



AC
ENVIRONMENTAL
CONSULTING

Dust & Emissions Management Plan



**Horrocks Waste Management
Limited,**
Land / Premises at James Street,
Westhoughton, Bolton,
Lancashire, BL5 3QR

Ref: HW.PT.DEMP.2504

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April 2026

Reference & Revision	Issue	Prepared	Approved
HW.PT.DEMP.2504	First Issue	LH	DA

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1. INTRODUCTION

AC Environmental Consulting Ltd, on behalf of Horrocks Waste Management Limited, have prepared a Dust & Emissions Management Plan (DEMP) for the Horrocks Waste Management Limited site located at the Land / Premises at James Street, Westhoughton, Bolton, Lancashire, BL5 3QR.

1.1 Site Location

The site is located within a predominantly industrial area to the north of the town of Westhoughton. The site is neighboured by various industries including two waste operations, Malrod Environmental Limited and Forshaw Demolition Limited's Waste Transfer Station. To the north and west the site is bordered by Wingates Industrial Park. The nearest domestic residences are some 85m to the south of the site on Peel Terrace. There is an area of Priority Habitat Inventory - Deciduous Woodland 23m south of the site boundary.

The Wigan-Bolton railway line runs to the south of the site, beyond which is the town of Westhoughton. The A6 road runs to the north of the site which leads north to Chorley, and south to Manchester.

Reference to the DEFRA Air Quality Management Area (AQMA) interactive map indicates that the site is not located within an AQMA boundaries, but it is situated within a local authority with AQMAs. The AQMAs within the proximity of the site are the Bolton AQMA, declared in 2002 for Particulate Matter PM₁₀ and NO₂, and the Greater Manchester Combined Authority AQMA declared in 2016 for NO₂.

1.2 Site Operations

Horrocks Waste Management Limited is seeking a variation to their environmental permit (reference EPR/LB3309CN) to obtain a bespoke permit. The proposal is to incorporate an additional area of land, thereby extending the currently permitted boundary. The requirement for a bespoke permit is also necessitated by the standard rules permit's requirement for enclosed waste storage and processing, a condition which cannot be achieved on site. The site was initially permitted in 2023 under standard rules SR2008 No 7: 75kte household, commercial and industrial waste transfer stations with treatment and asbestos storage; reference EPR/LB3309CN. In December 2024, this permit was superseded in December 2024 by the updated standard rules permit - SR2022 No 4: Non-hazardous waste physical treatment facility, which specifically requires that waste is stored and processed within a building that is enclosed on all sides.

Horrocks Waste Management Limited is also seeking to reinstate / add EWC code 19 12 10 to their bespoke environmental permit. This waste code was previously permitted under standard rules SR2008 No 7 but was removed when the current permit, SR2022 No 4, came into effect.

The site consists of a skip waste and inert waste processing operation, with an open fronted covered storage shed for a picking line (General, Scrap Metal, Wood, General (Light), General (RDF), and Trommel Fines), a variety of 35-50cyd skips, tipping area and waste bays for baled waste. There is also a plant storage and workshop area plus portacabins for offices and other facilities on site. The site has a yard for empty skip storage towards the Long Lane site boundary. Inert waste and skip wastes are collected and brought onto site using the company's own transport. The site will accept up to 50,000 tonnes of waste per annum. Daily tonnages will vary but on average this will be around 0-500 tonnes per week.

The site layout has been designed to enable efficient processing and storage of inert and skip waste. The central area of the site is kept free of wastes and materials. Mobile plant is stored in the plant storage and workshop area in the covered storage shed. The site is entirely surfaced with impermeable concrete and has a sealed drainage system draining via interceptor, which is connected to an underground water tank. The site perimeter consists of 2m palisade fencing ranging and a 2m high electronic sliding gate at the entrance.

The permitted area deals largely with non-hazardous skip waste, with the exception of POP's containing waste which includes sofas and mattresses. The skip waste is brought onto site and segregated into separate waste streams in the tipping area at the southern boundary of the covered storage shed. The segregated waste will then be stockpiled either in skips (which include plasterboard / gypsum, wood, scrap metal, light waste and POP's waste) or processed through the picking line or baler, before then being transferred to a storage area. Each waste stream has its own storage area within the covered storage shed or yard. It is crucial to note that the 10 cyd plasterboard / gypsum skip will remain within the covered storage shed at all times.

The area that serves the extension to the permitted boundary will be additionally used for the processing of inert waste via a trommel, picking line, and a crusher. There will be three stockpiles stored in this area; one will be for the storage of hardcore which will be for crushing; one will be for 6F2 material for loading; and another will be for 6F2 storage.

Processing on site includes:

- sorting / separating
- baling
- screening
- crushing

Upon arrival, the waste vehicles will drive over the weighbridge located to the northeast of the site

The waste is inspected upon arrival and if approved waste delivery drivers are given instructions on where to unload the waste, which will be the tipping area at the southern boundary of the covered storage shed, or the “tent” (a steel-framed canopy with heavy-gauge PVC tensioned fabric, anchored to 4m high Legio block walls on two sides) which also be used for the tipping of aggregates (brick and block waste).

If non-conforming waste is identified, it will be removed immediately from the load and transferred to the quarantine area, pending removal to a suitable permitted facility. If the non-conforming waste cannot be removed from the load, the entire load will be rejected and will be transferred to the quarantine area pending removal to a suitable permitted facility.

The waste will then be immediately sorted and segregated by hand with the assistance of mobile plant including the picking line.

The site uses a variety of equipment and machinery including a picking line, trommel, crusher, baler, wheel loader and excavator. These items will only be used during operational hours.

The site handles skip waste which has been collected from various sources in the surrounding area. The waste is collected using the company’s own transport and occasionally from outside contractors bringing waste to the site. The waste is tipped at the tipping area and machine processed/sorted by the picking line as well as manually sorted, which separates the waste into stockpiles e.g. Metal, Wood, Trommel Fines and Inert.

There are a range of wastes accepted on site including inert, plastic, wood, mixed waste and brick/hardcore. Waste is stored in stockpiles on an impermeable concrete surface with sealed drainage and is processed and stored for less than one month. Stock rotation is practised to ensure that wastes are not held on site for longer than this. Further information on the waste accepted on site can be found in Table 2.1.

1.3 Potential for Emissions

Due to the type of waste accepted on site, there is the potential for dust to arise from waste processing, loading and tipping operations, and site transport, which may also raise visible dust. Further information on the potential sources of dust can be found in Section 3.2. All areas where vehicles and plant are operated are on a concrete surface. Operating vehicles and plant on the concrete surface will prevent the potential for mud and therefore reduce the risk of material from being transferred onto the public highway by vehicles exiting the site. The concrete surface merges to asphalt to the northeast of the yard, before leading to Long Lane. Any accumulation of dust on site will be removed by hand through sweeping or by using a mechanical sweeper.

There are no other expected emissions to be produced on site.

1.4 Emissions Prevention

The operations will be governed by the conditions attached to the Environmental Permit. Abatement measures for the currently permitted area include the processing of wastes within the covered storage shed, use of an onsite hoses, manual and mechanical sweeping, and the covering of stockpiles with tarpaulin.

Abatement measures within the area that serves the extension to the permitted boundary which will be used for the processing of inert waste via a trommel, picking line, and a crusher, will include the use of hoses and sprinkler systems on the crusher and trommel throughout the working day. The tent (steel framed canopy bay) will be utilised for the tipping of aggregates (brick and block). Abatement measures to this area will also include manual and mechanical sweeping, and the covering of any exposed stockpiles with tarpaulin. Further detail on these measures is provided within Section 5.

As part of a management procedure, daily inspections shall take place, and where visible accumulations of dust are present, road sweepers shall be employed to sweep the highway.

A major benefit of the site infrastructure is that the concrete surface can be swept by a mechanical road sweeper. All wastes will be stored only on the concrete surface. The concrete surface makes the operational areas easy to clean regularly in accordance with the cleaning schedule provided in Appendix B, using a manual or mechanical sweeper if any accumulation of dust becomes visible. The easily maintained concrete surface prevents the build-up of potential dust, mud, and debris, therefore reducing the risk of material being transferred to the public highway by vehicles exiting the site. The means of prevention discussed are based on site management procedures and the environmental permit guidance. Further details on emission control and maintenance can be found in Table 3.1 and 3.2.

1.5 Purpose of the DEMP

The purpose of this document is to meet the requirements of and reassure the Environment Agency that the potential for dust produced from the proposed operations mitigated and controlled in every possible way.

