

Dust and Emissions Management Plan (DEMP)



Dust and Emissions Management Plan

Canalside Operations Hub

Dock Yard Road, Ellesmere Port, Cheshire CH65 4EF

Environmental Permit Substantial Variation Application

Prepared By:

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Document Title	Dust and Emissions Management Plan (DEMP)
Site	Canalside Operations Hub
Operator	Cheshire West Recycling Ltd
Document Owner	HSEQ
Document Author	Louise Burns / Cheshire West Recycling Ltd
Version	1.0
Date	July 2026
Status	Supporting Environmental Permit Substantial Variation
Review Period	Annually or following any significant operational change, complaint, incident or permit variation

Version	Date	Author	Description
1.0	July 2026	Louise Burns	Initial issue to support Environmental Permit Substantial Variation

Executive Summary

This Dust and Emissions Management Plan (DEMP) has been prepared by Cheshire West Recycling Ltd in support of a substantial variation application for the Environmental Permit relating to the Canalside Operations Hub, Dock Yard Road, Ellesmere Port.

The purpose of this document is to demonstrate that the site has identified all activities with the potential to generate dust and particulate emissions and has implemented appropriate operational controls to prevent pollution and minimise the risk of dust causing nuisance beyond the site boundary.

(DEMP)

The Canalside Operations Hub (the site) is located within an established industrial estate and operates as a municipal waste transfer and materials recycling facility serving Cheshire West and Chester. The nearest environmental receptor is the Shropshire Union Canal located to the south-west of the site. The surrounding land uses are predominantly industrial and commercial, with no residential properties immediately adjoining the site.

Potential dust-generating activities include the unloading, storage and handling of loose fibre, wood waste and road sweepings together with vehicle movements and mobile plant operations. Dust risks are managed through a combination of engineering controls, operational procedures, good housekeeping and routine environmental monitoring.

Existing mitigation measures include:

- Daily housekeeping and environmental inspections.
- A one-way traffic management system with a 5-mph speed restriction.
- Covered storage bays with controlled stockpile heights.
- Dedicated vehicle washing facilities.
- Mobile water suppression equipment including a minimum 4,000-litre water bowser.
- Mobile pressure washing equipment and water storage tanks.
- Routine road sweeping.
- Competent supervision by CMS-certified personnel.
- Oversight by Level 4 TechMCIWM Certificate of Technical Competence (COTC) holders.
- Environmental incident investigation and corrective action management through the Evotix Assure management system.

Dust management forms part of Cheshire West Recycling Ltd's wider Environmental Management System and is integrated with routine operational inspections, staff training, preventative maintenance programmes and management review processes.

This DEMP adopts the principles contained within the Environment Agency's Dust and Emissions Management Plan guidance and demonstrates Cheshire West Recycling Ltd's commitment to preventing pollution, protecting neighbouring receptors and continually improving environmental performance.

1. Introduction

1.1 Purpose

The purpose of this Dust and Emissions Management Plan (DEMP) is to describe the management arrangements employed by Cheshire West Recycling Ltd to prevent and control dust and particulate emissions arising from activities undertaken at the Canalside Operations Hub.

(DEMP)

This document has been prepared in support of an Environmental Permit substantial variation application and demonstrates that appropriate measures have been implemented to minimise emissions to air in accordance with the Environmental Permitting (England and Wales) Regulations 2016, Environment Agency guidance and recognised industry best practice.

The DEMP forms part of the site's Environmental Management System and should be read alongside other site management documents including:

- Environmental Management System (EMS)
- Fire Prevention Plan
- Environmental Accident Management Plan
- Site Operating Procedures
- Site Inspection and Housekeeping Procedures
- Staff Training Matrix
- Preventative Maintenance Programme

The objectives of this DEMP are to:

- identify all activities with the potential to generate dust and particulate emissions.
- identify receptors that may be affected by emissions from the site.
- detail the engineering and operational controls used to prevent fugitive emissions.
- define monitoring and inspection requirements.
- establish clear responsibilities for implementing dust control measures.
- provide procedures for responding to abnormal events and complaints; and
- ensure continual improvement through regular review, auditing and staff training.

Cheshire West Recycling Ltd is committed to operating the Canalside Operations Hub in a manner that prevents pollution, protects the environment and safeguards the amenity of neighbouring businesses and environmental receptors.

