



DEMP (Dust & Emissions Management Plan)

Mack Contracts Ltd

Wallsend Research Station

Davy Bank

Wallsend

MACK
Contracts Ltd

BASIS OF REPORT

This report has been prepared by Olive Compliance Ltd with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

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Issue and Revision Record

Revision	Date	Originator	Description of Changes
V0.1 Initial draft	December 2021	J Hudson Consultant	Draft for Permit Application
V0.2 Initial draft	May 2023	Olive Compliance Ltd	Updated re Schedule 5

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- Drawing Site Layout Plan
- Drawing 004 – Sensitive Receptor Plan

Appendices

- Appendix A – Complaint Recording Form
- Appendix B – Monitoring Record Form
- Appendix C – Monitoring Location Plan

1. Basis of Report

This Dust and Emissions Management Plan (DEMP) has been prepared in respect to the current permit application and will be implemented as part of the Environmental Management System (EMS) for Mack Contracts Ltd, Wallsend Research Station, Davy Bank, Wallsend, NE28 6UZ.

This Dust Management Plan provides detailed information on the sources, risks and mitigation measures related to the potential of dust emissions from the operations undertaken on the Site. This DEMP has been prepared in accordance with Environment Agency Guidance (control-and-monitor-emissions-for-your-environmental-permit) and using the Environment Agency Template (DEMP) V10.

Procedures and forms referenced within this Dust Management Plan will be included within the company Environmental Management System (EMS).

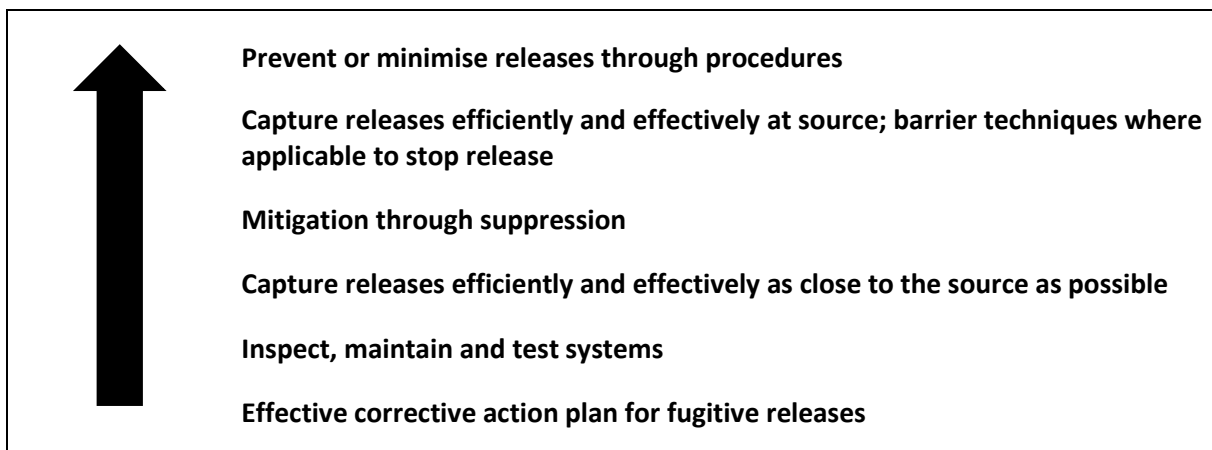
Completed forms (records) will be kept, as required by conditions included in the Environmental Permit and the company EMS.

Appendices are included for recommended formats for monitoring, recording and reporting (including for complaints).

1.1 General Principles of Emissions Management

The principles provided in the plan follow the path identified in Figure 1 below:

Figure - 1
Principles of Emissions Management



1.2 Document Management

Dust management will be reviewed yearly by the Management Team, in line with the EMS requirement.

The document if required will be updated accordingly, unless a profile of complaints is received in which case the DEMP will be updated as appropriate to account for any such issues. Any significant changes in relation to site operations and abatement methods will be sent to the Environment Agency for review and comments.

The company is working towards ISO certifications for Quality (ISO9001) & Environment Management (ISO14001). Working in accordance with the requirements of the standards reinforce company credibility and their

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responsibility as a business. The company is committed to continuous improvement to ensure they have best practice processes in place.

Surveillance audits and certifications further demonstrate the effectiveness of company management systems.

1.3 Training

The site Technical Competent Manager (TCM) and other suitably qualified staff will provide the required training relating to site procedures and compliance with the DEMP. The TCM will ensure that the DEMP is enforced on site during operational hours either through on-site supervision or monitoring along with support from the site managers/supervisors.

Training will be provided to relevant personnel to give an awareness and competence in control of emissions in line with the requirements of the DEMP and a record kept of this training.

A copy of this plan, the site EMS and Permit will be available in the site office for staff and visitors to access at any time.

1.4 Air Quality Management Area

A search was made on the UK Defra Air Quality Map website (see below link);

<https://uk-air.defra.gov.uk/aqma/maps/>

The website and Council website confirms that the site does lie in an AQMA area¹

1.5 Sensitive Receptors

The site is located at Wallsend Research Station, Davey Bank, Wallsend, NE28 6UZ. The National Grid Reference for the site is OS Grid Ref: NZ 30754 66041.

