Dust and Emissions Management Plan

Physical treatment of hazardous and non-hazardous waste

Godstone Highways Depot

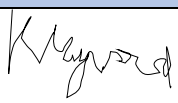
Ringway Infrastructure Services Ltd

Godstone Highways Depot
Oxted Road,
Church Town,
Godstone,
Tandridge,
Surrey,
RH9 8BP

Document Control

Document Title	Dust and Emissions Management Plan
Revision	1.0
Date	19/12/2023
Document Reference	Ringway Godstone DMP 19-12-23
Prepared For	Ringway Infrastructure Services Ltd
Authored By	MTS Environmental Ltd

Quality Control

Revision No.	Date Revised	Amendments	Authored By	Sign Off	Approved By	Sign Off
1.0	19/12/23	Original draft for permit application	Kasia Haywood		Luke Bridges	

Contents

Appendices

1.0 Introduction

1.1 Background

1.1.1 This document comprises a Dust & Emissions Management Plan (DMP) and has been written by MTS Environmental Ltd on behalf of the operator, Ringway Infrastructure Services Ltd (Ringway). The Ringway Godstone Highways Depot is located at Oxted Road, Church Town, Godstone, Tandridge, Surrey, RH9 8BP. The main activities on site will physical treatment of tar bound, inert and excavation wastes for recovery and re-use on highways schemes.

1.1.2 The site is not located within an Air Quality Management Area (AQMA). The nearest AQMA is AQMA No.1 M25 located 4.8 km away set by Reigate and Banstead Borough Council. The AQMA was declared for Nitrogen dioxide (NO_2) in 2002.

1.1.3 Without any abatement controls, the site has the potential for dust and particulates to be generated by the following sources:

- Dust raising from public, haul roads and operational surfaces through vehicle movements
- Dust raising from the mechanical loading/unloading of wastes
- Dust raising from the treatment operation such as crushing, screening, blending and loading
- Dust raising from stockpiles

1.1.4 This DMP has been written to support an environmental permit application and is based on the following guidance:

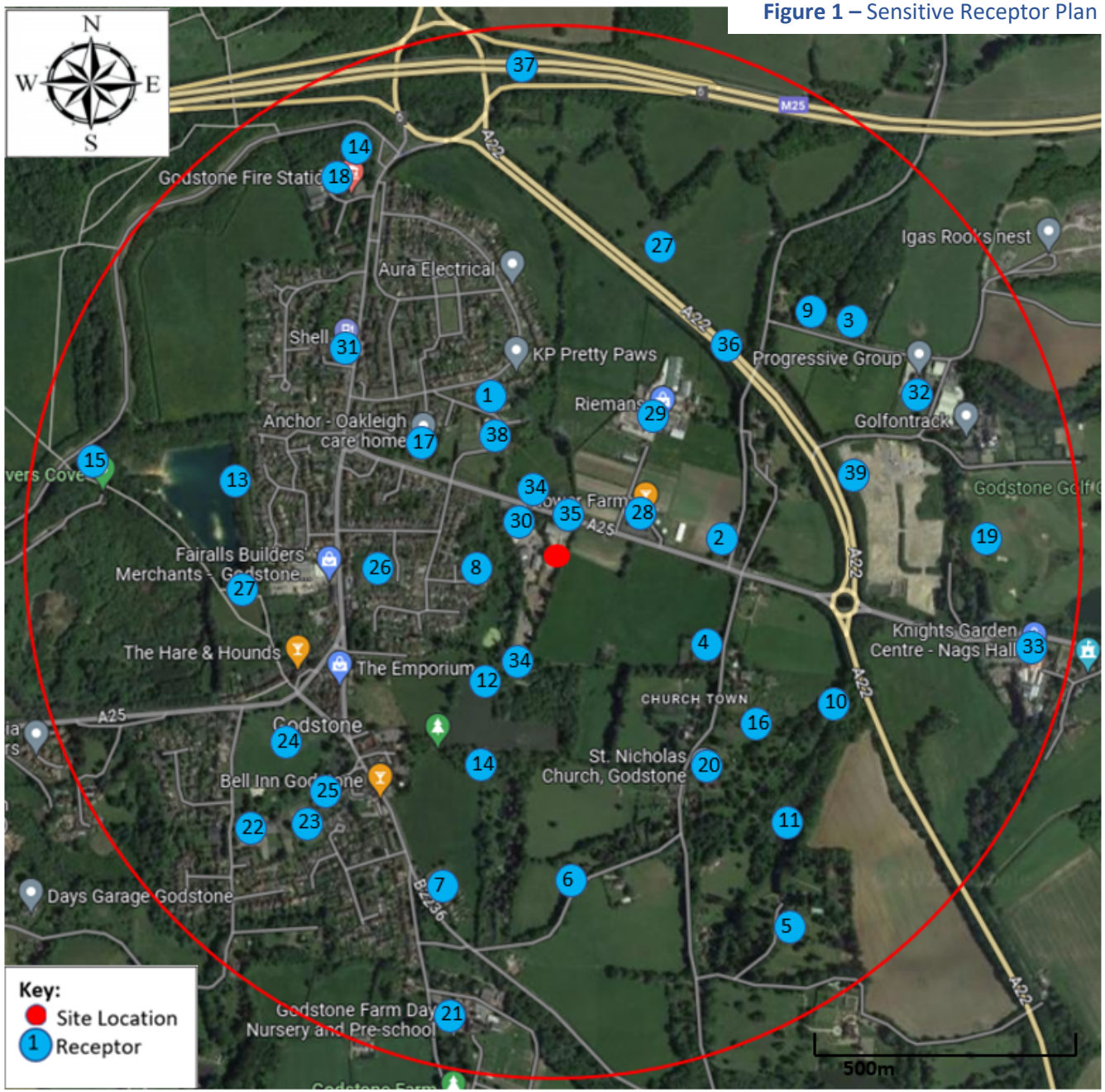
- Guidance on the assessment of dust from demolition and construction (Institute of Air Quality Management) (2014) (version 02)
- TGN M8 Monitoring ambient air, Version 02 (2011)
- TGN M17 Monitoring particulate matter in ambient air around waste facilities, Version 02 (2013)
- Good practice guide: control and measurement of nuisance dust and PM10 from the extractive industries (AEAT/ENV/R3140 Issue 1, February 2011)
- Chemical waste: appropriate measures for permitted facilities (Environment Agency guidance)
- Non-hazardous and inert waste: appropriate measures for permitted facilities (Environment Agency guidance)

1.1.5 This document outlines the potential sources of dust at the Ringway Godstone Highways depot, what receptors this may affect and how this will be managed by implementing mitigation strategies and infrastructure. All dust management mitigation plans align with the Ringway site-specific Environmental Management System (Appendix A).

1.2 Sensitive Receptors

1.2.1 A site location map (Figure 1) shows all the receptors identified by an initial assessment, undertaken by MTS Environmental Ltd, within a 1000m range from the site, the red circle indicates the threshold area.