1.2 Site Description

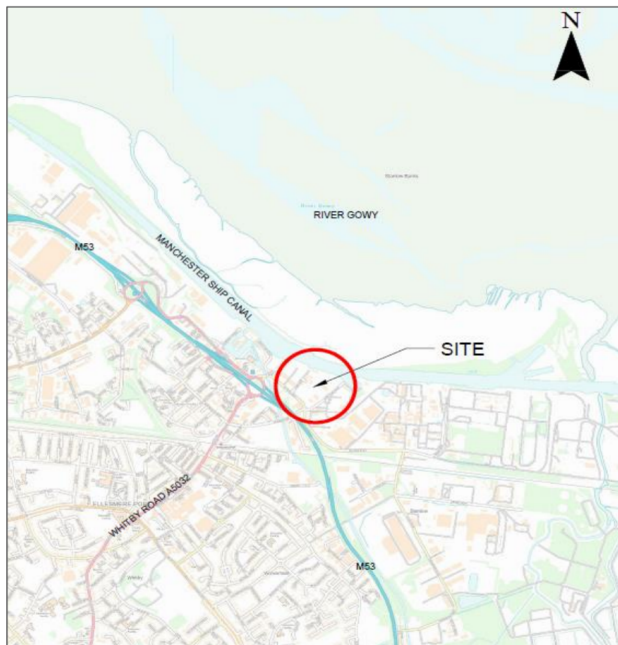
The Canalside Operations Hub is located at Dock Yard Road, Ellesmere Port, Cheshire, CH65 4EF within the administrative area of Cheshire West and Chester Council. The site occupies a well-established industrial location and operates under an Environmental Permit for waste management activities.

The site comprises a purpose-built Materials Recycling Facility (MRF), municipal waste transfer operations and associated depot facilities serving the municipal waste collection and recycling services for Cheshire West and Chester. The proposed substantial variation will extend the permitted operational area while continuing to manage waste materials in accordance with the site's Environmental Permit and Environmental Management System.

(DEMP)

The site is centred at National Grid Reference **SJ 41034 76911** and occupies predominantly impermeable concrete hardstanding designed to facilitate efficient vehicle movements, waste handling operations and effective environmental management. Surface water generated from operational areas is managed through the site's engineered drainage system incorporating interceptors and separators before discharge in accordance with the Environmental Permit requirements.

For the purposes of this Dust and Emissions Management Plan (DEMP), the Canalside Operations Hub is hereafter referred to as "the Site" references to cheshire west recycling relate to the operator responsible for implementing this DEMP.



Operational infrastructure includes:

- Materials Recycling Facility (MRF);
- Haz Waste area, currently operating under S1 and S2 exemptions
- Designated waste reception and unloading areas.
- Covered waste storage bays.
- Internal haul roads and one-way traffic management system.
- Vehicle washing facilities.
- Water suppression equipment.
- Site drainage and pollution prevention infrastructure.
- Welfare and office accommodation.

The site has been designed to minimise the potential for fugitive emissions through careful operational layout, designated storage areas, controlled vehicle movements and good

(DEMP)

housekeeping practices. All operational areas are maintained in a clean condition and inspected routinely to ensure dust and particulate emissions remain effectively controlled.

The Canalside Operations Hub operates in accordance with the conditions of its Environmental Permit and any relevant planning controls. Operational activities are managed to ensure compliance with permit conditions and the site's Environmental Management System. Operating hours remain controlled to minimise environmental impact whilst supporting the waste management requirements of Cheshire West and Chester Council.

1.3 Surrounding Environment

The Canalside Operations Hub is situated within an established industrial estate characterised by commercial, industrial and transport-related land uses. The surrounding area is therefore considered appropriate for waste management operations and does not contain large numbers of sensitive receptors commonly associated with residential environments.

The nearest environmental receptor is the Shropshire Union Canal, located approximately 195 metres south-west of the site boundary.

To the west of the site lies ESL Fuels, providing a significant industrial buffer between the site and the M53 motorway, located approximately 140 metres south-west of the site.

The surrounding land uses comprise predominantly:

- Industrial premises.
- Commercial businesses.
- Transport infrastructure.
- Highway network.
- Utility infrastructure.

There are no residential properties, schools, hospitals, nursing homes or other highly sensitive human receptors immediately adjacent to the site.

Due to the industrial character of the surrounding area and the separation distances to residential receptors, the potential for off-site dust nuisance is considered significantly lower than for waste facilities located within mixed residential or urban environments.

The site layout has been developed to minimise emissions leaving the operational boundary through appropriate positioning of storage areas, traffic management measures, routine housekeeping and rapid deployment of dust suppression measures when required.

1.4 Sensitive Receptors

A review of the surrounding environment has identified the receptors that could potentially be affected by fugitive dust or particulate emissions.

Table 1.1 – Sensitive Receptors

Receptor	Direction from Site	Approx. Distance	Receptor Type	Sensitivity
Shropshire Union Canal	South-West	195 m	Environmental	Medium
ESL Fuels	West	Adjacent	Industrial	Low
M53 Motorway	South-West	140 m	Transport Infrastructure	Low
Adjacent Industrial Units	Various	Adjacent	Commercial / Industrial	Low
Residential Properties		>500 m	Human Receptor	Low

The principal environmental receptor requiring consideration is the Shropshire Union Canal. However, due to the separation distance, existing industrial development between the canal and the site, and the implementation of comprehensive dust suppression measures, the likelihood of significant off-site dust impacts is considered low.

At the time of preparation of this DEMP, no Air Quality Management Areas (AQMAs) have been identified immediately surrounding the site that would materially increase the environmental risk associated with the proposed operations

1.5 Meteorological Conditions

The prevailing wind direction within the Ellesmere Port area is generally from the south-west towards the north-east. Wind direction and weather conditions are recognised as important factors influencing the potential movement of dust and particulate matter from operational activities.

