

A large, light teal graphic of a globe's upper half. The globe is surrounded by various white icons representing different aspects of industry and environment: a factory, a train, a barn, trees, a house, a car, and a person. The background is a solid teal color.

Dust Management Plan

Colwick RDF & Transfer Facility

Date: June 2021

Version: 2.0

Version History and References

Revision Number	Date of Issue	Status	Reason for revision
1.0			Permit Application
2.0	01/2022	Draft	EA comments

The following drawings form part of this document:

- VES_TD_COLW_200_000 - General Arrangement Drawing
- VES_TD_COLW_200_010 - Key Receptor Plan

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1. Introduction

Colwick Waste Transfer & Treatment Facility 'the facility' which will be operated by Veolia ES (UK) Limited 'VES' is a new build waste transfer and treatment centre comprising the following elements: a new building for the bulking, treatment and transfer of waste materials collected from local businesses and householders with a series of internal bays for the storage of imported materials, including residual wastes, recyclates, clinical bins, and processed waste, and 8 external storage bays for glass, green, inert wastes and street sweepings. The facility will accept and process or transfer up to 150,000t per year of waste.

Treatment activities will include shredding and baling of residual waste to produce Refuse Derived Fuel 'RDF'. Waste input during most of the years will be principally of a commercial nature although the site will accept and produce RDF from municipal waste to support the regional Energy from Waste 'EfW' fleet during outages to assist with reducing the amount of residual waste needing to be diverted to landfill.

Site setting and location

The facility is located off Road No. 3 in Colwick (Grid Reference SK 62634 40378) just off the A612 (Colwick Loop Road) in the Colwick Industrial estate area of Nottingham, east of Nottingham City Centre. The Facility is situated within Colwick Industrial Estate which includes several existing regulated waste activities and an anaerobic treatment plant.

The wider area is predominantly Industrial and commercial comprising a range of activities. Amongst these there are several permitted waste management sites, including recycling facilities for general, aggregate and metal waste as well as an anaerobic digestion site and a waste transfer site.

The full address for the site is detailed below:

Veolia ES (UK) Limited
Colwick Waste Transfer & Treatment Facility
Private Road No. 3,
Colwick Industrial Estate,
Netherfield,
Gedling,
Nottinghamshire,
East Midlands,
NG4 2BD

1.1 Sensitive Receptors

Table 1.1 Location of potentially sensitive receptors

Receptor reference	Land use e.g. house, school, hospital, commercial	Direction from site (North, South, East, West)	Direction descriptor	Approximate distance to site boundary (m)	Sensitivity to odour Low (e.g. footpath/road) Medium (e.g. industrial / commercial workplace) High (e.g. housing / pub / hotel etc.)
R1	Industrial roadway	North	Downwind	8	Low
R2	Commercial	East	Upwind	16	Medium
R3	Commercial	South	Upwind	35	Medium
R4	Industrial	West	Upwind	10	Low
R5	Industrial	North	Downwind	15	Low
R6	Leisure (indoor)	North	Downwind	85	Medium
R7	Commercial	North east	Downwind	80	Medium
R8	Retail	North	Downwind	173	Medium
R9	Residential	North west	Upwind	270	High
R10	Leisure / sports	South	Upwind	190	High
R11	Leisure (footpath)	South	Upwind	107	Low
R12	Leisure (footpath)	South	Upwind	198	Low

