in section 4.5 below will be classed as follows:

- 42 human receptors have been identified in a 1 km radius of the site, with 5 classed as close receptors, 21 classed as intermediate and 7 classed as distant receptors;
- There are 29 named and unnamed woodlands (some of which are classed as ancient) within 1km of the site – several of these are adjacent to each other so for the purposes of assessment, they have been grouped into 15 areas in the various directions and the distance then measured to the closest point. 5 areas are classed as close, 5 as intermediate and 5 as distant; and
- There are 5 watercourses within 1 km with 2 of these being classed as close and 3 as intermediate when they are measured to the closest point.

Combining the above wind frequency with receptor distance, it is possible to classify the pathway effectiveness using the IAQM method as shown in the matrix in Table 4-7 below

Table 4-7: Pathway Effectiveness

		Frequency of Potentially Dusty Winds			
		Infrequent	Moderately Frequent	Frequent	Very Frequent
Receptor Distance Category	Close	Ineffective	Moderately Effective	Highly Effective	Highly Effective
	Intermediate	Ineffective	Moderately Effective	Moderately Effective	Highly Effective
	Distant	Ineffective	Ineffective	Moderately Effective	Moderately Effective

4.5 Sensitive Dust Receptors

Receptor sensitivity is considered on the basis of the factors shown in Table 4-8 below which are taken from the IAQM Guidance and cross-checked with receptor sensitivity shown in the EA H4 Guidance.

Table 4-8: Receptor Sensitivity Classification

Sensitivity	Human	Environmental
High	<ul style="list-style-type: none"> Users can reasonably expect enjoyment of a high level of amenity; Appearance, aesthetics or value property would be diminished by soiling; People or property would be reasonably expected to be present continuously Examples include dwellings, hospitals, schools/education, restaurants/bars, medium/ long term car parks & showrooms 	<ul style="list-style-type: none"> Locations with an international designation and designated features may be affected by dust soiling; Locations where there is a community of a particularly, dust sensitive species; Examples include SPAs
Medium	<ul style="list-style-type: none"> Users would expect to enjoy a reasonable level of amenity but not to the same level as their home; Appearance, aesthetics or value property could be diminished by soiling; People or property would not be reasonably expected to be present continuously Examples include parks, commercial/retail/ industrial premises and places of work. 	<ul style="list-style-type: none"> Locations where there is a particularly important plan species, where its dust sensitivity is uncertain or unknown; Examples are nationally designated sites or features that may be impacted by dust deposition; Examples include SSSIs or local wildlife sites.
Low	<ul style="list-style-type: none"> Enjoyment of amenity would not be reasonably be expected: Property would not be reasonably be expected to be diminished in appearance, aesthetics or value by soiling; Transient exposure; Examples would be playing fields, farmland, foot paths or short-term car parks and road. 	<ul style="list-style-type: none"> Locations with a local designation where the features may be affected by dust deposition. Indicative example is a local nature reserve with dust sensitive features.

Sensitive dust receptors which could be impacted by the operation of the plant include residential, commercial and industrial receptors along with a number of environmental receptors. The likely receptors are listed in Table 4.9 below and are shown on the plan 60586541-BHW-DEMP-001 attached in Appendix A. Where farms are considered the residence and the farmland have been considered separately.

Table 4-9: Sensitive Receptors

Receptor	Description	Type	Approximate Distance (m)	Direction	Sensitivity	Distance Category
HUMAN RECEPTORS						
R1	Graylands Commercial Centre	Commercial & Residential	619	E	High	Intermediate
R2	Graylands Lodge	Commercial	309	E	Medium	Intermediate
R3	Graylands Farm	Farmland	527	SSE	Low	Intermediate
		Residential			High	
R4	Andrews Farm	Farmland	564	SSW	Low	Intermediate
		Residential			High	
R5	Lower Chickens Farm	Farmland	782	WSW	Low	Intermediate
		Residential			High	
R6	Cox Farm Lodge	Residential	570	W	High	Intermediate
R7	Cox Farm	Farmland	338	W	Low	Close
R8	Sussex Camper Vans	Commercial	548	NE	Medium	Close
R9	Orchard Lodge	Residential	605	NW	High	Intermediate
R10	Durford Hill Farm	Farmland	775	NNW	Low	Intermediate
		Residential			High	
R11	Fisher Clinical Services	Industrial	756	N	Medium	Intermediate
R12	Broadlands Business Centre	Commercial	1055	NNE	Medium	Intermediate

Receptor	Description	Type	Approximate Distance (m)	Direction	Sensitivity	Distance Category
R13	Weinerburger Brickworks and adjacent Business Park	Industrial	281	SSE	Medium	Close
R14	Warnham Railway Station	Commercial	453	S	Medium	Intermediate
R15	South Lodge	Residential	521	NE	High	Close
R16	Boldings Brook Academy	School	613	NW	High	Intermediate
R17	Langhurst Moat Cottage	Residential	341	SSE	High	Intermediate
R18	Holmwood	Residential	1052	NNE	High	Intermediate
R19	Gunborn Crossing Cottages	Residential	840	N	High	Intermediate
R20	Nowhere House	Residential	884	NNW	High	Intermediate
R21	Richmond House	Residential	945	NNW	High	Intermediate
R22	Wood Farm	Farmland	1098	NNW	Low	Distant
		Residential			High	
R23	Upper Chickens – Houses and Pet Supply Company	Residential Commercial	1113	NNW	High	Distant
R24	Highland House, The Mount & other residences	Residential	674	NW	High	Intermediate
R25	Dog & Duck Pub	Commercial	895	NNW	Medium	Intermediate
R26	Geerings	Residential	908	W	High	Distant
R27	Police House and other adjacent residences	Residential	869	SW	High	Distant
R28	Westons Farm & Westons Place Residential Properties	Farmland	794	SSW	Low	Distant
		Residential			High	
R29	Lower Gate House	Residential	502	S	High	Intermediate
R30	Pondtail Farm	Farmland	816	SSE	Low	Distant
		Residential			High	
R31	Britaniacrest Recycling	Industrial	103	SE	Medium	Close
R32	Biffa ATRF	Industrial	100	N	Medium	Close
R33	Panel 2 Panel & Greens	Commercial	415	S	Medium	Intermediate
R34	Sewage Works adjacent to Farm	Industrial	423	SSW	Low	Intermediate
R35	Wealdon	Residential	395	SSE	High	Intermediate
R36	Denhams Auctioneers	Commercial	590	NW	Medium	Intermediate
R37	Sussex Health Centre	Nursing Home	633	NW	High	Intermediate
R38	Male Journey	Commercial	653	NW	Medium	Intermediate
R39	White Cottage Cake Company	Commercial	698	NW	Medium	Intermediate
R40	Houses on Station Road	Residential	469	S	High	Intermediate
R41	Little London Hill	Residential	656	W	High	Intermediate
R42	Vale Stud Riding School	Commercial	1011	NNW	Medium	Intermediate
HABITATS						
R43	Unnamed Woodland	Woodland	220	W	Medium	Close
R44	Unnamed Woodland	Woodland	241	E	Medium	Close
R45	Unnamed Woodland	Woodland	1026	N	Medium	Close
R46	Cox Farm Copse	Woodland	377	NW	Medium	Close
R47	Unnamed Woodland	Woodland	224	S	Medium	Close
R48	Unnamed Woodland	Woodland	700	SW	Medium	Intermediate
R49	Graylands Copse	Woodland	752	SE	Medium	Intermediate

Receptor	Description	Type	Approximate Distance (m)	Direction	Sensitivity	Distance Category
R50	Unnamed Woodland	Woodland	427	SSE	Medium	Intermediate
R51	Graylands Plantation	Woodland	923	E	Medium	Intermediate
R52	Unnamed Woodland	Woodland	703	NNW	Medium	Intermediate
R53	Unnamed Woodland	Woodland	1309	NNW	Medium	Distant
R54	Unnamed Woodland	Woodland	915	NNW	Medium	Distant
R55	Cox's Shaw	Woodland	1102	NW	Medium	Distant
R56	Rat's Plantation	Woodland	827	SW	Medium	Distant
R57	Holbrook Plantation	Woodland	1006	ESE	Medium	Distant
R58	Brookhurstwood	Woodland	887	NE	Medium	Intermediate
WATER BODIES						
R58	Boldings Brook	Waterway	836	W	Medium	Close
R59	Little Brookhurst Gill	Waterway	685	N	Medium	Close
R60	Great Brookhurst Gill	Waterway	823	NE	Medium	Intermediate
R61	Geerings Gill	Waterway	416	SW	Medium	Intermediate
R62	Durfield Gill	Waterway	824	NW	Medium	Intermediate

4.6 Dust Risk Assessment Conclusion

Taking into consideration the above source-pathway-receptor measures it is then possible to make an evaluation of the dust impact risk utilising the IAQM Guidance. This includes making:

- An estimation of the dust impact risk based on residual source emissions and pathway effectiveness (Table 4-10 below);
- Considering the magnitude of the dust effect based on receptor sensitivity and the dust impact risk (Table 4-11 below).

There are no international, national or locally designated sites with dust sensitive features within 400m of the site so there was no further consideration of potential impacts on ecology.

Table 4-10: Estimation of Dust Impact Risk

Pathway Effectiveness	Residual Source Emissions		
	Small	Medium	Large
Highly Effective	Low Risk	Medium Risk	High Risk
Moderately Effective	Negligible Risk	Low Risk	Medium Risk
Ineffective	Negligible Risk	Negligible Risk	Low Risk

Table 4-11: Magnitude of Dust Effects

Dust Impact Risk	Receptor Sensitivity		
	Low	Medium	High
High Risk	Slight Adverse Effect	Moderate Adverse Effect	Substantial Adverse Effect
Medium Risk	Negligible Effect	Slight Adverse Effect	Moderate Adverse Effect
Low Risk	Negligible Effect	Negligible Effect	Slight Adverse Effect
Negligible Risk	Negligible Effect	Negligible Effect	Negligible Effect

From the assessment, the dust amenity effects are summarised in Table 4-12 on the following page.

