



**BAL 9**  
**Dust Management Plan for Waste**  
**Operations**

**Blaxton Aggregates Limited**

**Blaxton Aggregates Limited**  
**Bank End Quarry**  
**Bank End Road**  
**Blaxton**  
**Doncaster**  
**South Yorkshire**  
**DN9 3AN**

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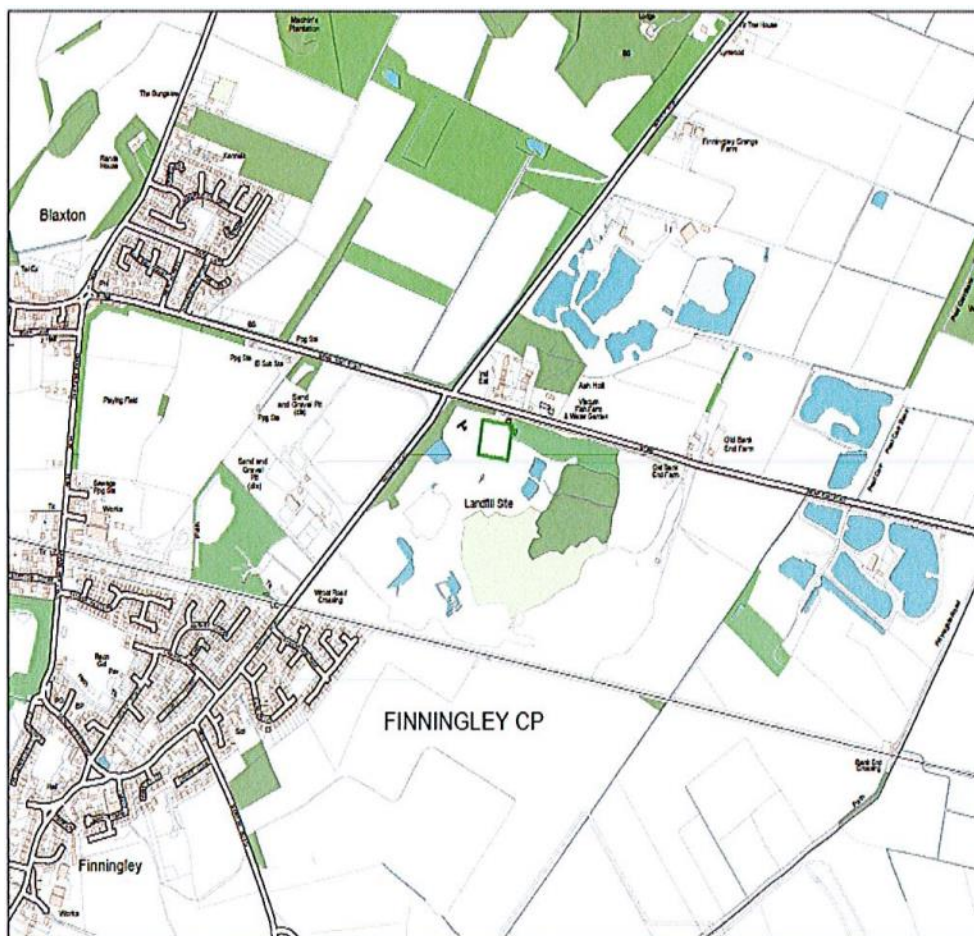
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## 1.0 Introduction

- 1.1 Introduction Severn Compliance Limited has prepared this Dust Management Plan for Waste Operations on behalf of Blaxton Aggregates Limited to support an application for a bespoke Environmental Permit for the recycling (including washing) of waste aggregates and soils.
- 1.2 This Dust Management Plan covers is located at land at Bank End Quarry, Bank End Road, Blaxton, Doncaster, South Yorkshire, DN9 3AN.
- 1.3 This Dust Management Plan only considers the waste operations to be undertaken at the Site. Many of the mitigation measures listed in this Dust Management Plan for Waste Operations are in use at the Site already to mitigate the impact of dust from the existing permitted facility FB3901CM/A001.
- 1.4 The Site is located 450 to the North of the village of Finningley and 830m to the east of the village of Blaxton.
- 1.5 The boundary of the Permitted Site is shown is shown in Figure 1.5 Permitted Boundary taken from then existing environmental permit ref – FB3901CM/A001.

**Figure 1.5 Permitted Boundary**



- 1.6 This Dust Management Plan provides detailed information on the sources, risks and mitigation measures related to the potential of dust from the recycling of waste operations proposed to be undertaken at the Site.

### **Content of the Dust Management Plan**

- 1.7 This Dust Management Plan will form part of the Environmental Management System (EMS) for the Site. Procedures and forms referenced within this Dust Management Plan will be included within the EMS. Completed forms (records) will be kept, as required by conditions of any Environmental Permit to be obtained for the Site.
- 1.8 This Dust Management Plan for Waste Operations is structured as follows:
- Section 2 provides a summary of the relevant legislation and guidelines.
  - Section 3 provides information relating to the Site setting, including the location of the Site and nearby sensitive receptors.
  - Section 4 provides a summary of the proposed changes to operations carried out on the Site and the delivery of waste to the Site.
  - Section 5 provides information on the site management and the mitigation measures employed at the Site.
  - Section 6 provides information on how dust emissions are monitored at the Site.
  - Section 7 provides a description of how complaints can be made and how they are addressed by the site management.

## **2. Relevant Legislation**

- 2.1 The Air Quality Strategy (AQS) for England, Scotland, Wales and Northern Ireland fulfils the requirement under Part IV of the Environment Act 1995 for a national air quality strategy which sets out policies for improving ambient air quality and keeping these under review. The first strategy, the National Air Quality Strategy (NAQS), was published in March 1997. In January 1999, proposals to amend the strategy were put out for consultation and a consultation document was produced. Following consultation, a revised version of the strategy was published in January 2000. This was further revised in July 2007 and has not been revised since this date.
- 2.2 The AQS provides a framework for air quality control through air quality management and air quality standards and objectives for different pollutants (including particulate matter). These air quality standards and objectives were transposed into English Law by the Air Quality (Standards) Regulations 2010. The AQS was published on the gov.uk website in March 2011 under the 2010 to 2015 Conservative and Liberal Democrat coalition government.

### **Air Quality Management Area (AQMA)**

- 2.3 The system of local air quality management (LAQM) was introduced under the Environment Act 1995. LAQM requires local authorities to periodically review and assess the current and future quality of air in their areas. Where it is determined that an air quality objective is not likely to be met within the relevant time period, the authority must designate an AQMA.
- 2.4 The Site is not located within an AQMA.

