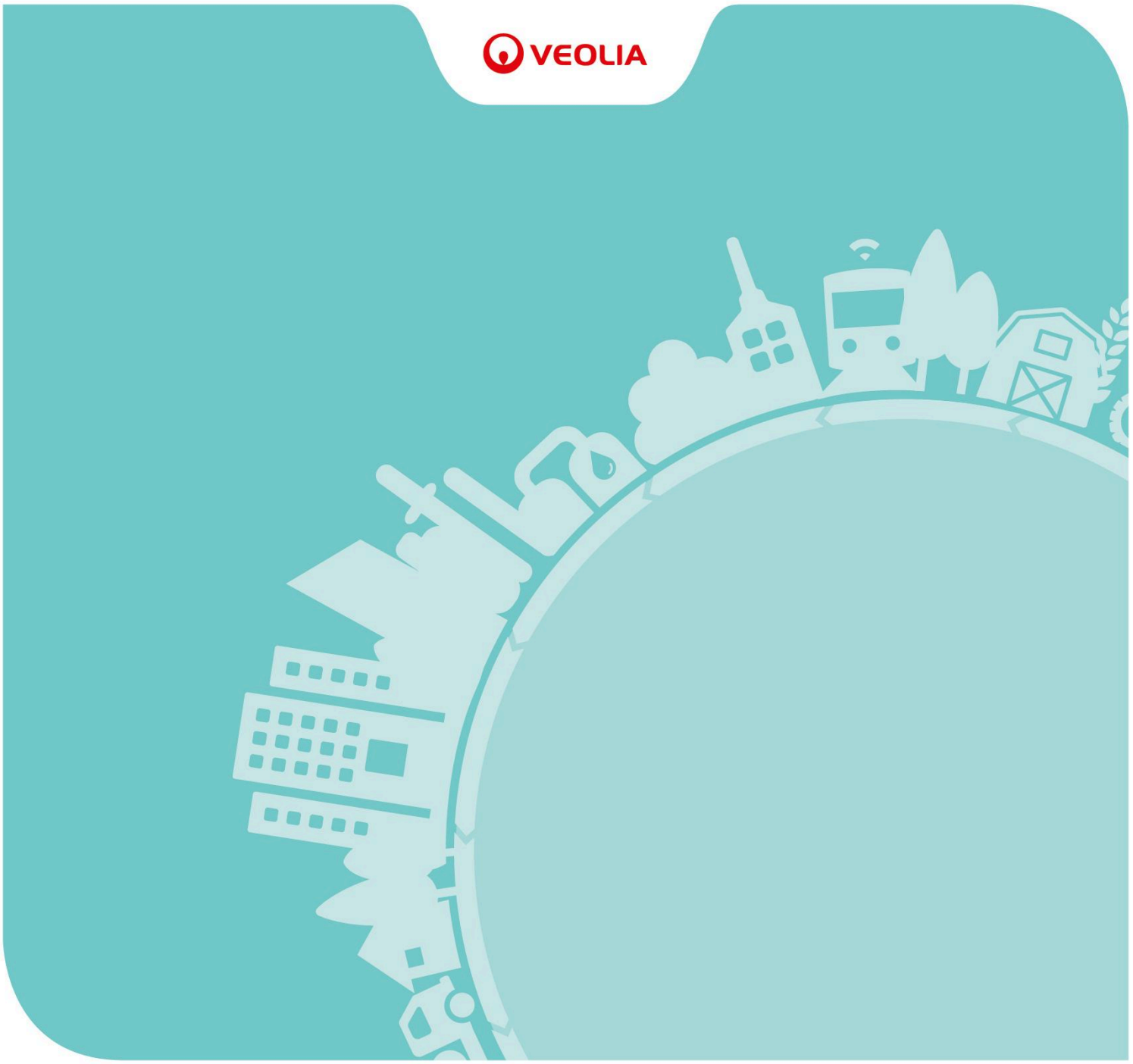


Dust Management Plan

Blue haze IBA Recovery Facility

Date: February 2024

Version: 1.0

Version History

Revision Number	Date of Issue	Status	Reason for revision
1.0			Permit Application

Contents

1. Introduction

This Dust Emissions Management Plan supports the application for a variation of environmental permit held by Veolia ES Landfill Limited 'Veolia' referenced BJ5208IJ (as varied) at Blue Haze Landfill Site.