Table 4-12: Risk of Dust Exposure

Receptor	Description	Type	Distance	Direction	Receptor Sensitivity	Distance Category	Wind Frequency	Residual Source Emissions	Pathway Effectiveness	Dust Impact Risk	Magnitude of Effect
R1	Graylands Commercial Centre	Commercial Residential	527	E	High	Intermediate	Infrequent	Large	Ineffective	Low	Slight Adverse
R2	Graylands Lodge	Commercial	450m	E	Medium	Intermediate	Infrequent	Large	Ineffective	Low	Slight Adverse
R3	Graylands Farm	Farmland	564	SSE	Low	Intermediate	Infrequent	Large	Ineffective	Low	Negligible
		Residential			High						Slight Adverse
R4	Andrews Farm	Farmland	782	SSW	Low	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
		Residential			High						Negligible
R5	Lower Chickens Farm	Farmland	570	WSW	Low	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
		Residential	338		High						Negligible
R6	Cox Farm Lodge	Residential	548	W	High	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R7	Cox Farm	Farmland	605	W	Low	Close	Infrequent	Medium	Ineffective	Negligible	Negligible
R8	Sussex Camper Vans	Commercial	775	NE	Medium	Close	Infrequent	Medium	Ineffective	Negligible	Negligible
R9	Orchard Lodge	Residential	550m	NW	High	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R10	Durford Hill Farm	Farmland	756	NNW	Low	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
		Residential	1055		High						Negligible
R11	Fisher Clinical Services	Industrial	281	N	Medium	Intermediate	Moderately Frequent	Medium	Moderately Effective	Low	Negligible
R12	Broadlands Business Centre	Commercial	453	NNE	Medium	Intermediate	Moderately Frequent	Medium	Moderately Effective	Low	Negligible
R13	Weinerburger Brickworks and adjacent Business Park	Industrial	521	SSE	Medium	Close	Infrequent	Large	Ineffective	Low	Negligible
R14	Warnham Railway Station	Commercial	613	S	Medium	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R15	South Lodge	Residential	341	NE	High	Close	Infrequent	Medium	Ineffective	Negligible	Negligible
R16	Boldings Brook Academy	School	1052	NW	High	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R17	Langhurst Moat Cottage	Residential	840	SSE	High	Intermediate	Infrequent	Large	Ineffective	Low	Slight Adverse
R18	Holmwood	Residential	884	NNE	High	Intermediate	Moderately Frequent	Medium	Moderately Effective	Low	Slight Adverse
R19	Gunborn Crossing Cottages	Residential	945	N	High	Intermediate	Moderately Frequent	Small	Moderately Effective	Negligible	Negligible
R20	Nowhere House	Residential	1098	NNW	High	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R21	Richmond House	Residential	705m	NNW	High	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R22	Wood Farm	Farmland	1113	NNW	Low	Distant	Infrequent	Small	Ineffective	Negligible	Negligible
		Residential	674		High						Negligible
R23	Upper Chickens – Houses and Pet Supply Company	Residential Commercial	895	NNW	High	Distant	Infrequent	Small	Ineffective	Negligible	Negligible
R24	Highland House, The Mount & other residences	Residential	908	NW	High	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R25	Dog & Duck Pub	Commercial	869	NNW	Medium	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R26	Geerings	Residential	794	W	High	Distant	Infrequent	Medium	Ineffective	Negligible	Negligible
R27	Police House and other adjacent residences	Residential	978m	SW	High	Distant	Infrequent	Medium	Ineffective	Negligible	Negligible
R28	Westons Farm & Westons Place Residential Properties	Farmland	502	SSW	Low	Distant	Infrequent	Medium	Ineffective	Negligible	Negligible
		Residential	816		High						Negligible
R29	Lower Gate House	Residential	678m	S	High	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R30	Pondtail Farm	Farmland	103	SSE	Low	Distant	Infrequent	Large	Ineffective	Low	Negligible
		Residential	100		High						Slight Adverse
R31	Britaniacrest Recycling	Industrial	415	SE	Medium	Close	Infrequent	Large	Ineffective	Low	Negligible
R32	Biffa ATRF	Industrial	423	N	Medium	Close	Infrequent	Large	Ineffective	Low	Negligible

Receptor	Description	Type	Distance	Direction	Receptor Sensitivity	Distance Category	Wind Frequency	Residual Source Emissions	Pathway Effectiveness	Dust Impact Risk	Magnitude of Effect
R33	Panel 2 Panel & Greens	Commercial	395	S	Medium	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R34	Sewage Works adjacent to Farm	Industrial	590	SSW	Low	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R35	Wealdon	Residential	633	SSE	High	Intermediate	Infrequent	Large	Ineffective	Low	Slight Adverse
R36	Denhams Auctioneers	Commercial	653	NW	Medium	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R37	Sussex Health Centre	Nursing Home	698	NW	High	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R38	Male Journey	Commercial	469	NW	Medium	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R39	White Cottage Cake Company	Commercial	656	NW	Medium	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R40	Houses on Station Road	Residential	1011	S	High	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R41	Little London Hill	Residential	527	W	High	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R42	Vale Stud Riding School	Commercial	763m	NNW	Medium	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
HABITATS											
R43	Unnamed Woodland	Woodland	220	W	Medium	Close	Infrequent	Medium	Ineffective	Negligible	Negligible
R44	Unnamed Woodland	Woodland	241	E	Medium	Close	Infrequent	Large	Ineffective	Low	Negligible
R45	Unnamed Woodland	Woodland	1026	N	Medium	Close	Moderately Frequent	Small	Moderately Frequent	Negligible	Negligible
R46	Cox Farm Copse	Woodland	377	NW	Medium	Close	Infrequent	Small	Ineffective	Negligible	Negligible
R47	Unnamed Woodland	Woodland	224	S	Medium	Close	Infrequent	Medium	Ineffective	Negligible	Negligible
R48	Unnamed Woodland	Woodland	700	SW	Medium	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R49	Graylands Copse	Woodland	752	SE	Medium	Intermediate	Infrequent	Large	Ineffective	Low	Negligible
R50	Unnamed Woodland	Woodland	427	SSE	Medium	Intermediate	Infrequent	Large	Ineffective	Low	Negligible
R51	Graylands Plantation	Woodland	923	E	Medium	Intermediate	Infrequent	Large	Ineffective	Low	Negligible
R52	Unnamed Woodland	Woodland	703	NNW	Medium	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible
R53	Unnamed Woodland	Woodland	1309	NNW	Medium	Distant	Infrequent	Small	Ineffective	Negligible	Negligible
R54	Unnamed Woodland	Woodland	915	NNW	Medium	Distant	Infrequent	Small	Ineffective	Negligible	Negligible
R55	Cox's Shaw	Woodland	1102	NW	Medium	Distant	Infrequent	Small	Ineffective	Negligible	Negligible
R56	Rat's Plantation	Woodland	827	SW	Medium	Distant	Infrequent	Medium	Ineffective	Negligible	Negligible
R57	Holbrook Plantation	Woodland	1006	ESE	Medium	Distant	Infrequent	Large	Ineffective	Low	Negligible
R58	Brookhurstwood	Woodland	887	NE	Medium	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
WATER BODIES											
R58	Boldings Brook	Waterway	836	W	Medium	Close	Infrequent	Medium	Ineffective	Negligible	Negligible
R59	Little Brookhurst Gill	Waterway	685	N	Medium	Close	Moderately Frequent	Small	Moderately Frequent	Negligible	Negligible
R60	Great Brookhurst Gill	Waterway	823	NE	Medium	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R61	Geerings Gill	Waterway	416	SW	Medium	Intermediate	Infrequent	Medium	Ineffective	Negligible	Negligible
R62	Durfield Gill	Waterway	824	NW	Medium	Intermediate	Infrequent	Small	Ineffective	Negligible	Negligible

4.7 Risk Mitigation and Management

4.7.1 Introduction

In relation to mitigation and management of the potential dust risks associated with the site activities, the management and controls to be applied at the site are detailed in sections 5 and 6 below. A summary of each proposed control is presented in Appendix B along with the description of the effect and how it will interrupt the source-pathway-receptor linkage.

A risk matrix is presented in Appendix C which summarises the overall risk assessment and uses a scoring mechanism, whereby scores are assigned to:

- The probability of the dust hazard occurring without the use of protective measures;
- The consequences of the dust hazard to the environment or human health without mitigation or control in place.

Multiplying these scores together provides an indication to the acceptability of the activity without the control/mitigation measures being employed.

$$\text{Risk Factor} = \text{probability} \times \text{consequence}$$

The control and mitigations being employed are then detailed and a score for the expected effectiveness of the controls is given. A mitigated risk factor is determined:

$$\text{Mitigated Risk Factor} = \text{Risk factor} / \text{mitigation factor.}$$

The lower the mitigated risk, then the more effective the controls and mitigations employed are expected to be.

4.7.2 Scoring Mechanism

The risk assessment methodology has been developed using a scoring mechanism, whereby scores are assigned to:

- The probability of the hazard occurring without the use of protective measures;
- The consequences of the hazard to the environment or human health; and
- The effectiveness of the control/mitigation used to prevent the hazard occurring.

The scoring system used for the assessment is shown in Table 4-13 below.

Table 4-13: Risk Assessment Scoring Mechanism

FREQUENCY OF OCCURRENCE		
Frequency	Comment	Score
Never	Incident occurs once every 100 to 10,000 years	1
Very Unlikely	Incident occurs once every 10 to 100 years	2
Unlikely	Incident occurs once every 1 to 10 years	3
Somewhat Unlikely	Incident occurs at least once per year	4
Fairly Probable	Incident occurs at least once per month	5
Probable	Incident occurs at least once per week	6
CONSEQUENCE OF HAZARD TO ENVIRONMENT OR TO HUMAN HEALTH		
Consequence	Comment	Score
Minor	<ul style="list-style-type: none"> • Onsite nuisance only no outside complaint • No breach of permit 	1
Noticeable	<ul style="list-style-type: none"> • Nuisance noticeable off-site • Potential for 1 – 2 complaints • Reportable breach of permit 	2
Significant	<ul style="list-style-type: none"> • Severe sustained nuisance 	3

	<ul style="list-style-type: none"> Major breach of environmental permit Numerous public complaints 	
Severe	<ul style="list-style-type: none"> Partial plant shutdown required Replacement of part of plant Regulator (EA/HSE) involved 	4
Major	<ul style="list-style-type: none"> Full plant shut-down required Regulatory prosecution likely 	5
EFFECTIVENESS OF MITIGATION		
Mitigation Factor	Comment	Score
Non-existent	<ul style="list-style-type: none"> No mitigation in place 	1
Ineffective	<ul style="list-style-type: none"> Some minor controls in place but mitigation not achieved 	2
Partly effective	<ul style="list-style-type: none"> Basic controls in place and hazard partly mitigated but significant residual risk remains 	3
Effective	<ul style="list-style-type: none"> Basic controls in place and hazard mitigated to an acceptable level although moderate level of residual risk may exist 	4
Very effective	<ul style="list-style-type: none"> Processes fully controlled (basic/advanced) and hazard mitigated to recognised standard. Some minor residual risk may remain 	5
Entirely effective	<ul style="list-style-type: none"> Processes fully controlled to level in excess of recognised standards. Hazard mitigation entirely effective and no residual risk remains 	6

The completed risk and mitigation matrix is attached at Appendix C.

5. Management Arrangements

5.1 Structure

Environmental responsibility for individual operations will be assigned throughout the site management structure and are defined through the management system.

