Written by

In partnership with

Dust Management Plan

Household, commercial, and industrial waste transfer station

Unit 19 Bakers Park,
Cater Road,
Bishopsworth,
Bristol,
BS13 7TT

Document Title	Dust Management Plan
Revision	4.0
Date	30/09/24
Document Reference	ETM Caters Road DMP 30/09/24
Prepared For	ETM Recycling Ltd
Authored By	MTS Environmental Ltd

Quality Control

Revision No.	Date Revised	Description of changes	Authored By	Sign Off	Approved By	Sign Off
1.0	20/03/23	Original draft for permit variation application	Kasia Haywood		Luke Bridges	
2.0	24/05/23	Small updates for final issue for permit variation	Kasia Haywood		Luke Bridges	
3.0	31/03/24	Amendments based on EA discussions	Leonie Horwood		Luke Bridges	
4.0	30/09/24	General Updates	Shawn Almeida		Luke Bridges	

Contents

Appendices

Appendix A: ETM Recycling Ltd Environmental Management System

Appendix B: Site Layout and Drainage Plans

Appendix C: Environmental Risk Assessment

Appendix D: Complaint Form

Appendix E: CR-MTS-DR-PL-0003 - Storage Bay Elevations

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, ETM Recycling Ltd, 81 Hartcliffe Way, Bristol, BS3 4RN. The site is located at Unit 19 Bakers Park, Cater Road, Bishopsworth, Bristol, BS13 7TT and a variation to the environmental permit, permit number: JP3793FP, has been submitted to allow the processing of additional waste codes and to alter the limits of treatment activities on site.

1.1.2 The site is not located within an Air Quality Management Area (AQMA). The nearest AQMA is located 1.5 km away set by Bristol City Council in the city centre. The AQMA was declared for Nitrogen dioxide (NO_2) and PM_{10} in 2001.

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 shredding
- Dust raising from stockpiles

1.1.4 This DMP has been written to support an environmental permit variation 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)
- Non-hazardous and inert waste: appropriate measures for permitted facilities (Environment Agency guidance, gov.uk)

1.1.5 This document outlines the potential sources of dust at the ETM Caters Road site, what receptors this may affect and how this will be managed by implementing mitigation strategies and infrastructure. All dust management plans align with the ETM Recycling Ltd 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.

1.2.2 Thirty-four receptors are listed on the map, eight of which are sensitive receptors for dust (highlighted in bold in Table 1): properties on Whitchurch Road, Headley Lane, Brookdale Road and Hareclive Road (Receptors 1, 2, 3, 4), Manor Woods Valley (ecological Receptor 5), the River Malago

(ecological Receptor 8), Bishopsworth Road Allotments (Receptor 10) and Headley Park Primary School (Receptor 11). The remaining receptors are low sensitivity receptors, all have been added to Figure 1 and the relative distances to the site detailed in Table 1.

1.2.3 Activities listed in point 1.1.3 could emit dust and particulate which could impair the view of the road users on the A4174 or A3029, 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 5 has been classed as a sensitive ecological receptor as it is Local Nature Reserve (LNR) located 400m north of the site. Dust and particulates have the potential to cause ecological stress within the plant and animal communities in this area. However, damage will be mitigated by the control measures set out in this management plan and the vegetation/housing between the site and receptor acts as a buffer for any dust and particulates that, in the unlikely event, escape from the site boundary. The location of the site within fencing and vegetation also acts as a form of dust protection. Any dust from the site will not be blown in their direction by the north easterly prevailing winds as the woodlands are not located to the northeast of the site (the direction of the prevailing winds).

1.2.5 The River Malago (Receptor 8) has been classed as a sensitive receptor as it is an open watercourse and is located 85m to the southwest of the site. Dust has the potential to cause negative ecological impacts on the animals, plants and overall health of the river. There are also European eels that may be found in this River. However, damage will be mitigated by the control measures set out in this management plan and the planting/infrastructure between the site and receptor acts as a buffer for any dust and particulates that, in the unlikely event, escape from the site boundary. Any dust from the site will not be blown in the direction of the river by the north easterly prevailing winds as the river is located to the west of the site. The operations on site are highly unlikely to produce large amounts of dust and emissions as processing takes place within the building. The site also has a fully impermeable surface with all surface water draining into a sealed drainage system so no particulates will drain freely into the river.

1.2.6 Properties on Whitchurch Road, Headley Lane, Brookdale Road and Hareclive Road (Receptors 1, 2, 3, 4) are all classed as sensitive receptors as they are located within 500m of the site so, due to their proximity, dust could cause negative impacts on their 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. The operations on site are highly unlikely to produce large amounts of dust and emissions as processing takes place inside the covered building. The site is also located on an existing industrial park with other businesses that have the potential to produce dust, the site will not produce any dust above that which is already produced by neighbouring sites on the industrial park. ETM Recycling Ltd will also keep an open-communication channel with the residents at this receptor to ensure any issues with dust are corrected as soon as possible. The site has been operational by another waste management company for nearly 10 years and no complaints have been made by local residents.

1.2.7 Receptors 6, 7 and 9, deciduous woodland, grassland and Pigeonhouse stream are considered ecological receptors. Members of the public using these sites for recreational purposes, as well as the plants and animals that reside here, 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 trees and infrastructure surrounding the site will also act as a buffer to screen dust and particulates from reaching these receptors. Any processing activities will take place within the building so it is unlikely that any dust will escape from the site.

1.2.8 Bishopsworth Road Allotments (Receptor 10) are considered a sensitive receptor due to their proximity at 40m to the north of the site and due to the nature of activities there with users being outside. The mitigation procedures outlined in this plan will prevent any fugitive emissions from reaching these areas. The site infrastructure with processing occurring within the covered building will also act as a buffer to screen dust and particulates from reaching this receptor. Dust particulates will not be carried to the receptor on the prevailing winds as they are not located to the north east of the site, the prevailing wind direction.

1.2.9 Receptor 11, Headley Park Primary School, is considered a sensitive receptor due to its proximity at 310m from the site. All other schools (Receptors 12-17 and 25) are located over 500m from the site so are not considered sensitive. Dust has the potential to impact children at these sites whilst playing outside. The mitigation measures outlined in this plan and the Environmental Risk assessment will prevent dust from leaving the site and causing adverse health impacts at the schools. Due to the surrounding infrastructure, in the unlikely event that dust does escape the site, it will be prevented from reaching these receptors as the infrastructure acts as a screen to prevent the spread of dust.

1.2.10 There are two nursing homes located within 1000m of the site (Receptors 23 and 24). Dust and particulates are unlikely to spread to these receptors on the north easterly prevailing winds as they are located to the south and east of the site, not in the direction of the winds. Adding to this, visible pollutants will be mitigated from leaving the boundary of the site following the measures set out in this management plan.

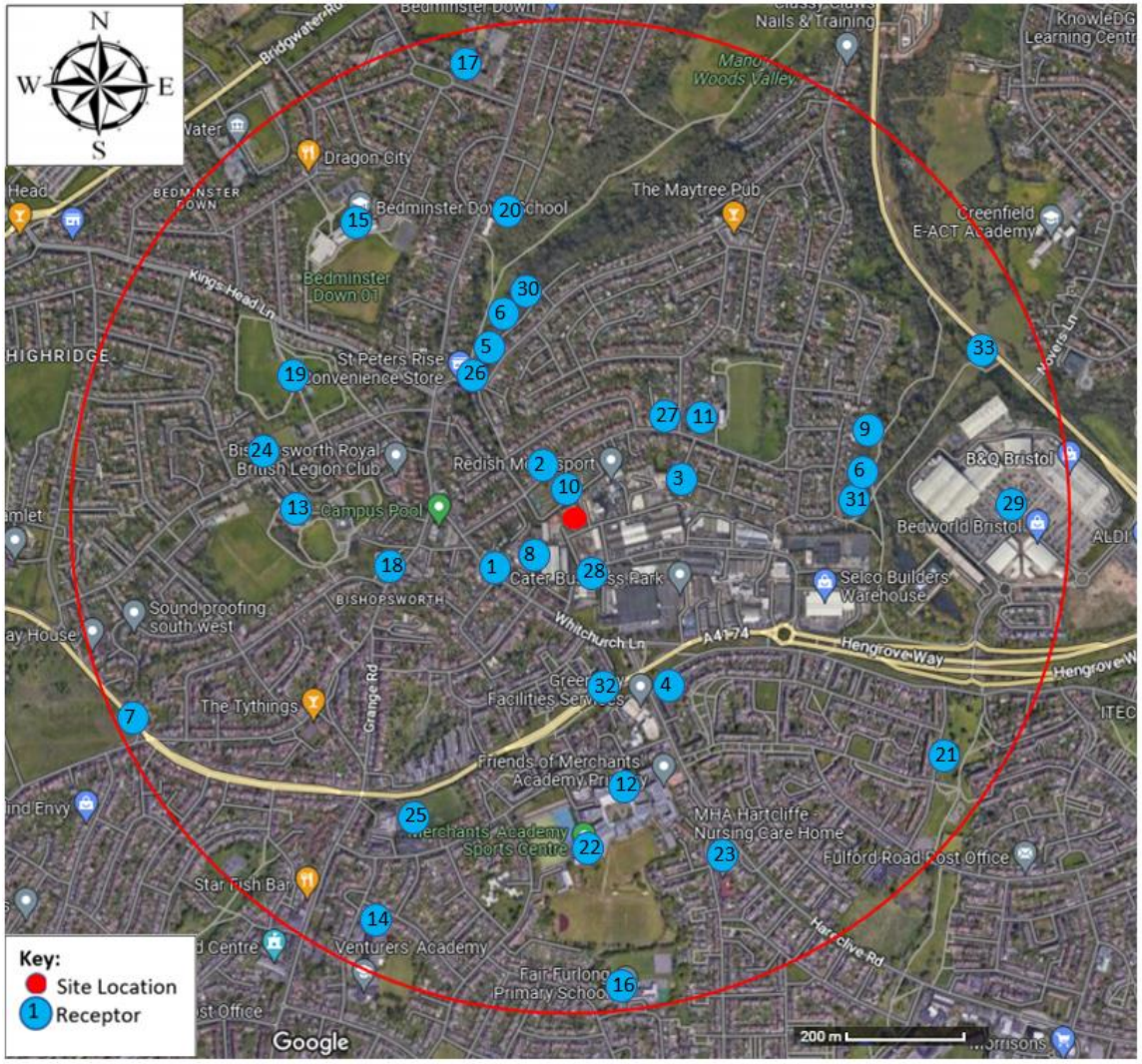
1.2.11 There are multiple other sensitive land uses surrounding the site (Receptors 18-22 and 26) which are considered medium risk receptors. Dust and emissions from the site could cause negative environmental and human health impacts at these receptors. However, with the mitigation measures outlined 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 1000m from the site (Receptors 27-29). These are at a low risk due to the nature of the businesses. 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. Receptor 28 is the business park which the ETM site is located on which homes other sites with the potential for dust-releasing activities.