This application consists of the variation of Table S1.1 of permit BU5208IJ to add an additional part A activity, S5.4 A(1) (b) (iii) for the treatment of IBA from municipal waste incineration to the landfill permit, the activity will be >75t/day and 130 kt/annum for recovery.

The activity will be carried out on top of landfilled waste (cells 8 & 9) which currently benefit from an installed temporary cap along with leachate and landfill gas management systems, further details of the temporary cap and details of the continuation of landfill gas and leachate control can be found in the application Supporting Statement.

The proposed IBA processing activity will be linked to the life of the landfill. The operation will be fully decommissioned including the removal of IBA stockpiles, plant and associated equipment as well as surfacing prior to the end of the landfill life and cells 8 & 9 will be landfilled to final consented levels in accordance with the agreed Cap Management & Removal Plan. The Cap Management & Removal Plan will be updated immediately prior to recommencement of landfilling of the area to take account of prevailing conditions.

The site is located at:

Blue Haze Landfill
Somerley
Nr Ringwood
Hampshire
BH24 3QE

The site is permitted to accept non-hazardous waste. Waste disposal commenced in Cell 1 in April 2000 and is currently ongoing. The site comprises 9 cells. Some of the cells are now filled, capped and restored to final levels; some are partially filled; while others are fully operational and are still accepting waste.

The site is located approximately 1.5km southeast of Verwood and 2.5km northwest of Ringwood. It covers approximately 31 hectares and is centred on National Grid Reference (NGR) SU 119 074.

The landfill operations involve the filling of a former void created by sand and gravel extraction at the site.

The landfill is operated on the principle of engineered containment, incorporating low permeability basal and sidewall seals. As landfilling proceeds the site is progressively capped with an impermeable membrane and covered with a layer of restoration soils.

Other activities on site are a leachate treatment plant, a landfill gas utilisation plant and a separately permitted non-hazardous waste transfer station.
Prior to the introduction of the Industrial Emissions Directive a similar IBA treatment facility was permitted and operated on the partially filled cell 4 at the site. This activity was operated between 2007 and 2014, dust emissions were controlled during the period of activity with no reports of complaints or other dust emission related issues.

1.1 Sensitive Receptors

The site is well located within the boundaries of the landfill site and below the general land level. On two sides there are high banks and one a third side woodland, providing good shelter for the site.