Operational activities at the Canalside Operations Hub are therefore managed with consideration of prevailing weather conditions.

Routine visual inspections are undertaken throughout the working day, with additional inspections carried out during periods of:

(DEMP)

- prolonged dry weather.
- elevated temperatures.
- increased wind speeds.
- exceptionally busy operational periods; and
- following any environmental complaint.

Where site personnel identify an increased potential for dust generation, additional suppression measures are implemented immediately. These include deployment of the mobile water bowser, pressure washing, road sweeping and temporary modification or suspension of operational activities where necessary.

Dust-generating activities are continually reviewed by operational management to ensure that emissions remain effectively controlled and do not give rise to pollution beyond the permitted site boundary.

2. Site Operations

2.1 Site Overview

The site is a purpose-built waste management facility operated by Cheshire West Recycling Ltd to support the collection, transfer and recycling of municipal waste arising from the Cheshire West and Chester administrative area.

The site comprises a Materials Recycling Facility (MRF), municipal waste transfer operations and associated operational infrastructure designed to facilitate the safe receipt, storage, handling and dispatch of permitted waste streams.

The proposed substantial variation relates to the extension of the permitted operational area and will continue to operate in accordance with the Environmental Permit, Environmental Management System and associated management plans. The proposed variation does not alter Cheshire West Recycling Ltd's commitment to preventing pollution or minimising emissions to air.

Site activities have been designed to minimise the potential for fugitive dust emissions through careful operational layout, controlled vehicle movements, designated storage areas, routine housekeeping and the rapid deployment of dust suppression measures where necessary.

2.2 Waste Acceptance and Deliveries

The site receives municipal waste collected on behalf of Cheshire West and Chester Council together with waste transferred from the Household Waste Recycling Centres (HWRCs) operated by Cheshire West Recycling Ltd under contract to the Council.

(DEMP)

Waste is delivered to the site by road using Cheshire West Recycling Ltd fleet vehicles and approved haulage vehicles operating on behalf of Cheshire West and Chester Council. As the facility receives only municipal waste generated within the Council area and material from the Council's HWRC network, the waste streams received are well characterised and managed through established operational procedures.

Upon arrival, all vehicles report to the designated reception area before proceeding to the allocated unloading location. Drivers are required to comply with the site's traffic management arrangements, environmental controls and operational instructions at all times.

Waste is visually inspected during unloading by trained site personnel. Where materials have the potential to generate dust, such as loose fibre, wood waste or road sweepings, unloading activities are undertaken in a controlled manner and additional dust suppression measures are implemented where required.

Waste accepted at the facility is managed in accordance with the Environmental Permit, the site's Environmental Management System and Cheshire West Recycling Ltd operational procedure

2.3 Dust-Generating Waste Streams

The principal waste streams with the potential to generate fugitive dust during routine operations are:

- Loose fibre recovered from municipal waste.
- Wood waste received from Household Waste Recycling Centres.
- Road sweepings collected from the Cheshire West and Chester highway network.

These materials have been identified through operational experience as presenting the greatest potential for dust generation during unloading, handling and temporary storage, particularly during prolonged periods of dry weather or elevated wind speeds.

The majority of municipal waste received at the site is either containerised, bagged or possesses a moisture content that significantly reduces the potential for fugitive dust emissions. Consequently, routine dust management activities are focused on the identified higher-risk waste streams to ensure emissions remain effectively controlled.

2.4 Waste Handling Operations

Following acceptance, waste is directed to designated operational areas where it is unloaded by trained operatives using appropriately maintained mobile plant.

Handling activities are planned to minimise unnecessary double handling of materials and reduce the potential for dust generation. Mobile plant operators are trained to minimise drop

(DEMP)

heights, avoid unnecessary disturbance of materials and ensure waste remains within designated operational areas.

The principal dust-generating waste streams are managed as follows:

- **Loose fibre** - is received as a pre-segregated material from Cheshire West Recycling Ltd's Household Waste Recycling Centres (HWRCs), where sorting has already taken place. On arrival at Canalside, the material is transferred directly to the Materials Recycling Facility (MRF) for baling prior to onward transport for recovery.
- **Wood waste** - is received from the Cheshire West Recycling Ltd HWRC network and unloaded into designated covered storage bays pending onward transfer to appropriately permitted recovery facilities.
- **Road sweepings** collected from the Cheshire West and Chester highway network are unloaded into designated storage areas pending onward treatment or recovery.

As Cheshire West Recycling Ltd operates both the HWRC network and the Canalside Operations Hub on behalf of Cheshire West and Chester Council, waste streams are well characterised and managed through established operational procedures. This provides a consistent approach to waste handling and reduces the likelihood of unexpected or unsuitable materials being received.