1.2.13 There are two public footpaths located near the site (Receptors 30-31), located 400m and 590m from the site respectively. The roads and infrastructure between the paths and the site act as a barrier. No dust will escape from the site and effect these paths due to its location surrounded by other industrial infrastructures and abatement controls according to this Dust Management Plan.

1.2.14 There are many local wildlife sites, farmland and open space within 1000m 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.



ID	Receptor
Residential	
1	Properties on Whitchurch Road
2	Properties on Headley Lane
3	Properties on Brookdale Road
4	Properties on Hareclive Road
Designated Land and Waterways	
5	Local Nature Reserve – Manor Woods Valley
6	Priority Habitat Inventory (PHI) – Deciduous Woodland
7	PHI – Good quality semi-improved grassland (Non-priority)
8	River Malago
9	Pigeonhouse Stream
Sensitive Land Uses	
10	Bishopsworth Road Allotments
11	Headley Park Primary School
12	Merchants Academy
13	St Peter's Primary School
14	Gay Elms Primary School
15	Bedminster Down School
16	Fair Furlong Primary School
17	Cheddar Grove Primary School
18	St Peter's Church
19	Kings Head Lane Park
20	Allotments
21	Willmott Park
22	Merchants Academy Sports Centre
23	MHA Hartcliffe Nursing Home
24	Bishopsmead Lodge Care Home
25	Saint Pius X Roman Catholic Church and Primary School
26	Headley Park Church
Industrial/Commercial	
27	Headley Park Community Centre
28	Cater Business Park
29	Imperial Park Shopping Centre
Public Rights of Way	
30	Public Footpath in Manor Wood
31	Public Footpath in Crox Bottom
Infrastructure/utilities	
32	A4174
33	A3029 Hartcliffe Way

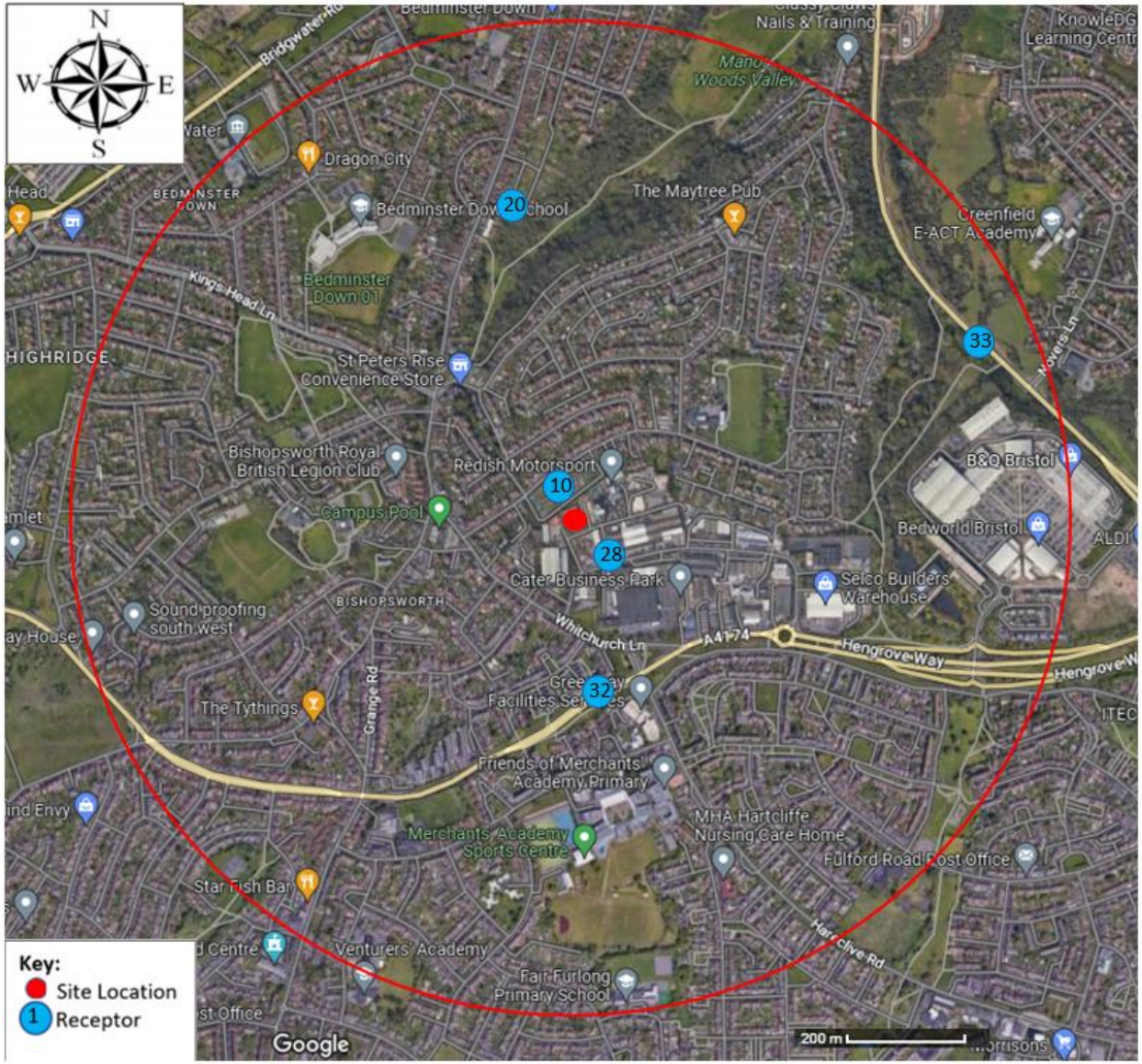
Figure 1 - Site location map of sensitive receptors

Table 1 - Distances to selected, representative sensitive receptors

Receptor	Distance from site (m)	Direction
Residential		
Properties on Whitchurch Road	165m	West
Properties on Headley Lane	105m	North
Properties on Brookdale Road	225m	East
Properties on Hareclive Road	395m	South
Designated Land and Waterways		
Local Nature Reserve – Manor Woods Valley	400m	North
Priority Habitat Inventory (PHI) – Deciduous Woodland	570m and 400m	East and North
PHI – Good quality semi-improved grassland (Non-priority)	925m	Northeast
River Malago	85m	Southwest
Pigeonhouse Stream	610m	East
Sensitive Land Uses		
Bishopsworth Road Allotments	40m	North
Headley Park Primary School	310m	North East
Merchants Academy	550m	South
St Peter's Primary School	500m	West
Gay Elms Primary School	950m	South West
Bedminster Down School	715m	North West
Fair Furlong Primary School	960m	South
Cheddar Grove Primary School	915m	North
St Peter's Church	375m	West
Kings Head Lane Park	535m	North West
Allotments	660m	North
Willmott Park	890m	South East
Merchants Academy Sports Centre	680m	South
MHA Hartcliffe Nursing Home	760m	South
Bishopsmead Lodge Care Home	620m	West
Saint Pius X Roman Catholic Church and Primary School	765m	South West
Headley Park Church	340m	North West
Industrial/Commercial		
Headley Park Community Centre	265m	North East
Cater Business Park	0m	South and East
Imperial Park Shopping Centre	710m	East
Surrounding Businesses		All directions
Public Rights of Way		
Public Footpath in Manor Wood	400m	North
Public Footpath in Crox Bottom	590m	East
Infrastructure/utilities		
A4174	335m	South
A3029 Hartcliffe Way	870m	East
Protected Species		
European Eel	Up to 500m	
Groundwater		
The site is not within a source protection zone or drinking water safeguard zone		

1.3 Dust Contributing Receptors

1.3.1 There are multiple existing local contributors of dust within 1000m of the site. These have been identified on the map below in Figure 2.