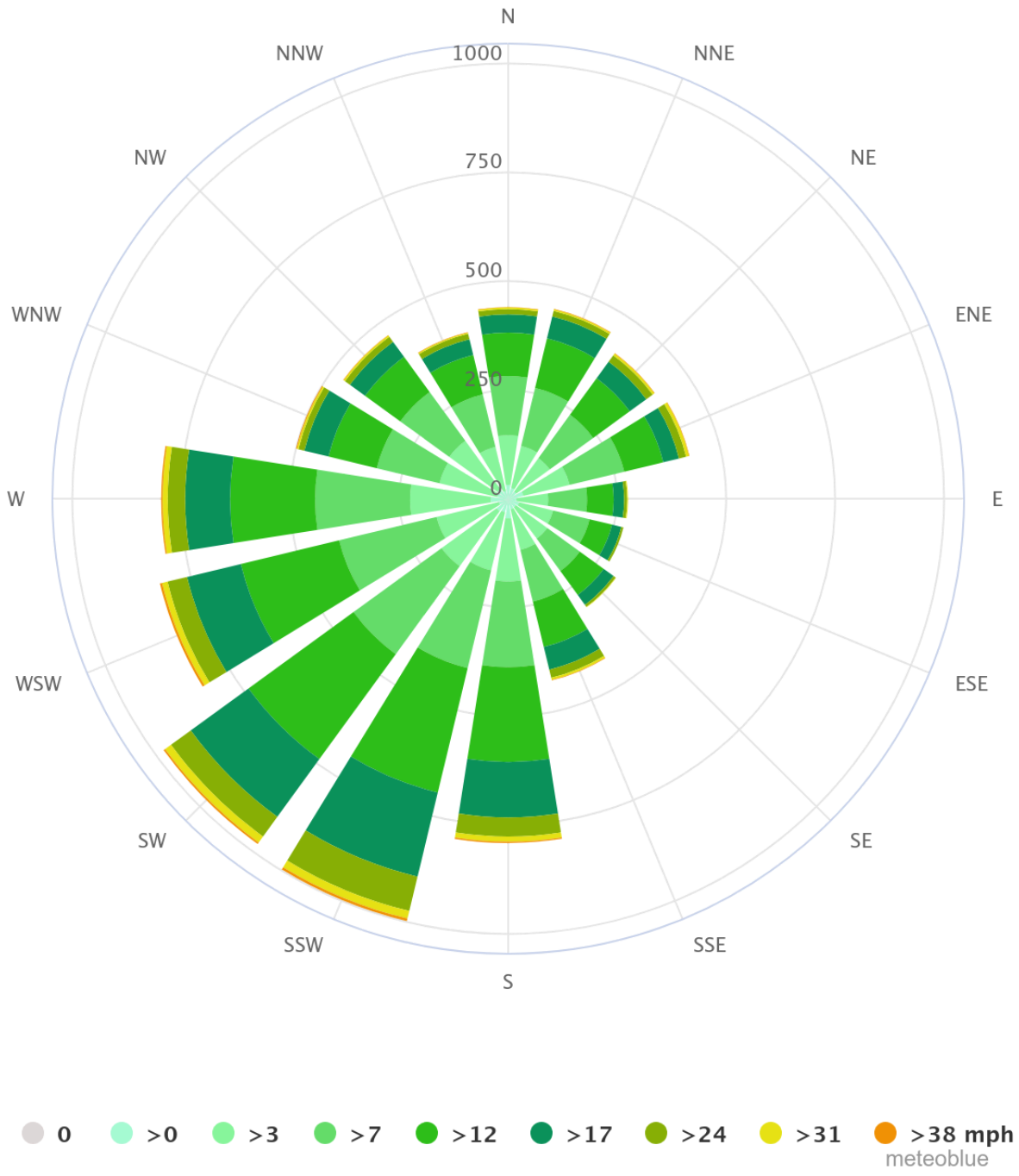
Table 1.1 Location of potentially sensitive receptors

Receptor reference	Receptor name	Land use e.g. house, school, hospital, commercial	Direction from site (North, South, East, West)	Direction descriptor	Approximate distance to IBA boundary (m)	Sensitivity to odour Low (e.g. footpath/road) Medium (e.g. industrial / commercial workplace) High (e.g. housing / pub / hotel etc.)
R1	Belt Cottage	Residential	North east	Downwind	350	High
R2	Ebblake House	Residential	East	Upwind	1000	High
R3	Harbridge Court	Residential	North	Upwind	>1000	High
R4	Duncombe Lodge	Residential	West	Downwind	>1000	High

The nearest property, in line with the prevailing wind from the site, is Belt Cottage . Dust guidelines indicate visible dust does not usually go beyond 100 metres so they are unlikely to be affected by the IBAA operations.
The Verwood Road runs parallel to the south west boundary of the site and is approximately 250 metres away.
There are a number of public rights of way in the vicinity of the site in all directions.