Figure 1 – Sensitive Receptor Plan



ID	Receptor
Residential	
1	Properties off Ockleys Mead
2	Properties off Flower Lane
3	Rooks Nest Farm
4	Properties off Church Lane
5	Properties off Leigh Place Lane
6	Properties off Bullbeggars Lane
7	Properties off Eastbourne Road
8	Properties off Dewlands
Natural Land and Waterways	
9	**Flower Wood (ancient/deciduous woodland)**
10	Moore's Shaw (ancient/deciduous woodland)
11	Glebe Water
12	**Godstone Ponds (SSSI) inc. Bay Pond**
13	Divers Cove Nature Reserve
14	Ancient Woodland
15	Ancient Replanted Woodland
16	Priority Habitat Inventory – Traditional Orchards
Sensitive Land Uses	
17	**Anchor – Oakleigh Care Home**
18	Godstone Fire Station
19	Godstone Golf Club
20	St Nicholas Church
21	Godstone Farm Day Nursery/Pre-School
22	Godstone Primary and Nursery School
23	Godstone Village Tennis Club
24	Godstone Green
25	Pondtail Surgery
26	Salisbury Road Allotments
27	Scheduled Monuments
Industrial/Commercial	
28	Flower Farm Farm Shop
29	Flower Farm Industrial Park
30	**Veterinary Referral Centre**
31	Shell Garage
32	Rooks Nest Industrial Park
33	Knights Garden Centre
Public Rights of Way	
34	Public footpath
Infrastructure/utilities	
35	A25
36	A22
37	M25
38	Godstone Pumping Station
Priority species	
39	Lapwing

1.2.2 Thirty-nine receptors are listed on the map, eight of which are sensitive receptors for dust (highlighted in bold in Table 1): Properties off Ockleys Mead, Flower Lane, Church Lane and Dewlands (Receptors 1, 2, 4 and 8 respectively), Flower Wood (Receptor 9), Godstone Ponds SSSI (Receptor 12), Oakleigh Care Home (Receptor 17) and the Veterinary Referral Centre (Receptor 30). The remaining receptors are low sensitivity receptors, all have been added to Figure 1 and the relative distances to the centre of the site detailed in Table 1.

1.2.3 Activities listed in 1.1.3 could emit dust and particulate which could impair the view of the road users on the A25, A22 or M25 (Receptors 35, 36 and 37), however no visible pollutants should leave the boundary of the site and obstruct forward views on the surrounding local highways with the mitigation measures outlined in this plan in place.

1.2.4 Receptor 9, Flower Wood to the north east of the site has been classed as a sensitive ecological receptor as they are ancient woodlands located in the direction of the prevailing winds. Receptors 10, 14 and 15 are ancient woodlands but have not been classed as sensitive as they are not in the direction of the prevailing winds. Dust and particulates have the potential to cause ecological stress within the animal and plant community at these receptors. However, damage will be mitigated by the control measures set out in this management plan and the established vegetation around the site perimeter which acts as a buffer for any dust and particulates that, in the unlikely event, escape from the site boundary. The operations on site are unlikely to produce large amounts of dust and emissions as processing takes place on a campaign basis.

1.2.5 Properties off Ockleys Mead, Flower Lane, Church Lane and Dewlands (Receptors 1, 2, 4 and 8 respectively), are considered to be sensitive receptors as they are within 500m of the site. None of these properties are located in the direction of the prevailing winds. However, due to their proximity to the site, dust could have a negative effect on the residents. The site is surrounded by vegetation to act as a boundary against dust escaping the site. Alongside the mitigation measures outlined in this document and the Environmental Risk Assessment, any fugitive emissions and dust will be prevented from escaping the site boundary and impacting these receptors. Ringway Infrastructure Services Ltd will also keep an open-communication channel with the residents at these receptors to ensure any issues with dust are corrected as soon as possible.

1.2.6 Other residential properties, Receptors 3, 5, 6 and 7, are all located over 500m from the site and only Receptor 3 (Rooks Nest Farm) is located to the north east of the site in the direction of the prevailing winds. These receptors are unlikely to be susceptible to the adverse effects of exposure to any increased levels of dust and particulates. The distance between the site and the residences forms a potential buffer zone and allows time for dust and particulate to disperse before it could reach the receptors. Adding to this, visible pollutants will be mitigated from leaving the boundary of the site following the measures set out in this management plan.

1.2.7 Receptors 11, 13 and 16, Glebe Water, Divers Cove and Priority Habitat Inventory – traditional orchards are considered ecological receptors. Members of the public using these sites for recreational purposes or plant/animal communities at these sites may be affected by increased dust and particulates. The mitigation procedures outlined in this plan will prevent any fugitive emissions from reaching these areas. The surrounding infrastructure of the site will also act as a buffer to screen dust and particulates from reaching these receptors. No dust will be carried to the receptors on the prevailing winds as they are not located to the north east of the site, the prevailing wind direction. They are not considered highly sensitive due to their proximity to the site.

1.2.8 There is a Site of Special Scientific Interest (SSSI) named as Godstone Ponds, Receptor 12, located 270m and 910m south of the centre of the site. This is considered a sensitive receptor. The prevailing wind is in an opposite direction from the SSSI (Figure 4) but any high dust levels may affect the designated land area. The dust suppression system installed on-site and dust and particulates, if arising, will be managed in accordance with the site-specific Environmental Management System, which covers this scenario. The site is screened from the SSSI by established vegetation, boundary fence and salt barn, which is potentially also an adequate barrier to mitigate the effects of dust in average wind conditions.

1.2.9 There is an area of priority species of birds (Lapwing - Receptor 39) located 610m east of the centre of the site. It is not considered a highly sensitive receptor due to its further proximity from the site, therefore dust and particulates are unlikely to spread to this receptor. Dust will be contained within the site boundary through the perimeter fence and dust suppression measures outlined in this management plan so will not affect this species. Due to the nature of activities and mitigation in place, it is highly unlikely that dust will spread off the site boundary as assessed in the Environmental Risk Assessment. Communication with Natural England will be ongoing to ensure that any changes in the species whereabouts are known and appropriate additional measures are implemented.

1.2.10 Anchor – Oakleigh Care Home (Receptor 17) is located 295m north west from the centre of the site and is considered a sensitive receptor due to its proximity and the nature of activity conducted there which helps care for potentially ill elderly patients. The site users also may use the grounds outdoors on a regular basis. Dust will not be carried to this receptor on the prevailing wind as it is not in the north east direction. Dust will be contained within the boundary of the site through the perimeter fence and established vegetation and mitigation measures outlined within this document and the Environmental Risk Assessment. Visual monitoring will be conducted on site daily at and outside the site boundary to ensure that no dust and particulate emissions are travelling off site and affecting this receptor.