The DEMP has been prepared to reflect the addition of a new area to the Horrocks Waste Management Limited site for the storage and processing of inert waste as part of a bespoke permit variation application.

The audience of this document is the Environment Agency for approval, and the operational staff on site. The document will be made available to the onsite operational staff, Environment Agency, and

Bolton Council officers by being stored in the site office and online. Also, staff will be trained in the requirements of the DEMP via toolbox talks.

1.6 Sensitive Receptors

The site has various sensitive receptors nearby that may be vulnerable to dust emissions. They are referred to as sensitive receptors due to them being in areas where the occupants are more susceptible to the adverse effects of exposure to high levels of dust and particulates. These receptors include residential, commercial, and industrial premises. Activities carried out on site do have to potential to create dust, however, the risks are mitigated on site by having various measures in place, therefore the nearby receptors are not vulnerable to dust pollution. During any incident, receptors will be notified via phone call or by operatives knocking on doors and informing them of incident and reassuring them that every dust mitigation measure possible is being undertaken. Their distances to the working area and their sensitivity to dust emissions is shown in Table 1.1.

The nearest sensitive receptors include the residential properties that are situated approximately 85m south of the site boundary on Peel Terrace. These properties will have the highest sensitivity to dust emissions due to their proximity to the site. The site itself is located within a heavily industrialised area, as illustrated by the sensitive receptor plan. Within this drawing, it can be seen that within 1km from the site, the majority of areas are commercial / industrial. Wingates Industrial Park borders the site to the north and west. which comprises of numerous units that operate industrial activities to a similar scale to the site. Within 1km of the site there aren't any hospitals, however, there are several schools, medical facilities and care homes. The closest school is The Gates Primary School, approximately 380m northeast of the site boundary. The Sacred Hearts Roman Catholic Primary school is located approximately 445m southeast of the site. St Bartholemew's School is located 665m south of the site. A further four schools are located south of the site, including West Houghton High School, Brighter Bunnies Pre School, New Beginnings Childcare and Happitots Day Nursery. Church Street surgery is located 270m to the northeast of the site, and Time Physio & Wellness Centre is located 270m to the east of the site. Woodlands Care West Westhoughton is located 787m south of the site, and Thurstons Anchor Retirement Home is located 790m south of the site. Wingates Residential Home is located 691m to the north of the site. Lastly, Hall Lee Brook Local Nature Reserve is located 808m to the southeast of the site.

The site is also situated immediately adjacent to a Priority Habitats site (an area of deciduous woodland) that is located to the southwest.

Due to the nature of the operations on site, the greatest proportion of dust emitted is largely deposited within 100m of the dust source. As stated by The Guidance on the Assessment of Mineral

Dust Impacts for Planning 2016, it is acknowledged that the greatest impacts will be within 100m of the source, referring to both small and large dust particles. This indicates that the receptors lying beyond 100m from the site will not be greatly impacted by any potential dust producing operations on the site. The less dense dust material only reaches a maximum of 100m, meaning the receptors beyond 500m of the site are at very low risk of being impacted by fine dust. The map displaying the locations of the sensitive receptors is shown in Figure 1.1.

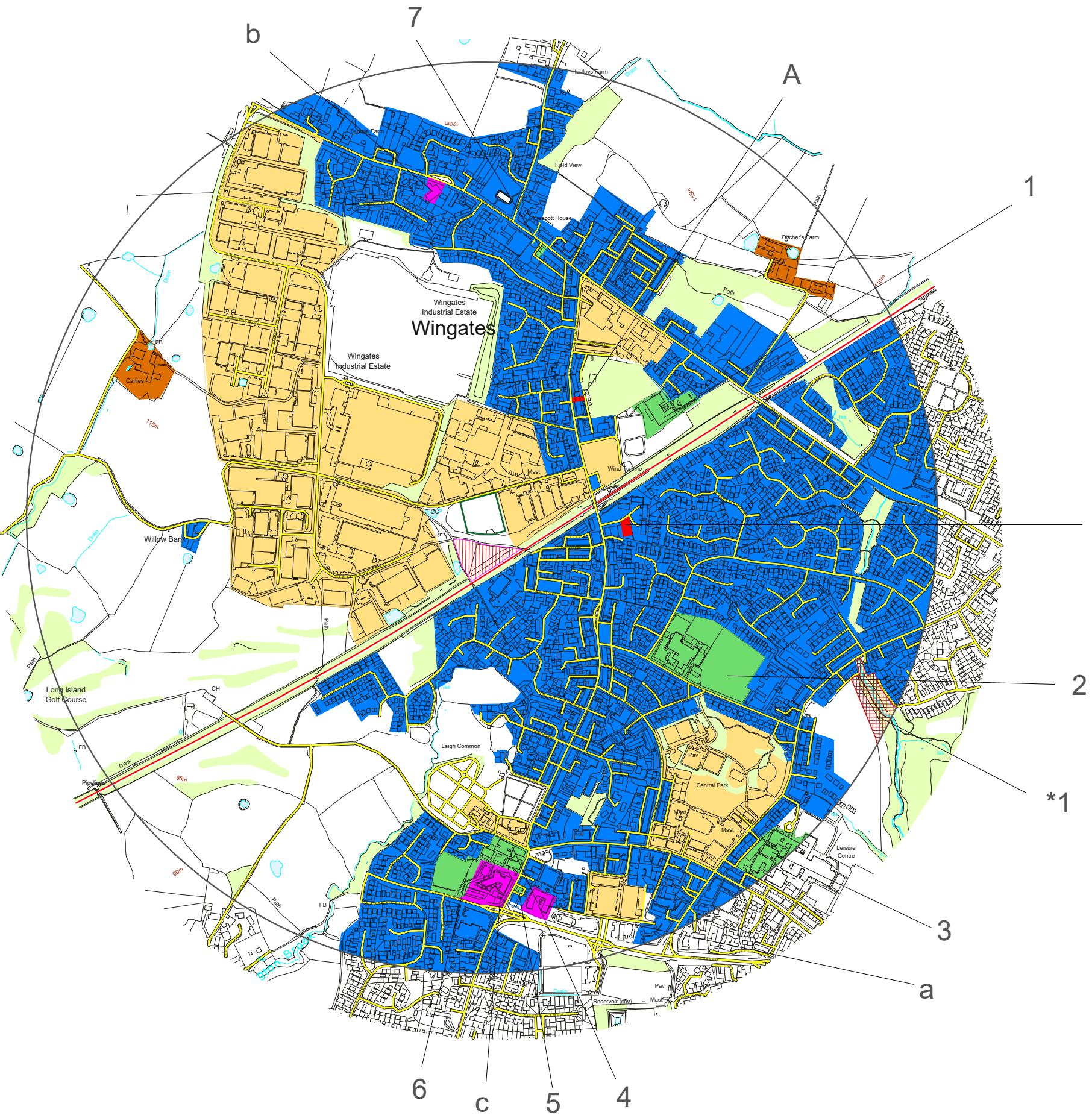
There are also dust producing operations occurring close to the residential housing including the operations occurring within the same industrial area of the site, including manufacturing businesses, waste management facilities, distribution facilities, and car repair facilities. The Wigan-Bolton Railway line to the south of the site may also contribute to dust at the nearby residents.

Additional receptors not considered sensitive within the 1000m radius include a place of worship situated 627m south, and a library situated 788m southeast, and also additional recreational facilities such as restaurants, takeaways, and pubs to the south and east. Due to the nature of the operations on site, the greatest proportion of dust emitted from the facility is largely deposited within 100m of the dust source, therefore having a very low risk of impact on these particular receptors. The less dense dust material only reaches a maximum of 500m, meaning these receptors are still at a very low risk of being impacted by fine dust.

There are no other expected emissions to be produced on site. The operations on site will not cause the receptors positioned further away from the site to be given greater consideration in terms of dust impacts. There are no factors that would cause a receptor close to the site not to be considered a receptor. There are however other sources of dust close to some of the receptors, Wigan-Bolton Railway line, and the industrial activities occurring within the nearby units. Detail on the other potential local sources of dust is given in Table 1.2.

A wind rose for Westhoughton has been obtained, shown in Figure 1.2. This wind rose data is from Manchester INTL Weather Station, located 28.5km from the site. The weather station is located at an elevation of 78m, and is located rurally, with prevailing winds coming straight across fields. The elevation of the site is 111m, and the prevailing wind will encounter resistance from trees, and housing estates to the south therefore the wind conditions at the weather station is comparable to those at the site. The wind rose indicates prevailing winds from the south, indicating that any potential dust will be dispersed predominantly to the north towards the industrial and commercial properties, and the residential housing beyond.