A drawing showing the location of sensitive receptors is included at Appendix A

Figure 2.2. - Wind rose (most common wind direction is towards the north east)



2. Operations at Blue Haze IBA Recovery Facility

2.1 Waste Deliveries to the Site

Waste is delivered to site using the local road infrastructure and access road to site. Vehicle types will be sheeted tipper lorries All waste delivery vehicles will be weighed and recorded using the on site weighbridge system.

All customers are instructed to sheet/ cover all loads which are delivered to the site.

The site layout showing potential dust emission and storage areas is included at Appendix A.

Initially the source of the IBA is from the three Veolia operated Energy Recovery Plants in Hampshire and is therefore considered to be of a consistent quality and consistency with little variation in dust potential.

2.3 Storage Areas

All areas for the storage and loading of waste are surfaced with an impermeable liner.
The operational area will be cleaned regularly to clear dust deposition that could be resuspended.

2.4 Mobile Plant & Equipment

Nitrogen Dioxide gas is a by-product of internal combustion engines and the site uses several items of plant with internal combustion engines. The following table lists the type, mobile and emission ratings for the mobile plant and equipment used on site:

Table 2.2 - Onsite mobile plant emission ratings

Description	Make	Model	Emission Rating
Loading Shovel	Volvo	L110H	Tier 4
360 Grab	Volvo	EC250E	Tier 4

Fork Truck	TBC	TBC	TBC
Processing Plant	TBC	TBC	TBC

All plant will be maintained in accordance with the manufacturers maintenance and inspection specification. Servicing is carried out by recognised agents.

3 Dust and Particulate Management

3.1 Responsibility for Implementation of the DEMP

The following managers are responsible for the DEMP at Blue Haze IBA Recovery Facility:

Manager	Job title / role
Steven West	Landfill Manager (COTC)

Veolia also has a central support function including a team of Risk & Assurance Advisors who carry out periodic audits at sites across the group including written management plans.

3.2 Sources and Control of Fugitive Dust/Particulate Emissions

Table 3.1: Source-Pathway-Receptor Routes

Source	Pathway	Type of impact	Where relationship can be interrupted
Mud	tracking dust on wheels and vehicles, then mud dropping off wheels/vehicles when dry	Visual soiling, also consequent resuspension as airborne particulates	Waste types handled are unlikely to be a source of mud. Remove mud before vehicles leave the site. Static wheelbath in use at site.

Debris	falling off lorries	Visual soiling, also consequent resuspension as airborne particulates	Cover loaded lorries before arriving at or leaving the site. IBA or IBAA is unlikely to cause debris.
Tipping and storage of IBA	Atmospheric dispersion	Visual soiling and airborne particulates	IBA arrives damp following quenching in the ERF. Perimeter of the site covered by water cannon system including fixed and mobile sprinklers. The combination allows easy operation and ensures full coverage of work areas as well as stockpiles. Recycled water collected in the lagoon is used to supply the dust suppression eliminating the need to import water for this purpose whilst simultaneously largely eliminating the need to remove run-off water from site by tanker. As stockpiles of IBA weather a crust forms on the surface of any stockpile preventing dust. Stockpiles primarily below the surrounding tree line.
Processing of IBA	Atmospheric dispersion	Visual soiling and airborne particulates	All aspects of the treatment process are covered with conveyors and hoppers positioned to minimise drop heights. Processing plant below surrounding ground level.
Storage and loading of IBAA	Atmospheric dispersion	Visual soiling and airborne particulates	IBA arrives damp following quenching in the ERF. Perimeter of the site covered by water cannon system including fixed and mobile sprinklers. The combination allows easy operation and ensures full coverage of work areas as well as stockpiles. Recycled water collected in the lagoon is used to supply the dust suppression eliminating the need to import water for this purpose whilst simultaneously largely eliminating the need to

			remove run-off water from site by tanker. As stockpiles of IBAA weather a crust forms on the surface of any stockpile preventing dust. Stockpiles primarily below the surrounding tree line.
Vehicle exhaust emissions	Atmospheric dispersion	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. Building maintained under negative pressure using an air extraction system with activated carbon filter.
Processing plant exhaust emissions	Atmospheric dispersion	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. Building maintained under negative pressure using an air extraction system with activated carbon filter.
Mobile plant movements	Atmospheric dispersion	Airborne particulate	Ensure good housekeeping of the process area. Designated plant routes around the site.