Figure 2.1 Map of site location and receptors

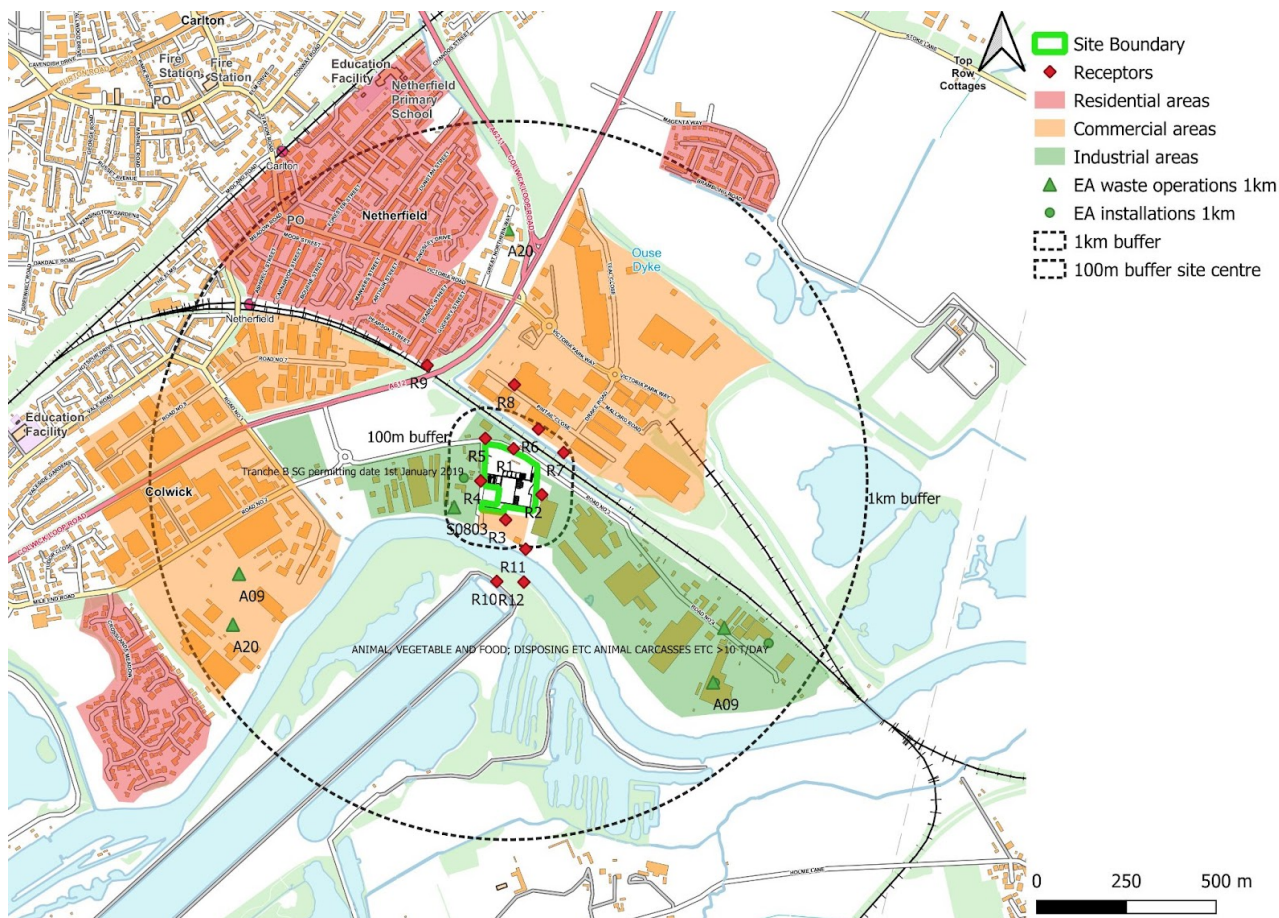
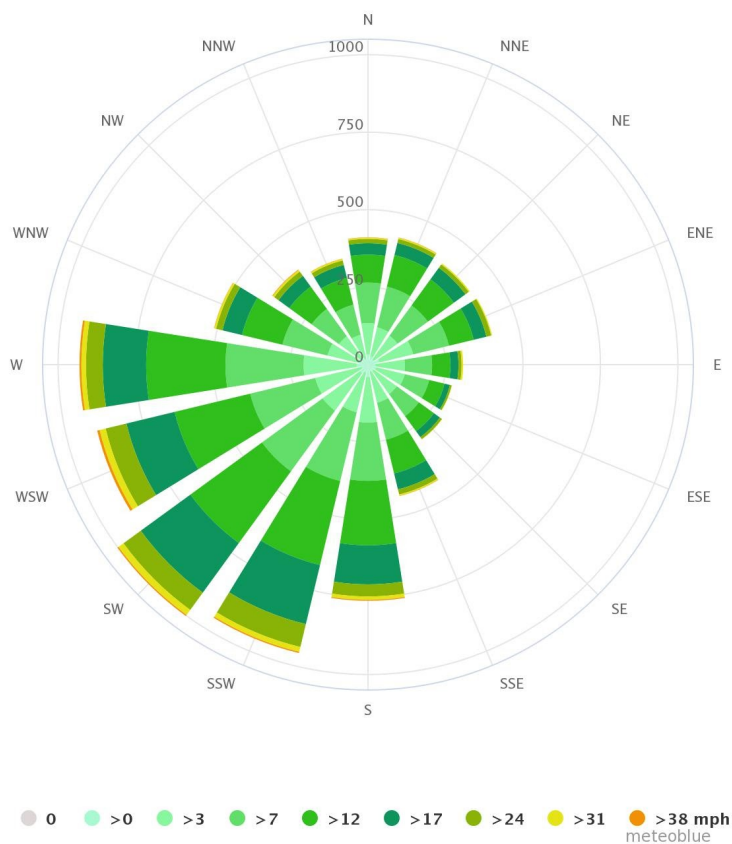
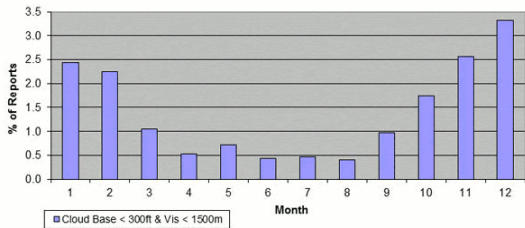