Operational activities are organised to minimise unnecessary vehicle movements and material handling. Where reasonably practicable:

- waste is unloaded directly into the designated processing or storage area.
- drop heights are kept to the minimum reasonably practicable.
- mobile plant operators avoid unnecessary disturbance of materials.
- designated traffic routes are used at all times; and
- waste is stored in accordance with established stockpile management procedures.

Where there is potential for dust generation, additional suppression measures are implemented as necessary to ensure emissions remain effectively controlled throughout waste handling operations.

2.5 Waste Storage

Waste materials are stored within designated covered storage bays designed to minimise exposure to wind and reduce the potential for fugitive dust emissions.

Stockpile heights are controlled and maintained to a maximum height of 3.5 metres, providing a minimum 0.5 metre freeboard below the 4-metre reinforced concrete bay walls. Maintaining this freeboard reduces the potential for wind entrainment and prevents waste from being displaced beyond the storage bays during routine operations or adverse weather conditions.

(DEMP)

The storage bays are further enclosed by a Zapp shelter canopy, providing an additional 2 metres of enclosed height to the rear and sides of each bay. This significantly reduces the potential for wind ingress across stored materials, provides additional weather protection and further minimises the risk of fugitive dust emissions from stored waste.

Waste is stored only within designated bays and is managed to ensure materials remain always contained within the storage area. Storage areas are inspected daily as part of routine housekeeping inspections to confirm stockpile heights remain within operational limits, waste is stored safely, and dust control measures remain effective.

Where prolonged dry weather, elevated wind speeds or operational conditions increase the potential for dust generation, additional suppression measures are implemented, and waste handling activities are modified where necessary to maintain effective dust control.





2.6 Internal Traffic Management

Vehicle movements are carefully managed to minimise dust generation and ensure the safe movement of traffic throughout the site.

The site operates a clearly defined one-way traffic management system with a maximum site speed limit of 5 mph.

The low vehicle speed reduces the potential for dust resuspension from vehicle movements whilst also improving operational safety.

All site roads comprise impermeable concrete hardstanding and are subject to routine inspection and cleaning.

Where necessary, mechanical road sweepers are deployed to remove accumulated debris and dust from trafficked areas.

Drivers are instructed to remain on designated haul routes at all times unless directed otherwise by site management.

2.7 Vehicle Wash Facilities

A dedicated vehicle wash facility is provided within the site to reduce the potential for dust and debris being transferred beyond the site boundary.

Vehicles leaving operational areas may be cleaned where necessary before exiting the site.

Run-off from the vehicle wash is directed through the site's interceptor and separator system prior to discharge, preventing contaminated water from causing environmental pollution.

The vehicle wash forms part of the site's wider housekeeping and pollution prevention arrangements and is inspected routinely to ensure continued effectiveness.



2.8 Mobile Plant

Operational activities are supported by appropriately maintained mobile plant operated by trained and competent personnel.

Plant utilised within the permitted area includes loading shovels and associated material handling equipment used for unloading, stock management and vehicle loading.

All mobile plant is maintained in accordance with the manufacturer's recommendations or equivalent planned maintenance schedules.

Drivers are instructed to avoid unnecessary engine idling and to operate equipment in a manner that minimises disturbance of dusty materials.

Where practicable, dust-generating activities are supported by mobile water suppression equipment operating in close proximity to waste handling operations.

2.9 Dust Risk Assessment Methodology

The potential for fugitive dust emissions from activities undertaken at the site has been assessed using a qualitative risk assessment methodology based on the likelihood of dust generation and the potential consequence to identified receptors.

The assessment considers:

- the nature of the activity.
- the type of waste handled.
- frequency and duration of the activity.
- prevailing weather conditions.
- proximity and sensitivity of identified receptors.
- existing engineering controls.
- operational control measures; and
- routine monitoring and inspection arrangements.

Each activity has been assigned an initial risk rating before the application of existing control measures. Following implementation of engineering controls, operational procedures and environmental management systems, a residual risk rating has been assigned.

The assessment concludes that, when the identified engineering and operational controls are implemented and maintained, the residual risk from the identified dust-generating activities is low.

Table 2.2 – Risk Rating Matrix

Likelihood	Description
1 – Very Low	Extremely unlikely to generate visible dust under normal operating conditions.
2 – Low	Unlikely to generate dust unless unusual operational or weather conditions occur.
3 – Medium	Dust may be generated during routine activities if controls are not applied.
4 – High	Dust generation likely without effective control measures.
5 – Very High	Significant dust generation expected without engineering controls.

Consequence	Description
1 – Insignificant	No off-site impact.
2 – Minor	Minor localised dust with no lasting environmental effect.
3 – Moderate	Potential off-site nuisance requiring operational intervention.

(DEMP)

Consequence	Description
4 – Major	Significant off-site impact requiring immediate corrective action.
5 – Severe	Serious environmental impact or permit non-compliance.