Table 3.2: Measures that will be used on site to control dust/particulates (PM_{10}) and other emissions

Abatement Measure	Description / Effect	Overall consideration and implementation	Trigger for implementation
Preventative Measures			
Pre acceptance criteria	Minimising the potential for dusty waste to arrive on site	IBA only accepted from Veolia controlled ERFs	Routine. Investigation carried out if waste arrives dustier than expected.
Site Speed limit, 'no idling' policy and minimisation of vehicle movements on site	Reducing vehicle movements and idling should reduce emissions from vehicles. Procurement policy to only purchase clean burn road vehicles and non-road going mobile machinery.	Site signs showing speed limit. Regular site inspections to check compliance. Loading shovels have telemetry which reports idle time.	In use at all times during site operations
Minimising drop heights for waste.	Minimising the height at which waste is handled should reduce the distance over which debris, dust and	Discharge belts and hoppers to be positioned for minimal height from the floor.	In use at all times during site operations

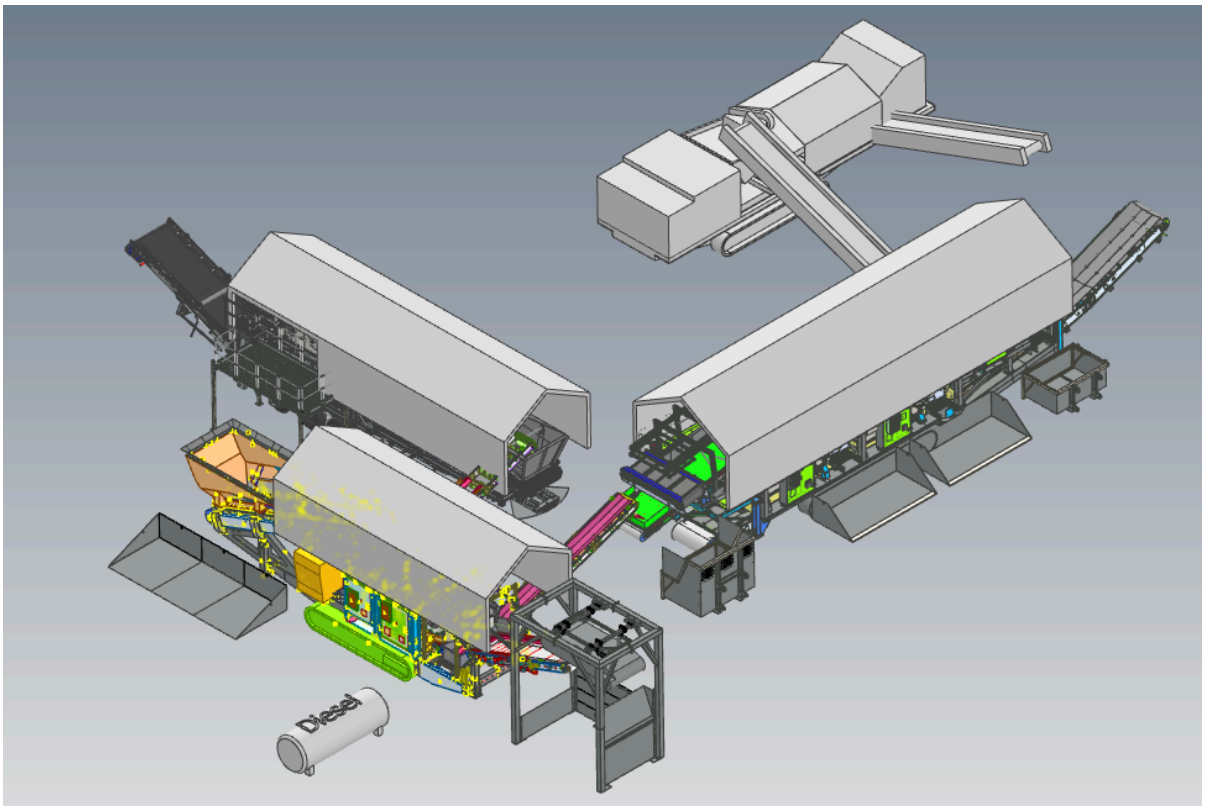
	particulates could be blown and dispersed by winds.		
Good housekeeping	Having a consistent, regular housekeeping regime that is supported by management, will ensure the site is regularly checked and issues remedied to prevent and remove dust and particulate build up.	Site operations staff to ensure good housekeeping at all times. daily cleaning to take place.	In use at all times during site operations
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	Customer/ hauliers notified of sheeting vehicle requirements	In use at all times during site operations
Hosing of vehicles on exit (As required)	May remove some dirt, dust and particulates from the lower parts of vehicles although likely to be less effective than a more powerful wheel wash.	If delivery vehicles become dusty from the discharged waste. Hose down the vehicle on the process pad to remove any debris.	Waste acceptance. If the vehicles become dusty e.g during dry periods.
Minimisation of waste storage heights and volumes on site	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.	Storage piles will be managed to reduce the pile height	In use at all times during site operations. Storage pile height - 4m
Permanent Dust suppression system	Provides regular dust suppression to the vast majority of the IBA work area to prevent the generation of fugitive dust emissions. Rain guns are located at regular spacings around the full perimeter of the site to ensure maximum coverage.	IBA plant operators trained to use as required throughout the day to ensure all IBA work areas remain permanently dampened down. A set of mobile rain guns and hoses are included in the design that can be located to cover the full operational area.	Activated whenever work areas visibly dry or mobile dust is observable. A set of remote controls are included to enable immediate activation by the operations team as and when dust is observable.
Mobile Dust Suppression system and mobile bowser.	Provides dust suppression to harder to access areas to prevent the generation of fugitive dust emissions.	Available when required where any areas of the work area are not easily accessible with the permanent dust suppression system.	Used when dusty areas remain following application of permanent dust suppression system