Figure 2.2. - Wind rose (most common wind direction is towards the north east)

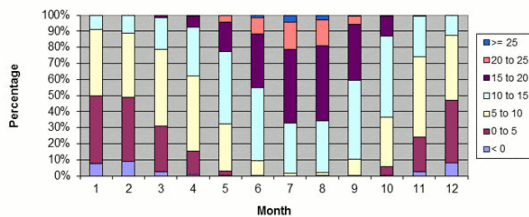


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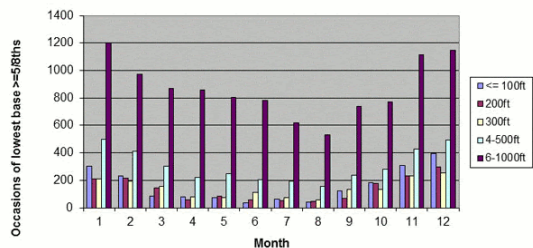
Reported Occurrences of LVPs (1983 to 2012)



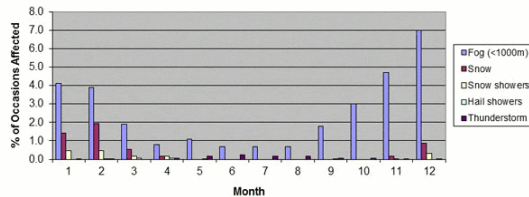
Temperature Chart (°C) - 1983 to 2012



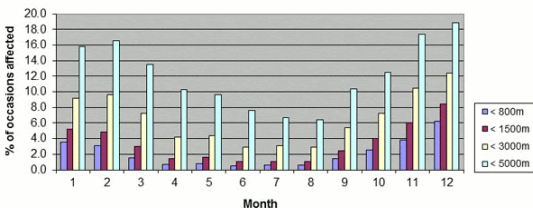
Cloud Base Occurrence Chart (1983 to 2012)



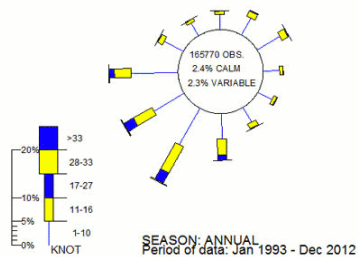
Weather Percentage Chart (1983 to 2012)



Visibility Percentage Chart (1983 to 2012)



WIND ROSE FOR EAST MIDLANDS
N.G.R. 4454E 3262N ALTITUDE: 94 metres a.m.s.l.