### **Low Emission Zone (LEZ)**

- 2.5 A LEZ is an area that has restrictions on the type and age of vehicles permitted in it, therefore, vehicles emitting high levels of pollution can be prevented from entering and operating within the zone.
- 2.6 The Site is not located within a LEZ.

## **3. Site Location and Sensitive Receptors**

### **Site Location**

- 3.1 Blaxton Aggregates Limited recycling facility is located at Blaxton, South Yorkshire.
- 3.2 The Site is located 450m to the North of the village of Finningley and 830m to the east of the village of Blaxton.
- 3.3 The boundary of the Site is shown on Permit Boundary Plan, Drawing No. 1.5 Permitted Boundary. A fence forms the boundary of the wider site.
- 3.4 The activities are restricted to the one site.
- 3.5 The Site is accessed via a private road off of the B1396 Bank End Road.
- 3.6 Land-uses surrounding the Site include residential areas, agriculture, Light Industrial, and quarrying.
- 3.7 The Site is not located within a Groundwater Source Protection Zone 3 (Total Catchment).
- 3.8 The Site is not located within a Flood Plain (Flood zone 1).

## Sensitive Receptors

- 3.10 This Dust Management Plan identifies receptors within 1,000m of the Site that may be sensitive to dust emissions.
- 3.11 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.
- 3.12 Due to the nature of the waste being handled on this Site the particle size of the dust emitted is of intermediate to large particles. Therefore, it can be concluded that these particles are highly likely to be deposited within 50m of the source.
- 3.13 The direction and distances from the boundary of the Site to the boundary of sensitive receptors are provided in Table 3.1 Sensitive Receptors. The references 1 - 12 are shown on the Sensitive Receptors Plan, Figure 3.1 Sensitive Receptors Plan.

**Table 3.1 Sensitive Receptors to Dunston Quarry**



Ref	Receptor	Description	Direction from site boundary	Approximate distance from Site Boundary (m)
1	Ash Holt Industrial Estate	Light industrial Estate	N	70
2	Water Garden	Garden Centre	NE	125
3	Freeland Horticulture	Windrow Composting	NE	575
4	Aggregates R Us	Aggregates Bagging Plant	NE	660
5	CEMEX	Cement Batching Plant/Quarry	NE	410
6	Dwelling Small Holding	Dwelling Bank End Road	E	410
7	Finningley Grange Farm	Farm on Wroot Road	NE	930
8	Dwellings	Blaxton Village	NW	690
9	Recycling Facility	Recycling Facility Wroot Road	E	460
10	Stables	Stables Wroot Road	SE	425
11	Dwellings	Dwellings Finningley	SE	490
12	Blakewood Industrial Estate	Light industrial Estate	SE	985
13	Finningley C of E School	Primary School	SE	930



Figure 3.1 Sensitive Receptors Plan



Ref	Receptor
1	Ash Holt Industrial Estate
2	Water Garden
3	Freeland Horticulture
4	Aggregates R Us
5	CEMEX
6	Dwelling Small Holding
7	Finningley Grange Farm
8	Dwellings
9	Recycling Facility
10	Stables
11	Dwellings
12	Blakewood Industrial Estate
13	Finningley C of E School

Symbol	Meaning
	Site Centre
	Prevailing wind direction

### Meteorology

- 3.14 Unlike many other atmospheric pollutants, the generation of dust is particularly dependent upon weather conditions.
- 3.15 The predominant meteorological conditions at any site will be dependent upon many factors, including its location in relation to macroclimatic conditions as well as more site specific, microclimatic conditions. Clearly the most significant meteorological factor is the predominant wind direction and wind speeds, and consequently data has been collected regarding the predominant wind speeds and directions appropriate to the Site.
- 3.16 Wind speed and direction data have been obtained from the Scampton Observation station for the period of the last five years. Scampton observing station is located approximately 22.4km to southeast of the Site. This observing station has wind speed and direction data appropriate for characterisation of the wind climate at the Site, Wind rose from Scampton Observing Station for the last five years.

Direction	Percentage
N	3.69
NNE	2.69
NE	3.21
ENE	5.55
E	2.47
ESE	8.51
SE	9.37
SSE	7.22
S	10.96
SSW	17.98
SW	11.10
WSW	11.18
W	4.81
WNW	4.37
NW	2.13
NNW	0.00