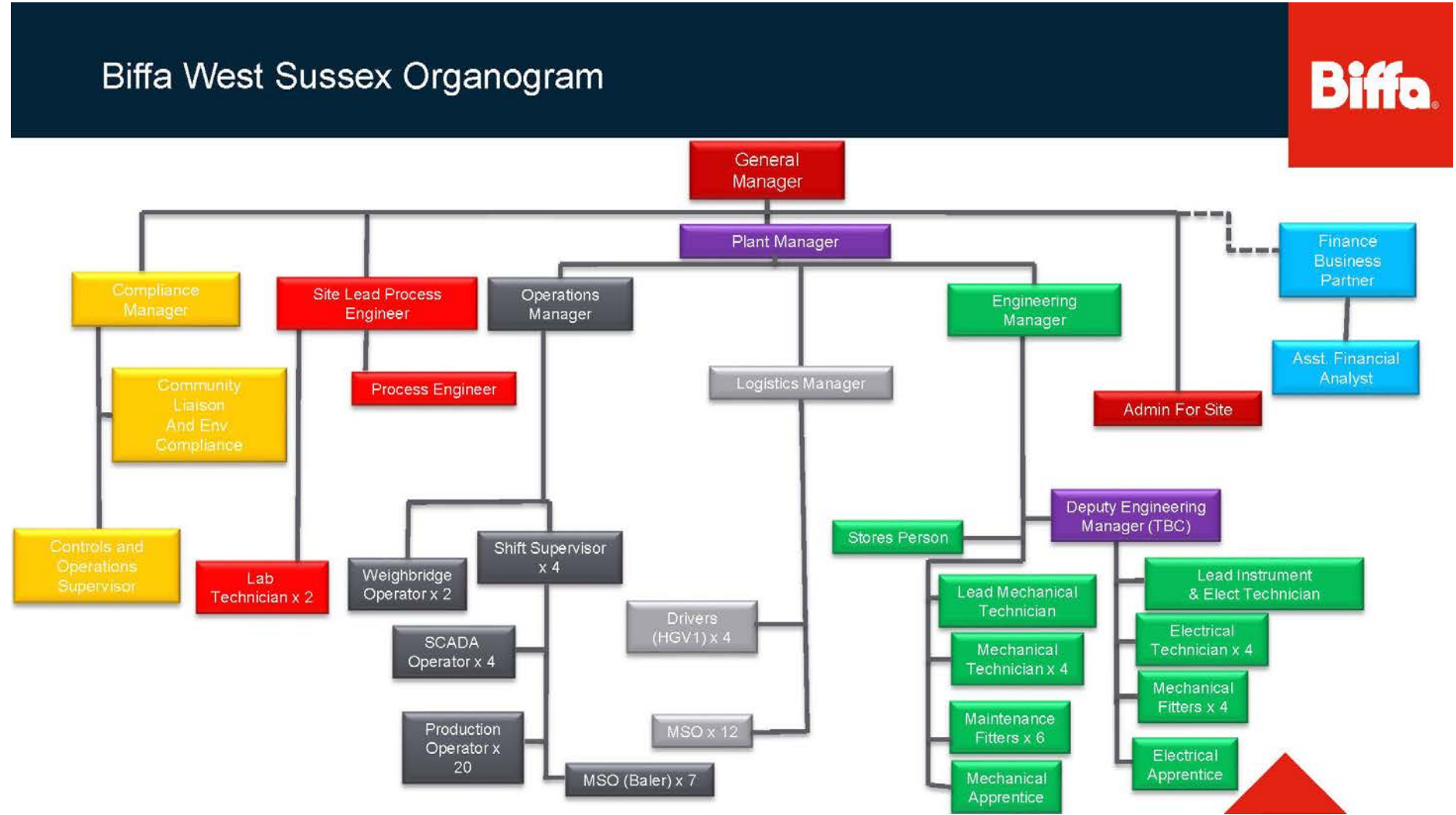
The Plant Manager is the designated management representative, with overall control of the management system at the plant including the ability to ensure programmes are realised and translated into activities on the plant. The Plant Manager or nominated Deputy has responsibility for ensuring the requirements of this DEMP is implemented.

The site organogram is presented in [Figure 3](#) on page30. Some brief descriptions of the responsibilities of those staff that are involved in operating the plant are outlined below.

Table 5-1: Risk Responsibility of Role Function

Position	Responsibility
Site Shift Supervisor	<p>The Site Shift Supervisor acting as the day-to-day manager of facility operatives, will have responsibility for ensuring that:</p> <ul style="list-style-type: none"> • The site is available to receive waste; • The site is operating within the parameters of the Environmental Permit and appropriate planning regulations including dust management requirements; • Any dust complaints are fully investigated and appropriate corrective action is taken as necessary; and • Regular daily inspections are undertaken to check for dust emissions.
Plant Operator/Mult-Skilled Operators	<p>The Plant Operator/Multi-skilled Operators will be experienced in operating loading equipment and will be certified as competent via the CITB training scheme or equivalent. The Plant Operator/Multi-skilled Operators will be responsible for the daily inspection of the equipment, defect reporting, stockpiling and loading operations and maintaining the safety and security of the tipping floor. Liaison with the Weighbridge Operator with regard to incoming and outgoing vehicles will form part of the postholder's duty.</p>
Weighbridge Operator	<p>An experienced Weighbridge Operator will ensure that vehicles entering the site are authorised using the computerised transaction system. In addition, the correct operation of the weighbridge, the computerised transaction recording, duty of care checks and liaising with the Plant Operator by radio will form part of the postholder's duties.</p> <p>The weighbridge operator will be responsible for identifying any particularly dusty waste loads delivered at the point of waste acceptance.</p>

Figure 3 Site Organogram



5.2 Technical Competence

A technically competent person will be available on site in accordance with the regulatory attendance requirements. In their absence a nominated deputy will be available. The technically competent person, or nominated deputy, will be responsible for the control of incoming and outgoing vehicles, checking Duty of Care documentation, inspecting waste to ensure compliance with permit conditions, keeping and maintaining all records. The technically competent person, or nominated deputy, will have overall responsibility for ensuring high standards of housekeeping and odour control are maintained throughout the site as a whole.

5.3 Training Provision

All staff will receive instruction and training, both verbal and documented, in all relevant aspects of operational procedures, permit requirements in relation to operations and the environment, health and safety and general requirements of the site management plan. A copy of the permit and approved site management plan will be kept available on site for reference when required by all site staff carrying out work under the requirements of the permit.

Wherever possible, training will be delivered in the workplace by internal training staff or by managers, although formal training courses will be employed where required.

In relation to dust management, this will be incorporated into the general site operational training and will cover dust awareness in relation to normal, abnormal and maintenance situations and include management of dust complaints.

5.3.1 New starters

Each position at the site will be covered by a general job description detailing key skills, responsibilities and reporting structure. It will be standard procedure for new process operators to be given comprehensive “on the job” training before they take full responsibility for their post. Supervision will be provided for as long as is necessary to ensure that the required skills have been imparted. In addition, specific full training on key tasks will be given to both new and experienced operators as necessary.

5.3.2 Contractors

Site rules will be provided to all contractors using or visiting the site. These rules will describe basic safety and operational precautions to be observed while at the site.

Instances of drivers or contractors not following site rules or behaving inappropriately will result in warnings. If necessary, requests to leave site and/or barring from future visits to the site will be implemented.

5.4 Management System

Biffa operates an integrated management system which meets the requirements of:

- BS EN ISO 9001:2015– Quality Management Systems
- BS EN ISO 14001:2015 – Environmental Management Systems
- BS OHSAS 45001:2018 – Occupational Health and Safety Management Systems

6. Dust and Particulate Management

6.1 General Controls

6.1.1 Dust Suppression

In addition to those controls inherent to the facility and plant design discussed in the following sections, during dry conditions, the potential for dust emissions is increased and may constitute a hazard to health or be to a dis-comfort of neighbours, visitors or employees. During such periods an appropriate dust suppression technique will be employed on internal roads, tipping areas and stockpiles. Techniques to be utilised at the site may incorporate dust suppression via bowser or spray systems as appropriate.

Use of the suppression system will be dependent on:

- Ambient conditions – for example there is unlikely to be a need for additional water sprays if it is raining;
- Condition of the material being received, handled, treated or stored which will be assessed visually.

Dust suppression mobile sprays will be available to facilitate its immediate use if conditions require it.

The site inspection/housekeeping procedure (Appendix C) sets out a number of conditions to be checked and the actions to be taken dependent on the outcome of the inspection. This includes a number of situations which will result in the use of dust suppression.

A generator will be maintained on site as contingency power supply, and a stock of spare parts will be present on site with a regularly checked inventory. There will also be more than one mobile dust suppression unit at any one time with not all activities that could generate dust being concurrent so this contingency would allow for units from different areas to be utilised in the event of failure and prolonged maintenance/ replacement.

6.1.2 House Keeping

The site will maintain high standards of housekeeping which will be ensured through the implementation of the Site Inspection and Housekeeping Procedure.

With the exception of small spillages in the waste storage and transfer yard, sweeping will generally be undertaken by mechanical means. The frequency of use of such a sweeper is dependent on the prevalent conditions and decisions on use will be made by the Plant Manager or nominated Deputy taking into consideration the weather (wet, dry, windy, etc) and the condition of site roads and yard area during the site inspection

6.2 Waste Acceptance Procedures

6.2.1 Vehicles

Loads arriving and leaving the site will be covered with tarpaulin, sheeting or other suitable cover and these will not be uncovered (other than for the purpose of waste inspection) until immediately prior to deposition on the designated storage area.

All loads of secondary aggregates or treated waste materials leaving the installation will also be sheeted at the point of loading

6.2.2 Waste Acceptance

All vehicles delivering waste to the MBT facility will be via the main site access road. At the weighbridge, the operator will evaluate the incoming waste load in accordance with site procedures. Providing the

incoming waste is acceptable, the driver will be directed to the main waste reception hall. In the event that waste does not meet the Waste Acceptance Criteria the load(s) will be rejected in accordance with site procedures. As such closure of the installation or in certain meteorological conditions is not considered necessary.

The vehicle, quantity, type and origin of the waste will be recorded in accordance with the Environmental Permit.

6.3 Waste Composition

The waste accepted at the site is primarily municipal black bag waste and waste from HWRS with a small amount comprising similar materials from commercial and industrial producers. As such the likelihood that a dusty waste is accepted is very low and if the weighbridge operative deems that the waste is unacceptable under the terms of the permit, due to presence of high levels of dust without the appropriate level of control outlined above, then entry to the site will be refused and the registration number of the vehicle recorded separately in the site diary. Any such incident will be reported to WSCC.

In the event that such a waste is identified by the site operators during load discharge/offloading, then the following action will be taken:

- The waste load will be segregated in an isolation area and photographed;
- The Site Supervisor and WSCC will be notified;
- The isolated load will be made available for inspection by the Regulator; and
- The waste will be treated with water to control any dust emissions and arrangements made to transfer the material to an appropriate disposal facility. The rejection will be recorded in line with the site acceptance procedure.

All waste transferred to the new Site Ha area will be outputs from the MBT treatment processes and as such no waste will be imported direct to this area.