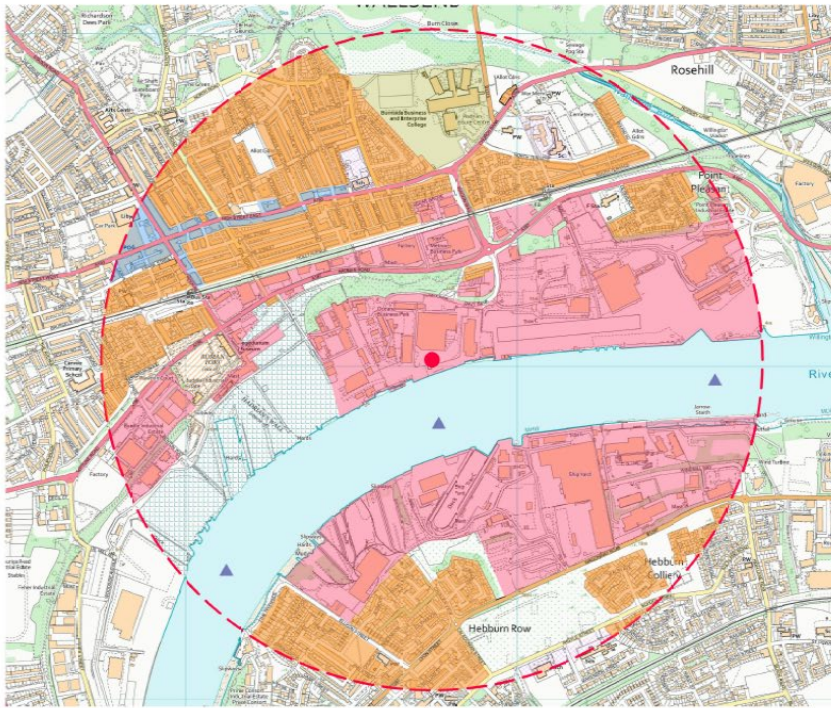
A summary of the immediate environmental site setting is provided in Table 1 below.

Table 1 – Site Setting

Boundary	Description
North	Commercial/Industrial /Residential
East	Commercial/Industrial
South	Commercial/Industrial /River Tyne
West	Commercial/Industrial

The below image (Image 1) shows the immediate site, surrounding and features.

¹ <https://uk-air.defra.gov.uk/aqma/maps/>



LEGEND

- SITE / SEE BOUNDARY
- 1KM OFF SITE BOUNDARY
- ▲ RIVER TYNE
- RESIDENTIAL AREAS
- INDUSTRIAL / INDUSTRIAL PARK
- SPORTS FACILITIES / RECREATIONAL
- RETAIL - SMALL BUSINESS / SUPERMARKETS
- RAIL LINES / METRO LINE
- GREEN SPACES / PARKS
- SEGEDUNUM ROMAN FORT AND VISITOR CENTRE
- BROWNFIELD VACANT LAND
- EDUCATION / SCHOOLS

S I R
MACK CONSTRUCTION
WALLSEND RESEARCH STATION, DUNY BANK, WALLSEND, NE28 6JZ

PROJECT
EA Permit Application

DRAWING TITLE
Site Receptor Plan

DRAWING NUMBER 004	REVISION 0
SCALE 1:10000 @ A3	DATE 21.10.21

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As shown on the image the nearest residential housing properties are located 200m North East of the site.

1.6 Identified Receptors

Environment Agency Guidance provides methodologies for determining the sensitivity of:

- Types of receptor; and
- Overall sensitivity of the area.

The distance from the Site boundary to the sensitive receptor plays an important role in the potential impact experienced from airborne dust. Concentrations of airborne dust reduce significantly further away from the source.

Sensitive receptors can include, but are not limited to environmental habitat sites, hospitals, schools, protected species sites, childcare facilities, elderly housing and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to high levels of dust and particulates.

The below table (Table 2) identifies sensitive receptors which could be affected by dust and other emissions within a 1km range of the site.

Table 2: Distances to Selected, Sensitive Locations and Receptors

Receptor	Distance from Site	Direction
Residential		
Houses on Railway Terrace Davy Bank	250m	North east
Community Centres/Places of Worship		
St Peters Church	750m	North east
Retail		
Asda	600m	North west
Green Space/Sports		
Segedunum Roman Museum	615m	North west
Hadrian Wall Path	215m	North East
Hadrian Leisure Centre	815m	East
River Tyne foreshore LWS		
Industrial/Commercial		
Industrial Units	0-1km	East & West
Hadrian Rd Metro	600 m	East
Wood Recycling	0m	North
SMD	0m	To the East and South
Schools		
Wallsend CofE Primary School	684m	South East

All sensitive receptors are also shown in Drawing 004. However please note the topography of the site is at the bottom of a banks and receptors in North and East would be unlikely to be directly affected.

The fore shore of the North bank of the Tyne River is classified as LWS separated from the Tyne by a 15m fence/high wall. The drainage is sealed also so there is no impact to the foreshore.