Wind rose Scampton Observing Station taken for the last five years

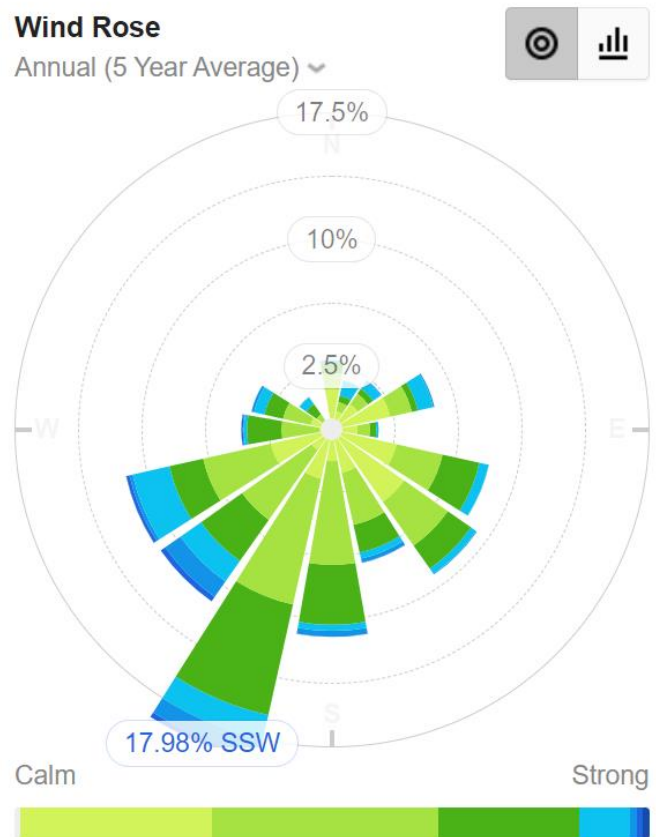
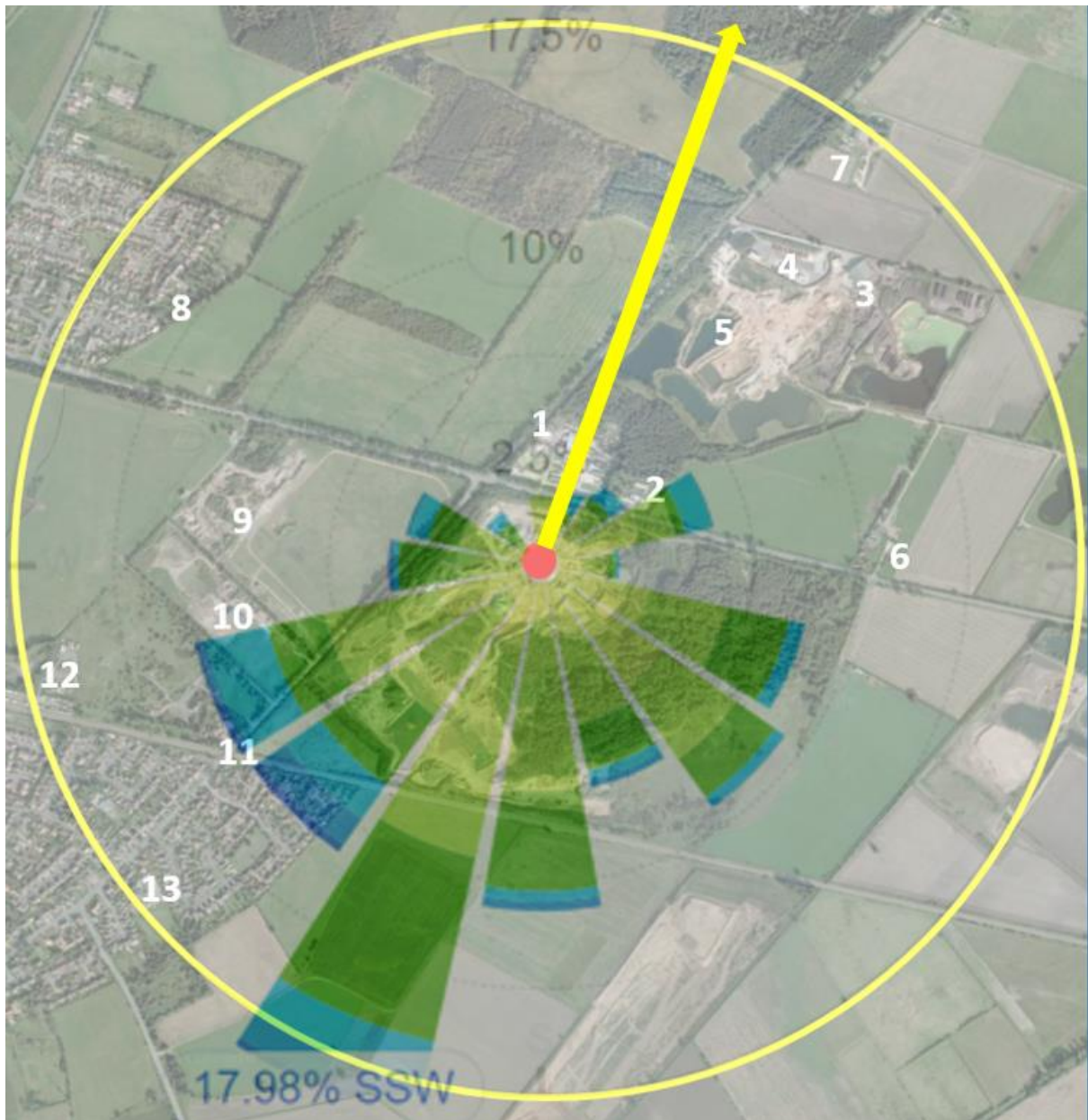




Figure 3.16 Wind rose date overlaid onto sensitive receptors plan



- 3.17 The predominant wind blows from the Southwest towards receptors to the Northeast of the Site. Receptors to Northeast of the Site include agricultural land (see Table 3.1: Sensitive Receptors).
- 3.18 There are no sensitive receptors that are associated with humans, such as dwellings, leisure and places of work to the Northwest of the site and as result are not affected by the direct path of the prevailing wind.
- 3.19 There are no sensitive receptor in line of the prevailing wind.

#### **Other Sources of Dust**

- 3.20 There is the potential for dust to be emitted from vehicle movements along the B1396 Blaxton Road that runs to the North of the site. This is a busy road with vehicles carrying sand and gravels from nearby quarries and numerous agricultural vehicles.
- 3.21 It is considered that agricultural activities carried out at particular times of the year such as harvest on the surrounding agricultural land will have the potential to cause dust emissions.
- 3.22 The site located 410m to the south of a mixture of activates situated on a former sand a gravel quarry including an aggregate bagging plant and open windrow composting site. All of which have the ability to generate dust.
- 3.23 To the south of the site 780m to the east is an active sand and gravel and quarry and another of 900m away to the south, both of which have the ability to generate dust.
- 3.24 Opposite the site entrance is Ash Holt Industrial Estate, which is home to a variety of light industries, which may have the ability to emit dust.

#### **4. Operations at the Site**

##### **Waste Deliveries**

- 4.1 All waste deliveries will be accompanied by a Waste Transfer Note (WTN) which is obtained from the load driver. The WTN will provide information on the driver, waste haulier name, permit number, description of waste etc. Loads not accompanied by a WTN or that do not match the description on the WTN will be rejected.
- 4.2 Waste will be brought onto the Site for the purpose of recycling. Waste acceptance procedures will be applied to ensure that only suitable waste is accepted. Wastes consisting solely or mainly of dusts, powders or loose fibres will not be accepted on Site.

- 4.3 Waste will be delivered onto the Site by Heavy Good Vehicles. The movement of vehicles visiting the site and moving around within the Site has the potential to cause dust emissions, particularly in dry and windy conditions.
- 4.4 All vehicles entering / exiting the Site will be sheeted to minimise the likelihood of dust emissions. Vehicles entering the Site will be visually inspected prior to unloading to ensure that excessively dusty loads are not accepted. The waste acceptance procedure implemented through the Site's EMS or permitted wastes does not allow for the acceptance of dusts or powders. Therefore, overly dusty loads will be rejected from the Site in accordance with the Waste Rejection Procedure in the EMS.
- 4.5 Mud could be tracked out of the site by vehicles potentially causing dust emissions from the road surface. The Site has wheel-washing facilities permanently in place to help reduce the occurrence of mud on the highway and as a result significant dust emissions.
- 4.6 In addition, the use of a mechanical road sweeper will be employed when roads are visibly muddy or dusty to remove the potential nuisance on a daily basis.
- 4.7 Waste is brought into the site through the entrance on the northern boundary of the site from the sites main access road.
- 4.8 In the event of dry dusty condition at the site, water bowser will be deployed to dampen access roads and dust cannon deployed to cover the tipping of deliveries.