ID	Receptor
Sensitive Land Uses	
10	Bishopsworth Road Allotments
20	Allotments
Industrial/Commercial	
28	Cater Business Park
Infrastructure/utilities	
32	A4174
33	A3029 Hartcliffe Way

Figure 2 – Dust Contributing Receptor Plan

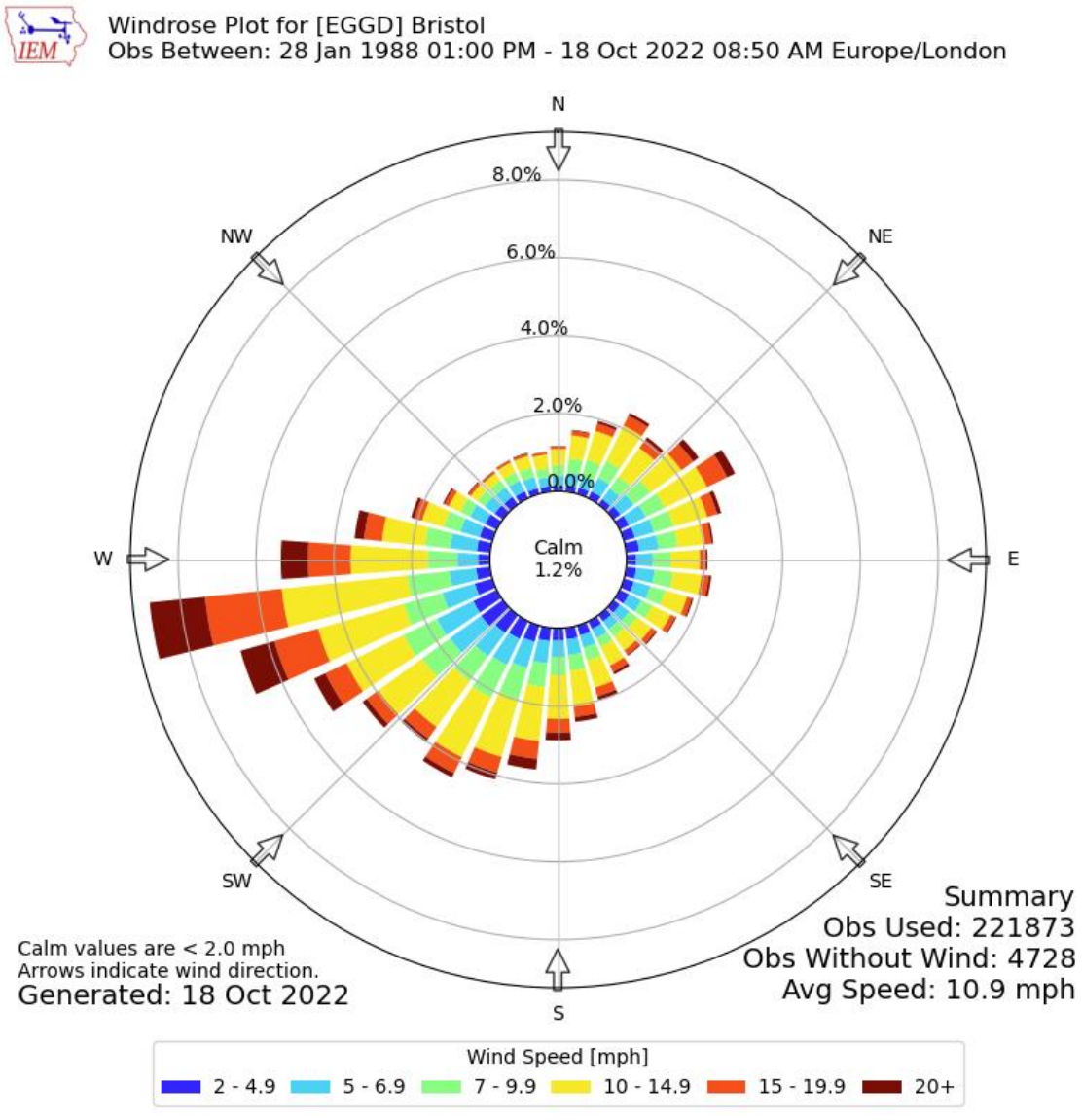
1.4 Environmental Effects

1.4.1 Wind Direction

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 from Bristol meteorological station 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.

Wind rose data from Bristol weather station shows that the prevailing wind is on average only 4.9 m/s (10.9 mph) (a gentle breeze on the Beaufort Scale) to the Northeast east where winds of >5m/s occur 7% of the time, which is considered moderately frequent (Figure 3). Winds of >5m/s from all other directions are defined as 'infrequent' occurring less than 5% of the time.

Figure 3 - Wind rose showing the average wind data at Bristol meteorological station (source: Iowa Environmental Mesonet)



1.4.2 Bristol meteorological weather station is located ~8 km away from the site, it has a similar topography to those at the ETM Caters Road site being relatively flat so this wind rose data is comparable to that of the site. The weather station is located at Bristol Airport which is much more exposed than the Caters Road site which is surrounded by infrastructure so we can assume that the wind is slower and less frequent at the site. The data given in Figure 3 can be taken as a worst case scenario.

1.4.3 Rainfall

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. As shown in Table 1.2, 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 37.21% of the year dust will be suppressed due to meteorological conditions.

Table 2 – Climatic rainfall Data from 1991 - 2020 at Filton 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	82.37	13.07	42.16
February	57.85	10.40	37.14
March	53.29	10.41	33.58
April	47.87	9.85	32.83
May	57.77	10.26	33.10
June	56.34	9.69	32.30
July	58.66	9.82	31.68
August	75.13	11.00	35.48
September	64.31	10.43	34.77
October	85.53	12.78	41.23
November	89.99	14.60	48.67
December	89.90	13.49	43.52
Annual	819.01	135.80	37.21

2.0 Operations at Caters Road

2.1 Waste Deliveries to Caters Road

2.1.1 Waste will arrive on site in HGVs entering off Whitchurch Lane with most coming from the A4174.

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 note (HWCN) with the following information:

- A description of the waste, i.e. 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 on site or the main head office. All waste received at the site shall be visually inspected to confirm that the description and composition conform to the written description and the European Waste Code on the relevant WTN 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 at all times

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

2.1.7 All waste types permitted and received on site will be sorted into their appropriate storage areas/containers, the occurrence of each waste type will depend on the marketplace and schemes available at the specific time.

2.1.8 Potentially dusty waste streams, their dust potential and processes they are subjected to is included in Table 2 below.

Table 3 – Potentially dusty waste streams

European Waste Code (EWC)	Description	Storage destination within facility	Processing of material	Dust potential	
				Without mitigation	With mitigation
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other then those mentioned in 03 01 04	Designated stockpile	Sorting and storage	Medium	Low
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)	Designated stockpile	Storage	Low	Low

17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	Designated stockpile	Sorting and storage	Low	Low
17 05 04	Soil and stones other than those mentioned in 17 05 03	Designated stockpile	Storage	Medium	Low
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	Designated stockpile	Sorting, separating and storage	Medium	Low
19 12 04	Plastic and rubber (once shredded)	Storage bay	Shredding, sorting and separating	Low	Low
20 02 02	Soil and stones	Designated stockpile	Storage	Medium	Low

2.2 Overview of Waste Processing, Dust and other Emission Controls

The Site Layout (Appendix B)

2.2.1 The red line on the site layout plan in Appendix B indicates the site boundary. The site is split into different areas for safety reasons with clear safe working areas around all working plant (see Appendix B).

2.2.2 The site comprises an open yard with a covered building utilised for any processing activities. This building is located in the North of the site so that the north easterly prevailing winds blow any dust further into the building and not across the open yard. Any processing and operating activities on site do not disturb the stockpiled material and cause any unnecessary dust emissions.

2.2.3 The site is surrounded by palisade fencing, wooden fencing and established vegetation and other industrial units which act as physical barriers against both noise and dust. There are a number of mature trees that line the site boundary to the Noth.

2.2.4 Vehicles enter through the haul road off Cater Road. The loads are inspected from the office before being accepted on site. Once inspected, wastes are tipped in their corresponding stockpile/storage area.

2.2.5 The office is located in the main building to the west, to allow observation of the entire site during operations and inspect any incoming loads.

2.2.6 Stockpiles are separated and regularly managed to maintain their size and location on site. Waste storage stockpiles are covered to prevent dust. See Appendix E.

2.2.7 The operational area of the site has an impermeable surface with a sealed drainage system that collects all surface water run off via the natural fall of the site which is treated through a full retention interceptor and discharges to foul sewer. Only clean roof water runoff drains into the highway drains which discharge to the Malago.

2.2.8 The site will operate a wheeled loading shovel, a shredder and in future a baler located within the covered building. All processing activities are carried out within the covered building which aids in containing dust on site.

2.2.9 Shredding and baling will be done on a campaign basis once sufficient materials are stockpiled to avoid on-off use and increased dust production.

2.2.10 The wheel wash is not required on site due to yard being concrete.

2.2.11 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 production area or stockpiles.

Water based dust suppression system

2.2.12 There are two water source points on site which spray hoses can be connected to, these will be used for dust suppression. The water source is from the mains so very reliable. There is rainwater harvesting from the roof drainage which will be used to dampen down the main yard.

2.2.13 Mobile plant machines have functioning air conditioning systems.

2.2.14 Respiratory Protective Equipment (RPE) is made available in the form P3 cartridge half mask respirators. It is understood that these are mainly used by staff operating and within the vicinity of the shredding machine.

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.

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 would undertake regular inspections of the site and its boundary 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 HSEQ (Health Safety Environment & Quality) training will be delivered in accordance with site RAMS (Risk Assessment & Method Statements) documentation.

3.1.5 The TCM/NCP should 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 identified receptors.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 4 below shall apply.