1.7 Wind Direction

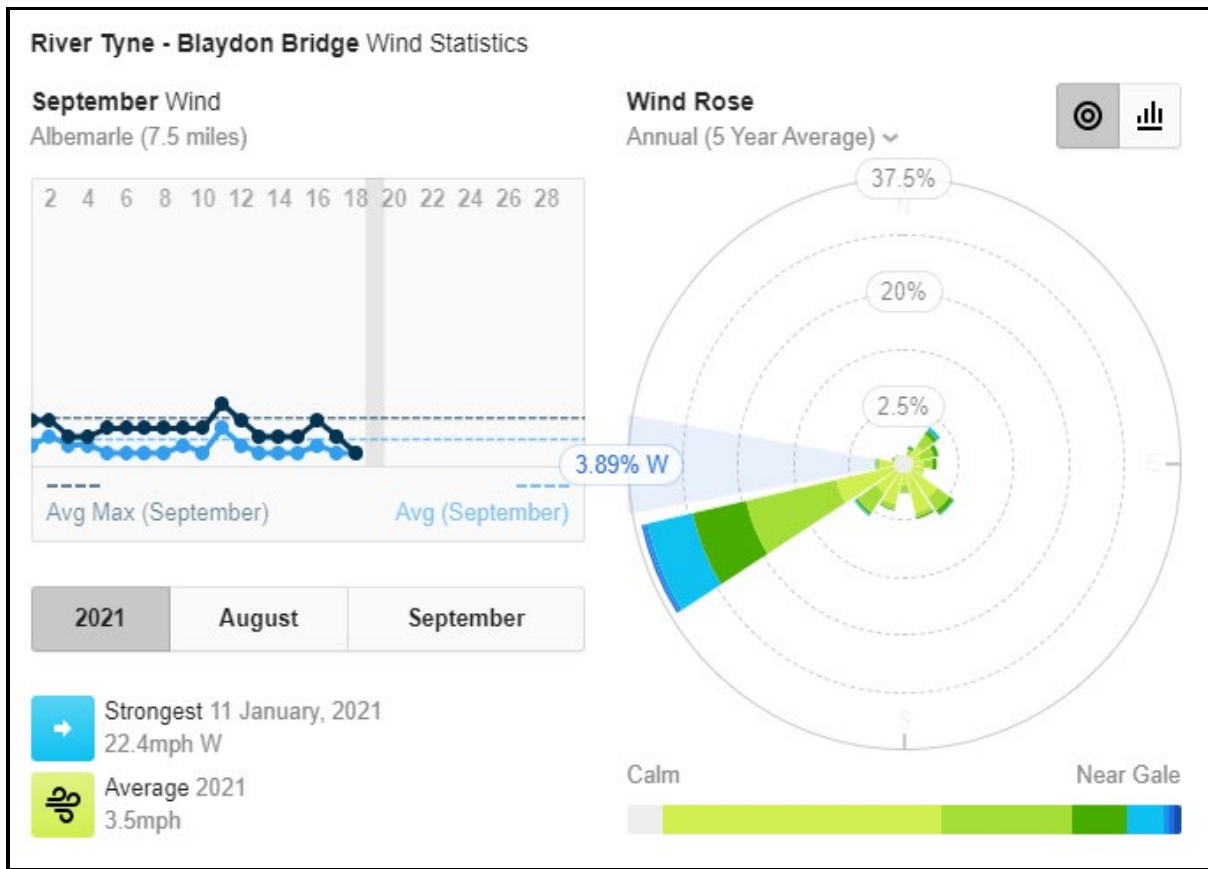
Site management and operational staff can access the MetOffice app² to monitor wind direction and strength immediately in the case of an incident and to assess the impact off site.

To find out the prevailing wind direction for the site, access to the Willy Weather³ service, provides both real time and historic weather data. The free service provides weather information such as wind, weather, rainfall and tidal data around the United Kingdom.

Upon review of this data the prevailing wind directions are predominately west south westerly in respect of the site as shown in Image 2 below.

² <https://www.metoffice.gov.uk/public/weather/wind-map/#?tab=map&map=Wind&zoom=9&lon=-2.21&lat=55.35&fcTime=1599091200>

Image 2 - Prevailing Wind Direction



It is considered that other activities listed below at particular times of the year could also have the potential to be a source of dust emissions.

- Businesses carrying out similar activities to PW (UK);
- Major roads and rail networks located in close proximity of the site are potential sources of pollution;
- Local construction and housing development in the area;
- Greenspace Management (grass cutting/land management).

Table 3: Other Pollutant Sources

Company	Type of Business	Distance from site boundary (m)
Industrial Estate	Daily heavy traffic usage to businesses surrounding site	Borders site
A187 Hadrian Road	Daily heavy traffic usage to businesses surrounding site	Northern border of site
Wood Recycling facility	Daily heavy traffic to site and shredding wood and storage.	Adjacent to N Borders of site

2. Site Operations

2.1 Site Layout and activities

The site is accessed off Davy Bank by a service road which runs through the yard to the rear area of the industrial unit. As you enter the curtilage of the industrial unit situated to the left of the site entrance Mack Contracts Ltd and car park area.

In the centre of the site east of the site is another company identified as a wood recycling company which uses the same access road.

2.2 Waste Acceptance

The site applying to operate as a inert waste Recycling Facility with an annual throughput of 75,000 tonnes per annum of inert commercial and industrial waste.

The most commonly received waste stored on site under the environmental permit are:

- Soils and Aggregates

Waste acceptance procedures and forms detailed within the EMS are detailed below.

- Waste Acceptance
- Waste Rejection procedure
- Waste Rejection Report

The majority of all loads are from company operations which allow the site TCM to manage site capacity and to ensure material quality before arrival on site. Wastes are brought to site by both company vehicles and 3rd party hauliers.

All wastes delivered to site are subject to waste acceptance checks by a member of staff.

Wastes are also visually inspected following tipping prior to the waste been stored with a storage bay or stockpile.

Duty of care paperwork checks are also carried out, to ensure the waste is described and is coded correctly.

Wastes are deposited into the appropriate bays or areas of the site yard, by in-coming vehicles and moved by mobile plant or by hand as appropriate.

Waste reception and storage areas are covered in a mix of concrete and hardstanding surfacing.

All movements of waste incoming and outgoing the site will be recorded, and available for inspection by the Environment Agency upon request.

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2.3 Waste Rejection

In the event that a waste load is brought to the site that is not an approved waste specified within the permit, access to the facility will be refused. The carrier will be instructed to return the waste to its originator. A record will be kept of waste deliveries refused entry to the facility.

Where wastes have been deposited, inspected then verified as non-compliant this is recorded, then segregated in a quarantine skip/container and removed off site within 48 hours to a suitably permitted facility.

The Environment Agency must be notified, usually by use of a Schedule 5 notification. A telephoned/emailed report prior to submitting the Schedule 5 notification is good practice.

2.4 Waste Processing, Storage and the control of Dust, and Other Emission Controls

All storage and processing operational areas of the site are comprised of concrete with sealed drainage and storage areas for processed materials on hardstanding. Site surfacing is checked daily and repairs made where necessary. Surface water collects onsite in a low point and is utilised in dust control.

All waste acceptance, treatment and storage activities will be conducted as prescribed by the permit.