### **Overview of Waste Operations**

- 4.9 The waste operations carried out at the site will include the importation, storage and treatment of waste to produce recycled aggregates and soils.
- 4.10 Specific waste operations to be carried out on site are listed below with further information regarding the potential for these activities to cause dust emissions:

- **Waste Handling and Movement**

- Wastes such as soils can be considered to be dusty if they are dry. Movement of these waste types and materials therefore has the potential to cause dust emissions.
- Loading and off-loading of vehicles and equipment has the potential to cause dust emissions.

#### **Waste treatment**

- The loading of screeners, crushers and the washplant has the potential to generate dust if the waste is dry.

- The activities of crushing and screening waste has the potential to create dust if the waste is dry.
- The activity of washing is wet by nature and as a result has very little potential to create dust.

- Waste Storage

- Imported wastes may be temporarily stored in stockpiles before being treated. Should these stockpiles of waste become dry then they may be a potential source of dust emissions.
- Dust emissions from stockpiles of waste may occur in the event of wind whipping.
- Washed wastes will have had small particles removed and trapped within the filter cake output as a result the storage of washed wastes has very little potential to create dust.

- Vehicle Movements

- The movement of vehicles within the site has the potential to cause dust emissions, particularly in dry and windy conditions.
- Mud could be tracked out of the Site by vehicles potentially causing dust emissions from the road surface.
- Dust could be released directly from dry materials being carried by vehicles.
- All deliveries to and from the site will be sheeted.

### **Potentially Dusty Wastes**

4.11 The site handles waste that can be potentially dusty, no dusts or powders will be accepted on site and wastes will be accepted in line with a waste acceptance criteria outlined in the sites EMS.

#### **Table 4.1 List of Potentially Dusty Wastes**

- Soils
- Road planings when crushed
- Crushed aggregate (un-washed)

### **Site Layout**

- 4.12 The proposed layout of the Site is shown on the Proposed Site Layout Plan.
- 4.13 Incoming loads will be directed to the Site Office and weighbridge.
- 4.13 The incoming loads will then be directed to an area for temporary waste storage or will be directed to an offloading area on the Site.
- 4.15 Any vehicles leaving the Site will go through the wheel wash located on the site access road.

### **5. Dust Management and Mitigation**

- 5.1 The Site Manager is responsible for the implementation of the Dust Management Plan for Waste Operations and for ensuring that the mitigation strategies are implemented at the Site.
- 5.2 Where the Site Manager is unavailable to oversee the implementation of dust suppression measures, a suitably experienced and trained Site Operative is allocated responsibility.
- 5.3 The Dust Management Plan for Waste Operations will be reviewed every four years or when a change in operations is deemed to have a potential effect on increasing dust emissions. The review process will amend any mitigation measures that have been identified as areas for improvement in reducing dust emissions on Site.
- 5.6 All staff members will have the necessary training to deliver dust suppression measures detailed within this Dust Management Plan. All staff are given training on the EMS for the Site, which includes a Dust Procedure, see Appendix 1 Dust Procedure. All staff on the Site are trained on the Dust Procedure which includes details regarding mitigation measure and monitoring/recording visual inspections. Where new dust suppression measures are to be implemented refresher training will be provided to ensure staff remain competent. This training is delivered by the Site Manager.

### **Overview of Dust Control**

- 5.7 The operation requires wastes to be delivered to the site, stored, treated, stored as an processed material and loaded for transport from the site. In the absence of mitigation measures at the Site there would be the potential for short term moderate levels of dust emitted from the site.
- 5.8 Blaxton Aggregates Limited have dust control measures in place to help mitigate dust emissions at the Site, see Table 5.2 Mitigation Measures. These measures will



be implemented when appropriate, particularly in periods of dry weather or when dust is identified to be excessive and escaping the Site boundary.

- 5.9 The Site boundary will be inspected regularly to identify any dust emissions leaving the Site.
- 5.10 Stockpile heights on Site will be minimised at all times in order to reduce the distance in which dust and particulates could be blown and dispersed by winds. This is particularly important for dusty wastes such as soils, but less important for washed aggregates where the finer dust creating particles have been removed via washing.

### **Sources and Control of Dust Emissions**

- 5.11 Table 5.1 details the potential sources of dust on the Site and which mitigation measures are implemented in order to break the source-pathway-receptor routes for dust emissions. 5.1 details the potential sources of dust on the Site and which mitigation measures are implemented in order to break the source-pathway-receptor routes .

**Table 5.1: Source-Pathway-Receptor Routes (EXAMPLE)**

Source	Pathway	Receptor	Type of impact	How source and pathway can be interrupted by mitigation
Mud	Transportation of dust from mud on wheels and vehicles.	Public highways.	Mud on surrounding highways. Resuspension of mud as dust.	Wheel washing facilities present on site will remove the mud from the wheels of vehicles exiting the site a result the site has a permanent wheel wash in place. A mechanical road-sweeping vehicle will be deployed when necessary to remove mud from the local highways and the sites entrance road. The site operator estimates that a road sweeper will used when required as part of our housekeeping duties or as and when required due to weather and site conditions. Vehicles delivering waste will be sheeted. Where mud is identified as an ongoing issue a road sweeper will be deployed. All areas will be subject to regular housekeeping in accordance with the procedures in the EMS.
Vehicle / Plant movements	Atmospheric dispersion	Surrounding sensitive receptors	Dust emissions	A 5mph speed limit and a 'no-idling' policy will be implemented on Site. Haul roads within the Site will be dampened down during periods of dry weather or when dust is identified to be excessive. The Site will be subject to regular housekeeping in accordance with the procedures in the EMS.
Tipping, loading and storage of wastes	Atmospheric dispersion	Surrounding sensitive receptors	Dust emissions	Potential dust emissions will be reduced by minimising drop heights when moving dusty wastes. Waste may be stored stockpiles which will be dampened down in periods of dry weather or when wind whipping is identified to be excessive. Dowsing the stockpiles causes a crust to form that reduces the amount of dust emitted from the Site from wind-whipping of stockpiles. Operations will temporarily cease when winds are deemed to cause excessive movement of wastes and material. The site sits below ground level in the quarrying void. Waste stockpiles will be kept 0.5m lower than original ground height.
Treating waste	Atmospheric dispersion	Surrounding sensitive receptors	Dust emissions	Potential dust emissions will be reduced by the use of dust hoods on screens this minimises wind whipping of the falling screened soils and aggregates. In addition crushers and screens will be equipped with dust suppression to allow a fine mist of water to be sprayed over the treatment process to prevent dust from becoming airborne. In addition drop heights will be minimised from conveyors again to reduce the impact of wind whipping. The washing process is wet by nature which reduces dust levels during the operation.
Operation of plant	Atmospheric dispersion	Surrounding sensitive receptors	Visual soiling and dust emissions	All plant movements must adhere to the sites speed limit and operate to the techniques described above in the tipping and loading section. Operations will be temporarily ceased in periods of very high winds
Dust from site access road and Bank End Road	Atmospheric dispersion	Surrounding sensitive receptors	Visual soiling and dust emissions	Wheel washing facilities present on site will remove the mud from the wheels of vehicles exiting the site a result the site has a permanent wheel wash in place. However if mud or dust is transferred to the public highway or sits on the sites internal roads this can be whipped up by vehicle movements, vehicle exhausts or the wind. A mechanical road-sweeping vehicle will be deployed when necessary to remove dust from the local highways and the sites entrance road. The site operator estimates that a road sweeper will used when required as part of our housekeeping duties or as and when required due to weather and site conditions. Vehicles delivering waste will be sheeted. Where mud is identified as an ongoing issue a road sweeper will be deployed. All areas will be subject to regular housekeeping in accordance with the procedures in the EMS. Roads will also be dampened down with a water bowser.