Table 4 - 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 shredding	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 4. ETM Recycling will also comply with the '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 ETM Recycling Ltd 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 dampening 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 necessary.

3.3.8 All waste will be stored in the designated stockpiles or storage bays both inside and outside the covered building. The bay walls will prevent wind-whipping as stockpiles will be kept at least 0.5m below the top of the bays. This will be implemented through a marker line on the bay walls.

3.3.9 No typically dusty wastes will be accepted on site but in the unlikely event that dusty wastes enter site then they will be covered with sheeting 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.

Process Operations

3.3.9 The two points of mains water supply 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. A mobile bowser will be hired in when necessary and will always be available when needed. The site has 2 underground holding tanks and an above ground freshwater tank for use as dust suppression should mains water not be available.

3.3.10 Spray hoses can be connected to the mains water supply for dust suppression and spray bars will be used on the shredding plant. The shredding plant will use bag filters designed to release particulates below 5mg/m^3. They will be fitted with continuous and alarmed pressure monitoring to make sure the filters are working correctly. ETM Recycling operate an UNTHA XR3000C Shredder inside the building, the specification states that it has low dust and fines of <5%. All operators will be trained and implement the necessary dust mitigation activities. If a load is overly dusty then

operations will be ceased. If subcontractors are hired on site to conduct processing activities, the TCM/designated responsible person will brief them on this DMP to ensure dust impacts are mitigated. Sub-contractors (permitted by local authority Part B installation Permits) are to be monitored by local environmental health officers.

3.3.11 When depositing material into stockpiles or for processing, drop heights shall be minimised.

3.3.12 Processing operations will be ceased in high winds.

3.3.13 All processing activities are conducted inside the covered building.

Loading and Unloading

3.3.14 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 or otherwise totally enclosed as soon as possible after loading where crushed material is smaller than 75mm. Any vehicles which have materials covering external surfaces will be cleaned to prevent dust generation before leaving site.

Roadways and Transportation

3.3.15 The haul road and operational area on the site is wetted down up to twice a day when required. 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 as necessary. 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.

3.3.16 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. This will keep the site surface clear of any dust, mud or debris and manual sweeping will be used to maintain clearance on the site haul road.

3.3.17 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 3.3.14). 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.

3.3.18 The site access is surfaced in impermeable concrete which will provide easy access for HGVs to prevent a backlog of vehicles building up and blocking Longwood Lane.

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

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

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, business, schools, River Malago, LNR, PHI	Visual soiling, also consequent resuspension as PM_{10}	Outlined in 3.3.14-3.3.20
Dust and particulate raising from the mechanical loading/ unloading of wastes	Atmospheric dispersion	Residential properties, business, schools, River Malago, LNR, PHI	Visual soiling and airborne particulates	Outlined in 3.3.7, 3.3.11 and 3.3.14
Dust and particulate raising from treatment operations such as shredding	Atmospheric dispersion	Residential properties, business, schools, River Malago, LNR, PHI	Visual soiling and airborne particulates	Outlined in 3.3.9-3.3.13
Dust and particulate raising from stockpiles	Escape from stockpiles and subsequent atmospheric dispersion	Residential properties, business, schools, River Malago, LNR, PHI	Airborne particulates	Outlined in 3.3.6-3.3.9
Mud	Mud dropping off vehicles and wheels when dry	Cater Road, A4174, A3029	Visual soiling	Outlined in 3.3.9 and 3.3.14-3.3.19
Debris	Falling off lorries and escape from stockpiles	Cater Road, A4174, A3029	Visual soiling, also consequent resuspension as airborne particulates	Outlined in 3.3.6-3.3.9 and 3.3.15-3.3.19

3.4 Enclosure of Waste Processing & Storage Areas

3.4.1 The site is enclosed within palisade fencing and secure gates with CCTV. The fencing and surrounding established vegetation acts as a windbreak against any prevailing winds that may disrupt dust and cause it to escape off site.

3.4.2 Material will be stored both inside the building and outside in the open yard in storage bays. Shredded materials may be baled prior to outside storage to reduce dust emissions and facilitate more efficient storage.

3.4.3 The recycling building is covered and enclosed, all processing activities are undertaken inside to reduce fugitive dust emissions from processing and will aid in keeping the material dry.

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 surrounding trees/walls at the site boundary.

3.5 Visual Dust Monitoring

3.5.1 The operator shall monitor emissions and make visual inspections of plant, Table 6 sets out the measures for visual dust.

Table 6 - Mitigation measures for visual dust emissions

Appropriate Measures for Reducing Emissions of Dust	
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 the day at and outside the site boundary in the northeastern corner that is downwind of operations.
	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). Additional routine monitoring at the site boundary downwind of operations will be carried out when shredding is in operation. Also, the Part B Mobile Plant Permit conditions supplied by any external subcontractors who come on site will be reviewed and a site-specific risk assessment produced relating to the crushing activity.

3.5.3 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.

3.5.4 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.

3.5.5 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.

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

3.5.7 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 storage bays 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 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	Daily	Check for the presence of vermin, scavengers

Issue	Frequency	Action
containers and stockpiles to monitor for vermin, scavengers and flies		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.

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 ETM Recycling Ltd Caters Road site 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.

4.1 The Bristol AQMA

4.1.1 The AQMA was originally declared for NO_2 and PM_{10}, the designated AQMA incorporates an area covering the city centre and parts of the main radial roads including the M32. It was declared on the 01/05/2001 and last amended on the 26/10/2011. The latest Air Quality Annual Status Report from Bristol City Council in 2021 states that there has been a year-on-year reduction annual NO_2 concentrations since 2010.[1] The average PM_{10} annual mean concentration in 2020 was measured as 18.8 µg/m^3.

Table 8 – Air Quality Objectives and Standards

Pollutant	Air Quality Objective	The Air Quality Standards Regulations 2010 Limits	Measured as

[1] 2021 Air Quality Annual Status Report (ASR) – Bristol City Council

	Concentration	Concentration	
Nitrogen dioxide (Provisional)	200µg/m^3 not to be exceeded more than 18 times a year	200µg/m^3 not to be exceeded more than 18 times a year	24-hour mean
	40µg/m^3	40µg/m^3	Annual mean
Particulate Matter (PM $_{10}$) (Gravimetric)	50µg/m^3 not to be exceeded more than 35 times a year	50µg/m^3 not to be exceeded more than 35 times a year	24-hour mean
	40µg/m^3	40µg/m^3	Annual mean

4.1.2 ETM Recycling Ltd Caters Road site is situated approximately 1.5 km South of the AQMA and PM_{10} was not considered sensitive, external PM_{10} monitoring will not be carried out on site.

4.1.3 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 particular locations' PM_{10} background concentration is ≤13 µg/m^3 for 2019. This is below the 17 µg/m^3 stated in the guidance. The NO_2 background concentration is ≤10 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.

4.2 Monitoring Location

N/A

4.3 Operation of Dust Monitoring Equipment

N/A

4.4 QA/QC and Record Keeping

N/A

4.5 Equipment and Data Management

N/A

4.6 Reporting of Data

N/A

4.7 Additional Detailed Reporting

N/A

5 Reporting and Complaints Response

5.1 Engagement with the Community

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 D.

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 2 working days.

5.2.3 A Corrective Action Report 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.

6.0 Summary

6.1 Treatment and waste activities carried out at Caters Road may produce dust, but it will be limited by the nature of the operations 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 treatment activities, transportation, and stockpiling.