Table 4 – Incoming wastes and site management controls

Location	Waste Types	Form	Storage Method	Storage Dimensions volume	Storage Restrictions MAX
Bay 1	Soil/subsoil/clay/stone	Loose	Bay Three sided	600m ³	6 months
Bay 2	Soil/subsoil/clay/stone	Loose	Bay Three sided	800m ³	6 months
Bay 3	Soil/subsoil/clay/stone	Loose	Bay Three sided	520m ³	6 months
Bay 4	Soil/subsoil/clay/stone	Loose	Bay Three sided	675m ³	6 months
Stockpile	Processed Topsoil	Loose	Stockpile	Freeform	1 yr
Stockpile	Processed Topsoil	Loose	Stockpile	Freeform	1 yr
Stockpile	Processed Subsoil	Loose	Stockpile	Freeform	1 yr
Stockpile	Processed stone	Loose	Stockpile	Freeform	1 yr
Stockpile	Processed stone	Loose	Stockpile	Freeform	1 yr

2.4.1 Soils/Stones

At least every quarter a contractor is brought in to process materials. A mixture of soil/brick/stone material is produced from the screening processes of the soils.

Dust suppression is fitted to onsite processing equipment with additional water suppression provided via the dust suppression system.

3. Waste Processing Controls

The application of these facilities will be the decision and responsibility of the Site Manager giving due regard to the nature of the various materials and the prevailing meteorological conditions.

Incoming wastes are monitored through an onsite tracking system, ensuring effective waste rotation with a storage time of estimated at 4 weeks but no more than 3 months. Daily checks safeguard the management of these wastes and storage locations to prevent any emissions from site.

3.1 Natural controls and manmade control features

Due to the industrial nature of the site, there is a low point in the concrete where the surface water collects. This is used for dust suppression.

Manmade controls have been implemented with 2.4m palisade fencing erected around all the site. Litter netting is installed around the southern boundary of the site to capture any windblown litter or prevent any emissions arising from site operations.

The northern boundary is bordered by an industrial unit.

Regular site inspections of stored wastes and infrastructure are undertaken at the beginning of the working day and records are kept in the daily checklist & site diary by the TCM/Site Manager or nominated representative.

The inspections shall include the following aspects that directly relate to dust and emissions management.

Housekeeping, daily inspections and procedures detail all daily checks on site with a summary listed below.

- Condition of waste in bays – waste material checks ensure that wastes are in good condition and have not degraded causing dust/debris;
- Volume of waste in bays – to ensure that bay storage limits are not exceeded;
- Condition of impermeable areas – easy to conduct visual inspections and clean;
- Condition of bay walls – to ensure bays remain fit for purpose and control wastes;
- Evidence of dust/fluff build up on surfaces – to implement cleaning procedure and the potential risk of dust/debris arising from waste handling;
- Evidence of dust/fluff build up on mobile plant – to minimise potential risk of dust and debris arising during plant movement;
- Condition of perimeter fencing – to ensure fencing is fit for purpose to prevent any potential windblown litter is controlled prior to site clearance.
- Surface water on site – if too much the site manager will use road sweeper on site.

3.2 Mobile Plant and Fixed Equipment

Mobile plant and equipment on site at any one time comprise of:

- 360 grab;
- loading shovels;
- company and 3rd party vehicle's wagons;
- trommel & separation screens are hired in periodically to process

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Mack Construction Ltd will consider as part of their buying policy and BAT assessment, the emission limits of all new plant due for renewal / replacement.

3.3 Maintenance

Planned maintenance of machinery and plant is carried out in accordance with the manufacturer's specifications and guidelines.

Plant defect books are issued once a week and a copy provided to the garage for booking in repairs. This ensures a rolling programme of maintenance and repair when needed.

Daily vehicle checks are carried out prior to use and recorded on the site plant defect form. This above procedure is detailed in the site Environmental Management System.

Breakdowns relating to plant and machinery on site will be recorded on site specific forms and arrangements made for repairs to be carried out.

A copy of this can be found within the site EMS and are referenced below. This records the nature of the breakdown, any contamination, maintenance tracking, repairs and notification to relevant bodies if necessary.

- Safe use/service and maintenance of plant
- Company Vehicles and Mobile Plant
- Plant Records
- Plant Servicing and Maintenance Checklist

Spill kits are available on site in the event any fluids are leaked or discharges from vehicles on site. Any contaminated material will be disposed of to a suitably permitted facility.

4. Dust and Particulate (PM10) Management

4.1 Sources and Control of Fugitive Dust/Particulate Emissions

The below site operations have the potential to produce dust and particulates.

Different levels of dust emission can be anticipated during the different areas of the operation at the site.

These can include the following.

- Deposited waste,
- Loading of waste,
- Screening/crushing,
- Weather conditions,
- Insufficient attention to waste acceptance procedure,
- Over loading of waste holding bays,
- Lack of training,
- Mechanical failure,

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- Customer mis-description of waste,
- Vehicles,
- Road sweeping without water suppression,
- Loads uncovered.

4.2 Source-Pathway-Receptor Routes

Table 6 below identifies how and who may be affected by site activities, their impact on receptors off site and how they can be prevented.

4.3 On Site Control Measures

Table 7 details site infrastructure and abatement measures in place to prevent and reduce emissions from site.

Regular checks and maintenance are carried out on these systems or control measures such as building integrity, fencing and dust management equipment. This ensures that dust suppression and abatement measures are in working order and equipment does not breakdown resulting in emissions leaving site during waste storage and processing.