Table 2.3 – Risk Matrix

Likelihood ↓ / Consequence →	1	2	3	4	5
5 Very High	Medium	High	High	Very High	Very High
4 High	Medium	Medium	High	High	Very High
3 Medium	Low	Medium	Medium	High	High
2 Low	Low	Low	Medium	Medium	High
1 Very Low	Low	Low	Low	Low	Medium

Section 3 – Dust and Particulate Matter (PM10) Management

3.1 Responsibility for DEMP Implementation and Training

This Dust and Emissions Management Plan (DEMP) forms part of Cheshire West Recycling Ltd's Environmental Management System (EMS) and establishes the procedures and responsibilities for preventing, controlling and monitoring fugitive dust and particulate emissions associated with activities undertaken at the site.

The primary objectives of this DEMP are to:

- Prevent fugitive dust emissions arising from site operations.
- Protect neighbouring businesses and environmental receptors from dust nuisance.
- Ensure compliance with the Environmental Permit and relevant Environment Agency guidance.
- Provide a structured approach to dust monitoring, inspection and continual improvement.
- Clearly define operational responsibilities for implementing dust control measures.
- Ensure all personnel understand their responsibilities for environmental protection.

Overall responsibility for the implementation of this DEMP rests with the Site Management Team.

Steve Irwin, MRF and Extended Permitted Area Manager, is responsible for the day-to-day implementation of this DEMP, ensuring operational activities are undertaken in accordance

(DEMP)

with the Environmental Permit, Environmental Management System and site operating procedures.

Technical oversight is provided by Louise Burns, Level 4 TechMCIWM Certificate of Technical Competence (COTC) holder, supported by John Lockett.

Louise Burns has the authority to modify or suspend operations where dust control measures are considered insufficient to prevent fugitive emissions or where there is a risk of pollution beyond the permitted site boundary.

The HSEQ Manager is responsible for investigating environmental complaints, undertaking root cause analysis and recording corrective and preventative actions within the Evotix Assure management system.

Routine environmental inspections are undertaken by trained operational staff and competent CMS-certified supervisors to verify that dust control measures remain effective and that housekeeping standards are maintained throughout the site.

Training and Competence

Effective dust management relies upon competent, appropriately trained personnel.

All operational staff receive environmental training as part of their site induction before undertaking operational duties.

Training includes:

- Environmental Permit awareness.
- Dust awareness and control measures.
- Good housekeeping practices.
- Waste handling procedures.
- Operation of dust suppression equipment.
- Environmental incident reporting.
- Pollution prevention.
- Emergency procedures.

Training is refreshed annually or sooner where operational procedures change, following environmental incidents or where refresher training has been identified through management review.

Competency is maintained through routine supervision, operational monitoring and ongoing support provided by site management and the site's technically competent managers.

(DEMP)

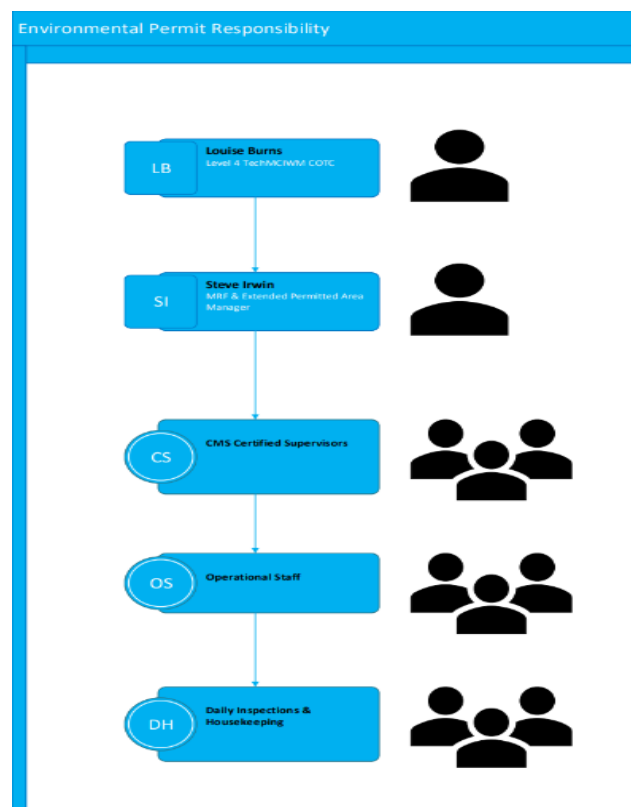
This DEMP is communicated to all relevant personnel and is readily available within the site's Environmental Management System.

DEMP Review

This DEMP shall be reviewed:

- Annually.
- Following any significant operational change.
- Following any substantial variation to the Environmental Permit.
- Following any environmental complaint relating to dust.
- Following any environmental incident.
- Following audits or inspections identifying opportunities for improvement.
- Following changes to relevant legislation or Environment Agency guidance.

Reviews will ensure that dust control measures remain appropriate, effective and proportionate to the activities undertaken at the site.



3.2 Sources of Dust and Particulate Emissions

Cheshire West Recycling Ltd has undertaken a systematic assessment of all operational activities carried out at the Canalside Operations Hub to identify those with the potential to generate fugitive dust and particulate emissions.