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

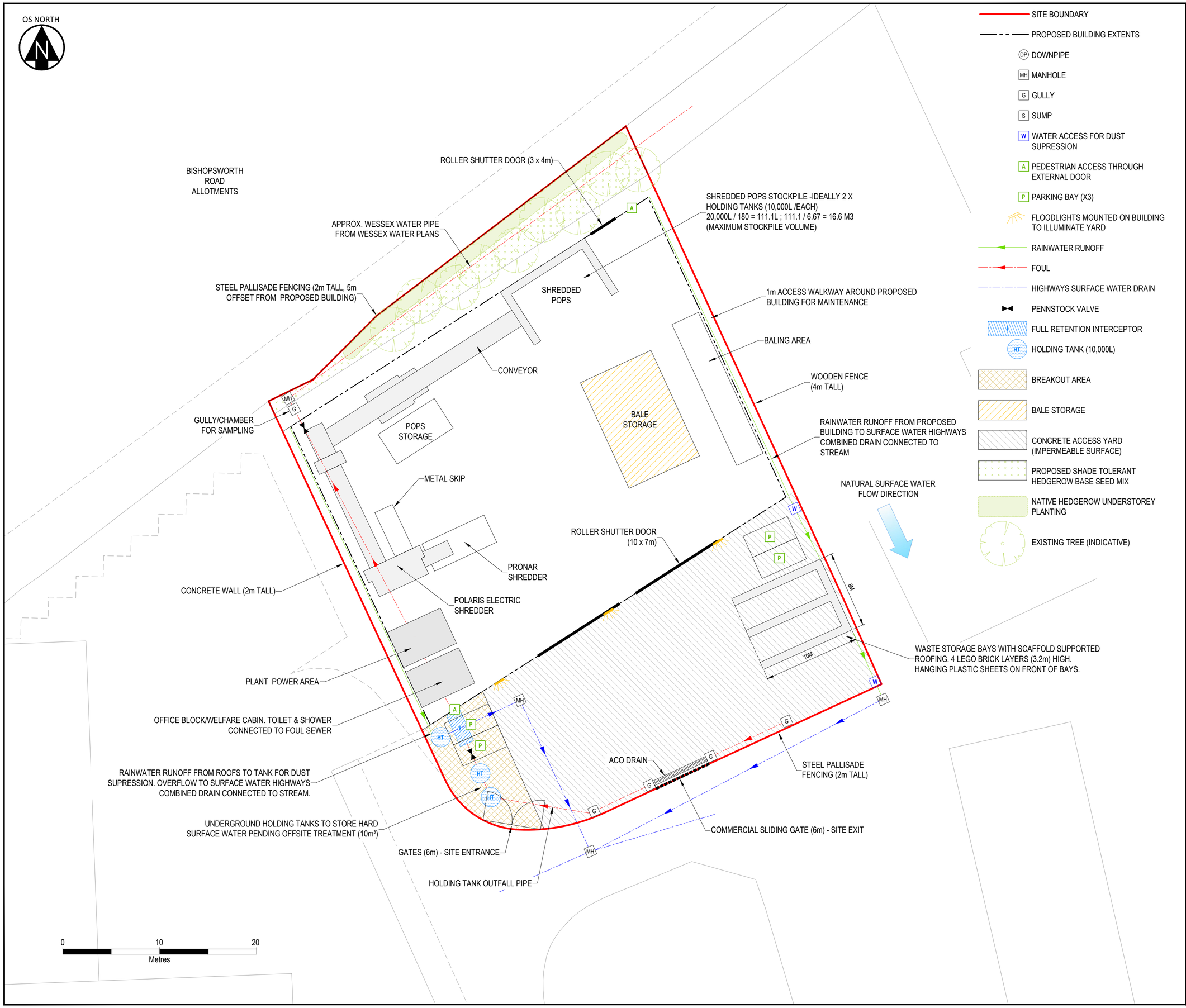
- Daily review of prevailing weather conditions and site operations
- All processing activities conducted within the covered building
- Use of spray hoses for dust suppression and on shredding plant
- Damping down of stockpiles and site haul roads
- Appropriate location of stockpiles to prevent windblown dust escaping
- 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 ETM Recycling Caters Road site for both wastes and non-waste materials stored at the facility.

Appendix A - ETM Recycling Ltd Environmental Management System

Appendix B - Site Layout and Drainage Plans



Notes:

TREES IN THE RAISED VEGETATION VERGE ARE PROTECTED UNDER A PLANNING CONDITION.

REF. LEAF LANDSCAPE PLANTING PLAN, DRAWING NO. 2403-001-LL01, 16.05.24.

SEE DRAWING NO. CR-MTS-DR-PL-0010 FOR VEHICLE MOVEMENT PLAN.

Rev	Date	Description	By	Ckd
A	09/07/24	Planning issue	NG	LB

mts environmental
Filwood Green Business Park, 1 Filwood Park Lane, Bristol BS4 1ET
Tel: 0117 370 4250
www.mtsenvironmental.co.uk

Client

ETM RECYCLING

Project

Cater Road, Bristol

Title

PROPOSED SITE LAYOUT

Drawn	Checked	Scale at A2	Date	Issue Date
NG	LB	1:250	09/07/24	09/07/24

Drawing status

PLANNING

Drawing No.	Revision
CR-MTS-DR-PL-0002	A

Appendix C - Environmental Risk Assessment

Written by

mts environmental
Innovation and Partnership

In partnership with

ETM RECYCLING

Environmental Risk Assessment

Household, commercial, and industrial waste transfer station

Unit 19 Bakers Park,
Cater Road,
Bishopsworth,
Bristol,
BS13 7TT

Document Title	Environmental Risk Assessment
Revision	3.0
Date	30-09-24
Document Reference	ETM Caters Road ERA 30-09-24
Prepared For	ETM Recycling Ltd
Authored By	MTS Environmental Ltd

Quality Control

Revision No.	Date Revised	Description of changes	Authored By	Sign Off	Approved By	Sign Off
1.0	14/03/23	Original draft for permit variation application	Kasia Haywood		Luke Bridges	
2.0	24/05/23	Small updates for final issue for permit variation	Kasia Haywood		Luke Bridges	
3.0	30-09-24	Amendments based on EA discussions	Leonie Horwood		Luke Bridges	

Contents

Appendices

1. Introduction

This section of the permit variation application corresponds to Section 6 of Part C2 of the Environmental Permit application form.

ETM Recycling Ltd is applying to vary its existing environmental permit (permit number: JP3793FP), for its Unit 19 Bakers Park site on Cater Road, Bishopsworth, Bristol, BS13 7TT. The purpose of the variation is to:

- Add additional permitted waste streams to the existing permit
- Add additional activities and treatment processes

This Environmental Risk Assessment (ERA) is limited to a qualitative assessment of the potential risks to the environment and human health specifically related to the activities, including the proposed activities, undertaken at the ETM Recycling Ltd Caters Road site. This report will identify any significant risks and detail the measures that ETM Recycling Ltd will adopt to appropriately manage any risk of pollution.

2. Environmental Risk Assessment

2.1. Methodology

This report has been prepared following the Environment Agency's Risk Assessment guidance. It specifically relates to the potential risks associated with odour; noise and vibration; fugitive emissions and accidents and incidents.

This risk assessment addresses the above risks and is based on the following methodology:

- Identification of potential risks
- Identification of all potential receptors to these risks
- An assessment of each risk type.

The Environmental Risk Assessment (Appendix A) assesses the risks to the environment and human health from activities carried out at the ETM Recycling Ltd Bakers Park site and identifies the pollutant linkage i.e. source – pathway – receptor for each risk type.

2.2. Potential Hazards

The potential hazards resulting from the activities carried out at the ETM Recycling Ltd Caters Road site have been considered, as provided in Appendix A, and are summarised below:

- Odour:
  - Waste materials
- Noise and vibration:
  - Engine noise from vehicles
  - Use of reverse vehicle warnings
  - Use of plant and machinery
- Fugitive emissions:
  - Particulate matter i.e. dust

  - Scavenging birds, pests, and vermin
  - Mud and litter
- Accidents:
  - Fire
  - Leaks and spillages
  - Flooding
  - Unauthorised access

2.3. Pathways

The pathways identified for each risk type are shown in Table 1:

Table 1: Potential Pathways

Risk Type	Pathway
Odour	Air
Noise and vibration	Air
Fugitive emissions	Air
Accidents	Air
	Surface water run-off
	Infiltration
	Percolation

2.4. Receptors

Receptors within 1km of the application site have been identified and are shown in Table 2 below and in the Sensitive Receptor Plan (Appendix B). The main pathway for the identified sources is the air and as such, atmospheric conditions can affect dispersion rates and the potential risk. Therefore, the location of each receptor in relation to the site may influence the potential impact of the risk, as summarised in Table 2.

Table 2: Location of potential receptors in relation to waste operations

Receptor	Distance from site (m)	Direction
Residential		
Properties on Whitchurch Road	165m	West
Properties on Headley Lane	105m	North
Properties on Brookdale Road	225m	East
Properties on Hareclive Road	395m	South
Designated Land and Waterways		
Local Nature Reserve – Manor Woods Valley	400m	North
Priority Habitat Inventory (PHI) – Deciduous Woodland	570m and 400m	East and North
PHI – Good quality semi-improved grassland (Non-priority)	925m	North East
River Malago	85m	West
Pigeonhouse Stream	610m	East
Sensitive Land Uses		
Bishopsworth Road Allotments	40m	North
Headley Park Primary School	310m	North East
Merchants Academy	550m	South

St Peter's Primary School	500m	West
Gay Elms Primary School	950m	South West
Bedminster Down School	715m	North West
Fair Furlong Primary School	960m	South
Cheddar Grove Primary School	915m	North
St Peter's Church	375m	West
Kings Head Lane Park	535m	North West
Allotments	660m	North
Willmott Park	890m	South East
Merchants Academy Sports Centre	680m	South
MHA Hartcliffe Nursing Home	760m	South
Bishopsmead Lodge Care Home	620m	West
Saint Pius X Roman Catholic Church and Primary School	765m	South West
Headley Park Church	340m	North West
Industrial/Commercial		
Headley Park Community Centre	265m	North East
Cater Business Park	0m	South and East
Imperial Park Shopping Centre	710m	East
Surrounding Businesses		All directions
Public Rights of Way		
Public Footpath in Manor Wood	400m	North
Public Footpath in Crox Bottom	590m	East
Infrastructure/utilities		
A4174	335m	South
A3029 Hartcliffe Way	870m	East
Groundwater		
The site is not within a source protection zone or drinking water safeguard zone		

2.5. Risk Assessment

The Environmental Risk Assessment (Appendix A) looks at each specific hazard identified and assesses the likelihood of those hazards impacting on nearby receptors. This is achieved by fulfilling the following objectives:

- Identify the location and nature of each hazard
- Identify the specific receptors potentially at risk and assess the sensitivity of each receptor
- Provide an assessment of the risk posed to each sensitive receptor
- Identify management and monitoring techniques to remove or mitigate the risk
- Provide recommendations for more detailed assessments where necessary.

2.6. Protected/Sensitive Receptors

There are a number of protected receptors within 1000m of the site: deciduous woodlands and a local nature reserve, these have all been identified on the sensitive receptor plan (Appendix B). This risk assessment has been written considering these sensitive receptors. The risk management controls outlined in the assessment in Appendix A are deemed to mitigate any risks from the site to be low risk to these receptors.

Further details on the environmental effects on the risks can be found in the site-specific Dust

Management Plan. This outlines the mitigation measures in place on site that reduce risks to the sensitive receptors.