2. Operations at Colwick RDF & Transfer 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 include Articulated trailers, MCV and Roll on/ off type vehicles. All containers will be sheeted/ covered to reduce dust emissions while in transit. 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. If any loads are tipped on site which are identified as dusty, they will follow the procedure below. With the exception of glass, green waste and road sweepings which will be stored in external bays, all deliveries of waste will be tipped within the RDF/Transfer building.

Dusty loads - If any loads are identified as potential for being dusty during the unloading process are to stop as soon as identified. If, following assessment, it is identified that the load is too dusty, the load should be rejected.

The site layout showing potential dust emission and storage areas is included as drawing references VES_TD_COLW_200_010 and VES_TD_COLW_200_000.

If any loads are identified as potentially dusty during unloading i.e. due to emissions as the process is carried out, further unloading of the vehicle will be ceased. If, following assessment, it is deemed that the load is too dusty to be processed without causing pollution, the load should be rejected. Assessment of the load as unsuitable for processing will be based on training, operational experience and knowledge of plant capability and performance across a range of inputs.

2.2 Waste Shredding

The shredding of residual industrial / commercial and municipal waste to produce RDF occurs entirely within the RDF building. Outside of operational hours the RDF building is fully enclosed with the doors closed.

The medium speed shredder may generate fines during processing, but measures are in place to minimise emissions outside the building envelope.

The shredder hopper is fitted with a spray bar to control dust emissions at the hopper loading stage.

2.3 Storage Areas

Drawing VES_TD_COLW_200_000 shows the waste storage areas. During normal operations four of the internal bays will be utilised for waste inputs and two for storing the RDF prior to export, However this configuration may vary to suit operational demand particularly during local ERF outages. The facility does not accept inherently dusty wastes and the potential for dust pollution from the storage and processing activity is therefore low. While the site is not operational the doors remain closed to ensure no emissions of dust occurs while the site is unattended.

All areas for the storage and loading of waste are surfaced with impermeable concrete. The operational area will be inspected daily and cleaned if required 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	TBC	TBC	TBC
360 Grab	TBC	TBC	TBC
Fork Truck	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 Colwick RDF/Transfer Facility:

Manager	Job title / role
TBC	Colwick RDF Depot Business Manager
TBC	Service Supervisor (WAMITAB qualified)

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.
Debris	falling off lorries	Visual soiling, also consequent resuspension as airborne particulates	Cover loaded lorries before leaving the site. Requirement for all deliveries to be sheeted or netted if not in fully enclosed containers / vehicles.
Tipping, storage and sorting of wastes in the open	Atmospheric dispersion	Visual soiling and airborne particulates	With the exception of glass, green waste and road sweepings, all deliveries unloaded within the building or covered

			bays. Minimise source strength by means of low drop heights.
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.
Non road going machinery 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.
Medium speed shredder	Atmospheric dispersion	Airborne particulate	Break down of suppression unit
Storage piles	Atmospheric dispersion	Airborne particulate	Building maintained under negative pressure using an air extraction system with activated carbon filter. Only glass, road sweepings and green waste stored in external bays.
Mobile plant movements	Atmospheric dispersion	Airborne particulate	Ensure good housekeeping of the process area. Sweep the process area periodically when necessary.

The Colwick RDF/Transfer facility is located in a predominantly industrial area providing other potential sources of dust generation including the adjacent A612.