**Table 5.2: Mitigation Measures**

Mitigation Measure	Description Effect	Use on site	Trigger for implementation	How is it implemented?	Further mitigation if required
<b>Preventative Measures</b>					
Site speed limit, 'no idling' policy and minimisation of vehicle movements on Site	Reducing vehicle movements will reduce dust emissions from the Site. Enforcement of the speed limit and limiting movements will reduce the chance and amount of resuspension of dust and particulates by vehicle wheels. Reducing idling will reduce the potential for vehicle exhausts to emit dust and also blow dust from the floor.	The EMS will have procedures for a 5mph speed limit, a 'no idling' policy, and the minimisation of vehicle movements. Vehicle movements will be minimised by ensuring that the double handling of materials is avoided where possible e.g. loads entering the Site may be directed to a location in the quarry so that the load can be deposited directly into the restoration works. A load may require to be temporarily stored in a waste stockpile.	No trigger for implementation. These mitigation measures will be included in the EMS and will be carried out at all times.	Enforcement by Site Manager and observation by Site operatives	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. If required, a road sweeper will be deployed daily to clean and dampen the surface of the access road. Water sprays will also be available to dampen surfaces and stockpiles to prevent particulate matter becoming airborne. If excessive dust emissions from vehicle movements continue after these measures, then operations shall cease.
Minimising drop heights	Minimising the height from which the waste is dropped should reduce the likelihood dust could be generated and dispersed by winds.	Handling of material on Site should be minimised at all times in accordance with procedures within the EMS. Staff will be trained with regard to minimising drop heights. whenever material is being moved.	This measure will be implemented whenever the Site is operational i.e. whenever material is being moved.	By plant operators lowering the grabs, shovels, conveyors etc. on the equipment being used to move / place. potentially dusty materials prior to materials being released. Staff will be provided with training on the EMS procedures and will be trained on how to use the equipment on the site to minimise dust. The Site Manager will monitor site operations and other staff members to check that drop heights are being minimised whilst equipment is in use.	Damping down with hoses and dust cannon.

Mitigation Measure	Description Effect	Use on site	Trigger for implementation	How is it implemented?	Further mitigation if required
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.	The EMS on Site has a procedure for housekeeping. Waste will be stored in designated stockpiles before placement in the restoration.	No trigger for implementation. These mitigation measures will be carried out at all times.	Enforcement by Site Manager and observation by Site operatives.	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. E.g. water sprays will be used to dampen surfaces and stockpiles to prevent particulate matter becoming airborne.
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles.	All vehicles entering / exiting the Site must be sheeted to minimise the likelihood of dust emissions. Excessively dusty loads will not be accepted onto the Site.	Loading of potentially dusty materials on to a vehicle will be followed by closing of the sheet covers on that vehicle. Visual observation of incoming vehicles. All vehicles carrying waste to the Site will be sheeted at all times unless being loaded or unloaded. Any loads rejected from the Site will be sheeted.	The sheeting equipment will be activated and checked to ensure proper coverage of the load before the vehicle is allowed to leave the site. Incoming vehicles that are not sheeted will be rejected from the site or sheeted immediately.	If excessive dust emissions continue, then operations shall cease.
Wheel washing	<p>Wheel Wash;</p> <p>The wheel wash on site is an existing drive through wheel wash, situated on a haul road between the highway and the entrance to site.</p> <p>All vehicles exiting the facility must use the wheel wash as stated in our site rules and explained in the site induction.</p> <p>Haul roads are regularly monitored and swept daily with the on-site sweeper to stop any dust/mud being taken on to the highway.</p> <p>We have a local company on standby should we need the highway entrance to be swept.</p>	The wheel washing facility is used to remove mud from the wheels of vehicles and is inspected on a regular basis to ensure the facility is in working order.	Wheel washing is undertaken when a vehicle exits the Site.	Site operatives will ensure that wheels washing facilities are used as required.	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. E.g. water sprays will be used to dampen surfaces and stockpiles to prevent particulate matter becoming airborne.

Mitigation Measure	Description Effect	Use on site	Trigger for implementation	How is it implemented?	Further mitigation if required
<p>Ceasing operations during high winds and/or exceptionally dry conditions.</p>	<p>Mobilisation of dust is likely to be greater during periods of strong winds and exceptionally dry conditions.</p>	<p>The start of each working day so that the day's work may be planned to take in regard any potential dust emissions. If the wind speed and direction are likely to increase the risk of nuisance to neighbouring receptors, then operations may be temporarily stopped. There is no specific wind speed limit and/or no specific criteria for this to occur, as dust is dependent on other conditions such as rain. The Site manager will decide whether to cease operations as a result of weather conditions. This decision is based on a combination of factors, including those mentioned above. The conditions will be recorded on the Daily Inspection Checklists. The record will include an overall description of the weather conditions including, but not limited to, wind strength (e.g. windy, not windy), wind direction (e.g. towards northern boundary) and rain.</p>	<p>If excessive dust is being generated by the operations and water sprays are proving not to be sufficient, then the Site Manager notifies staff and operations are temporarily ceased. Operations commence once the wind has subsided and/or the area is dampened down. Weather condition monitoring (Visual observation) including wind strength, wind direction and rainfall. This monitoring is recorded on the Daily Inspection Checklist.</p>	<p>The Site Manager will make the decision to temporarily cease activities that are causing the dust emissions.</p>	<p>Operations will resume on the Site when the circumstances causing the excessive dust emission have been resolved. It is the Site Manager who decides when operations will temporarily cease and when they will continue.</p>
<p>Minimisation of stockpile heights on Site.</p>	<p>Minimising stockpile heights should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds and to reduce wind whipping. Stockpiles must be 0.5m lower than the sites perimeter earth bund.</p>	<p>The EMS will include a stockpile plan for the maximum height and volume allowed for the stockpiles on Site in order to reduce the potential for excessive dust emissions.</p>	<p>These measures will be implemented whenever the Site is operational.</p>	<p>The Site Manager will keep a record on the Daily Inspection Checklists to ensure stockpiles do not exceed the heights specified in the stockpile plan in the EMS.</p>	<p>If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. E.g. use of water sprays to dampen stockpiles / surfaces or ceasing dusty activities.</p>