Remedial Measures			
On-site sweeping	Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles. Road sweeping vehicles damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside. This may generate dust and particulate movement that may become a Health and Safety issue if the filters and spray bars on the sweepers are not maintained.	Road sweepers to be used if the site access road requires cleaning.	To be used as required. Site is monitored regularly and requests made to Admin Office for road sweeper ad hoc hire if required. But as routine on a weekly basis.
Dust busters/water cannon	Applied in strategic ash handling points	Provides dust suppression during loading of materials	Applied when the mobile plant is on site and processing. All processing plant contained within enclosures.

3.3 Enclosure of Waste Processing Areas

The processing plant is contained within enclosures as shown on the drawing below.

Stockpiles of IBA and IBAA are not enclosed.



3.4 Visual Dust Monitoring / Observations

Based on the pre-acceptance and other controls in place the potential for unacceptable dust emissions off site is considered to be low. Veolia will therefore undertake dust monitoring dynamically based on the following criteria:

- Observation by trained staff that dust pollution is or may be occurring
- Receipt of waste which is deemed to be dusty / potentially dusty but a decision is made that the material can be processed without causing pollution
- Any abnormal operation where there is considered to be a risk of dust pollution
- If notified a complaint is received externally
- If instructed to undertake a check by the Environment Agency

Ensuring staff are trained to undertake monitoring in this manner ensures that the reasons for making a decision to carry out monitoring are well understood and it minimises the exercise becoming purely administrative and therefore of little value / devalued over time.

3.5 On site and off site monitoring

Trained staff will determine what combination of on and off site odour monitoring is appropriate based on the following principles.