3. Summary

The Environmental Risk Assessment indicates that if the appropriate outlined management techniques are implemented at the site to protect nearby sensitive receptors, the proposed activities as part of the permit variation will have no significant impacts in terms of odour, noise and fugitive emissions, and the likelihood of accidents is minimal.

Appendix A – Environmental Risk Assessment

Table A1: Odour Risk Assessment and Management Plan

What is the risk?			Managing the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
Odorous Waste Types	Local population in residential dwellings, sensitive land uses in Table 2 Site Staff	Air transport then inhalation	Permitted waste types stored onsite are not putrescible and so have a low odour potential. There will be strict waste acceptance procedures in place to minimise the risk of non-compliant wastes being accepted. Details of the waste acceptance procedures are provided in the Environmental Management System (EMS). All site operatives will be vigilant regarding identifying non-compliant wastes and any non-conformances or odour issues will be reported to the Site Manager.	Very unlikely as the waste types accepted on site do not give off odour unless heated and the material will be stored at ambient temperature	Odour annoyance and complaints	Low

Table A2: Noise and Vibration Risk Assessment and Management Plan

What is the risk?			Managing the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
Noise and vibrations from loading and unloading of waste	Local population in residential dwellings, sensitive land uses, and woodlands/ wildlife sites listed in Table 2	Air and vibration	All noise generating activities will be undertaken between the hours of 07:00 to 18:00 Monday to Friday and 07:00 to 13:00 on Saturday, except for emergency repairs. All plant and machinery will have effective silencers where practicable and be maintained in accordance with the manufacturer's requirements to minimise the risk of mechanical failure which could result in increased noise emissions. The loading/unloading of wastes will be undertaken in a controlled manner to keep noise/vibration to a minimum. Vehicles will be directed by site operatives to minimise the drop height when depositing loads at the site. All noise and vibration generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.	Intermittent noise disturbance	Noise annoyance and complaints	Low
Vehicle movements on site	Local population in residential dwellings, sensitive land uses, and woodlands/ wildlife sites listed in Table 2	Air	Loads will only be delivered to the site during working hours (07:00 to 18:00 Monday to Friday and 07:00 to 13:00 on Saturday). The delivery of waste will take place in a controlled manner to keep noise to a minimum. All plant and machinery will have effective silencers where practicable and be maintained in accordance with the manufacturer's requirements to minimise the risk of mechanical failure which could result in increased noise emissions. An anti-idling policy ensures that all equipment and vehicles when not in regular use shall be switched off. The Site Manager will be responsible for ensuring the above measures are implemented.	Intermittent during operating hours	Intermittent noise and vibration disturbance	Low

			All noise generated by vehicle movements will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.			
Use of plant and machinery.	Local population in residential dwellings, sensitive land uses, and woodlands/wild life sites listed in Table 2	Air	All noise generating activities will take place during working hours (07:00 to 18:00 Monday to Friday and 07:00 to 13:00 on Saturday), except for emergency repairs. All plant and machinery will have effective silencers where practicable and be maintained in accordance with the manufacturer's requirements. All processing plant will be stored and operated inside the covered building. All equipment and vehicles, when not in regular use, shall be switched off. The Site Manager will be responsible for ensuring the above measures are implemented. All noise generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.	Intermittent during operating hours.	Intermittent noise and vibration disturbance.	Low
Noise from reversing vehicle warnings.	Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2	Air	All noise generating activities will take place during working hours (07:00 to 18:00 Monday to Friday and 07:00 to 13:00 on Saturday) except for emergency repairs. All noise and vibration generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.	Intermittent during operating hours.	Intermittent noise disturbance.	Low

Noise from processing of waste materials (shredding, baling)	Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2	Air	All noise generating activities will take place during working hours (07:00 to 18:00 Monday to Friday and 07:00 to 13:00 on Saturday) except for emergency repairs. All processing activities are conducted within the covered recycling building to prevent the escape of noise, the building walls act to absorb noise from processing activities. Processing activities will not generate levels of noise above that originating from the surrounding industrial units and area. All plant and machinery will have effective silencers where practicable and be maintained in accordance with the manufacturer's requirements to minimise the generation of noise. All plant and equipment will be switched off when not in regular use. All noise and vibration generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.	Intermittent during operating hours	Intermittent noise disturbance	Low

Table A3: Fugitive emissions risk assessment and management plan

What is the risk?			Managing the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
To Air						
Dust emissions from vehicle movements	Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2. Site Staff Users of roads listed in Table 2	Air transport then deposition	Wastes being delivered to the site will be covered or sheeted to prevent the generation of dust while the waste is in transit. Vehicle speeds will be limited onsite and the access road to 5mph to prevent re-suspension and movement of dust. Vehicles have a designated route on site to avoid contact with stockpiled materials. All equipment and vehicles when not in regular use shall be switched off to minimise the risk of dust emissions that may arise from idling. The site will benefit from an operational wheel wash in the form of a jet wash which is used by HGV's before they leave the site. This will minimise the risk of dust emissions on the haul road. The implementation of dust suppression systems including the use of spray hoses, use of a mobile water bowser to dampen down stockpiles and regular maintenance of haul roads with a water bowser and road sweeper. The site is enclosed within fencing and established vegetation around the site perimeter will act as a screen for dust so no dust escapes from the site boundary. Dust will be managed in accordance with the Dust Management Plan prepared for the site.	Unlikely due to measures in place	Local nuisance i.e. dust on cars, clothing, and vegetation. Nutrient enrichment.	Low

			The Site Manager undertakes a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager.			
Dust emissions generated during unloading of waste from HGVs.	Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2. Site staff Users of roads listed in Table 2	Air transport then deposition	A water bowser will be used to dampen site haul roads, storage bays and stockpiles if necessary. The loading/unloading of wastes will be undertaken in a controlled manner to keep dust emissions to a minimum. Drop heights will be minimised to reduce the generation of dust whilst the waste is being handled. The site is enclosed within fencing and established vegetation surrounding the site perimeter will act as a screen for dust so no dust escapes from the site boundary. Dust will be managed in accordance with the Dust Management Plan prepared for the site. The Site Manager will undertake a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager. Operations will temporarily cease when winds are likely to generate dust emissions from wastes and materials.	Dust could potentially reach nearby properties when a strong wind blows in their direction. Management actions should prevent this happening	Local nuisance i.e. dust on cars, clothing, and vegetation. Nutrient enrichment.	Low
Dust from haul road.	Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2. Users of roads listed in Table 2.	Air transport then deposition	The use of modern plant and regular maintenance shall be practiced to reduce emissions. The implementation of dust suppression systems including the use of spray hoses, use of water supply to dampen down stockpiles and regular maintenance roads road sweeper. The site will benefit from an operational wheel wash in the form of a jet wash which is used by HGV's before they leave	Unlikely due to measures in place	Local nuisance i.e. dust on cars, clothing, and vegetation.	Low

			the site. This will minimise the risk of dust emissions on the haul road. The site is enclosed within fencing and established vegetation surrounding the site perimeter will act as a screen for dust so no dust escapes from the site boundary. A fixed water source will be used to dampen site haul roads. Vehicles have a designated route on site to avoid contact with stockpiled materials. Dust will be managed in accordance with the Dust Management Plan prepared for the site. The Site Manager undertakes a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager.			
Dust emissions from the processing of waste materials (shredding, baling)	Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2. Users of roads listed in Table 2	Air transport than deposition	All plant is regularly maintained to reduce emissions. The implementation of dust suppression systems including the use of spray hoses, use of a mobile water bowser to dampen down stockpiles and regular maintenance of haul roads with a water bowser and road sweeper. Processing operations are done on a campaign basis to avoid on-off use which can increase dust production. All processing activities are conducted within the covered recycling building to prevent the escape of dust. The shredding plant is fitted with bag filters. The site is enclosed within fencing and established vegetation surrounding the site perimeter will act as a screen for dust so no dust escapes from the site boundary. Dust will be managed in accordance with the Dust	Unlikely due to measures in place	Local nuisance i.e. dust on cars, clothing, and vegetation. Nutrient enrichment.	Low

			Management Plan prepared for the site. The Site Manager undertakes a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager			
Release of particulate matter (dusts), vapours and polluting gases	Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2. Site staff Users of roads listed in Table 2	Air transport then inhalation	Permitted waste type do not include dusts, powders or loose fibres and waste is not typically dusty unless it is stored during prolonged dry periods when damping down is carried out where required. Hazardous wastes are not permitted on site. All POPs waste and shredded POPs waste is stored and processed inside the covered recycling building with bag filters on shredding plant. The potential sources of fugitive emissions to air have been identified and a Dust Management Plan has been prepared to prevent any potential dust emissions from reaching any nearby receptors. The Site Manager undertakes a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager	Unlikely due to measures in place	Respiratory illness including. lung cancer and mesothelioma.	Low

To Water						
Contaminated rainwater run-off.	Surface water and groundwater	Water	Permitted waste types do not include wastes in sludge or liquid form. Any waste types stored in open stockpiles are non-hazardous and so any run-off that is generated on site is highly unlikely to be contaminated. No hazardous wastes are permitted on site, this prevents the leaching of contaminants into groundwater. All POPs waste is stored within the covered building. In the event of a spill, emergency procedures as outlined in the EMS will be followed. The site benefits from a sealed drainage system which catches all surface water from the operational area of the site and can be shut off to contain contaminated rainwater run off. Fuel will be stored in a double bunded tank, following strict Environmental Law to reduce chances of fuel spills. The site is secure through fencing, gates and CCTV so theft or damage to fuel tanks which may cause spills is minimal. There are strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS.	Very unlikely	Contamination of groundwater surface water bodies	Low
Pest/Scavenging Birds						