1.2.11 There are multiple other sensitive land uses surrounding the site (Receptors 18-27) which are considered medium risk receptors due to their nature and proximity to the site. Dust and emissions from the site could cause negative environmental and human health impacts at these receptors. However, with the mitigation measures outlined in this dust management plan and proposed activities on site, dust will be prevented from reaching the receptors. Due to the industrial uses of the surrounding area, this site will not generate more dust than the existing level at the location.

1.2.12 There are multiple industrial and commercial businesses located within 1km of the site (Receptors 28-33). These are at a low risk due to the nature of the businesses and proximity, only Receptor 30 (Veterinary Referral Centre) is considered a sensitive receptor due to it being located 80m from the centre of the site. However, this has been located here on the existing depot with no previous issues and a good relationship is held with them to help alleviate any problems. Activities at this receptor occur indoors so are less likely to be negatively impacted by dust. The likelihood of dust and particulates being emitted from the site which would affect these businesses and the people involved is very low with the abatement measures identified within the Environmental Risk Assessment and this document.

1.2.13 There are two public footpaths located within 1km of the site (Receptors 34). The perimeter fence and established vegetation acts as a barrier between the paths and the site. One of which is also located on the other side of the A25 which will act as a screen. No dust will escape from the site and effect these paths due to the abatement controls according to this Dust Management Plan.

1.2.14 There are many local wildlife sites, agricultural land and open space within 1km of the site that are not marked on Figure 1 that are considered as low risk or low sensitivity in accordance with IAQM guidance. These have not been added as receptors to Figure 1.

1.2.15 Table 1 details all receptors and their relative distances from the centre of the site.

Table 1 - Distances to selected, representative sensitive receptor locations

Receptor	Distance from site (m)	Direction
Residential		
Properties off Ockleys Mead	290m	North West
Properties off Flower Lane	315m	East
Rooks Nest Farm	680m	North East
Properties off Church Lane	340m	South East
Properties off Leigh Place Lane	845m	South East
Properties off Bullbeggars Lane	605m	South
Properties off Eastbourne Road	670m	South West
Properties off Dewlands	120m	West
Natural Land and Waterways		
Flower Wood (ancient/deciduous woodland)	625m	North East
Moore's Shaw (ancient/deciduous woodland)	620m	South East
Glebe Water	670m	South East
Godstone Ponds (SSSI) inc Bay Pond	**270m and 910m**	**South**
Divers Cove Nature Reserve (East Reservoir)	625m	West
Ancient Woodland	825m/420m	North/South
Ancient Replanted Woodland	950m	West
Priority Habitat Inventory – Traditional Orchards	500m	South East
Sensitive Land Uses		
Anchor – Oakleigh Care Home	295m	North West
Godstone Fire Station	770m	North West
Godstone Golf Club	800m	East
St Nicholas Church	530m	South East
Godstone Farm Day Nursery and Pre-School	945m	South
Godstone Primary and Nursery School	790m	South West
Godstone Village Tennis Club	695m	South West
Godstone Green	670m	South West
Pondtail Surgery	650m	South West
Salisbury Road Allotments	310m	West
Scheduled Monuments	600m/615m	North/West
Industrial/Commercial		
Flower Farm Farm Shop	160m	North East
Flower Farm Industrial Park	260m	North East
Veterinary Referral Centre	**80m**	**West**
Shell Garage	530m	North West
Rooks Nest Industrial Park	740m	North East
Knights Garden Centre	910m	East
Public Rights of Way		

Public footpath	115m/230m	North/South
Infrastructure/utilities		
A25	55m	North
A22	550m	East (and North)
M25	910m	North
Godstone Pumping Station	90m	North
Priority species		
Lapwing	610m	East
Groundwater		
Northern half of the site within Source Protection Zone I (SPZI)/ Southern half within SPZII		
Nitrate Vulnerable Zone 2017 Designation	0m	On site

1.3 Dust Contributing Receptors

1.3.1 There are several existing local contributors of dust within 1km of the site. These have been identified on the map below in Figure 2.

ID	Receptor
Industrial/Commercial	
29	Flower Farm Industrial Park
31	Shell Garage
32	Rooks Nest Industrial Park
Infrastructure/utilities	
35	A25
36	A22
37	M25