- Where on site checks identify pollution is or may be occuring off site checks should be carried out.
- Where an external complaint has been received both on and off site checks should be carried out.

Should the site be subject to regular complaints or as deemed appropriate by site management, routine periodic monitoring may be instigated.

If dust is identified the actions in section 5 should be completed identifying the root cause and implementing remedial measures.

4 Particulate Matter Monitoring

Prior to the activity commencing dust monitoring will be undertaken in order to establish existing conditions, the locations to be chosen based on the prevailing activities on the site will be one up wind, one down wind and one between the proposed activity and the closest sensitive receptor, Ebblake House. The monitoring will be carried out using a frisbee dust gauge as per M17 (without a foam filter) initially every 3 months, to be reviewed prior to commencement of IBA processing.

4.1 Visual Dust Monitoring

Daily off site perimeter inspections will take place to ensure dust emissions will not cause a nuisance.

Any visual signs of dust emissions leaving the site are to be reported to the responsible managers as shown in section 3.1.

5 Legionella Assessment & Monitoring

The risk of legionella in the dust control system will be assessed and monitored by a nominated person in accordance with approved Codes of Practice and Veolia Legionella Control procedure, a Legionella Management Checklist will be completed and a Legionella Log Book maintained.

6 Reporting and Complaints Response

Following a complaint relating to dust from the site the following will apply:

- Investigate the complaint
- Complete all details on the Veolia - AVA reporting/escalation system.
- Respond to complainant following investigation

6.1 Engagement with the Community

Community engagement is key to Veolia operations and local residents will be able to contact the site manager directly should they wish to discuss any concerns. The site manager or supervisor will visit any complainant to substantiate and discuss the issue. A record of any community engagement will be shared with the local EA officer.

6.2 Reporting of Complaints

All reports of complaint will be recorded on the Veolia AVA reporting/escalation system

6.3 Management Responsibilities

Site ID board displays contact details for site management and out of hours notification. Managers in section 3.1 are responsible for ensuring the compliance of the DEMP.

7 Summary

The Blue Haze IBA Treatment Facility is committed to continuously reduce levels of fugitive dust generated by our operations and is sensitive to the concerns of neighbouring businesses regarding the levels of dust experienced. The site will ensure systems that facilitate communication with the site neighbours are maintained.

- Dust is predominantly controlled at source by good operational practices and the correct use and maintenance of plant;
- All potential sources of dust likely to arise at the facility are identified;
- Both staff and people outside of the site are not exposed to levels of dust that would result in annoyance and health issues;
- All appropriate measures are taken to minimise dust from the facility that may be considered offensive at locations outside of the installation boundary; and

- The risk of dust related incidents are minimised by anticipating and planning the appropriate measures to control the dust accordingly.

8 Periodic Review

The DEMP will be reviewed updated as appropriate based on the following criteria:

- Annually
- Following an incident which resulted in actual or potential dust pollution.
- Following instruction by the Environment Agency under condition 3.2 of the environmental permit

Dust Complaint Form

Customer Details	
Customer Name -	
Address - Postcode -	
Customer Contact Details -	
Tel -	
Email -	
Date -	
Complaint Ref Number -	
Complaint Details -	
Investigation Details	
Investigation carried out by -	
Position -	
Date & time investigation carried out -	
Weather conditions -	
Wind direction and speed -	

Investigation findings -	
Feedback given to Environment Agency and/or local authority -	
Date feedback given -	
Feedback given to public -	
Date feedback given -	
Review and Improve	
Improvements needed to prevent a recurrence -	
Proposed date for completion of the improvements -	
Actual date for completion -	
If different insert reason for delay -	
Does the dust management plan need to be updated -	
Date that the dust management plan was updated -	
Closure	
Site manager review date	
Site manager signature to confirm no further action required	