Figure 1.1 Nearby Sensitive Receptors



EDUCATIONAL

1. The Gates Primary School
2. Sacred Hearts Roman Catholic Primary School
3. West Houghton High School
4. Brighter Bunnies Pre School
5. New Beginnings Childcare
6. St Bartholemews School
7. Happitots day Nursery

Medical

- A. Church Street Surgery
- B. Time Physio & Wellness Centre

CareHomes

- a. Thurstons Anchor Retirement Home
- b. Wingates Residential Home
- c. Woodlands Westhoughton Care Home

Local Nature Reserve

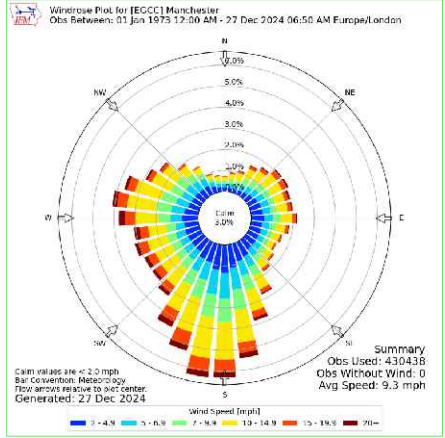
- *1. Hall Lee Brook

Priority Habitat

Deciduous Woodland



Environment House
Werrington Road
Stoke-on-Trent
ST2 9AF



- Residential
- Commercial/Industrial
- Educational
- Carehomes
- Farms
- Rail
- Road

CLIENT HORROCKS WASTE			
SITE James Street, Westhoughton, Bolton, Lancashire			
PROJECT PERMIT APPLICATION			
TITLE KEY RECEPTOR PLAN			
SCALE @A3 1:10000	DATE Apr 2025	DRAWN BY T Kearns	CHECKED BY D Alcock
DRAWING NO 240326HW103		REVISION	

0 100 250 500
Scale (meters)

REV	DATE	DETAIL

Figure 1.2 Wind Rose showing the wind direction and strength at Horrocks Waste Management Limited



Windrose Plot for [EGCC] Manchester
Obs Between: 01 Jan 1973 12:00 AM - 27 Dec 2024 06:50 AM Europe/London

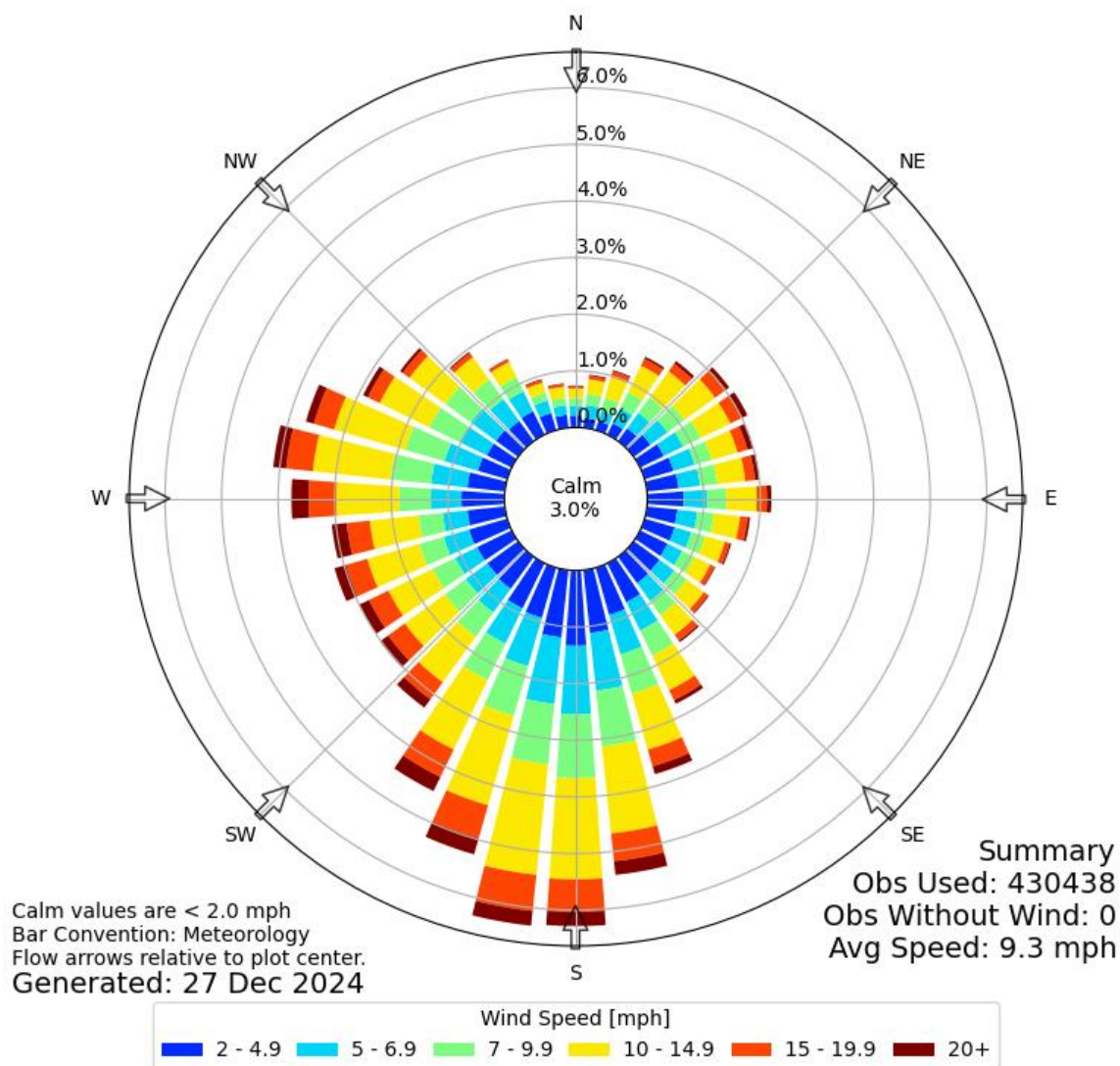


Table 1.1 Distances to Selected, Representative Sensitive Locations

Boundary	Closest Property	Approximate Distance to Horrocks Waste Management Limited (m)
Northeast	Residents on Wood Vale	128m
North	Residents on Anderby Walk	178m
North	Residents on Wingates Grove	616m
North	Residents on Chorley Road	684m
North	Residents on Holden Lea	450m
Southeast	Residents on Peel Terrace	85m
Southwest	Residents on Borsdane Way	351m
Northeast	Residents on Glazebury Drive	629m
East	Residents on Cherwell Road	208m
South	Residents on Collingwood Way	145m
South	Residents on Old Lane	623m
Southeast	Residents on Central Drive	313m
South	Residents on Bardwell Avenue	796m
Southeast	Residents on Church Street	437m

Table 1.2 Sources of Dust and/or other Emissions

Company	Address	Type of Business	Distance from Horrocks Waste Management Limited (m)
Forshaw Demolition Limited	James Street, James St, Westhoughton	Demolition Contractor	3m (N)
Westhoughton Tyres	1 Westhoughton Industrial Estate, James St, Westhoughton	Vehicle Tyre Shop	22m (NE)
Revamp Campervans	Westhoughton Industrial Estate, James St, Westhoughton	Manufacturer	39m (N)
Malrod Environmental Ltd	Rodney House, James Street Industrial Park, Westhoughton	Waste Management Facility	40m (E)
	James Street, Westhoughton	Manufacturer	52m (NW)