Figure 2 – Dust Contributing Receptor Plan

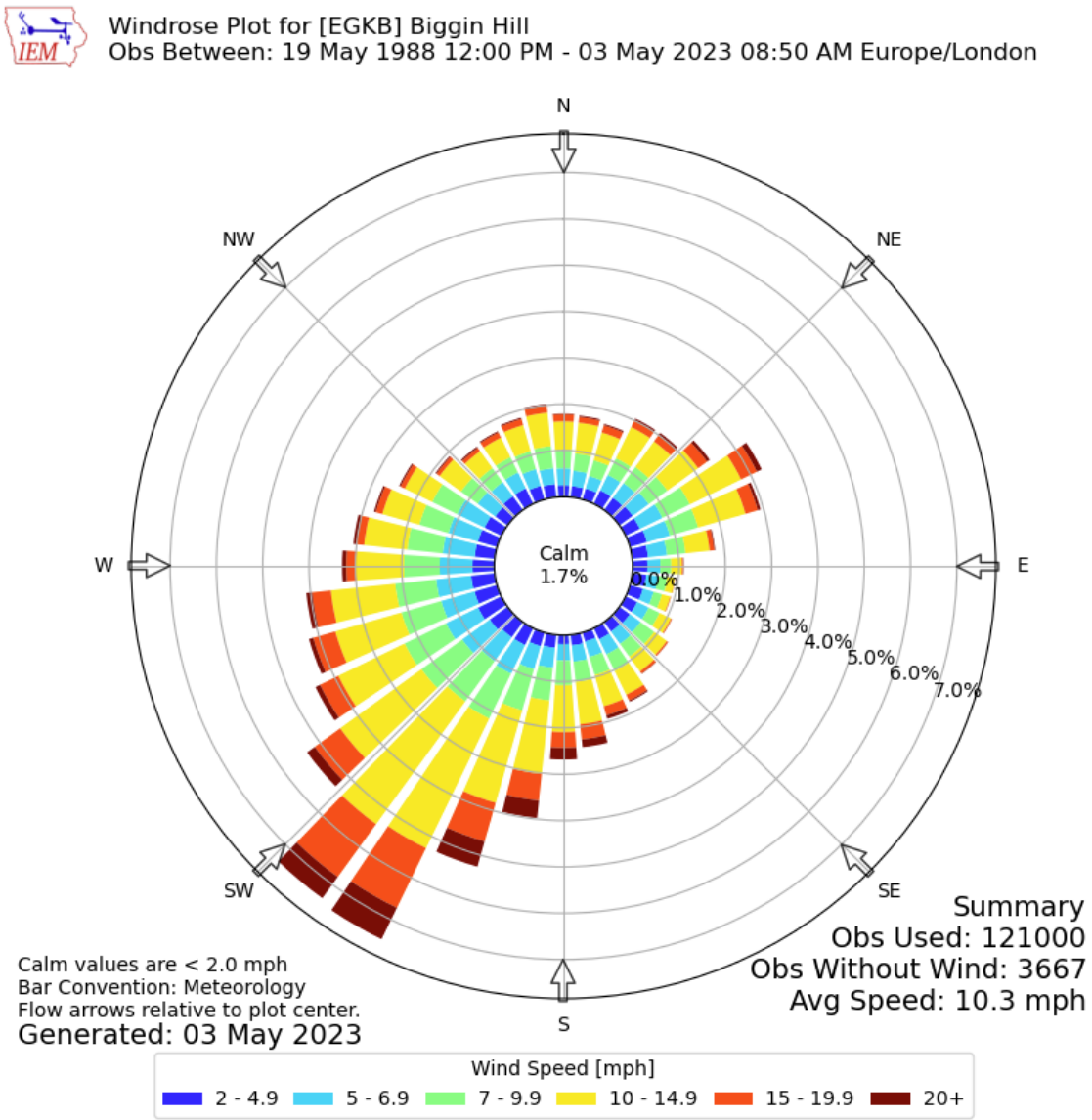
1.4 Environmental Effects

1.4.1 Wind Direction

1.4.1.1 Winds with speeds exceeding >5m/s from the direction of the dust source that occur more than 20% of the time are considered to increase the likelihood of dust being raised and blown from the site. The data for Royal Naval Air Station Yeovilton, South Somerset does not define the percentage of that period which is dry. This assessment will therefore assume a worst-case scenario of all winds >5m/s occurring on dry days.

1.4.1.2 Wind rose data from Biggin Hill weather station shows that the prevailing wind is on average only 4.6 m/s (10.3 mph) (a gentle breeze on the Beaufort Scale) to the North East where winds of >5m/s occur ~5% of the time, which is considered infrequent (Figure 4). Winds of >5m/s from all other directions are defined as 'infrequent' occurring ≤3% of the time.

Figure 4 - Wind rose showing the average wind data at Biggin Hill meteorological station (source: Iowa Environmental Mesonet)



1.4.1.3 Biggin Hill meteorological weather station is located 11km from the Ringway Godstone Highways Depot, it is the nearest weather station with available wind rose data. It has a similar topography and similar weather conditions to those at the depot. Therefore, this wind rose data is comparable to that of the site.

1.4.2 Rainfall

1.4.2.1 0.2 mm rainfall a day is considered sufficient to effectively suppress wind-blown emissions, however analysing days with greater than 1 mm rainfall is considered to be a more robust approach.
1.4.2.2 As shown in Table 2, the average number of days per month with greater than 1mm rainfall is quite consistent throughout the year. Using this climatic rainfall data, it is likely that for 35.49% of the year dust will be suppressed due to meteorological conditions.

Table 2 – Climatic rainfall Data from 1991 - 2020 at Kenley Airfield meteorological station (source: metoffice.gov.uk)

Month	Rainfall (mm)	Days of rainfall ≥1 mm (days)	Proportion of the month with days of ≥1mm rainfall (%)
January	86.68	13.13	42.35
February	65.42	11.23	40.11
March	53.60	9.80	31.61
April	57.15	9.87	32.90
May	59.08	9.50	30.65
June	59.05	9.37	31.23
July	56.28	8.57	27.65
August	66.27	9.33	30.10
September	66.17	9.53	31.77
October	94.34	12.70	41.00
November	92.24	13.27	44.23
December	90.51	13.23	42.68
Annual	846.79	129.53	35.49

1.4.2.3 Kenley Airfield meteorological weather station is located 6.2km from the Ringway Highways Depot and is the nearest available station with rainfall data. It has a similar topography and similar weather conditions to those at the depot; therefore, this rainfall data is comparable to that of the site.

2.0 Operations at Ringway Godstone Highways Depot

2.1 Waste Deliveries to Ringway Godstone Highways Depot

2.1.1 Waste will arrive on site in HGVs entering from the A25. They will travel along the site access road onto the site and will exit along the same route.

2.1.2 Waste will be covered when transported in vehicles into and out of the site. When tipping, material will be dampened down when necessary.

2.1.3 Every waste movement coming onto site will be recorded by a Waste Transfer Note (WTN) or Hazardous Waste Consignment Notes (HWCN), with the following information:

- A description of the waste and European Waste Code (EWC) code
- The quantity of the waste
- The origin of the waste
- Delivery data and the identity of the waste producer

2.1.4 The Operator shall keep a copy of the WTN/HWCN on site. All waste received at the site shall be visually inspected to confirm that the description and composition conform to the written description and the EWC on the relevant WTN/HWCN and to the description as detailed in the permit, and any other accompanying documentation.

2.1.5 If a vehicle load, upon inspection, is non-compliant with the Environmental Permit, waste will be refused entry and the event shall be recorded into the site diary. The site diary shall be kept on site.

2.1.6 Waste types and EWC Codes accepted on site are outlined in the Environmental Management System (EMS) (Appendix A).

2.1.7 The waste acceptance procedures, implemented through the Ringway Godstone Highways Depot EMS, will be applied to ensure that only permitted waste is accepted. Wastes that include dusts, powders or loose fibres are not accepted at the site and waste that is stored during prolonged dry periods will be damped down.

2.1.8 Waste will be tipped in the relevant stockpiles or storage bays, processed and then placed into their appropriate outgoing stockpile to await collection and removal from site.

2.1.9 Material will not be accepted onto site under the following circumstances:

- If there is insufficient storage capacity on site
- If there are extreme weather conditions, such as site flooding
- Abnormal site conditions preventing normal working

2.2 Overview of Waste Processing, Dust and Other Emission Controls

The Site Layout (Appendix B)

2.2.1 The site is split into different areas for safety reasons with clear safe working areas around all working plant. See Appendix B for a detailed site layout plan, where the red line boundary indicates the permit boundary.

2.2.2 The site comprises an open yard utilised for processing and segregated storage bays/skips.

2.2.3 The site is enclosed within a perimeter palisade fence and established vegetation at the borders which acts as a physical barrier to prevent dust and particulates escaping from site.

2.2.4 The site has designated paths for the entrance/exit of HGVs to move around the site to avoid the vehicles from disrupting and coming into contact with any dust in the processing area or stockpiles.

2.2.5 The only access to the site from public roads is via the A25. Loads are inspected upon arrival before being accepted on site. Once inspected, wastes are tipped into the appropriate stockpile. Vehicles then exit the site on the same haul road leading back onto the A25.

2.2.6 Wastes will be stored in storage bays limited to 3.5m high to prevent wind-whipping. This is 0.5m below the top of the bay walls, this will be marked with a painted line around the inside of the bay to prevent stockpiles exceeding this height. Any non-conforming waste will be stored in the quarantine area and removed from site within seven days.