Birds and pests	Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2.	Air transport and over ground	Permitted wastes stored onsite are not putrescible and will therefore not be attractive to pests or scavenging birds. Any potential attractive wastes will be stored inside the covered building. There are strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS. The site is surrounded by fencing and gates to prevent access of pests. The Site Manager will undertake regular reviews of pests and scavenging birds at the site. All site operatives will be vigilant and report any problems to the Site Manager.	Very unlikely due to the nature of the waste material	Nuisance to local receptors within 1km of the environmental permit boundary.	Low

Mud						
Mud from vehicle movements	Users of local highways	Tracked on vehicle wheels.	The implementation of dust suppression systems including the use of spray hoses, use of a mobile water bowser to dampen down stockpiles and regular maintenance of haul roads with a water bowser and road sweeper. If mud is deposited on the access road and/or highway then a road sweeper will be employed if necessary. Vehicles have a designated route on site to avoid contact with stockpiled materials. All vehicles exiting the site would be checked for exterior mud or debris and must use the jet wash to wash wheels before exiting if mud is observed. The amount of mud on local roads will be monitored daily by site operatives.	Unlikely due to measures in place.	Local nuisance. Mud on roads is unsightly and can increase the likelihood of road traffic accidents.	Low
Litter						
Litter	All receptors listed in Table 2.	Air transport then deposition	Waste types received by the site generally do not contain litter. Operatives will be vigilant, and any litter reported will be removed immediately. All incoming loads will be sheeted and remain sheeted until they are ready to be tipped. The site is enclosed within fencing and established vegetation surrounding the site perimeter act to prevent the escape of any litter. There are strict waste acceptance procedures in place to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS.	Unlikely due to measures in place.	Local nuisance	Low

			Working areas will be regularly cleared and inspected to minimise litter. Housekeeping measures are in place during operating hours.			

Table A4: Accident and Incident Risk Assessment and Management Plan

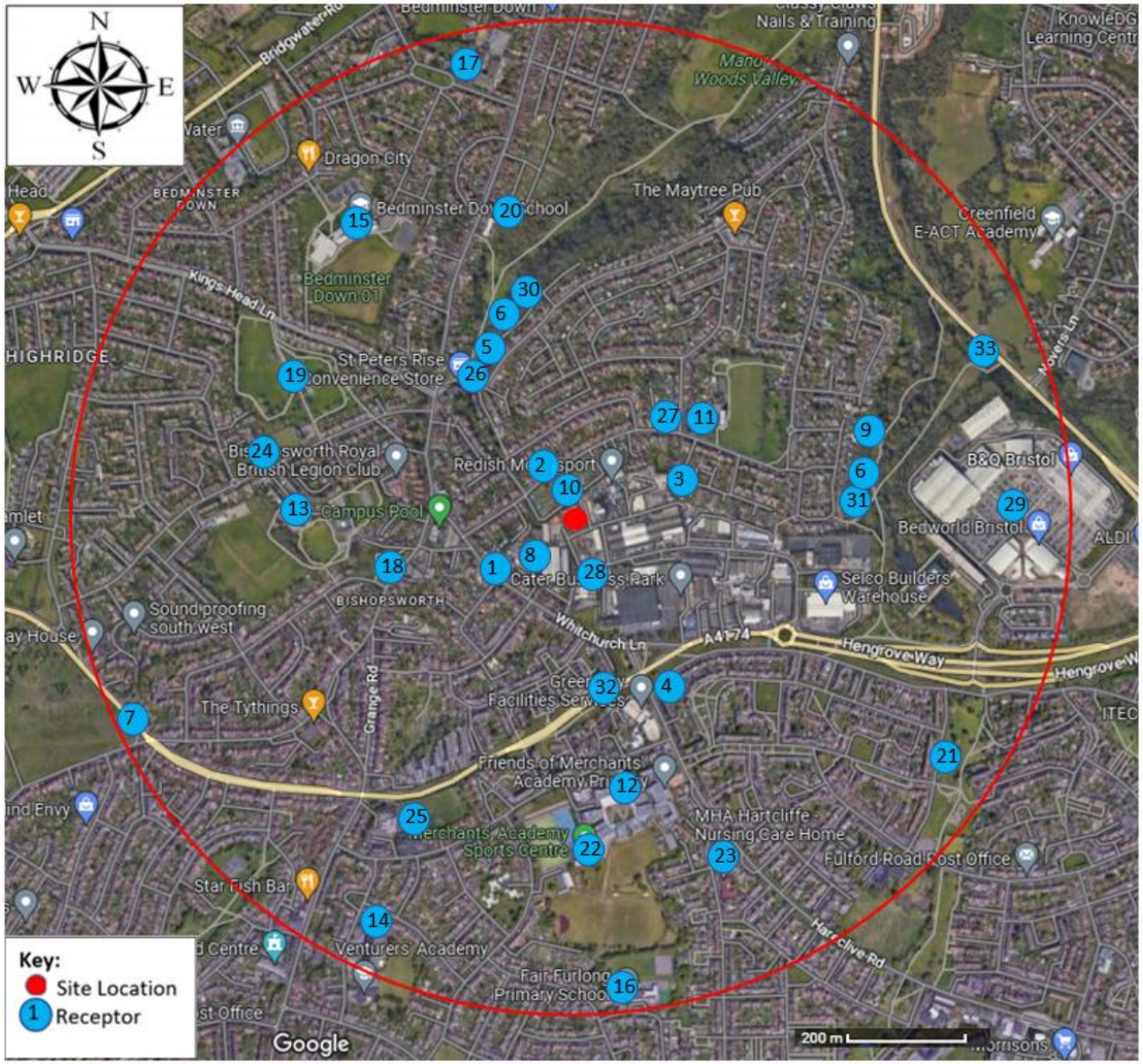
What is the risk?			Managing the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
Fire or failure to contain firewater	Air transport then inhalation or deposition Groundwater and surface water. Local residents listed in Table 2 Woodlands/wildlife sites	Infiltration and contamination of surface water	POPs waste is regarded to be combustible however the risk of fire is considered to be low as the proposed waste types are non-hazardous and no waste shall be burnt on site. The measures laid out in the fire prevention plan effectively mitigate the fire risk. The use of welding/cutting tools (tools with a naked flame) are sanctioned first by the site manager/competent person. All site operatives are required to recognise signs of smouldering waste at the point of reception. Such wastes shall remain in the container and removed to a safe area. The site manager shall be informed. There will be strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the EMS. The operator will undertake routine maintenance of equipment in accordance with manufacturer's guidance. This will minimise the risk of mechanical failure which may result in an increased risk of combustion. Site notices and training will be undertaken regarding fire hazards. Site Manager will be responsible for actions in the event of a fire.	Unlikely	Contamination of local groundwater and/or surface water.	Low

			The site benefits from a sealed drainage system for the operational area of the site, which can be shut off and contain any firewater if required.			
Leaks and spillages of oil or fuel.	Groundwater and surface water	Infiltration	The operator does not accept liquid wastes. The operator will undertake regular maintenance of plant equipment in accordance with manufacturer's guidance. This will minimise the risk of mechanical failure which may result in leaks. All fuel, oil and lubricants will be double-bunded and stored above ground on a pallet. The fuel storage will be maintained and inspected in accordance with the manufacturer's recommendations. The operational area of the site has an impermeable surface. Daily vehicle / plant checks to ensure any fuel/oil leaks etc. are repaired as soon as possible. Spill kits are readily available on site in case of a spill, these use absorbent mats which soak up any contaminating hydrocarbons. The emergency response outlined in the EMS will be followed. The Site Manager will be responsible for ensuring effective remediation and documenting any incident.	Unlikely due to measures in place.	Contamination of land and watercourses.	Low
Flooding	Groundwater	Infiltration and Percolation	The site is not located in an area at risk of flooding from rivers or surface waters. Hazardous waste is not permitted on site. The operational area of the site has an impermeable surface which increases surface water run off rates, however the	Unlikely due to measures in place in the nature of the proposed development.	Disruption to works operations Contamination of local groundwater	Low

			drainage system captures all surface water runoff so does not increase the risk of flooding in the surrounding area. The waste stored onsite is unlikely to cause contamination of groundwater through infiltration as the proposed waste types are all non-hazardous. Due to the nature of waste types which are proposed to be treated, if surface water comes into contact with these wastes, significant pollution or contamination of groundwater or surface water is considered highly unlikely.		and/or surface water	
Vandalism	Groundwater Local population in residential dwellings, sensitive land uses, and woodlands/wildlife sites listed in Table 2.	Unauthorised entry to the site	The site is gated with CCTV and is surrounded by security fencing and vegetation. The site is within an industrial area so is not on a road that many people will be passing by. Access to the waste area will be restricted to trained depot staff. All fuel, oil and lubricants will be double-bunded and stored above ground on a pallet. The fuel storage will be maintained and inspected in accordance with the manufacturer's recommendations. Any identified damage to the site security will be recorded and temporarily repaired as necessary before the end of the working day. Permanent repair or replacement will be undertaken as soon as practicable. Procedures are in place which require all visitors to the site to sign in on arrival and sign out on departure.	Unlikely due to measures in place.	Release of polluting materials to air, water or land.	Low