Table 3.2: Measures that will be used on site to control dust/particulates (PM₁₀) 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	Measures in place for all incoming waste.	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	Site signs showing speed limit. Regular site inspections to check compliance.	In use at all times during site operations

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	vehicles and non-road going mobile machinery.	Loading shovels have telemetry which reports idle time.	
Minimising drop heights for waste.	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.	Discharge belts to be positioned for minimal height from the floor.	In use at all times during site operations
Good housekeeping	Having a consistent, regular housekeeping regime that is supported by management, will ensure the site is checked daily and issues are 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 the vehicle.e.g. Third party vehicle arrives dusty or less likely the vehicle becomes dusty during off loading (only likely if waste is abnormally dusty).	If delivery vehicles arrives to site dusty or becomes dusty from the discharged waste (abnormally dusty waste). Hose down the vehicle on the process pad to remove any debris.	If deemed by trained staff that the vehicle could cause pollution off site due to dislodged dust and debris.
Easy to clean concrete impermeable surfaces	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.	Process areas are on a concrete impermeable surface.	In use at all times during site operations
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	Storage piles will be managed to reduce the pile height	In use at all times during site operations. Storage pile height - 4m

	the surface area over which particulates can be mobilised.		
Air extraction system within building	Building is maintained under negative pressure during operational hours and exhaust passes through an activated carbon filter.		Used during all operational hours
Remedial Measures			
On-site sweeping	<p>Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles.</p> <p>Road sweeping vehicles damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside.</p> <p>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.</p>	<p>Road sweepers to be used if the surface requires cleaning.</p> <p>Accumulations not reachable by vehicle mounted mechanical cleaning will be cleared manually using a shovel and brush.</p>	<p>To be used as required. Site is monitored daily and requests made to Admin Office for road sweeper ad hoc hire if required.</p>
Water suppression with hoses & water jets	Damping down of site areas using hoses can reduce dust and particulate re-suspension and may assist in the cleaning of the site if combined with sweeping.	Dynamic observation of the process area surface should be carried out. Dampen down with water as required.	Dynamic assessment. Use can be increased during dry weather.
Spray bar on shredder hopper	Installation of mist sprays around at shredder hopper.)	Mist sprays to be used when shredding.	Dynamic assessment. In use at all times during shreddings.
Cessation of waste inputs / removal of onsite waste	Eliminates / reduces dust source	If significant pollution was occurring and control measures were insufficient	Significant pollution occurring off site where control measures are insufficient.

3.3 Enclosure of Waste Processing & Storage Areas

The building is fully enclosed with fast acting doors and an air extraction system ensuring the building is maintained under negative pressure during operational hours.

External storage bays are only used for storage of green waste, glass and road sweepings.



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.