Appendix A

Drawings

NOTES

1. SURVEY CARRIED OUT BY SLR CONSULTING USING INFORMATION SUPPLIED BY ONYX DRAWING REF: FINAL RESTORATION PRE AND DRAWING 060704 SURVEY FOR SURVEY CONTROL AND PREVIOUS SURVEY REFERENCES

2. LEVELS RELATE TO mAOD.

LEGEND

PROPOSED PIPLINE TO PUBLIC SEWER

0				
Revision	By	Chk'd By	Date	Comments

VEOLIA ENVIRONMENTAL SERVICES

7 WORNAL PARK
MENMARSH ROAD
WORMINGHALL, AYLESBURY
BUCKS. HP18 9JX
T: 01844 337380
F: 01844 337381
www.slrconsulting.com

Site
BLUE HAZE LANDFILL SITE

Project
IBAA RE-PERMITTING

Drawing Title
ACOUSTIC SURVEY LOCATION OF RECEPTORS SURROUNDING BLUE HAZE

Project File Reference

Drawn By: DG

Scale: 1:4000 @ A1

Date: DECEMBER 2011

Chk'd By: DG

Drawing Number: **PLAN BA1**

Revision: 0

Revision D

Drawing No. VES_TD_BHAZEIBA_100_002

1900N

Newt Fence

Palisade Fence

Drain

Transfer Station

MH

CAR PARKING (EXISTING)

OFFICE / WELFARE

Office-Welfare

0.5M HIGH CONTAINMENT BUND

IBA PLANT

PROPOSED SUMP

PROPOSED 40m X 33m LAGOON

1800N

9,000 ton. Processed Ash

38000

54000

WORKSHOP

Workshop

IBA 10000 ton

1700N

Woodland

1:500

0 10 20 50 100

FOR PLANNING

N

W E

S

GENERAL NOTES:

1. THIS DRAWING IS COPYRIGHT AND THE PROPERTY OF VEOLIA AND IS NOT TO BE COPIED IN WHOLE OR IN PART EXCEPT UNDER A WRITTEN AGREEMENT.

2. DETAILS SHOWN ON DRAWINGS ARE FOR REFERENCE PURPOSES ONLY.

3. THIS IS A CONCEPTUAL DRAWING SUBJECT TO DETAILED DESIGN BY A DESIGN & BUILD CONTRACTOR.

4. IN CASE OF ANY DISCREPANCY BETWEEN THE DRAWING AND THE WORKS INFORMATION, THE WORKS INFORMATION WILL TAKE PRECEDENCE AND THE CONTRACTOR WILL BE DEEMED TO HAVE INTENDED TO COMPLY WITH THE WORKS INFORMATION AND SHALL DO SO.

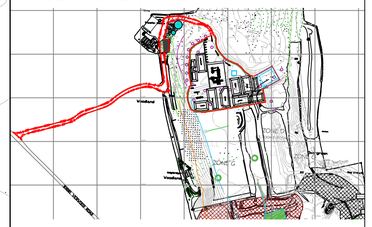
5. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING ON SITE.

6.PLEASE ENSURE DRAWING LICENCE DATE IS STILL VALID. ALL LICENCES ARE 12 MONTH UNLESS OTHERWISE STATED.

KEY

DEVELOPMENT BOUNDARY

SITE LOCATION PLAN



Rev	Description of revision	Drawn	Chkd	App	Date
D	CONTAINMENT BUND ADDED	RB			07.03.24
C	LAGOON & BOUNDARY UPDATED	RB			07.02.24
B	BOUNDARY UPDATED	RB			15.01.24

VEOLIA

Technical Direction,
8th Floor, 210 Pentonville Road, London. N1 9JY
Tel: 0207 812 5189

Project

BLUE HAZE LANDFILL
IBA PROJECT BH24 3QE

Title

PROPOSED SITE LAYOUT

	Initials	Date	Scale	Sheet size
Drawn	RB	27.09.23	1:500 @ A1	A1
Checked				
Approved				

Job No. BHAZE

Drawing No. VES_TD_BHAZEIBA_100_002

Revision D