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Table 6 – Source/Pathway/Receptors				
Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Mud / Dust	Tracking dust on wheels and vehicles, then mud dropping off wheels/vehicles when dry	Public Highway	Visual soiling, also consequent resuspension as airborne particulates	Remove mud/dust before vehicles if required leave site using the power washers/steam cleaner. Vehicles delivering and collecting waste will be sheeted/covered. All surfaces are concrete and are subject to regular housekeeping in accordance with the procedures in the EMS. In addition, site access roads can be cleaned using the sweeping attachment on mobile plant, to prevent the suspension of any dust/debris.
Debris	Falling off lorries	Public Highway	Visual soiling, also consequent resuspension as airborne particulates	Incoming and outgoing vehicles are covered to contain and secure wastes. After loading wastes the vehicle can be swept and cleaned down using ladders to remove any protruding or loose waste. All areas are surfaced with concrete, these will be subject to regular housekeeping as per the EMS procedures. Where debris is identified as an on-going issue the road sweeper will be deployed.
Tipping, storage and treatment, sorting of wastes in the open	Atmospheric dispersion	Public Highway Receptors	Visual soiling and airborne particulates	Potential dust emissions all waste tipping takes place into a bay with suppression when moving/depositing dusty wastes. Waste stored stockpiles can be padded to seal heaps or dampened down in periods of dry weather, when wind whipping is identified to be excessive or to prevent material drying and becoming friable. Plant operators should be trained not to overload storage bays. Fixed plant will have guard and skirting to prevent litter escape. Daily inspections and monitoring controls in place to identify poor waste controls and reactive action to contain wastes.
Vehicle exhaust emissions	Atmospheric dispersion	Local Receptors	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. A 5mph speed limit and a 'no-idling' policy is implemented on Site.
Non road going machinery exhaust emissions	Atmospheric dispersion	Local Receptors	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength.
Loading wastes	Atmospheric dispersion	Public Highway Receptors	Visual soiling and airborne particulates	Loading takes place inside the yard area. Cleaning any loose waste from vehicles after covering and securing. Operations will cease when winds are deemed to cause excessive movement of wastes and materials.
Site surfaces	Atmospheric dispersion	Public Highway Receptors	Visual soiling and airborne particulates	The Site's surface is concreted/ compacted hardstanding and therefore dust generation is likely to be minimal. A 5mph speed limit and a 'no-idling' policy is implemented on Site. The Site is subject to regular housekeeping in accordance with the procedures in the EMS.

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				Site surfaces during and after operations are maintained, good housekeeping or using water suppression to clean waste storage areas.
Table 7 - Mitigation measures and controls				
Mitigation Measure	Description / Effect	Use on Site	Trigger for Implementation and enforced/monitored by	Further mitigation to be implemented if not effective
Wastes accepted, treated and stored in bays.	<p>Creating a barrier between the source of dust and particulates and receptors from the prevailing wind</p> <p>Very effective despite costs and the high potential for disruption to already operational sites.</p> <p>Ensure that procedures are in place to manage the bay and its integrity.</p>	<p>Effective to control</p> <p>Procedures are in place to manage bay integrity and containment.</p> <p>Management of capacity and waste turnover required (1st in 1st out)</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p><i>Observed by site operatives</i></p>	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. e.g. cessation of dusty activities.
Site / process layout in relation to receptors	Locating particulate emitting activities at a	Used in combination with other measures to reduce dust and	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p>	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. e.g. cessation of dusty activities.

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	greater distance and downwind from receptors may reduce receptor exposure, provided that emissions from the source are not dispersed over significant distances.	particulate generation	<p><i>Observed by site operatives</i></p> <p>All wastes are stored within a bay, enclosing activities from local receptors.</p> <p>Designated storage areas in places.</p>	
Water suppression system	Pressure nozzles	Use of water sprays on the Site will be used to minimise dust emissions.	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p><i>Observed by site operatives</i></p> <p>Used in the event excessive dust emissions are observed to be leaving the Site boundary to minimise any impact.</p> <p>Visual observation will be carried out by all employees on the Site. Findings from the visual observations will be recorded on Daily Diary Checklists.</p> <p>Use of water sprays on the Site will be used to minimise dust emissions.</p>	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. e.g. cessation of dusty activities.
Litter netting	Erecting netting	Can reduce wind speed across the	<p>Operational requirement</p>	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. cessation of dusty activities.

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	around the site external perimeter to capture released debris and dust and particulates prior to it being dispersed off-site.	<p>site which indirectly controls the potential for dust and particulate emissions</p> <p>Acts as a control to prevent litter/debris leaving site</p> <p>Daily inspections of the netting will be made, and maintenance programmed into the management system.</p>	<p><i>Monitored by TCM/Site Managers</i></p> <p>Daily inspections of the netting will be made, any trapped material cleared.</p> <p>Checks on the integrity of netting made daily, and repairs/defects/maintenance programmed into the management system.</p>	
Site speed limit, 'no idling' policy and minimisation of vehicle movements on site	<p>By reducing vehicle movements and idling will reduce emissions from vehicles</p> <p>Enforcement of a speed limit may reduce re-suspension of</p>	<p>Easy to implement and control as part of good practice</p> <p>Is identified clearly in the site management system, site rules and implemented as appropriate measures</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p><i>Observed by site operatives/drivers</i></p> <p>Supported by the site rules and driver inductions.</p> <p>There will be a 5mph speed limit, a 'no-idling' policy, and the minimisation of vehicle movements on the Site.</p>	<p>If excessive dust emissions are observed to be leaving the Site boundary, then the further mitigation measure(s) will be triggered. If there is mud on the access road, then a mobile bowser will be deployed to clean and dampen the surface. If excessive dust emissions from vehicle movements continue after these measures, then operations shall cease.</p>