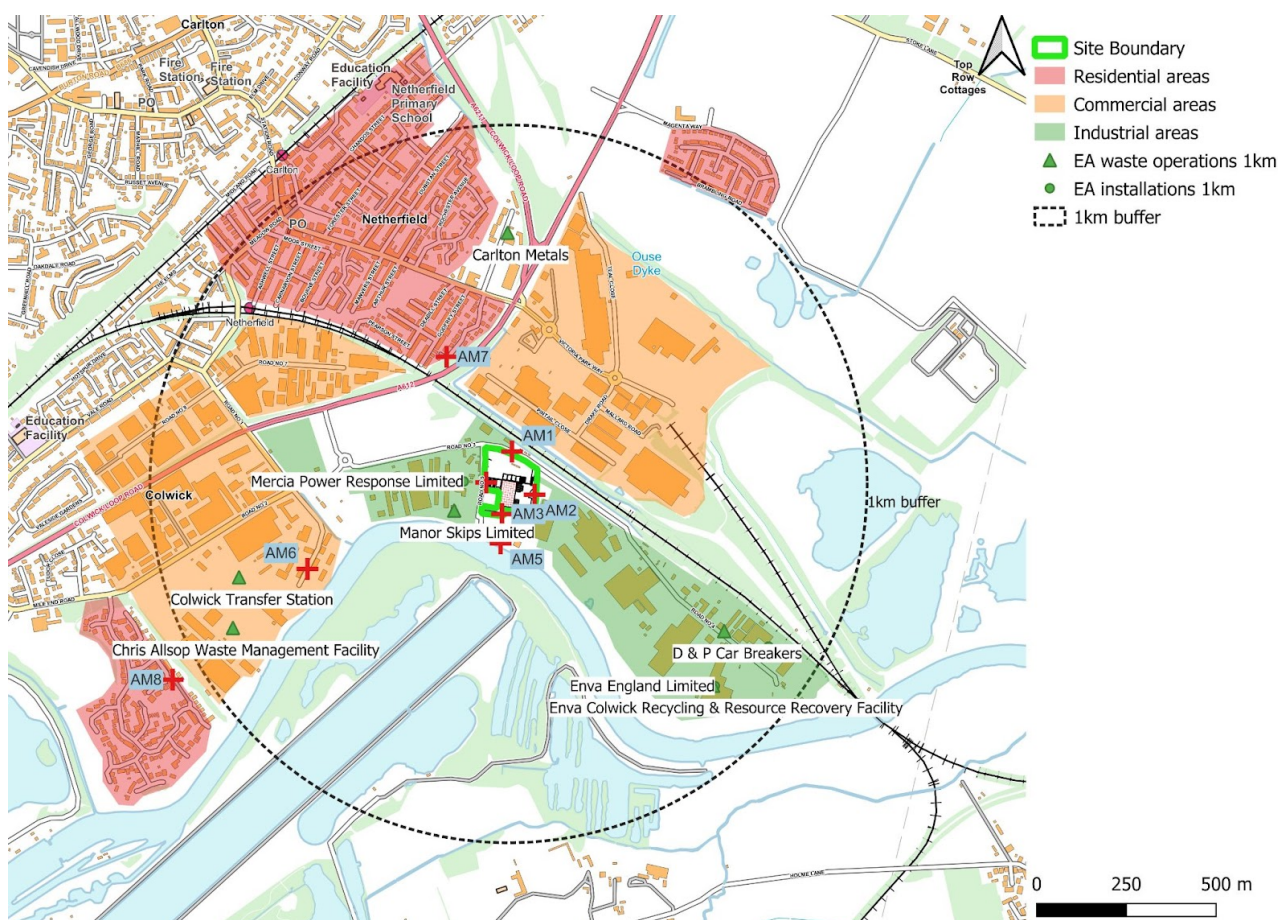
- Where on site checks identify pollution is or may be occurring off site checks should be carried out.
- Where an external complaint has been received both on and off site checks should be carried out.

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.

The plan below can be used to guide visual of site dust monitoring.