6.4 Storage of Waste

During normal operational periods, incoming waste will be stored for time periods in accordance with Section 3.7 of the Site Management Plan (Ref 60586541-ACM-00-XX-RP-EN-MMP-R03 Management and Technical Plan, in Application Part 3), so as to maintain the availability of waste for short periods of non-delivery (e.g. Bank Holidays).

6.5 Cleaning

Daily housekeeping routines are maintained to include the clearance of waste spillages manually or by use of the site road sweeper.

6.5.1 MBT Area

As part of Animal by-products Regulations, procedures are in place to ensure that the reception hall floor is free from spillages. Housekeeping is completed in accordance with a daily housekeeping checklist for the reception hall which is held as a hard copy on the weighbridge. The rest of the plant is monitored using Pre Starts and the Shift Supervisors Environmental Walk Around. Hard copies are held by the shift supervisor in the control room. Any issues are recorded on the Near Miss Hazards Tracker. Roads and Traffic Management

6.5.2 Site Ha Waste Storage and Transfer Area

Waste stored in this area will comprise baled RDF on curtain sides, loose RDF and CLO in enclosed containers. There is no open storage of waste and all loading is completed within the MBT building. The area is also subject to daily inspection and in the event of spillage the site road sweeper would be mobilised.

6.6 Site Roads

A hard surfaced access road will be provided from the installation entrance. This hard surfaced road will act to minimise the potential for carriage of mud onto the surrounding land and public highways.

Subsidiary installation roads at the MBT and Site Ha will be constructed from concrete to provide sufficient run off for vehicles using the installation. Internal road surfaces will be maintained through regular grading of haul roads to remove loose materials from the surface; and will be designed to avoid sharp corners and steep gradients that would encourage sharp braking.

The site access roads are inspected as part of the site daily inspection and the road sweeper will be put into use if:

- Mud, dust, litter or debris is found to be present on the access road;
- The wheel wash is found not to be operating effectively resulting in dirt or mud carry over onto the access route;
- Ambient conditions (e.g. very dry) conditions require the removal of surface dust – alternatively a bowser may be used to suppress any potential dust that may be used.

6.6.1 Vehicle Speed Limits

Speed restrictions of 10mph will be imposed for all vehicles driving on the site, in order to minimise emissions of dust from internal road surfaces.

6.6.2 Sweeping of Access Road and Highway

When required, additional road sweeping will be employed to clean the tarmac surfaced access road and public highway around the entrance..

6.6.3 Vehicle Sheeting

All vehicles using the installation will be required to ensure that all loads of waste are adequately sheeted or otherwise contained prior to exiting the site onto the public highway.

Material transferred to the Site Ha waste storage and transfer area will be baled (RDF) and placed in a curtain sider or an enclosed container (Loose RDF or CLO). Loads will be loaded and covered within the MBT building before transfer to Site Ha.

6.6.4 Prevention of Airborne Materials from Vehicle Wheels

A wheel wash is provided adjacent to the Weighbridge at the MBT. This mechanical wheel wash will be maintained in accordance with the manufacturer's instructions and the water will be recirculated where possible. All vehicles delivering waste or collecting materials that have the potential to pick up materials on wheels are required to use the wash prior to exiting the site.

When deemed necessary by the Plant Manager, other vehicles exiting the installation will use the wheel wash in order to prevent materials being deposited on the highway.

The wheel wash should be available for the majority of the operational hours, with the only exceptions being during either a breakdown or during a service. At these times a hose pipe will be made available for drivers to wash off the wheels on their vehicles prior to leaving the site.

The operation of the wheel wash will be checked during the daily site inspection and any defects will be reported at that stage and alternative arrangements will be implemented if repairs need to be undertaken. Additionally drivers can report issues at the weighbridge who in turn will notify the Site Manager such that the wash can be inspected and alternative wash arrangements implemented if repairs are required.

6.6.5 Anti-Idling Policy

The site employs an anti-idling policy where site mobile plant will be switched off when not in use.

Deliveries of waste or collection of residues/products will be scheduled as far as practicable to avoid queuing vehicles and in the unlikely event that site operational issues will result in queuing vehicles then rescheduling will be undertaken where possible. Where this can't be done drivers will be advised to switch engines off during while waiting to be discharged/loaded.

6.7 Material Storage, Processing and Handling

6.7.1 Stockpiles

Stockpiles of loose material are located at the designated indoor storage areas within the enclosed MBT treatment building. The MBT building is equipped with fast acting roller doors and is maintained under a slight negative pressure.

6.7.2 Loading and Unloading

- a. The condition of the wastes, other treatment outputs and incoming waste materials will be assessed prior to any loading/unloading – if materials are dry and likely to give rise to dust emissions then it will be conditioned with water prior to movement; and
- b. All loading and unloading will take place within the enclosed MBT building.

6.7.3 Enclosure

- The waste reception storage areas are constructed on an impermeable surfaces within the enclosed MBT building.
- Waste leaving the MBT is in sheeted wagons, enclosed containers or wrapped bales loaded on a curtain-sided trailer.
- RDF storage in the new waste transfer and storage area will be either in enclosed RoRos or shipping containers or as wrapped bales on curtain sided trailers parked within the designated bays.
- CLO storage at the new waste transfer and storage area will be stored in closed containers which have been previously loaded at the MBT.

6.8 Maintenance and Inspection Requirements

6.8.1 Plans and Schedules

A series of maintenance and inspection procedures have been developed and are implemented for the MBT facility.

This maintenance plan includes:

- A significant element of planned preventative maintenance is incorporated to ensure high performance and availability of plant;
- Descriptions along with procedural steps and responsibilities are allocated and records kept, with a sign-off document for any issues encountered in relation to dust control;
- The maintenance scheduling makes reference to any statutory requirements and manufacturer's recommendations regarding odour control;
- Major maintenance work will be documented, and records kept for inspection; and
- Any repairs will be completed within 24 hours, where practicable.

6.8.2 Plant and Equipment

All plant items and equipment (e.g. loading shovels) will be serviced and maintained according to manufacturer's schedules and recommendations in order to minimise the risk of breakdown.

Plant and equipment will be inspected and serviced by Biffa or other suitably trained personnel utilising a plant inspection pro-forma. Standby equipment for some critical items may be required.

6.8.3 Defect Reporting and Reactive Maintenance

Mobile and fixed plant will be subject to a first use check on a daily basis to facilitate defect detection and reporting.

Defects will be logged and reported to the Logistics Manager so that repairs can be scheduled.

6.9 Water Usage and Availability

Water for the external storage areas will generally be sourced from a combination of the following:

- Mains supply;
- New water storage lagoon at the waste transfer and storage area filled with surface run-off.

If these supplies are not available, then water can be sourced from:

- Main lagoon at the MBT site;
- lagoon on the wider landfill site;;
- 2 existing lagoons adjacent to the eastern side of the new waste storage and transfer area; and
- in extreme cases water can be regularly tankered to site to fill these tanks if insufficient water is available.

Ultimately, if insufficient water is available to mitigate dust emissions, operations at the site will cease until sufficient control measures can be put in place.

7. Monitoring and Action Plan

7.1 Overview of the Monitoring Action Plan

To ensure that dust emissions from the facility do not result in nuisance at sensitive receptors, Biffa will monitor dust emissions by:

- Visual assessments of site operations;
- Daily site inspection;
- Monitoring of dust complaints;
- Daily monitoring of meteorological information and weather forecasts; and
- If a sustained period of justified dust complaint should arise, Biffa will review existing procedures and other management and control techniques as necessary.

7.2 Monitoring Plan

7.2.1 Visual Monitoring

All personnel on site will be instructed during operational training to undertake visual monitoring of all site operations each day. All noted visible dust emissions will be reported to the Site Supervisor who will be responsible for investigating the incident, implementing remedial action and recording details.

The location of the monitoring points are shown on the plan in Appendix A.

7.2.2 Site Inspection

The Plant Manager or nominated deputy will undertake a daily site inspection which will include an assessment of all site operations with respect to release of dust. This inspection will be recorded in the daily log and will include details of all incidents of dust release and remedial actions completed. Plant operational conditions and availability will also be logged.

7.2.3 Quantitative Monitoring

Quantitative monitoring of the operational area, site boundary or sensitive receptors is not a routine activity and will only be undertaken in circumstances where complaints have been received and one of the following conditions are met:

- a. Corrective action has not resolved the problem; or
- b. Monitoring will assist in determining source/cause and what further remedial action may be required.

Results of all quantitative monitoring will be recorded and evaluated.

Quantitative monitoring will be undertaken in accordance with the Agency Guidance "M17 – Monitoring of Particulate Matter in Ambient Air Around Waste Facilities" or other agreed guidance.

7.2.4 Monitoring of Meteorological Information

Monitoring of meteorological information and weather forecasts can assist in the management of dust emissions from the site. Some meteorological conditions can exacerbate the risk of dust emission annoyance at sensitive receptors, for example dry weather and high wind speed.

Monitoring of meteorological information (temperature, wind speed, wind direction and precipitation) and checking of weather forecasts will be completed daily by the Site Manager or nominated deputy.

The information and weather forecasts will be used in the following ways:

- To predict when weather conditions are likely to cause dust dispersion to sensitive receptors, to enable site controls to be amended if required;
- To plan where monitoring of the site boundary should take place during normal operations in order to correctly assess dust impacts;
- To predict the areas where potential dust impacts may occur during abnormal events; and
- During the investigation of dust complaints to ascertain complainant's observations.

7.2.5 Complaints Monitoring

Biffa recognise that complaints data is probably the most direct and reliable form of monitoring whether dust emissions beyond the site boundary are causing an annoyance. Therefore, Biffa will record complaints, respond to them and communicate with the complainants.

Complaints will be collected, registered and investigated as described in the following section 8.

7.3 Dust Action Plan

If significant levels of dust, i.e. those which are considered likely to cause a nuisance or a health hazard, are noted during site inspections, visual assessments or following receipt of complaints, the following actions will be taken:

- a. Site operations will be reviewed to identify the source of dust and the operation generating dust will be ceased until effective remedial action can be taken;
- b. Site operations will be reviewed to ensure that all aspects of the dust management scheme are being adhered to;
- c. Remedial action appropriate to the identified source of the dust release will be implemented. Such action may include temporary relocation of the operation causing the dust release, introduction of additional control measures such as extra water sprays or complete cessation of operations; and
- d. Following remedial action being implemented, the Site Supervisor will review site operational procedures and amendments will be introduced as appropriate to minimise risk of recurrence. Any revision of site procedures will be followed by operator briefing on the new requirements.

The compliance assessment criteria for visual monitoring is 'no significant levels of dust being generated', if significant volumes of dust are being noted at the installation during routine visual monitoring the following action will be taken.

7.3.1 Dust Generation during Vehicle Movements

- Take action to ensure that vehicles are obeying the site speed limits;
- Organise additional road sweeping; and
- Consider erecting static water sprays in strategic locations.