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	particulates by vehicle wheels			
Traffic Management System	By reducing and controlling vehicle movements on site	<p>Easy to implement and control as part of good practice</p> <p>Is identified clearly in the site management system, implemented as an appropriate measure</p> <p>Procedure Traffic management of the EMS support this measure</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers/Weighbridge</i></p> <p><i>Observed by site operatives/drivers</i></p> <p>Vehicle movements will be minimised by ensuring that the double handling of materials is avoided where possible e.g. loads entering the Site that can be clearly identified as one waste type will be immediately sent to the correct waste stockpile area.</p>	<p>If excessive dust emissions are observed to be leaving the Site boundary, then the further mitigation measure(s) will be triggered. If there is mud on the access road, then a mobile bowser will be deployed to clean and dampen the surface.</p> <p>If excessive dust emissions from vehicle movements continue after these measures, then operations shall cease.</p>
Minimising drop heights for waste.	Minimising the height at which waste is handled will reduce the distance over which debris, dust and particulates could be blown and dispersed by winds	<p>Relatively easy to implement.</p> <p>Staff are trained to use equipment such as the grab to place waste into hoppers/onto conveyers and vehicles, not to drop from height.</p> <p>Procedures are identified clearly in the site management system and implemented as an</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p><i>Observed by site operatives</i></p>	<p>Water will also be available to dampen surfaces and stockpiles to reduce dust generation. If excessive dust emissions continue after these measures, then operations shall cease.</p>

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		appropriate measure.		
Site surfacing	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground	<p>Easy to implement and requires minimal equipment.</p> <p>The site is partially concreted with a sealed drainage system.</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p>Good housekeeping will be implemented by following the housekeeping procedure within the EMS and by carrying out site inspections</p>	Water will also be available to dampen surfaces and stockpiles to reduce dust generation. If excessive dust emissions continue after these measures, then operations shall cease.
Good house-keeping	<p>Consistent, regular housekeeping regime that is supported by management, will ensure site is regularly checked and issues remedied to prevent and remove dust and particulate build up</p> <p>Plant and machinery will also be cleaned and maintained at regular intervals to</p>	<p>Easy to implement and requires minimal equipment</p> <p>Encourages good practice on site</p> <p>Staff will target the areas not caught by the road sweeper and other cleaning apparatus.</p> <p>Procedure supported within the site Management System along with daily checks.</p> <p>Daily cleaning regime in place .</p> <p>Once bays and storage locations are cleared inline with storage times,</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p><i>Observed by site operatives</i></p>	Water will also be available to dampen surfaces and stockpiles to reduce dust generation. If excessive dust emissions continue after these measures, then operations shall cease.

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	prevent the build up of dust and debris	they are cleaned down.		
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	<p>Easy to implement at many sites</p> <p>Is identified clearly in the site management system and implemented as appropriate measures</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p><i>Observed by site operatives/drivers</i></p> <p>Limitations: The exception of Grab Vehicles</p> <p>Loading/ unloading of materials to/from a vehicle will be followed by closing of the sheet covers on that vehicle.</p> <p>Visual observation of incoming vehicles will take place to ensure vehicles arriving are sheeted.</p> <p>All vehicles carrying waste to the Site will be sheeted at all times unless being loaded or unloaded.</p> <p>The sheeting equipment will be activated and checked to ensure proper coverage before the vehicle can leave the site. Incoming vehicles that are not sheeted will be rejected from the site or sheeted immediately.</p>	If excessive dust emissions are observed to be leaving the Site boundary, then the further mitigation measure(s) will be triggered. Materials may be dampened.
Hosing or cleaning of	Will remove some dirt, dust and	Supported by site procedures and	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p>	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. eg. water sprays will be used to dampen surfaces to prevent dust becoming airborne.

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vehicles pre exit from site	particulates from the lower parts of vehicles using the steam cleaner or hoses	training and site rules.	<p><i>Observed by site operatives /drivers</i></p> <p>The washing facilities are available for use by vehicles observed as having accumulated a significant amount of mud prior to entry to site.</p>	
Ceasing operation during high winds and/or prevailing wind direction	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times will reduce peak pollution events	<p>Will reduce dust and particulate emissions.</p> <p>Procedures are in place to identify when operations will cease.</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p><i>Observed by site operatives.</i></p> <p>If excessive dust is being generated by the operations and water sprays are proving not to be sufficient, then the Site Management will notify staff and operations will temporarily cease.</p> <p>Operations will commence once the wind has subsided and/or the area is dampened down.</p> <p>Weather condition monitoring (Visual observation) including wind strength, wind direction and rainfall. This monitoring will be recorded on the Daily Diary.</p>	N/A
Dust Suppression System	Automated	Effective to control, automated system	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p>	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. eg. cessation of dusty activities.

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		<p>Procedures are in place to manage buildings and integrity</p> <p>Maintenance of system to ensure operational effectiveness</p>	<p><i>Observed by site operatives.</i></p>	
<p>Reduction in operations (waste throughput, vehicle size, operational hours)</p>	<p>Reducing the amount of activity on site, including no tipping, shredding, chipping or screening of high risk loads during windy weather as well as associated traffic movements should result in reduced emissions and re-suspension of dust and particulates from a site</p>	<p>Effective in terms of dust and particulate reduction and is easily implemented due to low volumes of waste being received on site</p>	<p>Operational requirement <i>Monitored by TCM/Site Managers</i> <i>Observed by site operatives.</i></p> <p>Management conducts recorded daily checks and visual monitoring during the day of waste volumes on site.</p> <p>Incoming wastes are controlled by site management/supervisors where wastes inputs can be ceased or controlled if required.</p>	<p>If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. eg. cessation of dusty activities.</p>
<p>On-site sweeping & Off-site</p>	<p>Sweeping could be effective in managing larger debris, dust and</p>	<p>Easy to organise but less effective than other measures due to heavy traffic off site</p>	<p>Operational requirement <i>Monitored by TCM/Site Managers</i> <i>Observed by site operatives.</i></p>	<p>If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. e.g. cessation of dusty activities.</p>