TCS Garage Equipment			
All Metal Services Limited	Unit 5, Easter Park, Wingate Industrial Park	Manufacturer	85m (N)
Stateside Foods Ltd	Direct House, Lancaster Way, Westhoughton	Manufacturer	91m (W)
Oakwood Distribution / Tesco	Wingates Industrial Park, Great Bank Road, Westhoughton	Distribution Facility	94m (W)
MOT North West	James Street, Westhoughton	Car Repair Facility	95m (NE)
Absolute Concrete Limited	Unit 4, James Street, Industrial St, Westhoughton	Manufacturer	108m (N)
Environmental Renaissance	Unit 14, Westhoughton Industrial Estate, James St	Waste Management Facility	146m (N)
Evri New Bolton Depot	3 Barrs Fold Rd, Westhoughton	Distribution Facility	387m (NW)
MG Auto Lines Paint and Bodycentre	Unit A Church St, Westhoughton	Car Body Shop	433m (NE)
VES New Energies	Unit 17, 18 Barrs Fold Rd, Westhoughton	Manufacturer	442m (NW)
Pearl Window Systems	Wingates Industrial Park, 14, Great Bank Rd, Westhoughton	Manufacturer	485m (NW)
Outerform Fabrications	Wingates Industrial Park, Great Bank Rd, Westhoughton	Manufacturer	580m (NW)
Musco Lighting Europe	1005 Great Bank Road, Westhoughton	Manufacturer	608m (NW)
Wingates Industrial Park	1002 Great Bank Rd, Westhoughton	Manufacturer	696m (NW)

2. OPERATIONS AT HORROCKS WASTE MANAGEMENT LIMITED

2.1 Waste Deliveries to Horrocks Waste Management Limited

Wastes are brought to the site by the operators using the company's own vehicles and occasionally approved third party contractor vehicles, therefore checks are undertaken by staff to ensure the suitability of the wastes accepted. The type of vehicles used consist of 4-wheel skip wagons and 8 wheel tippers which will be Euro 4 emissions rated. To effectively manage potential dust emissions during transportation, skip lorries will be appropriately covered based on the waste type. For loads consisting of lighter, more dust-prone materials such as household waste, skips will be sheeted. Conversely, for heavier, less dusty materials like construction waste, netting will be employed as a suitable covering measure to contain the load while minimising windborne dust. Further detail on the waste accepted on site, the onsite processes and their destinations within the facility are shown in Table 2.1 and Figure 2.1.

Drivers are required to inspect loads prior to uplift and the checks include load security, potentially dangerous wastes and hot loads. If a load is deemed to present a risk, then the driver reports this to site management who will advise the customer that the load cannot be collected and the reasons for that.

Loads are also inspected at the site by site staff prior to tipping. Loads being tipped are also supervised so that any issues which were hidden and not identified prior to tipping can be seen. The aim of this is to ensure that a problematic load is not tipped and allowed to stand for a period of time, potentially allowing dust and emissions to accumulate. Loads are inspected to ensure the following criteria is met:

- i) EWC Code on the waste transfer note conforms to the waste inside the container.
- ii) Permit waste acceptance criteria – waste meets with the criteria of the environmental permit and the planning permission for example, waste accepted would be within the permissible tonnage and waste type acceptance criteria.
- iii) The waste is not odorous – waste is likely to be odorous if it has elements of putrescible waste and food residue.

If an issue is identified at the site with non-conforming waste, the load shall be transferred to the quarantine area and site management alerted. Action taken may be to segregate and remove the problematic waste to a secure area or to sort the load, removing acceptable waste to recycling and to invite suitable qualified contractors to collect the problematic waste.

A driver induction will be conducted, and this briefing includes information on dust mitigation. Waste will only be accepted on site where the waste has been pre-booked with the office staff. Waste

accepted onto the site from 3rd parties will be visually inspected upon reception to the site in order to ensure that the waste is compliant with the site's permitted waste types and EWC Code description given by the produce/holder as listed on the waste transfer description.

Any wastes that do not comply with the site's permitted waste types shall be reloaded, rejected and recorded in the rejection log.

Upon arrival, the waste vehicles will drive over the weighbridge to the northeastern area of the site to accurately record wastes weights prior to delivering the waste to the tipping area. Further detail on this procedure can be found in the Site Management Plan.

There is one weighbridge on site where all vehicles will be weighed on arrival prior to tipping and on exit. All weights will be recorded and kept within the weighbridge office that is next to the weighbridge.

In terms of records, Duty of Care notes, Waste Transfer notes are all kept. Additionally, input records consisting of EWC Codes as well as the source and quantity of the waste received will also be kept.

2.2 Overview of Waste Processing Dust, and Other Emission Controls

Waste is brought onto site using the company's own vehicles and occasionally approved third party contractor vehicles. Upon arrival, the waste vehicles will drive over the weighbridge located at the entrance of the yard, prior to delivering the waste to the tipping area in the shed or in the case of inert waste, within the tent (steel framed canopy bay) to the eastern end of the site. The waste will then be immediately sorted and segregated by hand with the assistance of mobile plant including the picking line. Once sorted, the waste will then be transferred to the appropriate stockpile according to waste stream (timber, plastic, metals, general waste, inert).

Storage areas include areas within the covered stored shed, and several storage areas in the external yard.

All putrescible waste processing areas and stockpile storage are situated on an impermeable concrete surface which is easy to clean with a sealed drainage system. The site surface will be cleaned using either manual or mechanical sweepers when there is the visible accumulation of dust or immediately following an incident. The site access roads are constructed of tarmac which allows the easy and efficient removal of dust accumulations. These surfaces prevent dust generation compared to alternative surfaces such as hard standing, as it's not a source of dust itself. A copy of the cleaning regime can be found in Appendix B.

There are concrete panel walls measuring 3.5m in height surrounding stockpiles 25, 26 & 27 which is the area used for screening and crushing of inert wastes.

There are two covered tipping bays on the site. One is positioned to the south of the covered storage shed, and the other is the tent (steel framed canopy bay) to the east of the site. The covered storage shed is a partially enclosed building which will screen the tipping of wastes within this area. These covered locations means that wind-whipping to wastes being deposited is significantly reduced.

There is metal fencing along the perimeter which shield the site from the wind. The site perimeter also helps to improve the screening of site operations, and in turn mitigate issues arising from dust and litter and will also enhance the site's ability to reduce the risk of the spread of dust and litter to surrounding properties.

The site is permitted to handle up to 50,000 tonnes per annum of skip and inert waste per year. The site layout has been designed to enable efficient recycling of mixed household wastes and inert wastes, and incorporates an area to allow for the sorting and processing of skip wastes. Each waste stream will be typically processed within 30 days.

The site does not accept hazardous waste; however, it does accept certain wastes containing Persistent Organic Pollutants (POPs), such as sofas and mattresses.

The aggregates that will be deposited within the tent (steel framed canopy bay) will be exclusively clean hardcore inputs. This will be crushed to produce the output material, 6F2, which will meet the required end-of-waste criteria.

When accumulations of dust become visible, or immediately following an incident, the manual use of onsite hoses to dampen stockpiles and surfaces further prevents the spread of dust across the site and to neighbouring properties. On arrival and prior to tipping in the reception bay, the onsite hoses are used to spray loads with visible accumulations of dust to minimise the risk of a spread of dust and particulates when tipping. Hoses will also be used on vehicles with visible accumulations of dust, debris, and mud as per the housekeeping measures in Section 5.

Process stages within the covered storage shed, where there is potential for particulates to be released includes the tipping and initial segregation of waste using mobile plant, picking lines, trommelling, and baling. To reduce dust on the picking lines a dust extraction system is installed. The dust extraction across the picking lines at specific points captures dust and other airborne debris from the wastes. As mentioned above, on site hoses or sprinklers are used to dampen down wastes that are potentially dusty or dusty, prior to processing, or when being stored in stockpiles.

Process stages externally, where aggregate processing shall take place, where there is potential for particulates to be released includes the tipping and sorting of waste using mobile plant, picking lines, trommelling, and crushing. On site hoses or sprinklers are used to dampen down wastes that are potentially dusty or dusty, prior to processing, or when being stored in stockpiles. Once processed, the resulting aggregates will satisfy end-of-waste criteria. Consequently, stockpiles of 6F2, as depicted in Drawing Ref: 251902HW101, are not classified as waste.

Control measures for preventing dust emissions are detailed further in Section 3.2.