3.6 Visual Dust Monitoring (locations)



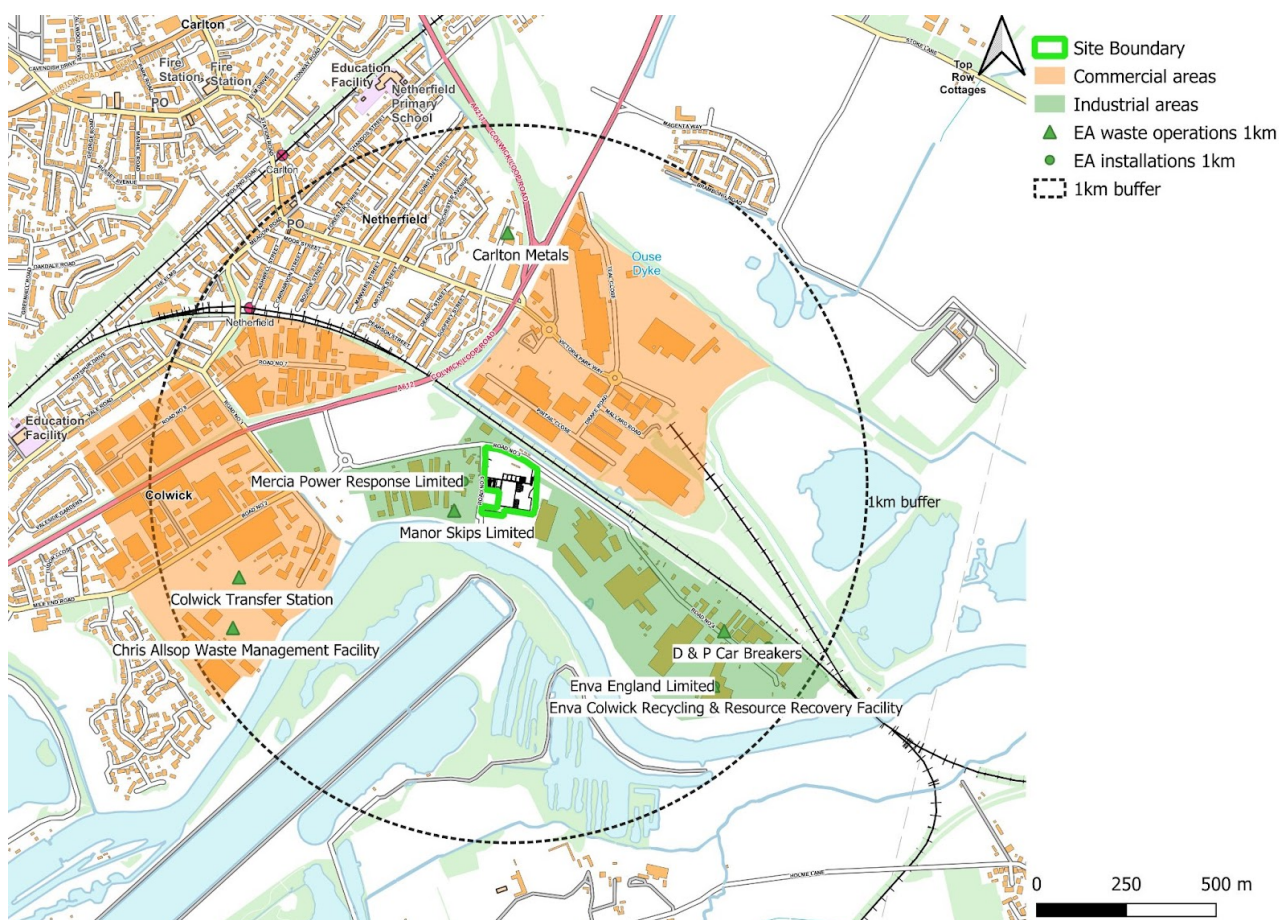
Location	Description
AM1	North of the facility
AM2	East of the facility
AM3	South of the facility
AM4	West of the facility
AM5	Public footpath north of the River Trent
AM6	Between facility and commercial area to the west

AM7	Closest Residential (North)
AM8	Closest Residential (West)

3.7 Visual Dust Monitoring / Observations

A qualitative assessment of fugitive emissions has been undertaken using the source-pathway receptor concept in accordance with Institute of Air Quality Management guidance. This assessment concluded that the impact of fugitive emissions at all receptor locations considered will be ‘negligible’ and the effect will be ‘not significant’, both alone and when considered in combination with the stack emissions. A copy of the Air Quality and Odour Assessment is included in the permit application.

3.8 Off site sources of dust



The site is situated in an industrial area and there are several locations close to the site that have the potential to be a source of dust. Some of these are permitted including four waste operations (see above drawing). Once operations commence and VES has a presence in the area local sources of dust can be further evaluated.

4 Particulate Matter Monitoring

Given the nature of the wastes accepted, the type of operation and the controls in place as described above it is not considered that PM₁₀ monitoring is necessary. Should PM₁₀ particulates be an issue at the site a revised DEMP will be submitted including a detailed monitoring programme.

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 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

5.1 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.

5.2 Reporting of Complaints

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

5.3 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.

6 Summary

The Colwick RDF and Transfer 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.

7 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 -	

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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	