Mitigation Measure	Description Effect	Use on site	Trigger for implementation	How is it implemented?	Further mitigation if required
Maintenance of plant and equipment	The effective maintenance of all plant and equipment as well and those involved in dust mitigation and reduction is vital to their effectiveness.	The EMS will include a site maintenance plan including all items that are within scope.	These measures are part of the sites day to day management and operations.	The Site Manager will keep a record on the Daily Inspection Checklists to ensure stockpiles do not exceed the heights specified in the stockpile plan in the EMS.	If items are identified as damaged, broken or ineffective they will be taken out of services and the issue raised with the site manager. If the item is essential to the reduction and mitigation of dust then the item will be replaced as soon as practically possible and if required the specific operation stopped until it is replaced.
Wastes accepted	The site will not accept wastes that are inherently dusty or in the form of powders namely.  A list of dusty wastes is found in table 4.1	The EMS will include a section relating to the acceptance of dusty wastes.	These measures are part of the sites day to day management and operations.	These measures form part of the sites EMS and all staff will be trained in the acceptance of wastes with those on the weigh bridge having responsibility for accepting waste onto the site.	When waste is tipped it will be observed to ensure it fits the description that has been provided when the waste has arrived at the site. If waste is deemed as dusty it will be dampened down and if required reloaded with the provision of dust cannon and returned to the producer.
Staff training	All staff on site will be trained on the sites EMS and sites dust procedure. In addition staff will be trained on the correct use of site plant and dust suppression equipment.	The EMS will include a section relating to staff training.	These measures are part of the sites day to day management and operations.	These measures form part of the sites EMS and all staff will be trained in the sites dust procedure. In addition staff will be trained on the correct use of site plant and dust suppression equipment.	If staff are deemed to not be following site procedures or not operating sites equipment correctly they will be retrained by the Site Manager.
Washed aggregates	The washing process removed fine particles that give rise to dust and also means that washed aggregates leaving the wash plant are inherently wet meaning they are less dusty than other wastes.	The wash plant forms an integral part of the sites process for producing a superior washed and graded recycled aggregate to an end of waste standard.	The wash plant forms an integral part of the sites process for producing a superior washed and graded recycled aggregate.	The wash plant forms an integral part of the sites process for producing a superior washed and graded recycled aggregate to an end of waste standard.	The wash plant will be maintained and operated in accordance with the manufacturers guidance.

Mitigation Measure	Description Effect	Use on site	Trigger for implementation	How is it implemented?	Further mitigation if required
Dust suppression on processing equipment	The provision of Spray bars, dust hoods and the washing will reduce the production of dust during waste treatment and processing activities.	Spray bars and dust hoods will be on the wash plant	These measures are part of the sites day to day management and operations.	<p>These measures are part of the sites day to day management and operations.</p> <p>The wash plant will be maintained and operated in accordance with the manufacturers guidance.</p>	<p>The wash plant will be maintained and operated in accordance with the manufacturers guidance.</p> <p>If items are identified as damaged, broken or ineffective they will be taken out of services and the issue raised with the site manager. If the item is essential to the reduction and mitigation of dust, then the item will be replaced as soon as practically possible and if required the specific operation stopped until it is replaced.</p> <p>Pumps to supply water suppression are kept in stock in the event of a breakdown.</p>
Dust observations	The continued use of dust observations provided the catalyst to deploy additional dust suppression measures or cease site operations.	Conducted on site as a continuous function.	These measures are part of the sites day to day management and operations.	Carried out by the site Manager and all site staff in line with the sites Dust Procedure.	If dust issues have been identified or complaints have been received relating to dust from the site then additional perimeter dust observations will be carried out.
Treatment of surfaces on site.	Keeping surfaces either free from dust and debris by mechanical road sweeping or dampening down on hard standing.	Any surfaces such as tarmac or concrete surfaces will be cleaned by a mechanical road sweeper daily when required or and Any areas that cannot be swept such as hard standing will be dampened down by mobile water bowser.	These measures are part of the sites day to day management and operations.	The cleansing process forms part of the sites housekeeping schedule and is managed by the Site Manager.	If planned cleansing and dampening fails to keep surfaces free from dust or debris then the activity of mechanical sweeping and dust dampening will be increased until the debris are removed and surfaces are sufficiently damp to prevent dust production.

Mitigation Measure	Description Effect	Use on site	Trigger for implementation	How is it implemented?	Further mitigation if required
<p>Washing activities taking place on a sealed drainage system</p>	<p>Having a sealed drainage system means that water from the washing activity is contained. If this was not the case excess waters could spread potentially creating mud on site that could be spread around the site and onto external roads.</p> <p>Pad is kept clean by sweeping and hosing with all water being collected by 'U' drains and flowing to a sealed sump. This water is then recirculated within the wash system.</p>	<p>Permanent and part of the sites infrastructure.</p>	<p>No trigger continual use.</p>	<p>Permanent and part of the sites infrastructure.</p>	<p>Pad is kept clean by sweeping and hosing with all water being collected by 'U' drains and flowing to a sealed sump. This water is then recirculated within the wash system.</p>