Table 2.1 Typical Waste Types Brought to Horrocks Waste Management Limited

General waste type	Process	Destination within the facility
Inert	Hand picking, sorting and crushing of recyclables from input waste with the assistance of mobile plant, processing equipment, and an excavator.	Assigned stockpile area within the external yard to the south-eastern boundary, and the loose stockpiles within the south-eastern area of the covered storage area.
Plastic	Hand picking and sorting of recyclables from input waste with the assistance of mobile plant, processing equipment, and an excavator.	Assigned storage bay within picking line along the eastern boundary within the covered storage area
Wood	Hand picking and sorting of recyclables from input waste with the assistance of mobile plant, processing equipment, and an excavator.	Assigned storage bay within the picking line along the western boundary within the covered storage shed. Also, an assigned skip to the central area of the site.
Metal	Hand picking and sorting of recyclables from input waste with the assistance of mobile plant, processing equipment, and an excavator.	Assigned storage bay within the picking line along the western boundary within the covered storage shed. Also an assigned skip to the south-

		eastern area within the covered storage shed, and a skip to the central south-western area of the site.
General Waste	Hand picking and sorting of recyclables from input waste with the assistance of mobile plant, processing equipment, and an excavator.	Assigned storage bay within the picking line along the western boundary within the covered storage shed. Assigned storage bay to the south-western area within the covered storage shed. Also, an assigned skip to the southern area of the covered storage shed.
Trommel Fines	Hand picking and sorting of recyclables from input waste with the assistance of mobile plant, processing equipment, and an excavator.	Assigned stockpile area within the south-eastern area of the covered storage area.
Plasterboard / gypsum waste	Hand picking and sorting of recyclables from input waste with the assistance of mobile plant, processing equipment, and an excavator.	Assigned skip within the western area of the covered storage shed.

Figure 2.1 Site Layout Plan showing the destinations of the onsite processes

2.3 Mobile Plant and Equipment

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

Description	Make	Emission Rating
Mini Excavator	Kubota U55-4	Euro 6
Mini Excavator	Kubota KX057-4	Euro 6
Wheel Loader	Doosan DL300	Euro 5
Wheel Loader	Hyundai HL757-9	Euro 5
Excavator	Hitachi 7X135-US	Euro 6

Plant machinery will be maintained by the supplier and will be serviced in accordance with the manufacturer's specifications and recommendations with a LOLER being performed annually. Plant will be cleaned down at the end of the working week. Defect checks will be performed daily by the user of the plant machinery and any defects noted will be recorded on the defect form and the repair will be arranged with the supplier.

In the event of a breakdown, either of vehicles, plant or machinery, a contingency process is followed which involves options such as fixing the item internally, covering the broken down item with a replacement, hiring a supplier to fix the item and renting additional equipment. If none of these options are suitable, operations may have to cease on site and the relevant affected parties will be contacted immediately with a date of when operations can continue.

If replaced, the item will be replaced with the lowest emissions standard possible at the time of purchase. Both ultra-low and low sulphur fuels are used. Breakdowns will be recorded, and the Environment Agency will be contacted with the nature of the problem and when it is expected for the site to return to normal operations.

Staff are trained on induction and are given refresher training at least annually via toolbox talks. Visitor driver inductions are given to inform them of all dust mitigation measures they can undertake. Control measures in place to reduce emissions include the strong enforcement of a ban on idling site vehicles and plant.

3. DUST AND PARTICULATE (PM₁₀) MANAGEMENT

3.1 Responsibility for Implementation of the DEMP

The Site Manager will exercise day-to-day control of the site, either personally or by delegation to suitably trained and responsible staff. The Site Manager will be responsible for the satisfactory working of the site and for ensuring compliance with the DEMP.

Daily records will be kept at the start of operations and again in the middle of the working day. The records will be kept on site for a minimum of two years and will be made available on request for inspection by the relevant authorities including the Environment Agency and Bolton Council.

Staff at all levels will receive the necessary training and instruction in their duties relating to all operations and the potential sources of dust emissions. Particular emphasis will be given to plant and equipment malfunctions and abnormal conditions. Staff are trained on induction and given training at least annually via toolbox talks.

The Site Manager will ensure that external hauliers and other visitors are aware of the need to comply with the provisions of this plan so far as they are relevant to their activities on site.

Any member of staff who fails to comply with the provisions of the DEMP will be re-trained, as necessary. External hauliers and other visitors failing to observe the requirement of the plan will be asked to leave the site.

The DEMP will be reviewed annually or in response to an incident.

3.2 Sources and Control of Fugitive Dust/Particulate Emissions

3.2.1 Sources of Potential Emissions

The principal dust sources anticipated would be from waste processing, loading, and unloading operations and site transport, which may also raise visible dust.

The main site operations with the highest risk of producing dusts is the initial deposit of waste, use of the picking line, use of the trommels, baling wastes, and the crushing of aggregates. The partially enclosed building will prevent the spread of dust across the site and to the neighbouring properties. The conveyor from the trommel and the picking line has a dust extraction system installed, which also mitigates against the spread of dust. Onsite hoses and sprinklers are also used to dampen down stockpiles if needed, which will be in place consistently.

The permit variation seeks to incorporate an additional area of land, thereby extending the currently

permitted boundary. The new area will be for the external storage and processing of aggregates. Processing will include the use of a trommel, picking line, and a crusher, all of which have the potential to generate dust. Fugitive dust on-site from the new area will be managed through several key control measures. To mitigate dust generated by vehicle movements and material stockpiles, multiple hoses and sprinklers are available for regular wheel washing and stockpile dampening. Furthermore, once constructed, 3.5m high walls will act as a physical barrier to help contain dust within operational areas. The enclosed environment under the tent (steel framed canopy bay) will be utilised for skip storage and the tipping of aggregates, specifically brick and block, further minimising the potential for dust dispersion. For dust emissions specifically associated with the crushing and trommeling processes, dedicated hoses and sprinkler systems will be employed and actively used throughout the working day to suppress dust at the source.

As shown in Figure 1.2, the prevailing winds blow from the south. This shows that the wind blows northerly and will move towards the neighbouring industrial units, the residential areas to the north, and then the open fields beyond.

Below, Table 3.1 details the potential sources of dust from operations being undertaken on site and their pathways, receptors, and suitable mitigation measures.

Table 3.1 Source-Pathway-Receptor routes for dust producing operations on site.

Source	Pathway	Receptor	Mitigation
Vehicles entering and/or leaving the site with mud on wheels and tracking dust on to or off the site.	Tracking of mud and dust onto public highway and subsequent atmospheric dispersion.	All	Vehicles will be sheeted. Hosing down of vehicles with the site hose if accumulation of debris is visible. Site based or 3 rd party sweepers used to clean the highway when accumulation of mud and dust is visible. The site is fully surfaced with impermeable concrete, making it easy to clean, therefore preventing potential material from being transferred to the public highway by vehicles.
Debris falling off vehicles	Tracking of debris on to the site from external vehicles and	All	Routine check of vehicles as they enter the site and use an onsite hose to clean the vehicles. Consistent

	subsequent atmospheric dispersion.		sweeping of the site surface when accumulation of debris is visible. The site is fully surfaced with impermeable concrete, making it easy to clean, therefore preventing potential material from being transferred to the public highway by vehicles.
Vehicles and plant moving around the site kicking up dust.	Atmospheric dispersion from the movement of vehicles around the site.	All	Site speed limit is strictly set to 5mph and vehicle idling is prohibited. An onsite hose will be used to dampen the concrete surfaces. Consistent sweeping and cleaning of concrete surface. Operations will cease in windy weather where airborne dust is visible. The site is fully surfaced with impermeable concrete, making it easy to clean, therefore preventing potential material from being transferred to the public highway by vehicles.
Road vehicles tipping waste	Atmospheric dispersion	All	Onsite hoses will be used to spray the loads prior to tipping and to dampen concrete surfaces. Routine sweeping as part of a cleaning regime and when accumulation of dust is visible. Operations will cease in windy weather where airborne dust is visible.
Windblown dust from exposed stockpiles	Atmospheric dispersion	All	Dusty stockpiles will be dampened with onsite hose. In windy weather stockpiles will be hosed prior to loading materials. Tarpaulin will be

			used to cover stockpiles likely to be blown by wind.
Processing machinery e.g., baler, picking lines, crusher, and trommel	Atmospheric dispersion	All	Aggregate processing is the only waste processing that will be carried out externally. Skip waste, and some inert waste will be processed within the covered storage shed. Onsite hoses will be used to dampen the concrete surfaces as well as consistent sweeping and cleaning to keep surface free from dust/mud. Operations will cease in windy weather where airborne dust is visible.
Site surfaces	Wind-whipping of surface dust and subsequent atmospheric dispersion	All	Site speed limit is strictly set to 5mph limiting wind-whipping from vehicles. Onsite hose used to dampen concrete surfaces. Concrete surfaces make them easy to consistently sweep during cleaning regime when accumulation of dust is visible. The site is fully surfaced with impermeable concrete, making it easy to clean, therefore preventing potential material from being transferred to the public highway by vehicles.
Loading waste back onto vehicles	Atmospheric dispersion	All	Hosing down vehicles before they exit the site if there is visible accumulation of debris. Operations will cease in windy weather where airborne dust is visible.
Particulate emissions from	Atmospheric dispersion	All	Site speed limit is strictly set to 5mph and vehicle idling is

the exhaust of vehicles/plant/ Machinery on site			prohibited. The use of low sulphur fuels and downward facing exhausts/blow off valves.
Generators, plant, and other non-road going mobile machinery	Atmospheric dispersion	All	Site speed limit is strictly set to 5mph and vehicle idling is prohibited. Consistent sweeping as part of a cleaning regime when accumulation of dust is visible.