2.2.7 The whole site is surfaced in impermeable concrete. Run off water will drain naturally into the sealed drainage system which treats run off via a full retention interceptor. There is a low risk of contaminated surface water run off as it is all captured within the system. The nearby watercourses and bodies will be further protected by the buffer zone of established vegetation surrounding the site.

2.2.8 The site will operate an excavator, crusher (on a campaign basis), screener and telehandler. The wastes are mainly being stored on site and processing will occur infrequently. Any wastes that are being processed on site are not dusty and any processing is conducted in suitable weather conditions. Therefore, activities should not produce fugitive dust emissions.

3.0 Dust and Particulate (PM_{10}) Management

3.1 Responsibility for Implementation of this plan

3.1.1 The Technically Competent Manager (TCM) or the Nominated Competent Person/s (NCP) is responsible for the DMP and its implementation.

3.1.2 The TCM/NCP will undertake daily visual checks on all plant and operational activities.

3.1.3 A designated member of staff will undertake regular inspections of the site and its boundary (at the north east corner in the direction of the prevailing winds) to check for any evidence of dust deposition. These checks and observations would be recorded in the site diary. The frequency of checks would be increased when activities with a high potential to produce dust are being carried out and/or during prolonged dry or windy conditions.

3.1.4 Staff at all levels shall receive the necessary training and instruction in their duties relating to control of the plant and airborne emissions. Training will be given to all operatives on all aspects and impacts relating to the operation. All Health Safety Environment & Quality (HSEQ) training will be delivered in accordance with site Risk Assessment & Method Statements (RAMS) documentation. Additional training requirements will be reviewed annually, or if there are any procedural changes or changes in plant.

3.1.5 The TCM/NCP will review the DMP during annual audits to make sure it complies with the Environment Agency (EA) guidance. The DMP will also be reviewed if any dust complaint is received.

3.2 Environmental Monitoring for Vulnerable Receptors

3.2.1 Environmental monitoring may be required where there are vulnerable receptors. No visible dust is permitted to leave the site boundary therefore it should not cause nuisance to any of the receptors identified.

3.2.2 Mitigation measures are listed in Section 3.3 to minimise any adverse impact.

3.3 Sources and Control of Fugitive Dust/Particulate Emissions

Emission Limits

3.3.1 The following emissions limits detailed in Table 3 shall apply.

Table 3 - Emission Limits and Monitoring Requirements

Emissions	Sources	Limit	Monitoring
Dust	Dust raising from public, haul roads and operational surfaces through vehicle movements.	No visible airborne emission to cross the site boundary.	Operator visual observations at site boundaries downwind of operations for dust emissions at least twice daily. Abnormal events causing dust to be recorded in site diary.
Dust	Dust raising from the mechanical loading/unloading of wastes.	No visible airborne emission to cross the site boundary.	Operator visual observations at site boundaries downwind of operations for dust emissions at least twice daily. Abnormal events causing dust to be recorded in site diary.
Dust	Dust and particulate raising from the treatment operation such as screening and crushing.	No visible airborne emission to cross the site boundary.	Operator visual observations at site boundaries downwind of operations for dust emissions at least twice daily. Abnormal events causing dust to be recorded in site diary.
Dust	Dust and particulate raising from stockpiles.	No visible airborne emission to cross the site boundary.	Operator visual observations at site boundaries downwind of operations for dust emissions at least twice daily. Abnormal events causing dust to be recorded in site diary.

3.3.2 The site Environmental Risk Assessment includes a source – pathway – receptor model for the control of site environmental impacts. This can be reviewed in Appendix C.

3.3.3 The operator shall record observations and weather conditions on the dust monitoring sheet.

Any abnormal dust observations will be recorded in the site diary. The records must include the time, location and result of the visual assessment. The record must be kept by the operator for at least two years and be made available to the regulator for examination, on request.

3.3.4 Any historical records kept off site should be made available to the regulator for inspection within one working week of a request.

Control Techniques

3.3.5 BPM (Best Practicable Means) will be met in terms of emission limits outlined in Table 3. Ringway will also comply with both the chemical waste and non-hazardous and inert waste: appropriate measures for permitted facilities guidance given by the Environment Agency, found on the gov.uk website. The control techniques that shall be used are given below and further defined in the operators Environmental Management System document (Appendix A). Other techniques may be used providing Ringway can demonstrate that an equivalent level of control will be achieved. Prior written approval must be obtained from the regulator prior to using any other technique.

Stockpiles and Ground Storage

3.3.6 Airborne emissions from stockpiles shall be controlled. Methods such as limiting the location of stockpiles, covering or damping down will be used. Consideration shall be given to prevailing winds and weather conditions, such as a change in wind speed or wind direction and dust suppression used or operations modified accordingly, for example suspension of operations at times of high winds and dry weather.

3.3.7 Transferring of all materials to and from stockpiles shall be carried out in such a manner as to minimise airborne emissions this may include damping down when required, minimising drop heights from all plant and machinery and covering tippers. Operational areas will be regularly swept and washed or dampened as part of the housekeeping regime detailed in Section 3.6.

3.3.8 All non-hazardous waste will be stored in the designated stockpile and kept below 5m high to prevent wind whipping. Any hazardous waste will not be accepted on site and rejected following waste acceptance procedures. Waste types will not be mixed or come into contact with the other to prevent any cross contamination. Loads will be inspected upon arrival and any non-conforming material will be stored in quarantine. Wastes are screened by the perimeter fence to aid the retention and reduce the likelihood of dust being blown off site from stored materials.

3.3.9 Typically dusty wastes are not permitted on site but if stockpiles become dusty in dry weather conditions will be covered with sheeting or damped down during high winds or drought or when dust emissions can be seen during visual monitoring. Covering of waste and stockpiles will be recorded in the site diary.

3.3.10 Stockpiles will not be higher than 3.5m. These stockpile height limits will help to prevent wind whipping and will be administered through a painted line 0.5m below the top of the storage bay walls.

Process Operations

3.3.11 The mobile water bowser located on site will supply adequate water to implement dust abatement measures such as damping down. In the event of drought and if water restrictions are

imposed, an assessment will be made regarding water availability and operations suspended until enough water is available. The mobile water bowser is always on site and an extra one can be hired in when necessary and will always be available when needed.

3.3.12 Pole-mounted water spray dust suppression will be used on crushing and screening plants. All operators will be trained and implement the necessary dust mitigation activities. If a load is overly dusty then operations will be ceased. If sub-contractors are required on site for large volumes of processing, the TCM/designated responsible person will brief the specialist on this DMP to ensure dust impacts are mitigated. Activities, including the concrete batching plant, (permitted by local authority Part B installation Permits) are to be monitored by local environmental health officers.

3.3.13 When depositing material into stockpiles or for processing, drop heights shall be minimised to reduce dust production. Any loads where dust is visible upon inspection on arrival or during dry periods where some dust may be present on the site surface will be sprayed prior to tipping. It is unlikely that these loads will be dusty due to their nature.