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	<p>particulates but may also cause the mobilisation of smaller particles</p> <p>Road sweeping attachment can damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside</p>		<p>Utilised when required on site monitored by management and Operations Manager.</p> <p>Can be increased when necessary or if identified during busy periods and after visual daily monitoring.</p>	
<p>Water suppression with hoses</p>	<p>Use of hoses on external surfaces, predominately near building entrances and exits.</p>	<p>Detailed in the management system and procedures.</p>	<p>Operational requirement</p> <p><i>Monitored by TCM/Site Managers</i></p> <p><i>Observed by site operatives.</i></p> <p>Water supply from onsite main source.</p>	<p>If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered use of the bowser or atomisers.</p> <p>If excessive dust emissions still continue, further mitigation measures will be triggered cessation of dusty activities.</p>

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<p>Water suppression using bowser</p>	<p>It can also assist in the damping down of materials during processing or site surfaces to reduce dust suspension from traffic movements</p>	<p>Will reduce dust and particulate emissions.</p>	<p>Operational requirement <i>Monitored by TCM/Site Managers</i> <i>Observed by site operatives.</i></p> <p>Limitations: This abatement measure will not be used all the time on wastes due the fact that the integrity of the waste material is affected is too wet.</p>	<p>If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. eg. cessation of dusty activities.</p>
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4.4 In the event of a drought

The main water supply to the site is provided by the local water authority.

Reserve water is stored on site in a bowser during the summer period and used for dust suppression or surface dampening.

In the event of a drought, further guidance and clarification from the Local Water Authority regarding water usage.

In the event that onsite measures and other abatement options are not available due to high water usage, site operations will be ceased until operations can be carried out in accordance with this document.

4.5 Enclosure of Waste Processing & Storage Areas

The company are demonstrating that mitigation measures are in place to prevent fugitive emissions.

4.6 Visual Dust Monitoring

Operations at the Site will be monitored daily for compliance with the provisions of this DEMP by the TCM and site manager (or delegated person with appropriate training/competency). Records of these routine inspections will be made on the daily checklist.

In addition, all staff will be responsible for immediately reporting specific incidents that could result in significant dust emissions from the site to the site managers/yard supervisor.

A log of specific/exceptional incidents and the actions taken to remedy them (including measures implements to prevent their reoccurrence) will be maintained.

The emission of dust will be monitored at the site boundary routinely once per day.

The inspection will be carried out as part of the site daily checks and recorded on the inspection sheet and Site Diary.

Should any complaints or visual inspections indicate emissions leaving site further monitoring will be carried out. A map of the Site and its surroundings (Appendix C) identifies the off-site locations that shall be monitored, based on the nearest receptor areas outlined in Table 2.

The dust impacts (i.e. deposition, airborne particulate matter) will be monitored at the locations identified in the afternoon. These are recorded on Appendix B.

The dust impacts will be assessed in accordance with the following scoring scheme:

- 0 - No dust detected
- 1 - Very faint, unlikely to cause annoyance
- 2 - Faint dust, unlikely to cause annoyance
- 3 - Distinct dust, likely to cause annoyance
- 4 - Visible dust in continuous plumes, likely to cause annoyance
- 5 - Large amounts of visible dust, likely to cause annoyance
- 6 - Excessive amounts of dust and particles, highly likely to cause annoyance

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The frequency of on-site and off-site inspections may be increased:

Upon receipt of material will be potential to generate significant amounts of dust is received at the Site; and/or

- During periods of prolonged windy and/or dry conditions.
- Only employees with suitable training/competency will undertake the dust monitoring.

Quantitative monitoring is not proposed during routine inspections.

In the event of a dust impact scoring 3 or greater, the full extent of the impact will be determined and notified immediately to the TCM/Facility Supervisor.

5. Particulate Matter Monitoring

Not applicable.

6. Actions when fugitive dust emissions are observed leaving site

In the event fugitive dust emissions are observed leaving site, the following actions are taken:

1. The TCM/ Facility Supervisor assesses off site influences and yard activities/operations, and the nature of the waste handling and deliveries immediately prior the incident.
2. If the source cannot be ascertained with 100% confidence, the site managers/yard supervisor on duty suspends the likely dust/particulate generating activities be it waste loading, unloading or waste processing.
3. If the source is within the site's control, the site managers/yard supervisor will take appropriate action in terms of dust/particulate abatement, to ensure that the alarm is not re-activated. This may take the form of the following;
 - (a) Investigating the source of the dust/particulates to prevent a re-occurrence;
 - (b) Suspending operations which are not being conducted using best-practice controls as set out in Table 7;
 - (c) Additional use of the dust abatement measures;
 - (d) Logging findings of a – c in the site diary.

In all cases, findings from the site managers/yard supervisor investigations are to be reviewed by the company directors. Any changes to site operating techniques will be implemented into the dust & particulate emission management plan, to prevent a re-occurrence of any further emissions from site.

Alongside the implementation of this monitoring system, the daily continuous visual monitoring of potential dust sources and activities safeguard will also be a vital part in managing dust and particulates.

7. Reporting and Complaints Response

Members of the public are able to contact the company with any odour complaints about the facility by the following means:

- By telephone 07939030047, the contact number will normally be manned from Monday to Friday between the hours of 07:30 and 17:30.
- By email to info@mackcontracts.co.uk.

Outside of these hours, and on infrequent occasions during the above hours when an immediate reply cannot be made, there will be an answer phone service and an email redirect to management. Senior management can attend the Site or instruct a relevantly trained Site Operative to attend the Site in their absence.

These methods of contacting the site are displayed at the site entrance and on the company's website <https://mackcontractsltd.com>

On arrival at the Site, the cause of the dust emission will be identified, and the most suitable corrective measure will be instigated.

These methods of contacting the site will be displayed at the site and communicated through meetings, newsletters and other forms of advertisement.

Suitable complaint forms (based on the example provided in Appendix A) will be made available at the site office to anyone wishing to report any incident relating to dust emissions from the Site.