7.3.2 Dust Generation during Waste Handling

- Establish cause of emissions as all tipping and processing of waste occurs within the MBT building. No processing, tipping or loading will occur at the external waste storage and transfer area and material will only be stored as bales in curtain-sided trailers or in enclosed Roros or shipping containers;
- If the problem is caused by a particular waste type, cease accepting the relevant waste until a suitable method statement detailing how the waste will be handled has been prepared and implemented; and
- If dust is caused by general tipping arrange for area to be sprayed with water.

7.3.3 Directional Monitoring

Quantitative monitoring will only be deployed under the circumstances described in section 7.2.3 above.

8. Reporting, Actions and Recording Results,

8.1 Complaints Procedure

The facility has a complaints handling plan, agreed with West Sussex County Council. A copy of this is included in Appendix E. In the event that a complaint is received about dust or any other nuisance activity, an investigation is launched immediately as described in the complaints handling plan.

The first priority of the team on site is to locate the source of the dust and to stop it, if the MBT or external waste storage and transfer area is the cause of the dust emission. An investigation follows on how the dust pathway was established, and how to prevent re-occurrence in the future.

In order to assist with complaints monitoring the following additional information should be collected either by observation or further investigation:

- Meteorological conditions at the time of the complaint (e.g. wind direction, speed);
- Operational incidents at the time of the complaint; and
- Any off-site activities ongoing at the time of complaint (e.g. agricultural operations).

Initial screening of the complaint will be undertaken by the Duty Supervisor in order to establish if a dust incident has actually taken place. Screening will consider:

- Knowledge of potential dust sources at the facility;
- Knowledge of operational issues or plant defects that could contribute to dust release;
- Consideration of potential external dust sources;
- Location and distance of complainant from the site; and
- Results of any site monitoring already taking place.

If no such dust incident can be confirmed then further investigation will not be required. However, if a dust incident is confirmed a more detailed investigation will occur. If the communication is significant, the Duty Supervisor shall notify the Site Manager or nominated deputy as soon as possible.

Once screening has been completed Biffa will provide feedback to the complainant including details of any action that has/will be taken within 2 working days. The output of all complaints investigation and associated corrective actions will be logged into the compliance database.

The local community via a liaison group have access to both an email and the phone number of the control room at the adjacent MBT facility which is manned 24/7 with which to raise concerns relating to the operation of the landfill, MBT or ATRF/MWRF. In the event, the control room is contacted out of hours, regarding a complaint, then the Duty Supervisor would make contact with the 'on-call' Manager so the necessary actions can be taken

8.2 Recording Results and Reporting

Records of all dust monitoring undertaken, as described in this DEMP, will be maintained by Biffa. Records will be retained as stipulated in the Environmental Permit.

8.3 Reporting

Biffa will report monitoring results as stipulated by the Environmental Permit. Dust complaint reports will be reported to the EA in line with permit requirements.

Records will be retained for a minimum of 6 years.

8.4 Actions in the Event of Abnormal Emissions

In the event that daily dust monitoring indicates abnormal emissions from the facility are occurring, the site management team will implement the following actions:

- Check relevant items of dust control equipment in order to identify likely cause of abnormal emission;
- If possible, take immediate steps to eliminate the cause of the abnormal situation including contacting the maintenance operative if necessary - to obtain telephone support / advice or to request attendance on site; and
- Record response to abnormal emission and remedial action taken.

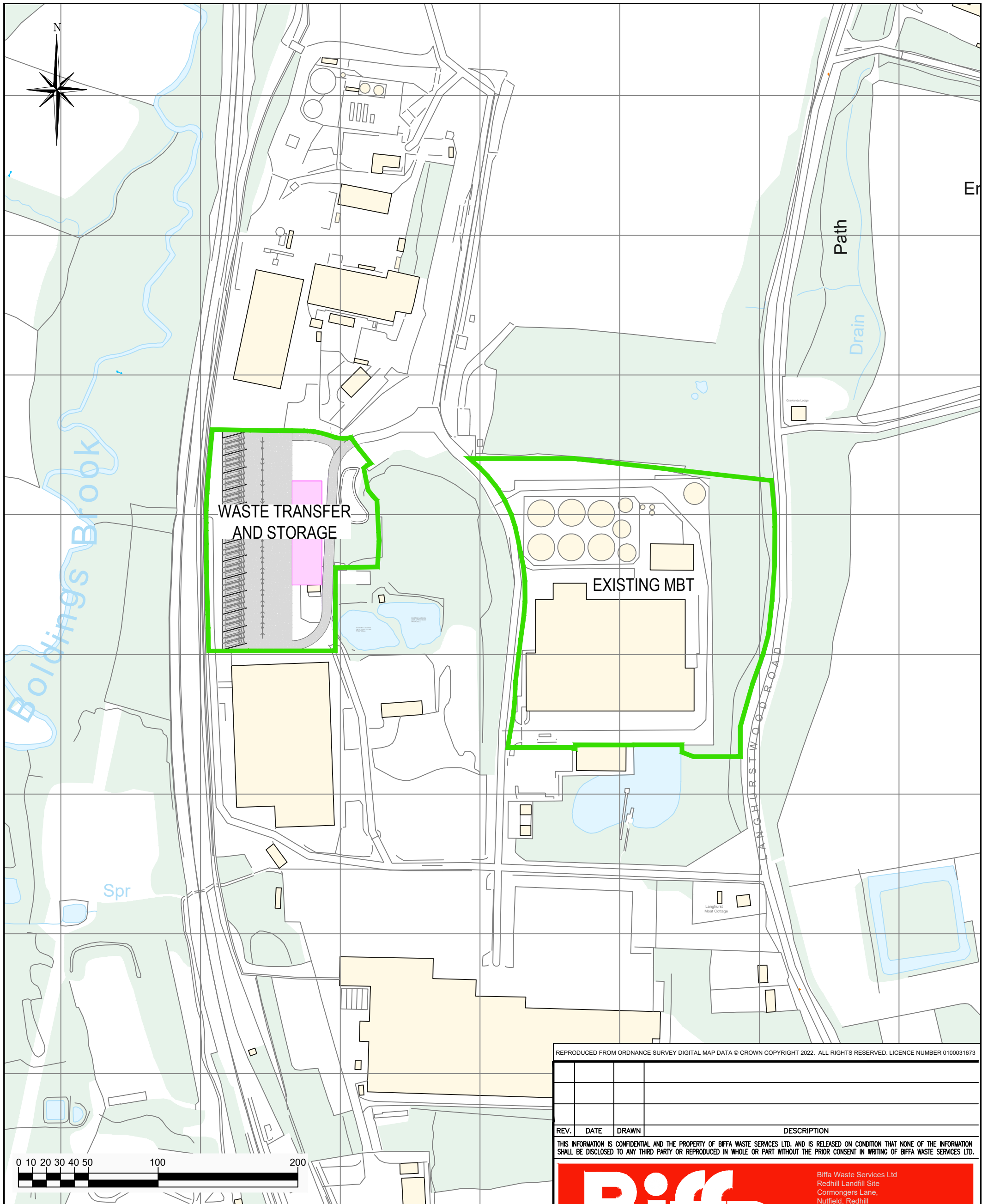
Details of the trigger parameters and associated contingency actions for odour control are presented in Appendix G.

8.5 Review of DEMP

The effectiveness of the DEMP will generally be reviewed at least once per annum based on a review of the dust complaints recorded and upheld during the previous 12 months. The review of the DEMP may be undertaken at a frequency of less than 1 year in the event of:

- A sustained period of justified dust complaints; or
- Following the introduction of new treatment processes or changes to existing processes; or
- Acceptance of waste from new sources where the pre-acceptance checks indicate that that additional dust controls may be necessary based pre-acceptance checks.

Appendix A Site Drawings and Plans



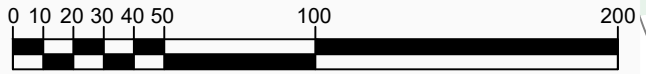
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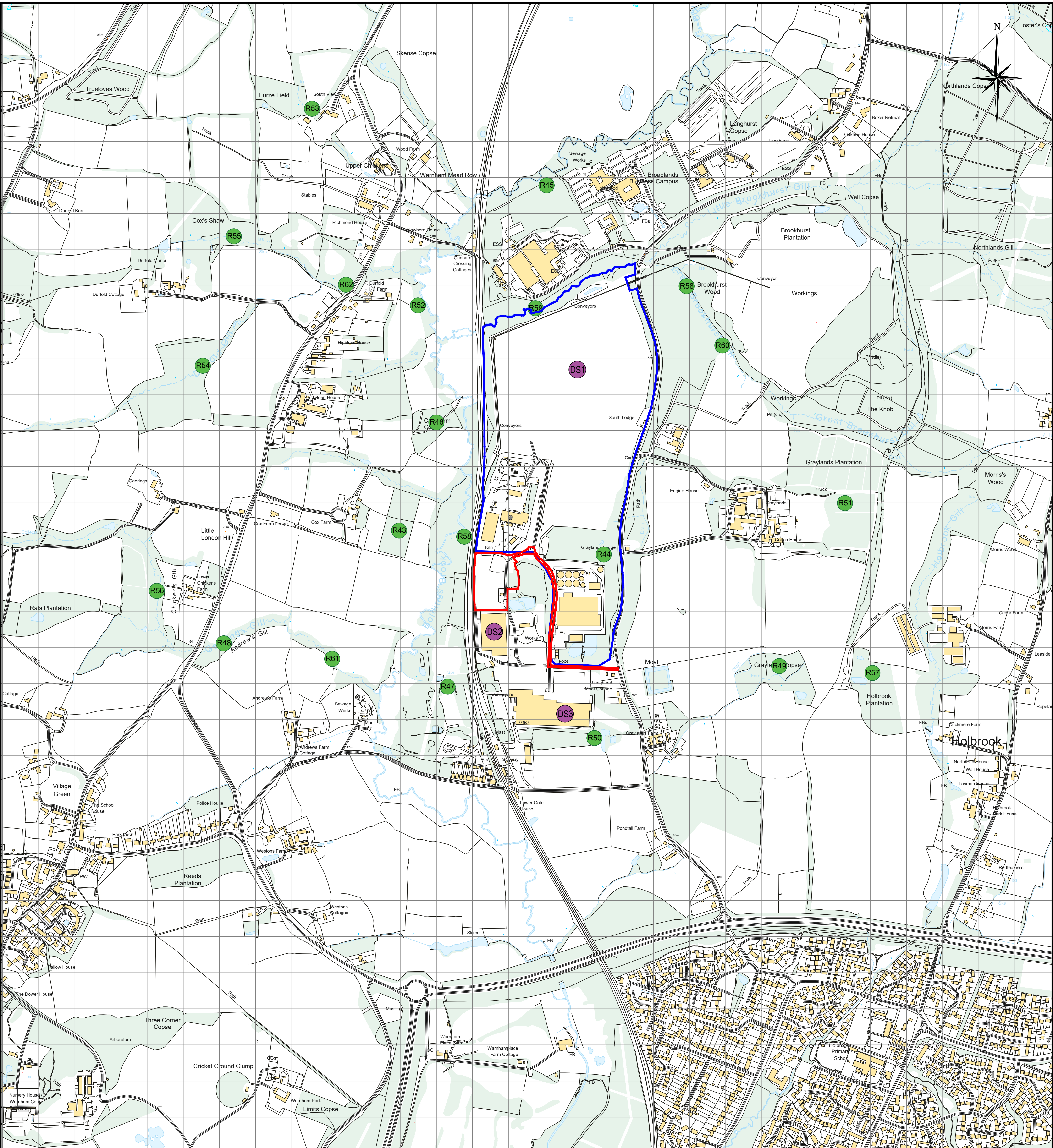


Biffa Waste Services Ltd
 Redhill Landfill Site
 Commongers Lane,
 Nutfield, Redhill
 RH1 4ER
 Tel: 01737 765042
 Mob: 07921 386021
 E-mail phil.mumford@biffa.co.uk



- KEY**
- INSTALLATION BOUNDARY
 - CLO STORAGE AREA WITH SELF-CONTAINED DRAINAGE

PROJECT	MBT FACILITY AND WASTE TRANSFER & STORAGE AREA	DRAWN	AAO
LOCATION	WEST SUSSEX MBT	DATE	01/23
DRAWING TITLE	INSTALLATION BOUNDARY	SCALE(S)	1:250 @A3
DRAWING No.	WZD230400	COMPUTER REF.	