3.3.14 Processing operations will be ceased in high winds (<25 mph).

3.3.15 There is a 360 excavator, telehandler and grab on site, these are mobile, and their location will vary during operating hours depending on where they are needed on site. The crusher and screener are located within the processing area on site.

3.3.16 Mobile plant machines have functioning air conditioning systems.

3.3.17 Respiratory Protective Equipment (RPE) is made available in the form P3 cartridge half mask respirators for site staff during processing activities.

Loading and Unloading

3.3.18 When loading vehicles, materials will be dampened down if any dust is generated, and the material will not be placed higher than the vehicle sides. Any spillage of material during loading will be removed as part of routine housekeeping measures. Vehicles shall be sheeted when entering or leaving. Any vehicles which have materials covering external surfaces will be cleaned with a high-pressure hose to prevent dust generation before leaving site.

Roadways and Transportation

3.3.19 The haul road to the site is wetted down daily (unless the weather conditions are raining). Road sweepers will be used during dry periods on the site haul road and entrance/access road as a dust suppression solution, they will be hired in. Manual sweeping will also be carried out when dust from haul roads appears airborne during daily inspections. This sweeping will keep the site roadways clear of dust, mud and debris. If there are any build-up of deposits on site, then manual scraping will be carried out to remove them prior to sweeping. Any sweeping will be recorded in the site diary.

3.3.20 The site has been designed so no haulage vehicles will be in contact with mud from operational surfaces, vehicles will avoid all areas where wastes are stockpiled by following a designated haul road. This will keep the site haul road clear of any dust, mud or debris and manual sweeping will be used to maintain clearance on the site haul road. The nature of the waste on site is also not dusty/muddy so haul roads are unlikely to become dusty.

3.3.21 The site has a wheel wash facility consisting of a high-pressure hose and brush which will be

used manually when vehicles leave the site if any visible mud/dust/debris is present during inspection. The facility is well situated at the access so it can be used on the way in or out of the site. Vehicles will then be re-inspected to ensure the wheel wash has been effective and that there is no visible dust/debris/mud present. If there is any dirt/debris still visible, then the wheels will be hosed again until no dirt can be seen upon inspection by appropriately trained site staff. If the hose is not capable of clearing the dirt/debris, then the vehicle will be stopped from leaving site and a more powerful jet wash hired in to clean the vehicle.

3.3.22 The same procedures will be in place during autumn and winter as the haul road will be kept clean and no vehicle can leave the site before it has been inspected for dust/mud/debris (see 3.3.18). Therefore, mud tracking and staining off site will not occur. If any mud/debris is deposited off site, then a road sweeper would be hired in, as necessary.

3.3.23 The site access road is concrete which will provide easy access for HGVs to prevent a backlog of vehicles building up and blocking the A25. The site surface of impermeable concrete will also reduce unsettling of dust.

3.3.24 There will be a speed limit of 5mph on site to prevent dust generation from surfaces.

3.3.25 The company has an informal 'Anti-Idling Policy' to ensure that any stationary vehicles switch off their engines which will be enforced on site.

Water based dust suppression system

3.3.26 Dust suppression in the form of spray bars will be used on the crushing and screening plant. These will always be used during processing. No other processing will be undertaken on site.

3.3.27 The mobile water bowser will be used with a pole mounted spray bar to dampen down stored materials and stockpiles to reduce dust production. It can cover the entire external site as it is mobile. Wastes accepted on site do not have a dusty nature and minimal processing is undertaken on site, so a fixed suppression system is not required.

3.3.28 The mobile water bowser will be used during operating hours by trained site staff to ensure that materials stockpiled are sufficiently dampened down so that they do not produce any dust during non-operating hours. A spray system attached to the bowser has been chosen over water cannons or sprinklers which use more water and are often less effective as the water droplets are bigger so are less likely to suppress the smaller dust particles. This makes the system water efficient.

3.3.29 A sufficient supply of water for the dust suppression system will be provided through the mains water connection so this will be used for dust suppression and provides a contingency plan for water supply. If there is still not sufficient water for dust suppression, then any tipping will be ceased on site until the water bowser is full and operational again.

3.3.30 In the event of a drought or if the mains fails and there is not water stored in the bowser, if any operations cause or are likely to cause excessive dust emissions beyond the site boundary, or if abnormal dust emissions are observed, site operations may be temporarily suspended to avoid further dust emissions. This will be decided by the Site Manager. If restrictions are enforced to restrict the amount of water available for use on site, this may lead to the suspension of operations that require a high-water usage.

Table 5 - Source-Pathway-Receptor Routes

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Dust and particulate raising from operational surfaces through vehicle movements	Falling off lorries and atmospheric dispersion	Residential properties, sensitive land uses, SSSIs, habitats and woodlands	Visual soiling, also consequent resuspension as PM10	Outlined in 3.3.19-3.3.25
Dust and particulate raising from the mechanical loading/ unloading of wastes	Atmospheric dispersion		Visual soiling and airborne particulates	Outlined in 3.3.7, 3.3.13 and 3.3.18
Dust and particulate raising from treatment/processing operations such as screening and crushing	Atmospheric dispersion		Visual soiling and airborne particulates	Outlined in 3.3.11-3.3.18, and 3.3.26 – 3.3.30
Dust and particulate raising from stockpiles	Escape from stockpiles and subsequent atmospheric dispersion		Airborne particulates	Outlined in 3.3.6-3.3.10
Mud	Mud dropping off vehicles and wheels when dry	A25, A22, M25	Visual soiling	Outlined in 3.3.19-3.3.25
Debris	Falling off lorries and escape from stockpiles	A25, A22, M25	Visual soiling, also consequent resuspension as airborne particulates	Outlined in 3.3.6-3.3.10 and 3.3.19-3.3.25

3.4 Enclosure of Waste Processing & Storage Areas

3.4.1 The site is enclosed within a perimeter palisade fence which acts as a windbreak against any prevailing winds that may disrupt dust and cause it to escape off site.

3.4.2 Around the outer perimeter of the fence, there is some established vegetation which will contribute to keeping any fugitive dust on site.

3.4.3 A detailed site layout plan is in Appendix B. All materials are stored in stockpiles in storage bays ready for processing or removal from site. Once they have been processed, they are transferred into their appropriate segregated outgoing stockpiles/storage bays to await collection and re-use on highways schemes. The stockpiles are limited to 3.5m high to prevent wind whipping. Stockpiles are enclosed within storage bays or skips, full enclosure is not necessary as the wastes are not dusty in nature.

3.4.4 Micro-netting and screening will not be installed due to the visual impacts these will have on the surrounding receptors and because they will not provide further mitigation against dust in comparison with the perimeter fencing/vegetation and dust mitigation measures on site.