<b>Remedial Measures</b>				
<b>Description Effect</b>	<b>Use on site</b>	<b>Trigger for implementation</b>	<b>How is it implemented?</b>	<b>Further mitigation if required</b>
Removal of mud and dust from the site access road and Bank End Road	A road sweeper will be deployed daily to control the amount of mud on local roads and minimise the generation of dust when appropriate. The cleanliness of pathways and roads in the vicinity of the Site entrance will be checked as part of the maintenance procedure and included on the Daily Inspection Checklists. If the Daily Inspection Checklist identifies a requirement for the road sweeper to be used, then a road sweeper will be hired in, deployed and used by a relevantly trained person.	Visual observation of the state of the access road and Stanfield Road - findings recorded on the Daily Inspections Checklist in the EMS. This will identify the need for the use of the road sweeper. Constant observation by all operatives on the Site.	A roads weeper will be deployed to clean up local roads and access road if there is excessive mud. Site management will hire in a roads weeper onto the Site and will instruct deployment of the roads weeper.	If mud persists even after additional sweeping. All attempts must be made to improve the internal surfaces with the addition of recycled aggregates to the site floor to remove the mud.
Use of a tractor and water bower on the site to wet surfaces during dry/windy weather. This measure can remove dust from the air and dampen down dry / dusty materials.	Bowser will be in use at the Site to dampen surfaces and stockpiles of material to prevent particulate matter becoming airborne. The condition and integrity of the water bowser and sprays will be checked as part of the Inspection Checklists.	When excessive dust emissions are observed to be leaving the Site boundary. Visual observation will be carried out by all employees on the Site. Findings from the visual observations will be recorded on Daily Inspection Checklists.	Use of water sprays on the Site will be used to minimise dust emissions. Site Management will instruct the relevantly trained operative to use the tractor and bowser on the Site.	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. E.g. cessation of dusty activities.
Use of dust cannon during unloading, loading, crushing and screening activities.	Dust cannons can be used in periods of dry weather and including windy conditions to prevent dust becoming airborne.	Dry and windy conditions and dust being observed in the air.	Dust cannon/s to be positioned in the desired location/s where dust may be generated or has been observed. A water supply will also be made available to for the dust cannon.	If excessive dust emissions that could cause nuisance to local receptors continue, further mitigation measures will be triggered. E.g. cessation of dusty activities.

## **Other Considerations:**

### **Water availability**

- 5.13 Water for dust suppression is from a mains supply and from the onsite pond.
- 5.14 To prevent dust generation, site surfacing and stockpiles may be dampened down using water from a mobile water bowser and spray attachment and a dust cannon.
- 5.16 All suppression with the exemption of the mobile water bowser and dust cannon is carried out by the use of pumps and as a result there is no impact on a loss of water pressure to the site.
  - 1 x Wash plant storage tanks are fed off water mains in case of dry weather.
  - 1 x Water tanks hold clarified water from the water treatment plant.

### **In the event of a drought**

- 5.17 During exceptionally dry and/or windy conditions, if any operations / site movements cause or are likely to cause visible dust emissions beyond the Site boundary, or if excessive dust emissions are observed within the Site, site operations may be temporarily suspended to avoid further dust emissions. This will be decided by the Site Manager.
- 5.18 Depending on the severity of the drought conditions, restrictions may be in place on the amount of water available for use on Site. In this case, operations may be reduced or suspended in order to comply with any water usage restrictions.

## **6. Monitoring**

### **Visual Dust Monitoring**

- 6.1 Dust emissions for the Site will be assessed by visual observation. Assessments will be recorded daily on the Daily Inspection Checklists in the EMS, see Appendix 3 Inspection Checklists. It is the responsibility of every member of staff to continually visually monitor the emission of dust from the Site. Monitoring of dust will be carried out by visual assessment. Visual dust monitoring will take place anywhere within the proposed permit boundary and in the immediate vicinity of the Site.
- 6.2 It is the responsibility of all staff members to visually check for dust emissions leaving the site during the working day. Emergency contact numbers are available to local businesses/ residences on the Site Notice Board, should dust be causing a nuisance. It is not considered that there would be significant emissions of dust outside of operational hours.
- 6.3 If excessive dust emissions are leaving the Site boundary, then the Site Manager will establish what is causing the excessive dust emission to be generated and take



remedial action. The results of the investigation and what action was taken will be recorded and retained.

- 6.4 The prevailing weather conditions at the Site will be considered and recorded at the start of each working day so that the day's work may be planned as appropriate regarding potential dust emissions. Wind direction and weather will be determined by visual observation of the conditions. The conditions will be recorded on the Daily Inspection Checklists. Information on the Daily Inspection Checklists will contain an overall description of the weather conditions including, but not limited to, wind strength (e.g. windy, not windy), wind directions (e.g. towards northern boundary) and rain.
- 6.5 Table 5.2 states the mitigation measures in place in case of excessive dust emissions on Site.
- 6.6 There will be no dust monitoring equipment located on the Site. Only visual monitoring of dust emissions will take place. Visual monitoring will take place whenever the Site is operational and from anywhere within the Site boundary.
- 6.7 No quantitative dust monitoring is undertaken on the Site.

## **7. Reporting and Complaints Response**

### **Engagement with the Community**

- 7.1 A Site Notice Board will be located at the Site entrance and will include the following information:
  - The Environmental Permit holder's name.
  - The operator's name.
  - An emergency contact name and telephone number for the operator.
  - A statement that the Site is permitted by the Environment Agency.
  - The Environmental Permit reference.
  - The Environment Agency national numbers, 03708 506506 and 0800 807060 (incident hotline).
- 7.2 The provision of the above information ensures that members of the community can contact Blaxton Aggregates Limited should they be concerned by dust emissions or wish to make a complaint. This also applies to any events that may happen when the Site is unmanned / not operational.
- 7.3 Contact numbers on the Site Notice Board will allow any out-of-hours complaints regarding dust emissions to be made to the operator. The operator will respond accordingly during out-of-hours to complaints.

### **Reporting of Complaints**

- 7.4 Should a complaint regarding dust be received by the Site, the complaint will be recorded on the Complaints Form in the EMS and investigated in accordance with the Complaints Procedure within the EMS implemented on the Site. The Complaints Form records who made the complaint, what the complaint was about and what has been done to resolve the issue and make sure this does not happen again.
- 7.5 The Site Manager must identify what caused the excessive dust emission to be generated. This generation may have been caused by failure of site machinery or dust procedures. If the excessive dust emission has been caused by a procedure not being carried out properly, then staff will receive repeat EMS training on the dust procedures and site management.
- 7.6 In all cases, and where information is available, all complaints will be acknowledged and investigated. Any complaints received by the Environment Agency relating to dust emissions from the site are dealt with as soon as is reasonably possible upon notification.