KEY

— DEVELOPMENT PROPOSALS SUBJECT TO THIS PLANNING APPLICATION

— LAND IN BIFFA CONTROL

SENSITIVE ENVIRONMENTAL RECEPTORS

- R44 Unnamed Woodland
- R45 Unnamed Woodland
- R46 Cox Farm Copse
- R47 Unnamed Woodland
- R48 Unnamed Woodland
- R49 Graylands Copse
- R50 Unnamed Woodland
- R51 Graylands Plantation
- R52 Unnamed Woodland
- R53 Unnamed Woodland
- R54 Unnamed Woodland
- R55 Cox's Shaw
- R56 Raf's Plantation
- R57 Holbrook Plantation
- R58 Brookhurstwood
- R58 Bouldings Brook
- R59 Little Brookhurst Gill
- R60 Great Brookhurst Gill
- R61 Geerings Gill
- R62 Durfield Gill

POTENTIAL SOURCES OF DUST

- DS1 Adjacent Landfill
- DS2 Britannia Crest Waste Transfer Station
- DS3 Wienerberger Brickworks

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REV.	DATE	DRAWN	DESCRIPTION

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PROJECT	MATERIALS WASHING AND RECYCLING FACILITY	DRAWN	AAO
LOCATION	BROOKHURSTWOOD LANDFILL SITE	DATE	01/23
DRAWING TITLE	DUST RECEPTOR PLAN	SCALE(S)	1:500 @ A1
DRAWING No.	WZD230900	COMPUTER REF.	

Appendix B Summary of Measures for Dust Control

Abatement Measure	Where Implemented	How Source-Pathway-Receptor Linkage is Broken	Trigger for implementation
Preventative Measures			
Enclosure	The waste reception area is fully enclosed in the MBT building with fast acting roller doors and negative pressure.	The use of enclosed building provides a solid barrier between the dust source and the receptors.	All loading and unloading takes place within an enclosed building
Site traffic management including: <ul style="list-style-type: none"> Site speed limit; 'no idling' policy; and minimisation of vehicle movements on site 	Site will implement: <ul style="list-style-type: none"> 10 mph speed limit throughout the site; Anti-idling policy will apply to mobile plant and delivery or collection vehicles; Delivery scheduling to minimise wait times and avoid queuing. 	Should reduce emissions at source.	Speed limit and anti-idling policy will be used all the time. Waste deliveries and output collection will be scheduled to minimise queuing traffic.
Minimising drop heights for waste.	Mobile plant will be operated to ensure that waste drop height during waste handling operations is minimised. Such handling only occurs inside the MBT building.	Prevent material becoming airborne as activities take place inside enclosed building.	Mobile plant operators will be trained to recognised industry standards and will be required to apply good practice in respect of minimising drop heights at all times.
Good house-keeping	Site Inspection and Housekeeping Procedure.	Ensures the site will be regularly checked and issues remedied to prevent and remove dust/particulate build up.	Will be implemented across the site in line with a Site Inspection and Housekeeping Procedure.
Sheeting of vehicles	Applies to all incoming and outgoing delivery vehicles.	Prevents the escape of debris, dust and particulates from vehicles as they travel	Incoming delivery vehicles will be required to be suitably contained, sheeted/covered until the point of discharge. All outgoing residue/product vehicles will be required to have the vehicle sheeted
Ceasing operation during high winds and/or prevailing wind direction	Applicable across the site in line with the Site Inspection and Housekeeping procedure. Although not likely to be applicable to this operation as loading, unloading and processing of waste takes place inside.	Likely to reduce dust and particulate emissions.	Site Inspection and Housekeeping Procedures should be in place to identify when operations will cease. Site will refer to its weather station to confirm when external conditions indicate a requirement to suspend storage activities at the external easter storage and transfer area.
Installed wheel wash	Site has a wheel wash installed adjacent to the weighbridge which all delivery/collection vehicles are required to use prior to exiting the site.	Removes mud and particulates from the vehicle wheels and under body prior to vehicle leaving the site.	All vehicles exiting the waste treatment and storage areas to go on the public highway are required to go through the site wheel wash.
Easy to clean concrete impermeable surfaces	In waste processing and reception storage areas in the MBT building and within the Waste Transfer and Storage Area.	Should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.	Used in waste processing and reception areas – refer to the site plans.
Minimisation of waste storage heights and volumes on site	Maximum storage limits will be based on the trailer or RORO used. These will not be exceeded or compromise the covering/sheeting being applied.	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Reducing storage volumes should reduce the surface area over which particulates can be mobilised.	Used for all waste/product storage.
Long haul road	Road used to access and egress the site to the public highway.	Residual mud drops off vehicles before it reaches public highway.	Used during all operational periods.
Remedial Measures			
On-site sweeping	Used across the site yard and roadways in line with the Site Inspection and Housekeeping Procedure.	Road sweeping vehicles damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside.	Implemented in line with the Site Inspection and Housekeeping Procedure

Abatement Measure	Where Implemented	How Source-Pathway-Receptor Linkage is Broken	Trigger for implementation
	Road sweepers will only be used by trained operators and will be subject to planned preventative maintenance in accordance with manufacturer recommendations.		
Water suppression with bowser	Used on easy-to-clean, impermeable concrete surfaces (roads and yard areas) to aid maintenance of housekeeping standards.	Quick method of damping down large areas of the site and reducing dust and particulate emissions.	Use on site haul roads and yards in accordance with the Site Inspection and Housekeeping Procedure.

Appendix C Dust Risk and Mitigation Matrix

	Dust Source	Most Sensitive Receptors	Likelihood			Control Measures	Mitigation Factor	Residual Risk	Action if dust causes problem	Responsibility
			Probability	Consequence	Risk					
Normal Operations	Waste Receipt	R1, R2, R3, R17, R18, R30 & R35	6	3	18	<ul style="list-style-type: none"> Plant Operator (Weighbridge) to identify dusty waste. Load to be dampened down before and during tipping. Plant operator to identify if delivered dusty waste at point of tipping. Dusty waste to be treated with water. Vehicles delivering waste to be sheeted. Such sheeting to remain in place until point of discharge is reached. Water suppression to be available. 	5	3.6	<ul style="list-style-type: none"> Dusty waste to be rejected at the weighbridge. Dusty waste identified upon discharge will be immediately sprayed with water. 	<p>Plant Operator to ensure relevant checks are carried out during waste receipt.</p> <p>Site Supervisor to ensure waste acceptance procedures followed and relevant corrective action taken.</p>
	Unloading, handling, storage and loading of incoming wastes	R1, R2, R3, R17, R18, R30 & R35	6	3	18	<ul style="list-style-type: none"> Materials for processing will be offloaded into the MBT reception area which is in an enclosed building with fast acting roller doors and slight negative pressure. Good housekeeping standards will ensure that the site areas are kept clean to prevent build-up of spillage waste. Wheel washing shall be employed for delivery vehicles delivering waste or collecting residues/products. Mobile water suppression is available. Minimisation of drop heights during placement of materials into the trailers/RoRos within the MBT building; 	5	3.6	<ul style="list-style-type: none"> Dusty waste to be rejected at the weighbridge. Dusty waste identified upon discharge will be immediately sprayed with water. Review housekeeping procedures. Review handling procedures. 	Plant Operator to ensure unloading, handling, storage and loading procedures are adhered to.
	Roads and Site Vehicles	R1, R2, R3, R17, R18, R30 & R35	6	4	24	<ul style="list-style-type: none"> A hard surfaced access road will be provided from the installation entrance and in the external waste storage and transfer area. Internal road surfaces will be maintained to remove loose materials from the surface; and will be designed to avoid sharp corners and steep gradients that would encourage sharp breaking Speed restrictions of 10mph will be imposed for all vehicles driving on the site, in order to minimise emissions of dust from internal road surfaces All vehicles using the installation will be required to ensure that all loads (waste or aggregates) are adequately sheeted or otherwise contained prior to exiting the site onto the public highway. A wheel wash is provided adjacent to the Site p weighbridge. This mechanical wheel wash will be maintained in accordance with the manufacturer's instructions and the water will be recirculated where possible. All waste delivery/collection vehicles will use wheel wash when leaving site. When deemed necessary by the Plant Manager, other vehicles exiting the installation will use the wheel wash in order to prevent materials being deposited on the highway. 	5	4.8	<ul style="list-style-type: none"> When required, additional road sweeping will be employed to clean the tarmac surfaced access road and public highway around the entrance. Such equipment will be hired on the same day as any such problem is identified or as soon as possible thereafter subject to contractor availability. 	Site Supervisor