3.4.5 Drop heights and storage heights will be minimised.

3.5 Visual Dust Monitoring

3.5.1 The Operator shall monitor emissions and make visual inspections of the site; Table 6 sets out the measures for visual dust.

Table 6 - Mitigation measures for visual dust emissions

Appropriate Measures for Reducing Emissions of Dust – Visual Monitoring	
Daily visual monitoring of aerial emissions at site boundaries shall be carried out by staff supervising all waste handling operations.	TCM /NCP to monitor operations throughout day (at least twice daily) at and outside the site boundary that is downwind of operations in the north eastern corner of the site.
	The inspection focusses on the following areas: -Monitoring for conditions likely to increase the risk of dust release - Visual assessment of any dust release - Monitoring of any visible surface soiling
	Observations and weather conditions including wind direction will be recorded on the dust monitoring sheet.
	Complaints to be recorded in the site diary and complaint form.

3.5.2 Visual inspections should be carried out during daily operational hours, especially when carrying out activities that are dusty (i.e., point 1.1.3). The visual monitoring locations are shown on the Site Layout Plan in Appendix B. Visual dust inspections will be completed at least twice daily:

- On arrival at the site and before sorting and / or agitation of the waste occurs.
- After the designated lunch break, before afternoon sorting and / or agitation of the waste occurs.

3.5.3 Additional routine monitoring at and outside the site boundary downwind (north east) of operations will be carried out when processing. If necessary, flags shall be placed on site to help observe the wind direction and prevailing wind.

3.5.4 The Operator shall record any abnormal observations in the site diary and report to the on-site TCM/NCP at the time of recognition who will review the visual monitoring. The records must include the time, location, and result of the visual assessment. The records must be kept by the Operator for at least two years and be made available to the regulator for examination, on request. A visual

monitoring check sheet provided to staff and explained during dust training via a toolbox talk is provided in Appendix D.

3.5.5 In an event that mitigation measures are not effective, and dust escapes out of the site boundaries, all dusty activities should be suspended until investigation takes place to identify cause(s) and appropriate mitigation measures.

3.5.6 The TCM/NCP shall suspend the operations if the weather is likely to trigger significant dust emissions that mitigation measures cannot prevent, for example high winds or drought.

3.5.7 Any historical records kept off-site should be made available to the regulator for inspection within one working week of a request.

3.5.8 All site operations and processing will only be carried out during operational hours in the day. Therefore, no dust is expected to be produced out of hours. The design of the site and covering of stored material, will mitigate any dust emissions from stored materials.

3.6 Site Housekeeping Routine

3.6.1 The Operator will adhere to a strict housekeeping routine which will contribute to reducing dust production from the site. The details of the housekeeping routine can be seen in Table 7 below.

Table 7 – General site housekeeping regime

Issue	Frequency	Action
General site and road cleanliness (presence of mud/debris)	Daily	Sweep road and impermeable surfacing if mud/ debris present. Dampen down haul road and access. Record Inspections /actions in diary.
Inspect tanks, containers, drums, drip trays and secondary containment for leaks	Daily	Any leaks to be stopped and cleaned up, containers to be replaced/ repaired immediately. Record inspections/ defects, damage and repairs in diary.
Visual inspection of boundary fences for breaks/damage	Daily	Any defects shall be made secure by temporary repair before the start of operations/end of working day and shall be repaired within 24 hours of the damage being detected. Record Inspections/ defects, damage and repairs in site diary.
Check mobile water bowser	Daily	Any defects shall be repaired before the start of operations/end of the day within 24 hours of the damage being detected. Record Inspections/ defects, damage and repairs in Site Diary.
Visual monitoring for aerial emissions-monitor dust at random times throughout the day	Daily	Check outside site boundaries and at visual monitoring locations for visual dust emissions at least twice daily. Record inspections / results / weather conditions / cause and actions in site diary.
General site cleanliness (presence of litter and dust deposits inside/outside site boundary)	Daily	Site walkover and inspection. Collection from inside and outside site (including boundary hedging) twice daily. Investigate the cause. Record

Issue	Frequency	Action
		Inspections/defects, damage and repairs in site diary.
Odour	Daily	Monitoring, through sniff tests, and record keeping.
Site Signage	Weekly	Check that signs are in good condition and arrange to repair/replace if damaged. Record Inspections /defects, damage and repairs in site diary.
Pest infestation check containers and stockpiles to monitor for vermin, scavengers and flies.	Daily	Check for the presence of vermin, scavengers and/or flies. Record daily inspections and result in site diary.
Ensure waste is stored in appropriate segregated containers and areas in accordance with Good Practice Guidance.	Daily	Check quantities are in accordance with EMS and Permit. Segregate as and when necessary. Record actions in site diary.
Check condition of fixed storage facilities – drainage, containers etc.	Weekly	Remove silt upon build up in the settlement channel. Check and record levels within containers. Take action to prevent spillage/remove via vacuum tanker, etc. Record actions in site diary.
Inspection of plant	Weekly	Maintenance/repair/regular servicing. Record actions in diary and plant maintenance log sheets.
Building / roofing /surfacing	Monthly	Any defects affecting the integrity shall be repaired within one week.

3.7 Contingency Planning

3.7.1 Mitigation measures will be constantly in place on site, however contingency measures, like ceasing operations, will only be used when there is potential for dust to be carried off site. After subsequent assessments, if conditions return to being low risk, then contingency measures can be removed. Contingency measures will be recorded in the site diary.

3.7.2 In the event of power failure or mechanical breakdown on site, operations will be ceased. If storage containers/bays are full then the site will not accept any more material until power returns, all drivers will be notified to not deliver to site. The event will be recorded in the site diary.

3.7.3 In the event that the dust suppression system fails then operations will be ceased, and materials stored outside will be damped down to prevent dust escape. The site will not accept any deliveries or tip material on site until the system is repaired successfully.

3.7.4 All plant and machinery will be maintained and calibrated in accordance with the manufacturer guidelines. If any plant fails or malfunctions then the manufacturer guidance will be consulted, and the manufacturer will be contacted if necessary.

3.7.5 Any identified damage to the building, gate and the perimeter fence that could compromise the site security will be recorded and reported to the landowner. A temporary repair will be made as

necessary before the end of the working day. Permanent repair or replacement will be undertaken as soon as practicable.

3.7.6 In the event of a fire or flood, procedures detailed in the Environmental Management System (Appendix A) would be followed. Operations will be ceased. The site will not accept any materials and deliveries will be sent back to their source or an alternative site if an acceptable site is found. All drivers of expected loads for that day will be notified not to deliver wastes and deliveries will be rescheduled.

3.7.7 In the event of an accident, all operations will be ceased, and the appropriate emergency services will be contacted if necessary. The event will be recorded in the site diary and an investigation into the cause and future mitigation will be completed.

3.7.8 In the absence of key staff members, the next Nominated Competent Person (NCP) will manage the site. If all NCPs are absent then the site will be forced to close, all drivers for any expected waste deliveries will be contacted and deliveries rescheduled.