### **Management Responsibilities**

- 7.8 Site staff are responsible for dust management issues and detecting/reporting dust emissions. All members of staff are given training on the EMS for the Site, which includes a Dust Procedure. All staff on the Site are trained on the Dust Procedure which includes details regarding mitigation measures and monitoring/recording visual inspections.
- 7.9 On receipt of a complaint the Site Manager investigates and establishes the cause. The most effective corrective or preventative action must then be determined to prevent future emissions occurring. Where additional time is required in order to implement the appropriate corrective or preventative action the complainant will be contacted with details on the actions to be implemented and the estimated timescales for completion.
- 7.10 Should numerous complaints be received at the Site regarding the same issue, the cause of the complaint(s) will be investigated in accordance with the Accidents, Incidents & Complaints Procedure within the EMS. Operations on the Site will temporarily cease should dust emissions be seen leaving the boundary following the implementation of other mitigation measures or when instruction from the Environment Agency to cease operations has been received.
- 7.11 In the event of a major dust release that is deemed to have caused local pollution to sensitive receptors the local Environment Agency Officer would be notified by the Site Manager.

**Appendix 1**

**Dust Procedure**

**V.1**

**June 2021**

**Purpose: To control emissions of dust from the Site.**

	<b>RESPONSIBLE PERSON</b>	<b>RECORD</b>
<p><b>1</b> The most common cause of dust on Site is from the following:</p> <ul style="list-style-type: none"> <li>• Materials Handling and Movement.</li> <li>• Material Storage.</li> <li>• Material Treatment.</li> <li>• Vehicle Movements</li> </ul>		
<p><b>2</b> Mitigation measures have been devised to help alleviate the potential impacts of increased dust emissions within the Site and its surroundings.</p>		
<p><b>Dust Monitoring</b></p> <p><b>3</b> It is every member of staff's responsibility to continually monitor the emission of dust from the Site. Monitoring of dust will be carried out by visual assessment.</p>	All	Inspection Checklists
<p><b>4</b> If dust emissions are perceived to be excessive then the Site Manager must establish what is causing the excessive dust emission to be generated and take remedial action. The results of the investigation and what action was taken should be reported in accordance with the Complaints Procedure.</p>	Site Manager	Complaints Procedure
<p><b>5</b> Information regarding these remedial actions are included within the 'Mitigating the Impacts of Dust' section of this Procedure. Should the remedial action not be sufficient then the Site Manager will be informed, who will advise on the necessity to cease operations.</p>	Site Manager	Site procedures
<p><b>6</b> In the event of a complaint being received the Complaints Procedure should be followed.</p>	Site Manager	Complaints Procedure
<p><b>7</b> The weather conditions at the Site will be considered and recorded at the start of each working day so that the day's work may be planned as appropriate regarding potential dust emissions.</p>	Site Manager	Inspection Checklists
<p><b>8</b> During exceptionally dry and/or windy conditions, if any operations / Site movements cause or are likely to cause visible dust emissions beyond the</p>	Site Manager	

Site boundary, or if abnormal dust emissions are observed within the Site, Site operations may be suspended to avoid further dust emissions.

**Mitigating the Impacts of Dust**

<p><b>9</b> A 5mph Site speed limit and the reduction of vehicle movements is enforced on the Site to help minimise the amount of dust generated by vehicle wheels</p>	<p>Site Manager</p>	
<p><b>10</b> All vehicles entering / exiting the Site will be sheeted to minimise the likelihood of dust emissions. Vehicles entering the Site are visually inspected prior to unloading to ensure that excessively dusty loads are not accepted</p>	<p>Site Manager</p>	
<p><b>11</b> A mobile water bowser will be employed at the Site to dampen surfaces and stockpiles of material to prevent particulate matter becoming airborne. The condition and integrity of the bowser is checked as part of the Inspection Checklists.</p>	<p>Site Operative</p>	<p>Inspection Checklists</p>
<p><b>12</b> The Site boundary is inspected regularly to identify any dust emissions / dust leaving the Site. If dust emissions are observed, then the use of water sprays is instigated.</p>	<p>Site Operative</p>	<p>Site Operative</p>
<p><b>13</b> All equipment on site will be maintained in accordance with the manufacturer's specifications.</p>	<p>Site Operative</p>	<p>Maintenance Procedure</p>
<p><b>14</b> The handling height of material should be minimised at all times for all mobile plant in order to reduce the distance in which dust and particulates could be blown and dispersed by winds.</p>	<p>Site Operative</p>	
<p><b>15</b> The consequences of not following this procedure are that dust emissions may occur that lead to a nuisance being caused to neighbours of the Site.</p>	<p>Site Operative</p>	<p>Training Records</p>
<p><b>17</b> When dust or mud are causing problems reactive measures should be taken including mechanical road sweeping, water bowser and dust cannon deployments.</p>	<p>Site Manager</p>	<p>Inspection Checklists</p>

Dust Complaint Report Form		
Time and date of complaint:	Name and address of complainant:	
Telephone number of complainant:		
Date and time of dust:		
Location of dust, if not at above address:		
Weather conditions (i.e., dry, rain, fog, snow):		
Temperature (very warm, warm, mild, cold or degrees if known):		
Wind strength (none, light, steady, strong, gusting):		
Wind direction (e.g. from NE):		
Complainant's description of dust: o What does it look like?		
o Duration (time):		
o Constant or intermittent in this period:		
o Does the complainant have any other comments about the dust?		
Are there any other complaints relating to the site, or to that location? (either previously or relating to the same exposure):		
Any other relevant information:		
Do you accept that dust likely to be from your activities?		
What was happening on site at the time the dust occurred?		
Actions taken:		
Form completed by:	Date Sign	Signed

Dust assessment form		Date completed :		Conducted by:	
Time of observation					
Location of observation on site					
Weather conditions (dry, rain, fog, snow etc.)					
Temperature (very warm, warm, mild, cold or degrees if known)					
Wind strength (none, light, steady, strong; use Beaufort scale if known)					
Wind direction					
Duration of exposure (i.e. length of test)					
Amount of dust (none, thick. Light?)					
Leaving site boundary?					
What does it look like?					
Is the source evident?					
Actions taken?					

## House Keeping Schedule

Mitigation	Frequency
Checking speed limit adhered to	Every Day
Minimising drop heights of aggregates	Every day
General housekeeping	Site checked daily – employees monitor hourly
Sheeted Vehicles	Every load must be sheeted – each load checked by weighbridge operator
Wheel Wash	Filled as and when required – checked daily
Managing stock pile heights	Every day
Checking bund integrity	Every day
Plant maintenance	Every day
Bund integrity	Every day
Fence / security	Every day
Dust observations	Every day and as and when required depending on work activity
Damping down	As and when required depending on weather conditions and work activity
Road cleaning	As and when required
Wheel wash functionality	Every day
Water bowser functionality	Contracted in as and when mud on road is identified.
Dust cannon functionality	When required and inspected daily when in use
Mechanical road sweeper	When required
Plant dust suppression functionality	Every day