	Dust Source	Most Sensitive Receptors	Likelihood			Control Measures	Mitigation Factor	Residual Risk	Action if dust causes problem	Responsibility
			Probability	Consequence	Risk					
	Waste and Processing	R1, R2, R3, R17, R18, R30 & R35	5	3	15	<ul style="list-style-type: none"> The MBT reception and processing areas are inside an enclosed building with fast acting roller doors and maintained under slight negative pressure; Height of free fall at transfer points in the reception and MPT/WPT processing halls will be minimised at all times; Mechanism(s) to prevent overloading will be employed; Planned preventative maintenance will be employed to ensure effective plant operation; 	5	3.0		Site Manager and/or Site Supervisor
	Storage of materials	R1, R2, R3, R17, R18, R30 & R35	6	3	18	<ul style="list-style-type: none"> RDF bales are wrapped prior to being taken outside; Loose RDF is placed in enclosed containers prior to external storage; Minimisation of drop heights during placement of materials into the containers; CLO loaded into enclosed containers prior to external storage; Use of appropriate dust suppression; and All materials handling and loading takes place in the MBT building 	5	3.6	<ul style="list-style-type: none"> Deploy water suppression if dust control becomes an issue. 	Site Manager and/or Site Supervisor
Abnormal Conditions	Delivery of large volume of incoming waste over a short period of time	R1, R2, R3, R17, R18, R30 & R35	2	4	8	<p>Biffa will exercise the following with regards to their waste suppliers:</p> <ul style="list-style-type: none"> Define maximum tonnages that can be accepted on a daily basis; Agree delivery schedule with consideration of public holidays; Stipulate the remit for the rejection of wastes if the facility is over supplied and daily recording of quantity of waste accepted into facilities; Contingency plan for management of over-supply of waste, including possible diversion to other facilities to accept rejected loads and options to return to supplier. 	5	1.6	<ul style="list-style-type: none"> Rejection of wastes and implementation of contingency plan. 	<p>Management team to negotiate supplier policy and contingency plan</p> <p>Plant Operator (weighbridge) to record quantity of waste accepted daily.</p> <p>Site Supervisor to decide if waste should be rejected and whether it should be returned to supplier, sent to another licensed waste facility or disposed of direct to landfill.</p>
	Delivery of dusty waste	R1, R2, R3, R17, R18, R30 & R35	3	4	12	<ul style="list-style-type: none"> Plant Operator (Weighbridge) to identify dusty waste. Load to be dampened prior to and during tipping. Plant operator to identify delivered dusty waste at point of tipping. Dusty waste to be treated with water, isolated or loaded for onward transport to offsite disposal facility. 	5	2.4	<ul style="list-style-type: none"> Dusty waste to be rejected at the weighbridge. 	<p>Plant Operator to ensure relevant checks are carried out during waste receipt.</p> <p>Site Supervisor to ensure waste acceptance procedures followed and relevant corrective action taken.</p>

	Dust Source	Most Sensitive Receptors	Likelihood			Control Measures	Mitigation Factor	Residual Risk	Action if dust causes problem	Responsibility
			Probability	Consequence	Risk					
	Plant and equipment malfunction / breakdown	R1, R2, R3, R17, R18, R30 & R35	2	4	8	<ul style="list-style-type: none"> ▪ Planned preventative maintenance and regular inspections. ▪ Availability of maintenance operatives. Therefore, could be on site within a few hours. ▪ Stand by parts / equipment may be available 	5	1.6	<ul style="list-style-type: none"> ▪ Repairs to be undertaken as quickly as possible. 	Site Manager to ensure plant / equipment is repaired as quickly as possible
	Unusual weather conditions e.g. extreme atmospheric temperature, extreme wind turbulence	R1, R2, R3, R17, R18, R30 & R35	3	4	12	<ul style="list-style-type: none"> ▪ Meteorological information / forecasts received from the Met Office. ▪ Job planning to mitigate the impact of unusual weather conditions. 	5	2.4	<ul style="list-style-type: none"> ▪ Monitor dust emissions using site procedures. ▪ Review site procedures in relation to weather conditions to establish if modification will mitigate dust emissions. ▪ Waste deliveries to cease in dry, high wind conditions if dust control cannot be achieved. 	<p>Site Supervisor to ensure meteorological information / forecast is reviewed daily.</p> <p>Site Supervisor to exercise monitoring procedures.</p>

-

Appendix D - Example Dust Monitoring Check Sheet

DUST MONITORING CHECK SHEET				
DATE		Time		
Name		Signature		
WEATHER CONDITIONS				
Wind Direction		Wind Speed		
Other conditions (sun, rain, etc)				
BOUNDARY SITE CHECKS				
Monitoring Pt	Time	Visible Dust (Y/N)	Operations Taking Place	Known Issues
1				
2				
3				
4				
5				
6				
COMPLAINTS – LOG ANY COMPLAINTS RECIEVED				
Complainant	Time of Complaint	Distance and Direction from Site	Details	
CORRECTIVE ACTION TAKEN				
Issue	Immediate Action Taken	Action Effective (Y/N)	Further Action Required	

Appendix E - Complaints Procedure



West Sussex County Council

MRMC

Service Delivery Plan

SDP07 – Complaints Handling System

Revision History

Issue	Date	Revision Notes	Revised By
1	May 2010	Contract Issue	-
2	October 2015	Revised to reflect development of Site Ha, MBT Facility as built, and current Facility operations	A Griffiths
3	November 2016	Revised to remove reference to Site HA and general revision	A Griffiths
4	2018	General revision – see change history	D Dodsworth
5	03/09/2021	General revision – see change history	D Dodsworth

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1. *Executive Summary*

This document provides a summary of the Contractor's approach to the handling of complaints which may arise during the term of the MRMC. The Complaints Handling System applies to all elements of the Service, including the main MBT Facility and Landfill Site and the Ancillary Infrastructure to be constructed on Site Ha.

This Complaints Handling System document provides further details with regard to:

- Potential sources of complaints.
- Relevant timescales for complaint resolution.
- Complaint receipt and handling processes.
- Complaint recording, investigation, and communication processes; and
- Reporting of complaints to the Authority.

Throughout the Contract term, the Contractor and the Authority will jointly review this approach to the handling of complaints on an annual basis to ensure continued alignment with the relevant policies and procedures of the Authority.

2. Introduction

The Contractor recognises the status of the MRMC within West Sussex, the impact it will have within the County and the variety of stakeholders that will be influenced by the Service.

The efficient handling of complaints is critical to maintaining the reputation of the Service and supporting a positive and open relationship with stakeholders and the community.

When considering complaints management, it is important to recognise the range of sources from which complaints may be received and the potential causes or different types of complaints which may include:

- Local neighbours to the Facility (residents, Parish Councils, Elected Ward Members, and local businesses) will be concerned with operational practices and their impact on the local community.
- Authorised Users (WCAs, WCA Parties, the Reclaim Contractor and WSCC Officers) utilising the Service on a daily basis will be concerned with service delivery and operational efficiency including any potential impact on their own responsibilities.
- Other Stakeholders, such as members of the public, WSCC / District & Borough Council Officers and Elected Members, will have an interest in the performance and perception of the MRMC; and
- The Environment Agency will be responsible for the enforcement of environmental controls for the waste processing facilities.

The Contractor's Complaints Handling System as detailed below accounts for the varying nature and source of complaints.

The Contractor recognises that it is representing the Authority through the provision of Services and as such will continue to ensure that complaints are handled in a manner that, as a minimum, adopts the Authority's Complaints Handling Procedure. This Complaints Handling Procedure is contained in Appendix 1 to this document. The Authority's complaints guidance includes the following key targets for response to complainants set out in table 2-1.

Changes to the Authority's Complaints Handling Procedure, specifically changes relating to targets for response to complaints, will be reviewed on an annual basis by the Authority, and the Contractor's Complaints Handling System updated as necessary to reflect any changes.

The Contractor will ensure that receipt of a complaint is acknowledged to the Authority within two (2) Business Days. Complaints will be routinely investigated and reported to the Authority within eight (8) Business Days unless alternative arrangements are agreed with the Authority.

Table 2-1: Authority Complaints Guidance – Key Targets

	Acknowledgement	Full Reply	Full Reply Extension Period (following notification within 10 days)
Stage 1	3 Business Days	10 Business Days	20 Business Days
Stage 2	3 Business Days	10 Business Days	20 Business Days
Stage 3	3 Business Days	10 Business Days	20 Business Days

The Contractor shall also record complaints, queries and comments referred by the Authority. If a complaint cannot be satisfactorily resolved, the Authority shall be notified within two (2) Business Days and, after consideration of all the relevant facts, the Authority shall make a recommendation to the Contractor which may be accepted or referred to the Dispute Resolution Procedure. The complaint records shall form part of the annual review of the Service.

All complaints received are recorded in a compliance database which is available for review by the Contractor and the Authority at any time. This will allow the Authority to access any information required regarding any complaints or requests for information (e.g. Freedom of Information requests) in relation to the Services at the Facility.

3. Complaints Handling System

3.1 Overview

The Contractor’s Complaints Handling System detailed below adopts four key principles:

- All complaints will be recorded and made available for review by the Authority. On receipt of a complaint, all efforts will be made to resolve the issue informally and minimise the involvement of employees not directly concerned with the matter.
- To provide considerate responses to complaints when first aired. This often leads to swift and satisfactory resolution, preventing lengthy enquiries. Therefore, complaints are handled in a positive and timely manner.
- To offer an open and accessible complaints procedure not only to encourage trust and transparency but also to prompt the resolution of problems at the first stage; and
- To keep accurate records and regularly review complaints, investigation, action, and feedback. This feedback is used to inform future Service operations to prevent reoccurrence of the complaint. This is crucial for continued improvement.

3.2 Complaint Receipt and Handling

All Contractor and Contractor Party personnel who are involved in the receipt and handling of complaints receive training to ensure that whatever the environment or situation, they are

prepared professionally to initially handle the complaint. This training will reflect the approach laid out in the Authority’s Complaints Handling Procedure to ensure that the Service is consistent with other Authority practises. For further details see the Authority’s Complaints Handling Procedure in Appendix 1.

In relation to the MRMC, complaints may be received through a number of sources and in a number of formats, outlined below in Table 3-1.

Table 3-1: Potential Sources and Forms of Complaint

Possible Complaint Source	Forms of Complaint – Applicable to All
1. WSCC Contact Centre	<ul style="list-style-type: none"> • In Person • In Writing • By Phone • Via WSCC website • By Fax • By Email • Recorded in Site Diary
2. WSCC Officers / Members	
3. District & Borough Officers / Members	
4. Environment Agency	
5. Parish Council	
6. County, District & Borough Contractors	
7. The Reclaim Contractor	
8. <i>Direct from public</i>	
9. <i>MRMC Office / Staff</i>	
10. <i>Biffa Head Office</i>	
11. <i>Biffa Press Office</i>	
12. <i>Local Community Liaison Group</i>	
13. <i>Site users / visitors</i>	

Complaint sources highlighted above in italics (channels 8 – 13) are those that the Contractor will receive directly.

A Site Diary is maintained on Site. This is updated at the end of every shift by the shift supervisor and distributed to the Contractor’s management team by e-mail. The Site Diary is used to record the operational performance of the Facility during the shift, and to note a summary of the day’s events. The Site Diary includes a specific line to record the receipt of any complaints to ensure it is brought to the attention of the Contractor’s management team. The Site Diary is saved in electronic form on the Contractor’s local server and archived.

The Site Diary will be kept in a format approved by the Authority prior to the commencement of the Start-Up Services and shall be available for inspection at all reasonable hours. The relevant information shall be extracted from the Site Diary and summarised in the complaints section of the Monthly Service Report.

3.3 Complaint Recording

Irrespective of the source, to ensure complaints handling is efficient and consistent it is crucial that relevant information is recorded.