7.1 Engagement with the Community

Mack Contracts recognise the importance of engaging with the people who may be affected by site activities. If an issue occurred where neighbours were affected by the activities, then we would like to propose to use the following community outreach activities to engage with local community in order to understand the issues and provide detailed information about our actions to mitigate any problems.

Newsletter / leaflet

Leaflet explaining about our activities, remedial actions and information about complaining procedures. We propose to communicate with residents regarding any incidents or issues via this media.

Website Information

Leaflet explaining about site activities, remedial actions and information about complaining procedures. The company may choose to communicate with residents regarding any incidents or issues via this media.

Meeting with residents

In the event of an incident or an issue which may lead to complaints regarding dust and emissions we will carry out a formal letter drop to inform local residents about the DEMP and future improvements to the site and invite residents to contact us through the appropriate methods and/or to attend a public meeting regarding the issues on site.

This DEMP will be updated to include actions and outcomes from any community engagement meetings.

7.2 Investigating Complaints

On receipt of any complaint, the Site Manager/TCM or nominated person in their absence will investigate the details of the complaint in order to determine if the reported impact is as a result of operations within the Site.

Similarly, upon identification of a dust impact scoring 3 during the routine monitoring, immediate action by (or under the responsibility of) the Site Manager will be taken to determine if the dust impact is likely to have been caused by operations at the Site.

If an incident is notified either via direct complaint or through the routine inspections, the site managers/yard supervisor or TCM will review the operations at the Site for:

- Notifications of specific/exceptional incidents (relating to dust emission generations) occurring since the last inspection;
- The nature of the wastes received since the last inspection;
- The storage arrangements for these wastes (including the use or otherwise of dust suppression equipment); and
- Meteorological conditions since the last inspection that could have the potential to generate significant dust emissions from the Site.
- External influences of note that have impacted site conditions

Where the above review reveals that the Site may have been the source of the recorded dust impact, the Site Manager/TCM or nominated persons will notify the EA as soon as is reasonably practicable.

7.3 Escalation Procedure

In the event more than 3 complaints over period of 24hrs, are received, site operations will be ceased immediately with the complaint investigation and monitoring process instigated. As detailed in Tables 8 and 9 the site will investigate and propose additional measures to enable the site to continue site operations.

No further operations will take place until full investigation and resolution with complainants have taken place.

7.4 Remedial Actions

If plant/equipment failings are identified as the cause of the incident (including those relating to the suppression/mitigation measures), all relevant items will be submitted to a full inspection and testing procedure (in accordance with manufacturer/supplier guidelines) and relevant repair work undertaken as soon as is reasonably practicable.

If operational/procedural failings are identified, all relevant procedures and policies (including the Integrated Management System, this DEMP and other associated documents) will be reviewed and updated as necessary.

If an update to any document is required, this will be made and recorded within the document revision timeline. If appropriate, the new versions provided to the Local Planning Authority and/or the EA.

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Additional training will be provided to operations staff either on the implications of the updated policies and systems to their specific roles or to reiterate the importance of performing their duties in full accordance with the environmental policies and procedures, and the Site Environmental Permit.

8. Recording

A log will be kept of all:

- Inspections;
- Complaints received;
- Investigations;
- Corrective actions;
- Further Monitoring; and
- Policy reviews/updates.

All such information will be made available to the Local Planning Authority and the EA, on request.

Records will be held for a period of no less than 6 years.

9. Closure

This report has been prepared by Olive Compliance Ltd (OCL) with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Mack Construction Ltd, no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from OCL.

OCL disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

APPENDICES

Appendix A – Complaint Recording Form

Appendix B – Monitoring Record Form

Appendix C – Monitoring Location Plan

DRAWINGS

Site Layout Plan

Sensitive Receptor Plan

APPENDIX A – Complaint Recording Form

Compliant 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 reoccurrence -	
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	
Review date	
Site Manager signature to confirm no further action required	

APPENDIX B - Dust Monitoring – Receptors and Investigation

Date:	Responsible Person:					
	MP 1 North	MP 2 East	MP3 West	MP 4 South		
Time of test						
Location of test e.g. street name etc						
Weather conditions (dry, rain, fog, snow etc):						
Temperature (very warm, warm, mild, cold, or degrees if known)						
Wind strength (none, light, steady, strong, gusting)						
Wind direction (e.g. from NE)						
Intensity (see below)						
Duration (of test)						
Constant or intermittent in this period						
Location sensitivity (see below)						
Is the source evident?						
Any other comments or observations						

In the event a complaint or trigger alert the below monitoring at the below sensitive receptor monitoring points (APPENDIX C) will be carried out as part of the investigation.

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Intensity (Detectability)	Location sensitivity where Dust detected
0 - No Dust detected 1 - Very faint, Dust unlikely to cause annoyance (Dust barely detectable inhaling face to the wind) 2 - Faint Dust, unlikely to cause annoyance 3 – Distinct Dust, likely to cause annoyance (Dust easily detected while walking and breathing normally) 4 - Visible Dust in continuous plumes, likely to cause annoyance 5 - Large amounts of visible Dust, likely to cause annoyance 6 – Extremely excessive amounts of Dust and particles, highly likely to cause annoyance	0 not detectable 1 Remote (no housing, commercial/industrial premises or public area within 500m) 2 Low sensitivity (no housing, etc. within 100m of area affected by Dust) 3 Moderate sensitivity (housing, etc. within 100m of area affected by Dust) 4 High sensitivity (housing, etc. within area affected by Dust) 5 Extra sensitive (complaints arising from residents within area affected by Dust)

APPENDIX C – SENSITIVE RECEPTOR / MONITORING LOCATION PLAN

- ◆ (West) Sensitive receptor monitoring point
- ◆ (North) Sensitive receptor monitoring point (Boundary)
- ◆ (South) Sensitive receptor monitoring point
- ◆ (East) Sensitive Receptor monitoring point