3.2.2 Controls

The operations will be governed by the conditions within the planning permission that has been granted, and also the environmental permit which may be granted in due course. The following means of prevention are based on existing site management procedures and the planning permission guidance.

Relevant parts of current best practice for minerals can also be taken to apply to waste management and processing operations and will be referred to as appropriate. The essence of guidance for the minerals industry is that dust impacts can be controlled by effective site management.

Weather Conditions

As an over-riding requirement, if during windy conditions any operations are identified as causing or likely to cause visible emissions across the site boundaries, or if abnormal emissions are observed within the site, the Site Manager will immediately modify, reduce or suspend those operations until either effective remedial actions can be taken or the weather conditions giving rise to the emissions have moderated.

A proprietary windsock will be obtained and installed. This will provide a ready indication of the approximate wind strength and will show the direction in which any airborne dust is likely to be carried.

A trigger system will be adopted to identify those weather conditions when there is an increased or high risk of windblown dust. The trigger levels are detailed in the following matrix.

Table 3.2 Wind-blown dust matrix

Wind Speed			Rainfall		
Beaufort	ms-1	mph	Dry	Light showers	Heavy rain

5 +	8 +	18 +	Red	Red	Amber
3 – 4	3 – 8	8 – 17	Red	Amber	Green
1 - 2	0 - 3	1 - 7	Amber	Green	Green

The trigger levels will be interpreted as follows:

- Green: Wind-blown dust not normally likely to occur in significant quantities – normal dust suppression measures to be employed;
- Amber: Increased risk of wind-blown dust – additional checks on downwind boundary for visible dust – stockpiles will be inspected and treated as necessary in accordance with management relating to wind-blown dust across stockpiles; and
- Red: High risk of wind-blown dust – no dusty activities to take place if winds blow from the south– stockpiles will be inspected and treated as necessary in accordance with management relating to wind-blown dust across stockpiles.

When “red” conditions occur, and the wind blows from the south, all outdoor, dust generating operations will be immediately suspended.

Loading and Unloading

Drop heights will be controlled during all loading and tipping operations to reduce the entrainment of dust into the atmosphere. Routine hosing of the stockpiles in accordance with the housekeeping measures in Section 5 will take place to dampen the material and reduce dust emissions.

On arrival and prior to tipping, the onsite hoses will be used to spray the loads in order to reduce the risk of the spread of dust and particulates when tipping.

Site Traffic

All site traffic will keep to designated routes. The designated routes will be dampened using the onsite hose and will be swept where accumulations of dust are visible to dampen and remove any loose materials.

Standard good practice will be adopted for site traffic, including:

- Avoiding abrupt changes in alignment;
- Regular clearing, wetting and maintenance of yard surfaces;
- Setting site speed limit strictly to 5mph;
- Fitting site plant with upswept exhausts and radiator fan shields;

- Evenly loading vehicles to avoid spillages; and
- Regular application of water in dry conditions

Road Transport

All vehicles carrying material into or out of the site will be securely sheeted. The wheels, chassis and under-bodies of departing vehicles will be cleaned and further inspected by the driver before proceeding towards the site entrance. In the absence of a wheel wash, vehicles will be dampened down using the onsite hoses. The main source of water is mains water, however there are also two IBC containers filled with water present on site which can be used in the event of a drought or a hose ban. All site surfaces will be dampened in particular conditions such as dry, hot, or windy weather or when accumulations of dust are visible through the use of an onsite hose. Yard surfaces will be cleaned at least weekly using a road sweeper and swept as necessary to remove loose materials. The concrete surfaces will be cleaned consistently during operational hours in accordance with the cleaning schedule provided in Appendix B. A speed limit of 5mph will be set on site.

The site entrance will be inspected daily to ensure that track-out is not carried out onto the public highway. A road sweeper will be deployed when accumulations of dust are visible to remove any muddy or loose deposits.

Wind-blown across stockpiles and loose materials

Material stockpile areas will be clearly designated and are located indoors within the building, therefore significantly reducing the exposure to wind. Loose materials both inside and outside these designated areas will be swept to minimise generation of wind-blown dust.

Other Matters

General matters and the management of the site can affect the likelihood of significant dust emissions. These include:

- High standards of housekeeping to minimise track-out and wind-blown dust;
- The use of clean water for dust suppression, to avoid re-circulating fine material; and
- Effective staff training in respect of the causes and prevention of unacceptable emissions of dust.

The water supply to the dust suppression installations will be protected against frost to ensure availability at all times.

3.2.3 Maintenance

Effective control of dust emissions requires the maintenance and proper operation of all plant and equipment, including fixed and mobile dust suppression equipment. A programme of planned maintenance will be carried out on all plant and equipment in accordance with the manufacturer's recommendations to ensure that it operates at optimum efficiency.

Stocks of essential spares and consumable items will be held at the site of kept readily available for use at short notice.

Any malfunction or breakdown leading to abnormal emissions will be dealt with promptly and operations will be modified or suspended until normal working can be restored. All such malfunctions, and the actions taken, will be recorded in the site logbook. If control measures fail operations will cease and the regulator will be informed.

Table 3.2 Measures that will be used on site to control dust/particulates (PM₁₀) and other emissions

Abatement Measure	Description/Effect	Overall consideration and implementation	Trigger for implementation
Preventative Measures			
Site / process layout in relation to receptors	The location chosen for the development of the operation is as far as is reasonably practical from local sensitive receptors as can be designed.	Easy to implement as part of good practice. Site activities are strategically positioned to lower the risk of adverse impact on surrounding receptors.	This measure will be used the entire time that the site is operational.
Enclosing all processing operations and stockpiles indoors within the building.	Undertaking all waste processing indoors and storing all waste and product stockpiles indoors, or within the skips externally, significantly reduces the exposure to wind, and therefore	Easy to implement as part of good practice. The building has been granted planning permission and is of appropriate nature and scale to undertake industrial style operations within.	This measure will be used the entire time that the site is operational.

	significantly reduces the risk of wind whipping and the spread of dust to neighbouring properties.		
Dust extraction system to the picking line within the covered storage shed	Localised dust extraction is installed to key parts of plant which is used rather than a general building wide negative pressure system.	Very effective. Reduces H+S risks for staff working on site	The dust extraction system is required at when the processing plant within the covered storage shed is operational. Failure of the dust extraction system will be a cause for reduced processing operations, while repairs are carried out.
Site speed limit, 'no idling' policy and minimisation of vehicle movement on site	The speed limit on site is 5 mph. Reducing vehicle movements and idling should reduce emissions from vehicles. Procurement policy to only purchase clean burn road vehicles and non-road going mobile machinery. Enforcement of speed limit reduces re-suspension by vehicle wheels.	Easy to implement as part of good practice. Drivers are inducted onto site and speed limits are strictly enforced by site management.	Speed limit are in place at all times. Failure to comply with speed limits shall be a disciplinary matter for Staff and cause other drivers to be banned from the site.
Minimising drop heights for waste	Minimising the height at which waste is handled should reduce	Easy to implement as part of good practice.	Site staff are trained in the various dust mitigation measures required on site.

	the distance over which debris, dust and particulates could be blown and dispersed by winds.		This is done at induction and reinforced through annual toolbox talks. Any changes to the DEMP are also introduced to staff via toolbox talks.
Good house-keeping	Having a 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. A cleaning schedule is in place to ensure that any accumulations of dust that do occur are removed weekly. A copy of the cleaning schedule can be found in Appendix B.	Easy to implement and requires minimal equipment. Encourages a sense of pride and satisfaction amongst the staff which promotes vigilance and a positive culture. Staff should target the areas not caught by the road sweeper and other cleaning apparatus. Site management are responsible for ensuring that inspections take place and cleaning is undertaken in compliance with the schedule.	This measure will be used the entire time that the site is operational.
Sheeting of vehicles	Prevents the escape of debris, dust, and particulates from vehicles as they travel.	Clearly in the site management system, driver induction and implemented as appropriate measures.	This requirement will be enforced for the entire time that the site is operational.
Ceasing operation during high winds and/or	Mobilisation of dust and particulates is likely to be greater during periods of strong winds	Likely to reduce dust and particulate emissions, however, not a long-term solution.	This measure will be used the entire time the site is operational.

prevailing wind direction	and hence ceasing operation at these times may reduce peak pollution events.		
Mechanical sweeper to remove any material spread by vehicle wheels.	A mechanical sweeper will be used to clear any visible deposits made by vehicle wheels from the concrete surface of the site roads.	Easy to implement as part of good practice.	This measure will be implemented in response to observations of accumulations of dust or mud on site roads. In the event that a sweeper cannot be deployed, site management shall consider the potential for dusts to be raised from vehicles travelling on site roads, the potential for dust/mud to be taken off-site onto the public highway or for dusts to be created by vehicles operating on site roads and in the event that any of these situations occur, shall suspend inputs to the site until mitigation measures and normal conditions can be restored.
Easy to clean concrete impermeable surfaces	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on site haul roads.	Considered good overall based on dust and particulate reduction but potentially costly and disruptive to retrofit. There are maintenance and cleaning procedures	This measure will be used the entire time that the site is operational. Cleaning will be undertaken in accordance with the cleaning regime.