The assessment has considered the source of emissions, the potential pathway by which dust could migrate beyond the site boundary and the receptors that could potentially be affected. Appropriate engineering controls, operational procedures and management systems have been implemented to prevent, minimise or eliminate the release of dust wherever reasonably practicable.

The principal dust-generating activities at the site are associated with:

- unloading of pre-segregated loose fibre.
- unloading and storage of wood waste.
- unloading and temporary storage of road sweepings.
- movement of mobile plant.
- vehicle movements on operational surfaces; and
- temporary storage of dusty waste streams.

The majority of municipal waste received at the Canalside Operations Hub does not routinely generate significant dust due to its physical characteristics and moisture content. Consequently, dust management is focused on those waste streams identified as presenting the greatest potential for fugitive emissions.

Dust-generating materials are managed within designated operational areas using engineering controls, good housekeeping and routine monitoring to ensure emissions remain effectively controlled and do not result in pollution or nuisance beyond the permitted site boundary.

Table 3.1 – Sources of Fugitive Dust

Activity	Potential Dust Source	Engineering Controls	Operational Controls	Residual Risk
Unloading pre-segregated loose fibre	Release of fibres during unloading	Direct transfer to MRF, enclosed baling operation	Trained operators, minimise drop heights, water suppression if required	Low
Fibre baling within MRF	Localised dust release	Processing within MRF	Routine housekeeping and inspections	Low
Unloading wood waste	Dust generated during tipping	Covered storage bays, Zappshelter enclosure	Controlled unloading, minimise drop heights	Low

(DEMP)

Activity	Potential Dust Source	Engineering Controls	Operational Controls	Residual Risk
Storage of wood waste	Wind entrainment	4 m push walls, 3.5 m storage height, Zappshelter canopy	Daily inspections, stockpile management	Low
Unloading road sweepings	Fine particulate release	Designated storage area	Dampening where necessary, controlled unloading	Low
Vehicle movements	Resuspension of settled dust	Concrete hardstanding	5 mph speed limit, one-way system, routine sweeping	Low
Mobile plant operations	Disturbance of dusty materials	Appropriate plant selection	Competent operators, minimise disturbance	Low
External storage areas	Wind entrainment	Covered bays, freeboard maintained	Daily inspections, additional suppression during adverse weather	Low

3.3 Source–Pathway–Receptor Assessment

Source	Pathway	Receptor	Control Measures	Residual Risk
Loose fibre unloading	Wind dispersion	Shropshire Union Canal	Direct transfer to MRF, suppression when required	Low
Wood waste	Wind entrainment	Industrial neighbours	Covered bays, Zappshelter enclosure, freeboard	Low
Road sweepings	Wind dispersion	Site boundary	Covered bay, Zappshelter enclosure, Dampening, controlled unloading	Low
Vehicle movements	Resuspended dust	Industrial estate	Concrete hardstanding, 5 mph limit, sweeping	Low
Stockpiles	Wind	Environmental receptor	Covered storage, 3.5 m stockpile limit, inspections	Low

Dust Control Philosophy

Dust control at the Canalside Operations Hub follows a hierarchy of control, giving priority to preventing dust generation at source before relying on operational intervention.

The hierarchy adopted by Cheshire West Recycling Ltd is:

(DEMP)

1. **Eliminate** – minimise unnecessary handling of dusty materials.
2. **Engineer** – utilise covered storage bays, enclosed processing, traffic management and engineered infrastructure.
3. **Control** – implement housekeeping, stockpile management, speed restrictions and vehicle washing.
4. **Suppress** – deploy the 4,000-litre mobile water bowser, pressure washer, hoses and stored water supplies where necessary.
5. **Monitor** – undertake routine inspections, management audits and continual review to verify the effectiveness of dust control measures.

This hierarchy ensures that dust prevention is achieved primarily through site design and operational management, with active suppression measures deployed where additional control is required.

3.3 Appropriate Measures Used to Control Dust and Particulate Emissions

3.3.1 Engineering Controls

Engineering controls provide the primary means of preventing fugitive dust emissions at the Canalside Operations Hub. The site has been designed and is operated to minimise the potential for dust generation through the use of permanent infrastructure and carefully planned operational layouts.

Dust-generating materials are stored within designated reinforced concrete storage bays incorporating 4 metre push walls. Stockpile heights are restricted to a maximum height of 3.5 metres, maintaining a minimum 0.5 metre freeboard below the top of the bay walls to reduce the potential for wind entrainment.

The storage bays are further enclosed by a Zappshelter canopy, providing an additional 2 metres of enclosure to the rear and sides of the bays. This significantly reduces wind ingress, protects stored materials from adverse weather and provides an additional engineering barrier to minimise fugitive dust emissions.

Loose fibre is transferred directly to the Materials Recycling Facility (MRF) for baling following unloading, reducing handling distances and minimising the opportunity for dust generation.

The operational area comprises impermeable concrete hardstanding, allowing effective housekeeping, routine sweeping and rapid deployment of water suppression where required.

3.3.2 Vehicle Management

Vehicle movements have been carefully designed to minimise the potential for dust generation.