To do this the Contractor has provided an online form, available on the West Sussex Recycles website [Brookhurst Wood MBT feedback form - West Sussex County Council](#) . A copy of this form is shown in Appendix 2. This form is available to anyone viewing the Project Website and requires the complainant to fill out a number of fields including their location, contact details, and the nature, date, and time of the incident. Once this form is submitted it is automatically sent by email to the Brookhurst Wood email mailbox. This mailbox is monitored daily by the Community Liaison Officer and is accessible by the General Manager and Compliance Manager.

The Community Liaison Officer will assess the complaint and will enter it onto Biffa Waste Services Limited's company-wide compliance database. The compliance database is managed centrally by the Biffa Waste Services Safety, Health, Environment and Quality (SHEQ) team. This allows visibility of all complaints currently active by all members of Biffa Waste Service's senior management, as well as the Contractor's management team. Upon logging the complaint, the compliance database will generate a unique reference number which is emailed back to the person logging it and allows simple tracking of the complaint. An example of the form template is shown in Appendix 3.

Should a complainant not wish to use the automatic form on the Project Website, a number of alternative contact methods are available for registering the complaint including email, telephone and in writing by post. These details can be found on the Project Website. In the event that a complaint is received via another route, it will be added to the compliance database by the Community Liaison Officer as soon as possible. In the event that the Community Liaison Officer is not on Site the complaint can be logged by a number of other staff members including the Compliance Manager, Plant Manager or Operations Manager.

The compliance database will form the basis of complaints monitoring (for the Contractor and the Authority), providing a full audit trail and the information summarised in the complaints section of the Monthly Service Report.

Upon receipt of a complaint the Contractor will inform the Authority within two (2) Business Days, providing details of the nature of the complaint and the date and time at which it was received.

3.4 Complaints Investigation

Once a complaint has been logged on the compliance database, an investigation will be launched. The investigation will be initiated as soon as practical, and in any event no later than two (2) Business Days following on the day of receipt of the complaint, and as much data as possible on the operation of the Facility at the time of the complaint will be gathered. Some of the investigation analysis tools available on Site are listed below. Note that this list is not exhaustive, and any tools utilised, if required, will be dependent on the nature of the complaint:

- Weather Station Data – a weather station mounted on the roof of the MBT Facility, and at the Landfill Site, records a number of weather parameters including wind strength and direction, temperature, humidity, rainfall etc.
- Noise readings – A portable hand-held noise meter is available to be used at any location on Site, around the boundary or further afield to measure the noise generated by components, equipment and/or machinery on Site.

- Odour checks – experienced staff members used to carrying out odour checks can take readings around the Site boundary and further afield to monitor the odour levels.
- Litter checks – regular litter checks are carried out around the Site boundary and Site entrance to identify any areas in which litter can escape from the MBT Facility and Landfill Site and accumulate. This can be increased in frequency should specific complaints be received; and
- Vehicle movements – all waste delivery vehicles entering and leaving Site are logged over the weighbridges, with the vehicle details, operator, waste type being carried and exact time into and out of Site recorded.
- CCTV – The site is constantly monitored by CCTV, and footage recorded for a period of time. This can be reviewed to check on site operations at the time of a complaint.

Complaints relating to the landfill operation, relevant to the MRMC, will be investigated in consultation with the manager of the Landfill Site.

3.5 Complaints Recording and Communication

Following the investigation of the complaint, the manager carrying out the investigation will log into the compliance database and update the form (see Appendix 3), describing the steps taken in the investigation, the findings of the investigation, and the action taken to mitigate the issue. The Community Liaison Officer will then contact the complainant using the contact details provided to update them on the resolution. In the absence of the Community Liaison Officer the Compliance Manager, Plant Manager or Operations Manager may undertake this task.

In addition, the Authority will be informed of the results of the investigation and measures taken to resolve the issue within eight (8) Business Days of the complaint being received.

On an annual basis, the Contractor will prepare a review of all comments / complaints along with details of the actions taken in response to comments / complaints (“the Complaints Handling Report”) and this will be summarised in the Annual Service Report. Reference will be made to the relevant Performance Standard, if any, which has been breached or which is the subject of the relevant complaint.

The Contractor will inform the Authority as soon as practicable of any incidents involving damage to third party property. The Contractor will inform the Authority within two (2) hours of any incident involving personal injury to persons not employed by the Contractor. They will also brief the Authority on the likelihood of any formal proceedings arising from disputes or complaints.

4. Feedback and Lessons Learnt

The Contractor is committed to continuous improvement, and any complaints received are reviewed on a case-by-case basis to analyse what might have occurred to cause the complaint to be made. This review takes place at the monthly Safety Improvement Team (SIT) meeting, which is led by the Site Health and Safety Leader and is attended by management and Site team

representatives. The causes of the complaint will be discussed, and Site operations in the area reviewed to evaluate if processes and practises could be improved to prevent reoccurrence of the issue. In addition, the investigation and general handling of the complaint will be considered to ensure it has been carried out thoroughly and communicated effectively to all stakeholders.

5. *Appendices*

5.1 Appendix 1 – Authority Complaints Handling Procedure

To be inserted when available.

5.2 Appendix 2 – West Sussex Recycles Feedback Form



[Find out about recycling in West Sussex](#)

LAST UPDATED:
2 August 2021

Share this



Brookhurst Wood MBT feedback form

Use this form to send any feedback about the Brookhurst Wood facility to us.

This form will take approximately 5 minutes to complete.

Please allow yourself enough time to complete this form in one session as there is not an option to save and come back to it later.

The questions marked with an asterisk (*) are mandatory and require an answer. You do not have to answer all of the other questions, but it would help us if you do.

Your data privacy

Before completing this form please read our [general Privacy Policy \(opens in a new window\)](#).

This explains why we ask for your data, what we do with it and how long we will keep it. It also explains how you can find out what data we hold about you and how you can ask us to delete it.

Please note that your enquiry and details will be passed on to Biffa. Please see [Biffa's privacy policy \(opens in a new window\)](#).

Your details

First name *

Enter your first name.

Last name *

Enter your last name.

Email address *

Enter an email address where we can write to you.

Phone number

Enter a daytime phone number that we can ring you on. This can be a mobile or landline number.

Your enquiry

What would you like to ask? *

Enter details of your enquiry.

Weather conditions (if applicable)

If you are reporting an incident, please describe the weather conditions.

Date and time of incident (if applicable)

If you are reporting an incident, please provide the date and time of the incident.

Submitting your form

Click the submit button **only once**.

Please be patient as it will take a few moments to process your form and redirect you to our confirmation page.

Submit

5.3 Appendix 3 – Screenshot from BWSL Compliance Database

BiffaNET **Compliance EA Report**
BiffaNET » Location Index » Location » Unit » Report

Form 853*2*33 - West Sussex MBT entered by on

Biffa - West Sussex MBT **LANDFILL DIVISION COMPLAINTS FORM**
SECTION 1 - TO BE COMPLETED FOR ALL COMPLAINTS

COMPLAINANTS NAME

Address: Telephone:

PostCode: Email:

Company/Organisation of Complainant:

Date of Complaint: 12 / 05 / 2015 Time:

Complainants Relationship to Biffa: **Select One**

Date of Incident/Problem: / / Time: Weather Conditions: **Select One**

Method of Complaint: Telephone Email Letter Fax In Person
Via 0800 number Via Head Office Website

Preferred Method of Contact: **Select One** Date Acknowledged: / /

Complaint Received by Inputter

Status: **Select One**

COMPLAINTS INVESTIGATION

Items considered when reviewing the complaint

Weather Conditions

Comments from other sources

Previous complaints by complainant

Operations at time of problem

Previous similar complaints

Findings

Feedback to Complainant

Date of Feedback: / / Time: Method: Select One

Actions taken (at the time or subsequently)

Investigated by Date / /

Save Form

Click to Upload Documents

For View Version [Click here](#)

Complaints Forms:

To View/Edit Complaint Form Select One

HOME	Noticeboard	People & Places	BI Office	Chemical Treatment	Collection	Containers	SEARCH
	Drivers	E & EA	SHEQ	Finance	Fleet	Gas to Energy	
	HR	Insurance	IT Department	Marketing	Municipal	Projects	
	Procurement & Property	Reporting	RR & L	Sales Toolbox	Teamrooms	Training	

Appendix F Trigger Values and Controls

Trigger	Frequency	Trigger Measure	Responsible	Control/Contingency Measure
Site Inspection	Daily – actions taken same day	Mud or litter on internal /access road	Operations Manager Duty Shift Supervisor	<ul style="list-style-type: none"> Check and ensure wheel wash is available, working and being used. Mobilise the road sweeper
		Material overflowing the MBT reception areas		<ul style="list-style-type: none"> Material to be moved back into storage area by site mobile plant; In the event that material can't be processed (e.g. breakdown) then temporarily suspend waste acceptance
		Spillage evident in yard		<ul style="list-style-type: none"> Identify source and nature of spillage Mobilise the road sweeper for mud/litter spillage Utilise spills kit to contain and remove liquid spillage
		Water accumulation in yard		<ul style="list-style-type: none"> Check drains and silt drop-out chambers for signs of build-up / blockage Arrange for drain cleaning using gully washer or similar
		Residue/outputs overflowing the storage area		<ul style="list-style-type: none"> Use mobile plant to move into correct storage area Arrange for removal of material from site to end destination If material can't be removed in timely manner consideration of temporarily ceasing waste acceptance for further treatment,
		Build-up evident in the MBT process		<ul style="list-style-type: none"> Processing to be stopped and if necessary, waste acceptance to be temporarily ceased to allow the process train to be drained and cleaned.
Meteorological Monitoring	Wind speed	> 25 mph (>11 m/s)	Duty Shift Supervisor	<ul style="list-style-type: none"> In the event that wind speed increases then consideration will be given to cessation of relevant site activities (e.g. loading and discharge); In the event that temperature increases above defined level then additional checks will be undertaken on incoming waste stockpiles with portable PID analyser to check for fugitive releases of organics – materials to be placed under cover if results are indicative of unacceptable vapour release. In the event of dry and windy conditions water suppression to be employed.
	Temperature	> 25°C		
	Rain	No		
Complaints Monitoring	As received	Response to complaint	Plant Manager	<ul style="list-style-type: none"> Immediate checks around the process to be undertaken to determine if source is located on site. Offsite sniff checks at complainant location and other appropriate receptors. Complaints to be reviewed monthly for adverse trends. Introduction of dust emission diaries with community receptors in the event of prolonged dust nuisance in order to establish pattern/source
Quantitative Monitoring	TBC	Period of prolonged and justified complaints	Plant Manager	<ul style="list-style-type: none"> In the event of prolonged, justified dust complaints quantitative monitoring will be implemented in line with a programme agreed with the regulator. Directional dust deposit monitoring will be implemented if the assessment level of 200 mg/m²/day is repeatedly exceeded