	This should reduce the amount of dust and particulates generated at ground level by vehicles and site activities.	in place for the concrete surfaces.	
Minimisation of waste storage heights and volumes on site	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Reducing storage volumes should reduce the surface area over which particulates can be mobilised.	Likely minimal return on potentially costly layout changes. The amount of waste that can be managed on site without causing dust and particulate pollution should be identified in the management system.	This measure will be used the entire time that the site is operational.
Remedial Measures			
On site sweeping	Road sweeping vehicles dampen down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside. Sweepers shall be hired in as required.	A mechanical sweeper will be used to clear visible accumulations of dust and mud. Manual sweeping and cleaning within the building is a daily activity carried out in accordance with a schedule.	This measure will be used when there is the visual build-up of dust during inspection and in compliance with the cleaning regime.
Water suppression with hose	Dampening down of site areas using a hose can reduce dust and particulate re-suspension and may	Quite water intensive. Routine spraying of stockpiles covered in the site management system and maintenance plans.	This measure will be used when observations by staff indicate that stockpiles are dry and weather conditions could give rise to

	assist in the cleaning of the site if combined with sweeping.		windborne dusts, to ensure stockpiles and the concrete surface are dampened down.
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3.3 Other Considerations

Water usage / availability:

The onsite underground water tank will be used to provide water for dust suppression. There may be the occasional use of a mains water hose that will only produce a maximum volume possible of a single tap. If this is insufficient in mitigating onsite dust, then the site will cease operations.

In the event of a drought:

As mentioned above, the underground water tank is used to provide water for dust suppression which even in a drought should still have adequate levels of water for dust suppression. In the event of a drought, water from the water tank will be used to dampen stockpiles and site surfaces in order to reduce the spread of dust. In the event the mains water hose is not working or there is a hose ban, the underground water tank will be used to dampen the stockpiles and site surfaces, and mains water will not be used.

Abnormal conditions and ceasing operations:

If the use of mains water from the hose or the use of water from the underground water tank is insufficient in mitigating onsite dust, then the site will cease operations until the dust is removed. Extreme winds have the potential to result in an issue with accumulations of dust and airborne dust. Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.

3.4 Enclosure of Waste Processing & Storage Areas

The currently permitted area consists of a covered storage shed for the processing and storage of skip waste and inert waste. Wastes within the covered storage shed are stored in either loose stockpiles, skips, or within concrete panel bays.

The covered storage shed is effective in preventing the release of dust emissions associated with the processing of the skip wastes and inert wastes within this shed, as it acts a barrier which reduces wind speed across the stored waste and skips. By having three sides and a roof, the shed partially encloses

the waste, preventing dust spreading outwards, especially during loading, unloading and sorting activities.

Horrocks Waste Management Limited is seeking a permit variation to incorporate an additional area of land, thereby extending the currently permitted boundary. The extension of the permit boundary will be facilitated through the expansion of the yard which will include an impermeable concreted area dedicated to the external processing of inert waste. Processing activities will include screening, sorting and crushing. Stockpile storage which will consist of loose aggregates and storage of aggregates within legio block walled bays.

The site surfaces and plant will be cleaned in strict accordance with the cleaning schedule provided within Appendix B to ensure the accumulation of dust is prevented.

Loose external stockpiles will be kept as small as possible and shall be managed using mobile plant.

The potential for dust emissions from the processing and storage of 6F2 aggregates will be minimised through a combination of proactive measures and inherent material properties. 6F2 aggregate, being a coarse, crushed material, naturally exhibits lower dust generation potential compared to finer materials. Crushing operations will employ water suppression techniques at the crusher, including water sprays at the crusher intake and discharge, to significantly reduce dust liberation during the crushing process. Stockpiles of 6F2 aggregates will be located away from sensitive receptors, and their height and shape will be managed to reduce wind exposure.

Site management will undertake inspections at the start and end of each day to ensure there is no accumulation of dust. Loose stockpiles will be dampened whenever necessary, and in the event that site management identify the accumulation of dust upon inspection, the loose stockpiles will be dampened immediately, and the vicinity swept. As stated within Section 3.6 below, if required, any exposed external stockpiles will be covered with tarpaulin at the end of each day to ensure out of hours emission prevention.

During windy and dry weather, following a weather forecast check, the loose external stockpiles, where necessary, will be dampened and covered with tarpaulin.

The moisture content of any stockpiles of potentially dusty and dusty wastes will be controlled to prevent the material becoming friable through dampening down the stockpiles on a weekly basis, immediately in response to an incident or during windy/dry weather.

3.5 Visual Dust Monitoring

Activities that have the potential to cause dust emissions, as detailed in Section 3.2, will be monitored at the start-up of operations and again during the working day. This will include a visual assessment of any impacts beyond the downwind site boundary. Regular site inspections will also be undertaken by a COTC holder.

All observations and findings, including wind and other weather conditions, will be noted in the daily records.

Should visible dust be generated, the Site Manager will act promptly to identify the sources of dust and take the necessary corrective action. Each event, its cause and the action taken will be noted in the daily records. Formal reporting of dust incidents will be recorded in the site incident log, and any offsite notifications of dust shall be considered as complaints.

If necessary, to avoid potential nuisance, the Site Manager will instruct the reduction or suspension of any operation or process causing visible dust emissions across the site boundary towards any sensitive receptor until the emissions can be controlled.

All site personnel will be instructed to inform the Site Manager whenever visible dust emissions are observed, or appear likely to occur, as a result of any operation or process.

3.6 Out of Hours Prevention and Monitoring

Arrangements for the out of hours prevention of emissions include:

- In the event the accumulation of dust has been identified by site management during their end of day inspection, exposed external stockpiles, or stockpiles in the covered storage area will be dampened down before closure.
- Covering any exposed external stockpiles with tarpaulin before closure each day.

The site does not have 24/7 security staff and therefore arrangements for the out of hours monitoring of emissions include:

- Site management will undertake perimeter inspections at the start and end of each day. In the event accumulations of dust are observed, they will be swept immediately.
- All exposed external stockpiles with the potential to be dusty will be covered with tarpaulin at the end of each working day.

3.7 Dust Suppression

Site management will undertake a site inspection, including the site perimeter, dusty stockpiles, and vehicle movement areas, at the start and end of each day in order to identify any accumulations of dust. In the event that an accumulation of dust is identified during these inspections, they will be swept immediately. The key forms of dust suppression on site are sweeping, the use of the mains water hose, rags for the wiping down of machinery, and sweeping around the processing plant.

There are several aspects of the site infrastructure that also contribute to dust suppression. General waste processing and some inert processing occurs within the covered storage shed.

Only aggregates are stored in the yard, which are all processed to meet end-of-waste criteria. The site has various concrete bays in the external yard. The structure of the bay walls, which will be 3.5m high, will act as a barrier reducing the risk of the spread of dust, and additionally protecting them from potential wind-whipping. This will reduce the risk of the spread of dust to nearby receptors.

At the end of each working day, any potentially dusty stockpiles will be covered with tarpaulin to reduce the risk of the spread of dust via wind-whipping out of hours.

Additionally, the site has multiple hoses and sprinklers for washing wheels and dampening stockpiles. Dust suppression on the crusher and trommel is through the use of hoses and sprinkler systems throughout the working day.