4.0 PM_{10} Monitoring

The UK Air Quality Standards seek to control the health implications of respirable PM_{10}. However, the majority of particles released from construction and related activities will be greater than this in size.
The Ringway Godstone Highways depot may have the potential to elevate dust levels in the surrounding area, however, due to the size and location of the site and with mitigation measures, emissions should not affect PM_{10} concentrations. The PM_{10} impacts are classed as negligible. Further to this, nuisance dust deposition will be prevented by visual monitoring/mitigation measures identified in this plan.

AQMA No.1 M25

The M25 AQMA was originally declared for NO_2, the designated AQMA incorporates an area comprising the length of the M25 near Walton to a distance 30m either side of the carriageway between Junction 7 and the point to the west of Junction 8 where the motorway meets the borough boundary. It was declared on the 03/04/2002 by Reigate and Banstead Borough Council. The latest Air Quality Annual Status Report (2020) from Reigate and Banstead Borough Council states that there were no exceedances measured above the objective of 40 µg/m^3.[1] The AQMA is now under long term monitoring with a view to revocation.

Table 8 – Air quality objectives and standards

Pollutant	Annual Mean Objective of Reigate and Banstead Borough Council	The Air Quality Standards Regulations 2010 Annual Mean	Level of Exceedance	
			At Declaration (2002)	Current Year (2020)
Nitrogen dioxide	40µg/m^3	40µg/m^3	43µg/m^3	No exceedances measured

[1] 2020 Air Quality Annual Status Report (ASR) – South Somerset District Council

The Ringway Godstone Highways depot is situated approximately 4.8 km south east of the AQMA and PM_{10} was not considered sensitive, external PM_{10} monitoring will not be carried out on site.
The health impacts associated with long term background PM_{10} exposure is covered under Section 5.2 of the IAQM Guidance on the Assessment of Mineral Dust Impacts for Planning. It states, 'If the long term background PM_{10} concentration is less than 17µg/m^3 there is little risk that the Process Contribution (PC) would lead to an exceedance of the annual-mean objective and such a finding can be put forward qualitatively, without the need for further consideration.' The UK is required to comply with the annual-mean objective for PM_{10}. Defra have their own background monitoring for the UK for PM_{10}. Areas of the country are divided into sections. The Defra Background Maps show that this locations' PM_{10} background concentration is 14-17 µg/m^3 for 2021. This is below the 17 µg/m^3 stated in the guidance. The NO_2 background concentration is 11-20 µg/m^3 for 2021, this is below the 40 µg/m^3 statutory limit value. Therefore, activities at this site would unlikely give rise to an exceedance that would require monitoring.

4.1 Monitoring Location
N/A

4.2 Operation of Dust Monitoring Equipment
N/A

4.3 QA/QC and Record Keeping
N/A

4.4 Equipment and Data Management
N/A

4.5 Reporting of Data
N/A

4.6 Additional Detailed Reporting
N/A

5 Reporting and Complaints Response

5.1 Engagement with the Community
5.1.1 A complaint form will be available for those who are affected by the operations. If necessary, a meeting shall be carried out with candidates if dust is causing a serious impact. A complaint form is included in Appendix E.

5.1.2 The site will have a publicly visible sign at the entrance with contact details for the Operator so neighbouring businesses or local residents can contact Ringway if they have any complaints/issues at any time.

5.1.3 Ringway already own and operate the site so have an existing presence within the community and have built good existing relationships with neighbours.

5.1.4 This has been achieved through having an open-door approach so that any neighbours can visit the site and talk to site staff, any issues can be discussed and Ringway will change procedures if appropriate to address the issue. This approach will be continued on the proposed site.

5.1.5 If required, Ringway will hold a meeting with neighbouring businesses and local residents to discuss the proposed changes on site and hear any concerns. Ringway will be able to reassure the

community that the site will not cause them any adverse issues as they will be following strict management systems (including measures set out in this document) to prevent any negative impacts.

5.1.6 In the event of an incident on site, all businesses and residents within 250m will be informed by a member of Ringway staff by door-to-door visits.

5.2 Reporting of Complaints

5.2.1 In the event of a complaint, the TCM/NCP/site manager will immediately investigate the source of dust and whether it is originating from the site. Appropriate measures should be made, and action will be taken to prevent any further emissions leaving the site. Such actions may include suspending operations at site and applying water to the dust source.

5.2.2 The TCM should respond to a complaint within two working days.

5.2.3 A Corrective Action Report (CAR) will be completed, describing the incident and should include details as specified above. A record shall be made in the site diary.

5.2.4 The TCM or the designated responsible person will ensure that the Environment Agency (EA) is informed of these within 24 hours, ideally as soon as possible and as appropriate.

5.2.5 TCM will escalate investigations if successive complaints are received, operations will be suspended if 2 or more complaints are received within the same week. If complaints are found to be unsubstantiated, operations will continue at the discretion of the TCM.

5.3 Management Responsibilities

5.3.1 The TCM/NCP/designated responsible person/site manager shall take responsibility for any complaints. In the event of a complaint, the Site Manager should carry out procedures set out in Section 5.2.

5.3.2 The TCM or NCP is responsible for the implementation of this DMP.

5.3.3 The TCM/NCP will review this DMP during annual audits to make sure it complies with the Environment Agency (EA) guidance. The DMP will also be reviewed if any odour complaint is received.

5.3.4 Any historical records kept off site should be made available to the regulator for inspection within one working week of a request.

5.3.5 Any person having duties that are or may be affected by the matters set out in this DMP shall have convenient access to a copy of this document and the environmental permit. These documents will be available electronically via the Ringway Management System and issued as hard copy.

6.0 Summary

6.1 Waste activities carried out at the Ringway Godstone Highways Depot may produce dust, but it will be limited by the nature of the operations, waste types accepted and mitigation measures. In any

event, dust can be controlled to prevent its escape and to minimise airborne dispersal.

6.2 The main causes of dust will be related to processing activities, transportation, and stockpiling.

6.3 Dust from treatment activities will be controlled by effective site management with appropriate mitigation measures, this will include:

- Daily review of prevailing weather conditions and site operations
- Dust suppression spray covering outdoor storage area/bays
- Use of spray on crushing plant
- Damping down of stockpiles and site haul roads
- Appropriate location of stockpiles and processing areas to prevent windblown dust escaping
- Storage of hazardous waste in a segregated area
- Regular maintenance of all plant
- Keeping vehicles and roadways clean and dust free
- Careful transfer of material on site
- Postponing operations if significant wind-blown dust is likely to occur

6.4 Daily monitoring of dust levels and an annual review of the DMP will be carried out to prevent any adverse dust impacts from the site.

6.5 The procedures outlined in this DMP apply to all activities carried out at the Ringway Godstone Highways Depot for both wastes and non-waste materials processed and stored at the facility.