All on-site hazards from wastes; machinery and vehicles	Local human population gaining unauthorised entry to the site, site staff and contractors.	Direct physical contact	Activities will be managed and operated in accordance with an EMS which will include measures to prevent unauthorised access. Wastes, machinery, and vehicles will be handled by trained site operatives. All plant is serviced and maintained as part of a cyclical maintenance plan.	There is always a risk of accidents, but measures have been put in place to reduce the risk associated with site activities.	Injury or health effects	Low

Appendix B – Sensitive Receptor Plan



ID	Receptor
Residential	
1	Properties on Whitchurch Road
2	Properties on Headley Lane
3	Properties on Brookdale Road
4	Properties on Hareclive Road
Designated Land and Waterways	
5	Local Nature Reserve – Manor Woods Valley
6	Priority Habitat Inventory (PHI) – Deciduous Woodland
7	PHI – Good quality semi-improved grassland (Non-priority)
8	River Malago
9	Pigeonhouse Stream
Sensitive Land Uses	
10	Bishopsworth Road Allotments
11	Headley Park Primary School
12	Merchants Academy
13	St Peter's Primary School
14	Gay Elms Primary School
15	Bedminster Down School
16	Fair Furlong Primary School
17	Cheddar Grove Primary School
18	St Peter's Church
19	Kings Head Lane Park
20	Allotments
21	Willmott Park
22	Merchants Academy Sports Centre
23	MHA Hartcliffe Nursing Home
24	Bishopsmead Lodge Care Home
25	Saint Pius X Roman Catholic Church and Primary School
26	Headley Park Church
Industrial/Commercial	
27	Headley Park Community Centre
28	Cater Business Park
29	Imperial Park Shopping Centre
Public Rights of Way	
30	Public Footpath in Manor Wood
31	Public Footpath in Crox Bottom
Infrastructure/utilities	
32	A4174
33	A3029 Hartcliffe Way

Appendix D – Complaint Form

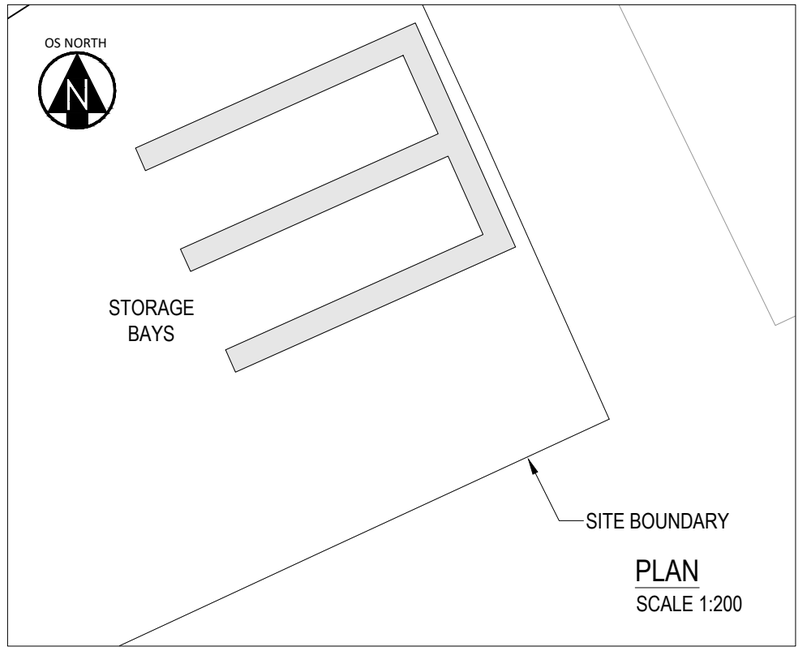
ETM Recycling Ltd
Complaint Form

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 -	

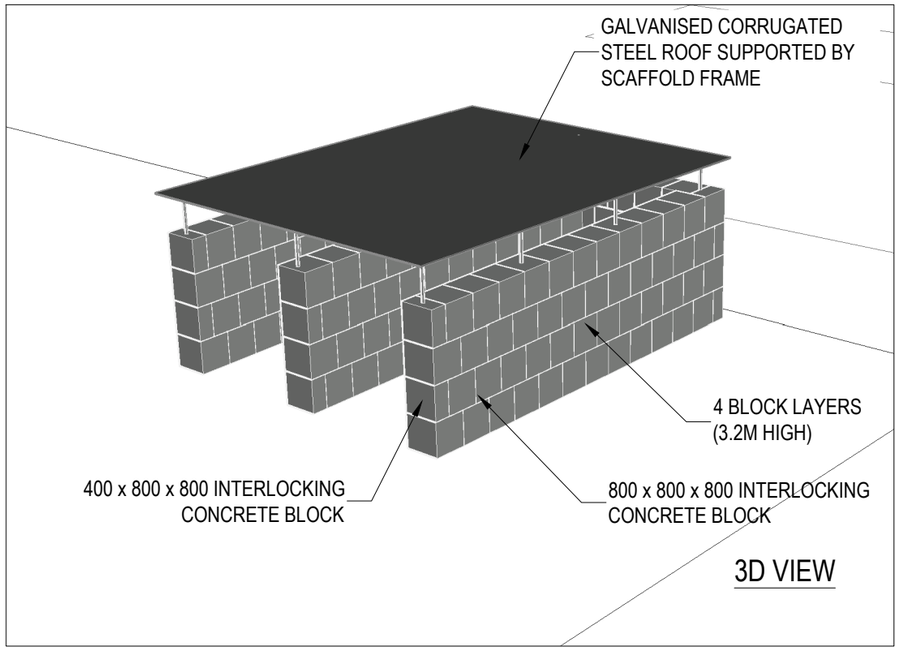
Feedback given to Environment Agency and/or local authority -	
Date feedback given -	
Feedback given to public -	
Date feedback given -	
Review and Improve	
Improvements needed to prevent a reoccurrence -	
Proposed date for completion of the improvements -	
Actual date for completion -	
If different 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 E – Storage Bay Elevations

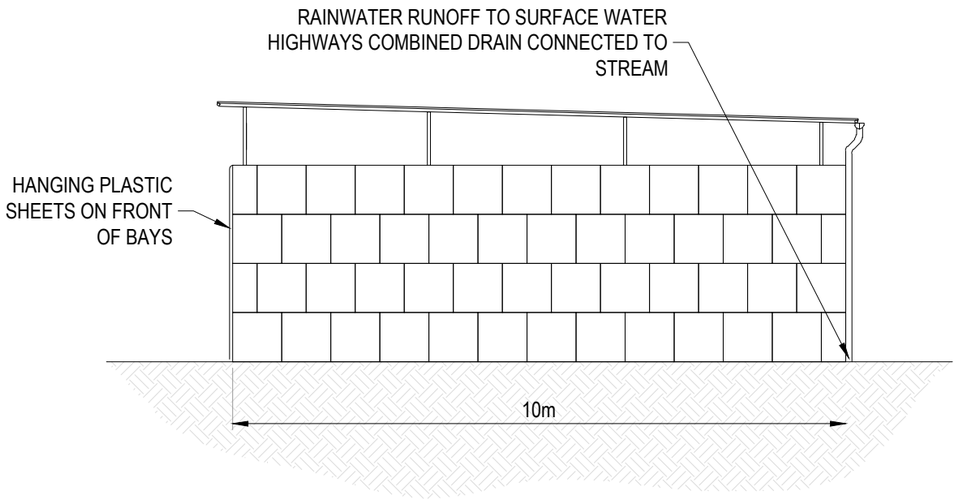


PLAN

SCALE 1:200

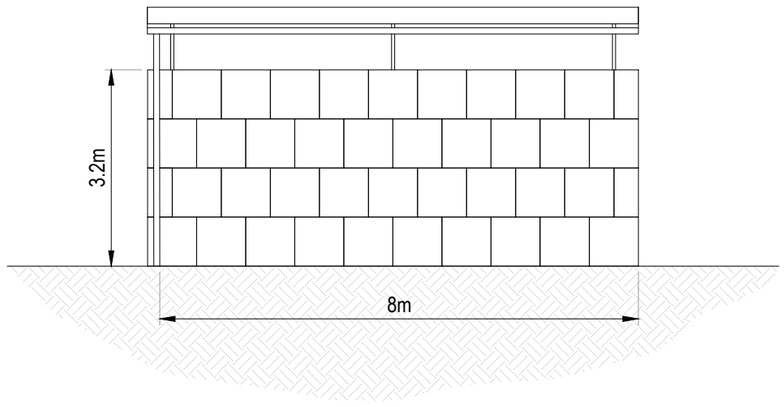


3D VIEW



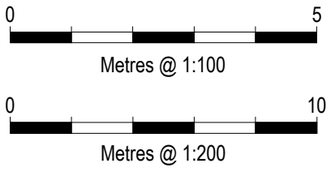
SIDE ELEVATION

SCALE 1:100



REAR ELEVATION

SCALE 1:100



Notes:

Rev	Date	Description	By	Ckd
A	09/07/24	Planning issue	NG	LB

mts environmental

Filwood Green Business Park, 1 Filwood Park Lane, Bristol BS4 1ET
Tel: 0117 370 4250
www.mtsenvironmental.co.uk

Client

ETM RECYCLING

Project

Cater Road, Bristol

Title

PROPOSED STORAGE BAY ELEVATIONS

Drawn	Checked	Scale at A3	Date	Issue Date
NG	LB	AS SHOWN	09/07/24	09/07/24

Drawing status

PLANNING

Drawing No.	Revision
CR-MTS-DR-PL-0003	A