Tipping of the aggregates will be carried out under the tent (steel framed canopy bay), which will also reduce the risk of the spread of dust to nearby receptors.

As detailed within Appendix B, a daily cleaning schedule is strictly adhered to in line with the insurance recommendations which includes sweeping and vacuuming of the areas on a daily basis. The vacuuming procedure will ensure that the dust is captured and stored securely.

The location, type of dust suppression, and frequency of dust suppression is detailed within the cleaning schedule provided in Appendix B.

4. PARTICULATE MATTER MONITORING

Reference to the DEFRA Air Quality Management Area (AQMA) interactive map indicates that the site does not fall within an AQMA boundary, however it is situated within close proximity to the Greater Manchester Combined Authority Air Quality Management Area (AQMA).

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

The management and monitoring of particulate matter will therefore be undertaken by visual assessment. An action plan will be implemented on the basis that:

- i) there is an unacceptable visual emission of particulate matter from the site or
- ii) a complaint is received in relation to emissions to air. An unacceptable visual emission of particulate matter from the site comprises a visual observation of dust or particulate matter crossing the site boundary. The initial observation will be made by the site personnel who has identified the emission and will be verified by the technically competent manager. If an unacceptable visual emission is observed by on-site personnel, the action plan will be implemented immediately. It is deemed that PM₁₀ monitoring equipment is not required at this time. Should this situation change in the future then this plan would be updated, and a copy sent to the Environment Agency for their consideration and incorporation into the site's permit.

5. Preventative Housekeeping Measures

There are various housekeeping measures in place on site which significantly reduce the risk of the accumulation and spread of dust across and off site including:

- Enclosing the majority of the waste processing within the covered storage shed.
- Enclosing all external waste with the potential to produce dust within a concrete wall bay.
- External stockpiles will be routinely dampened down to reduce the likelihood of dust generation.
- Ensuring any external stockpiles remain 0.5m below the height of the retaining wall.
- Washing and dampening down any dusty / dirty vehicles upon arrival and exit with the site hoses in accordance with the cleaning schedule in Appendix B.
- Yard surfaces will be swept manually once a week or whenever necessary.
- Hiring a mechanical sweeper weekly or within 24 hours after an incident to clean and remove dust, mud, litter and other debris on the nearby haul roads and Highway.
- Site management to undertake site inspections at the start and end of each working day, and before and after deliveries, including perimeter inspections, to ensure no accumulation of dust, debris, or litter. Any accumulations will be immediately swept.
- Undertaking a weather forecast check once every 24 hours in anticipation of potential windy weather.

6. ACTIONS WHEN AN INCIDENT OF DUST IS REPORTED

The following actions are taken:

1. The Site Manager assesses site activities and the nature of waste handling and deliveries immediately prior to the incident being reported, to work out the cause.
2. If the source cannot be ascertained with 100% confidence, the Site Foreman on duty suspends the likely dust/particulate generating activities.
3. If the source is within the site's control, the Site Foreman on duty takes 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 3.1.

- c) Additional use of the dust abatement measures.
- d) Logging findings of a – c in the site diary, and also in the reporting template within the relevant appendix of the Environmental Permit.

If an effective abatement technique cannot be identified and implemented, and dust levels remain visible at the site boundary, then operations should be suspended.

In all cases, any new “lessons learnt” from the Site Manager’s investigations are considered by the company directors and implemented into dust & particulate emission management plan (if not already included), to prevent a re-occurrence of the incident.

7. REPORTING AND COMPLAINTS RESPONSE

A complaints form will be completed for every complaint received about Horrocks Waste Management Limited. All complaints will be recorded in a complaint register, a copy of which is attached in Appendix A. These records will be stored on file for a period of 6 years. In the event of a dust complaint, the complaint will be investigated with immediate effect, and the Environment Agency will be informed to assist within the investigation. A record of all copies of correspondence and telephone file notes will be made in the complaints register.

7.1 Engagement with the Community

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

7.2 Reporting Complaints

All complaints will be recorded in a complaint register (see Appendix A), and reported to the Site Manager, who will investigate the circumstances and ensure that the necessary corrective measures are taken. A prompt response will be made to the complainant and a record, including copies of all correspondence and telephone file notes, will be made in the complaints register. Relevant authorities, e.g. Bolton Council will be advised in writing within one week of any dust complaint received, together with details of the findings of the investigation and any corrective measures which have been taken.

In the event of any substantiated complaint, the effectiveness of the dust management plan will be reviewed.

If numerous complaints are received, particularly in regard to fugitive emissions, operations will cease until onsite conditions have been improved.

7.3 Management Responsibilities

Site management will alter Company Directors of any complaints in accordance with the equality system. Complaints registered will be discussed at monthly management meetings and any trends will be analysed. The monthly management meetings will instigate further remedial measures including reviews of the DEMP in response to any issues arising.

7.4 Complaints Response

In the event of a complaint, site management will respond to the complaint within 24 hours. The person/organisation that issued the complaint will be contacted within 24 hours of the site receiving the complaint to ensure that they are aware that the matter is being addressed and taken seriously.

In the event that a number of complaints are received, the complaints and trends will be discussed at management meetings. Consideration will be given to the causes of the complaint. A full review of all procedures and plans will be carried out to address any identified causes of the complaints.

If complaints are received from several sources, site management will carry out an off-site and on-site investigation to identify the nature, severity, and cause of the issue. If, in the opinion of site management, that no immediate practical action can be taken to mitigate the issue and the issue is sufficiently serious as to constitute pollution, then this would be escalated up to the Directors. The Directors would then take a view on whether operations should be suspended in order to deal with the immediate situation.

The site has been designed and will be operated to ensure that there would be no impact on neighbouring properties. However, should the neighbouring businesses, the regulator or local residents request regular liaison meetings, a liaison committee would be created, and any such committee would be free to decide the members and frequency of meetings.

8. SUMMARY

This DEMP has been produced on behalf Horrocks Waste Management Limited in order for the site to meet the requirements of and reassure the Environment Agency that the potential for dust produced from the site's operations is mitigated and controlled in every possible way. The aim is to be granted an environmental permit variation for the extension of the permitted boundary for the processing of aggregates.

The DEMP aims to control any potential sources of dust to prevent dust emission impacts on the surrounding receptors, including several that are sensitive. All possible source-pathway-receptor routes have been identified, and suitable abatement measures have been assigned to each one to minimise the potential dust caused from onsite operations.

The DEMP will be reviewed annually to ensure it is up to date or following a dust incident by the ineffectiveness of the plan.

APPENDIX A – DUST COMPLAINT FORM

Customer Details	
Customer Name -	
Address –	
Postcode -	
Customer Contact Details -	
Tel -	
Email -	
Date -	
Complaint Ref Number -	
Complaint Details -	
Investigation Details	
Investigation carried out by -	
Position -	
Date & time investigation carried out -	
Weather conditions -	
Wind direction and speed -	
Investigation findings -	
Feedback given to Environment Agency and/or local authority -	
Date feedback given -	
Feedback given to public -	
Date feedback given -	
Review and Improve	
Improvements needed to	

prevent a 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	
Site manager review date	
Site manager signature to confirm no further action required	

APPENDIX B – CLEANING SCHEDULE

Area	Horrocks Waste Management Limited						
	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Site Surfaces							
Access Roads							
Mobile Plant							
Processing Plant							

APPENDIX C – VISUAL MONITORING CHECK SHEET

Name:	Date:	Time:
Weather	Wind strength / direction	
	Conditions e.g. dry, showers	

Location of visible accumulation of dust	Time	Visible Dust	Dust Mitigation Action
Access road surface			
Yard surface			
Picking Line Stockpiles			
Airborne			
Covered Storage Shed Stockpiles			
External Stockpiles			

APPENDIX D – RECORD OF ACTIONS

Name:	Date:	Time:
Location of visible accumulation of dust	Dust control measure used	✓ or x
Access Road Surface	Mechanical sweepers	
	Hosing down of vehicles and surface to dampen	
Yard Surface	Mechanical sweeper	
	Manual sweeper	
	Hosing down of vehicles and surface to dampen	
Picking Line Stockpiles	Hosing down of stockpiles to dampen	
	Activation of water sprinkler system	
Airborne	Mobile mister unit to dampen air	
	Extreme circumstances: cease operations immediately	
Covered Storage Shed Stockpiles	Hosing down of stockpiles to dampen	
External Stockpiles	Hosing down of stockpiles to dampen	