(DEMP)

The site operates a clearly defined one-way traffic management system with a maximum site speed limit of 5 mph.

These controls reduce vehicle congestion, minimise unnecessary manoeuvring and significantly reduce the potential for dust resuspension from vehicle movements.

All drivers are required to follow designated traffic routes and comply with site rules at all times.

Vehicles transporting dusty materials are appropriately contained before leaving the site.

A dedicated vehicle wash facility is provided to prevent mud, dust and debris being transferred beyond the site boundary. Wash water is directed through the site's interceptor and then the oil separator system prior to discharge.

3.3.3 Housekeeping

Good housekeeping forms one of the principal dust control measures employed at the Canalside Operations Hub.

Daily housekeeping inspections are undertaken throughout the operational areas to identify and remove accumulations of dust, debris and waste materials before they have the opportunity to become airborne.

Routine housekeeping activities include:

- sweeping of operational areas.
- removal of loose waste materials.
- cleaning around storage bays.
- inspection of haul roads.
- removal of spillages.
- inspection of drainage channels.
- inspection of vehicle wash facilities.

Mechanical road sweepers are utilised where necessary, supported by manual cleaning in areas inaccessible to larger equipment.

Housekeeping inspections are recorded within the Site Diary and reviewed routinely by site management.

3.3.4 Dust Suppression

The Canalside Operations Hub maintains a range of dust suppression equipment to allow rapid deployment in response to operational requirements or changing weather conditions.

(DEMP)

Dust suppression equipment includes:

- dedicated 4,000 litre mobile water bowser.
- mobile pressure washer.
- handheld hose systems.
- water-filled Intermediate Bulk Containers (IBCs);
- mechanical road sweeper.

The mobile water bowser can be connected directly to mobile plant, allowing rapid deployment throughout the operational area.

Additional dust suppression is implemented during:

- prolonged dry weather.
- elevated temperatures.
- increased wind speeds.
- particularly dusty activities.
- following environmental inspections where additional control is considered beneficial.

Should routine suppression measures prove insufficient, operational activities will be modified or temporarily suspended until effective dust control has been re-established.

3.3.5 Operational Controls

Operational controls complement the engineered dust control measures implemented across the site.

These include:

- minimising waste drop heights.
- reducing unnecessary double handling of materials.
- maintaining stockpile limits.
- controlled unloading procedures.
- competent mobile plant operation.
- routine inspection of storage areas.
- rapid response to dust observations.

Where necessary, activities are temporarily modified to prevent fugitive emissions leaving the site boundary.

3.4 Dust Suppression and Water Management

The site maintains a range of dust suppression measures to prevent the release of fugitive dust and particulate emissions during routine operations and in response to changing weather conditions.

Dust suppression is applied using a combination of engineering controls, good housekeeping and water-based suppression systems. The type and extent of suppression utilised is proportionate to the nature of the activity being undertaken and the prevailing environmental conditions.

The principal objective of dust suppression is to prevent dust becoming airborne rather than reacting once emissions have occurred.

3.4.1 Water Suppression Equipment

The following equipment is available for routine and reactive dust suppression:

- Dedicated 4,000-litre mobile water bowser capable of being connected to mobile plant for rapid deployment throughout the operational area.
- Mobile pressure washer for localised dust suppression and wash down of operational areas.
- Hand-held hose systems supplied from the site's water supply.
- Water-filled Intermediate Bulk Containers (IBCs) maintained on site with attachment to provide contingency water supplies.
- Mechanical road sweeper used to remove accumulated dust and debris from operational surfaces.

This equipment enables suppression measures to be implemented quickly in response to operational requirements or adverse weather conditions.

3.4.2 Deployment of Dust Suppression

Dust suppression measures are implemented proactively and increased where necessary following routine environmental inspections or changes in operational or weather conditions.

Additional suppression will normally be implemented during:

- prolonged periods of dry weather.
- elevated temperatures.
- increased wind speeds.
- unloading of potentially dusty waste streams.
- increased vehicle movements.

(DEMP)

- observations of visible dust during routine inspections.

The Site Supervisor has authority to instruct the deployment of additional suppression measures at any time where dust generation is considered likely.

3.4.3 Water Management

Water utilised for dust suppression is managed to ensure sufficient supplies remain available throughout operational activities.

The site maintains a dedicated 4,000-litre mobile bowser together with additional stored water supplies within Intermediate Bulk Containers (IBCs) with attachment, ensuring water is immediately available when required.

Water usage is monitored during periods of increased demand to ensure adequate reserves remain available.

Where water suppression results in surface run-off, operational areas have been designed with impermeable concrete hardstanding and engineered drainage and in hazardous waste areas directing water through the site's interceptor and into 2 separator systems at different locations before discharge.

3.4.4 Equipment Maintenance

Dust suppression equipment is subject to routine inspection and maintenance to ensure it remains fully operational.

Routine checks include:

- water bowser condition.
- hose integrity.
- pressure washer operation.
- pumps and fittings.
- availability of stored water supplies.

Any defects identified are reported immediately and repaired or replaced without undue delay.

Where any primary dust suppression equipment becomes unavailable, alternative suppression methods will be deployed until repairs have been completed or replacement equipment obtained.

3.4.5 Drought and Water Supply Restrictions

Cheshire West Recycling Ltd recognises that prolonged dry weather and restrictions on water use may increase the potential for dust generation.

During periods of increased dust risk, water suppression activities will be prioritised to higher-risk operational areas.

Should water supply restrictions or equipment failure prevent effective dust suppression from being maintained, operational activities will be modified, reduced or temporarily suspended until suitable control measures can be reinstated.

3.5 Visual Dust Monitoring

Routine visual monitoring is undertaken throughout operational activities to ensure dust control measures remain effective and that fugitive emissions do not impact beyond the permitted site boundary.

Visual monitoring forms part of the site's Environmental Management System and is supported by routine housekeeping inspections, supervisor inspections and management oversight.

Monitoring focuses on identifying dust at source and implementing additional control measures before emissions have the potential to affect neighbouring receptors.

3.5.1 Routine Inspections

Routine dust inspections are undertaken:

- daily by operational staff.
- recorded within the Site Diary.
- by competent CMS-certified supervisors, with a minimum of three documented inspections.
- under the oversight of Louise Burns (Level 4 TechMCIWM COTC) and John Lockett.

Inspections include:

- waste handling areas.
- storage bays.
- haul roads.
- site boundary.
- vehicle wash.
- housekeeping standards.
- effectiveness of suppression measures.

3.5.2 Additional Monitoring

Additional inspections are undertaken whenever environmental conditions indicate an increased potential for dust generation.

These include:

- prolonged dry weather.
- elevated temperatures.
- increased wind speeds.
- unusual operational activities.
- following complaints.
- following equipment failure.

3.5.3 Inspection Criteria

Routine inspections assess:

- visible airborne dust.
- dust deposited outside operational areas.
- condition of storage bays.
- stockpile heights.
- operation of suppression equipment.
- cleanliness of haul roads.
- effectiveness of housekeeping.
- weather conditions.

3.5.4 Actions Following Observations

Where inspections identify visible dust or ineffective suppression measures, the Site Supervisor will implement appropriate corrective actions, which may include:

- increasing water suppression.
- deploying the mobile water bowser.
- washing down operational surfaces.
- increasing housekeeping activities.
- reducing vehicle movements.
- modifying waste handling operations.
- temporarily suspending dust-generating activities.

Corrective actions are recorded within the Site Diary and, where appropriate, further investigation is undertaken through the Evotix Assure management system.

Dust Inspection Trigger Table

Observation	Action Required
No visible dust	Continue normal operations
Minor dust observed within operational area	Increase monitoring and housekeeping
Visible dust during unloading	Deploy water suppression immediately
Dust approaching site boundary	Stop activity and implement additional controls
Dust beyond site boundary	Suspend relevant activity, investigate, record in Evotix and notify management

3.5.5 Continual Improvement

Inspection findings are reviewed routinely by site management to identify trends and opportunities for improvement.

Information obtained through inspections, complaints, audits and incident investigations is used to review the effectiveness of dust control measures and, where necessary, update this Dust and Emissions Management Plan.

4. Abnormal Events and Contingency Planning

4.1 Introduction

Although the Canalside Operations Hub has implemented comprehensive engineering and operational controls to prevent fugitive dust emissions, Cheshire West Recycling Ltd recognises that abnormal events have the potential to increase environmental risk.

This section identifies foreseeable abnormal events that could affect dust management and details the contingency measures implemented to minimise the potential for environmental impact.

All abnormal events are managed in accordance with the site's Environmental Management System, Environmental Incident Management Plan and Fire Prevention Plan where applicable.

4.2 Abnormal Events

Table 4.1 – Abnormal Events and Contingency Measures

Abnormal Event	Potential Impact	Contingency Measures
High winds	Increased potential for wind-blown dust	Increase inspections, deploy additional water suppression, reduce stockpile disturbance, suspend activities if required.
Prolonged hot or dry weather	Increased dust generation	Increase frequency of water suppression, housekeeping and monitoring.
Failure of 4,000-litre water bowser	Reduced suppression capability	Deploy pressure washer, hose systems and IBC water supplies. Arrange repair or replacement without delay.
Pressure washer failure	Reduced localised suppression	Utilise mobile bowser and hose systems until repairs are completed.
Mechanical road sweeper unavailable	Dust accumulation on haul roads	Increase manual cleaning and arrange alternative sweeping provision if required.
Water supply interruption	Limited suppression capability	Prioritise stored water, reduce dusty activities and suspend operations if effective suppression cannot be maintained.
Power failure	Operational disruption	Suspend affected activities until operations can resume safely.
Excessive dust observed	Potential off-site nuisance	Stop the activity, implement additional suppression, investigate the cause and record actions taken.
Complaint received	Potential environmental concern	Investigate through the HSEQ Manager, undertake root cause analysis and record findings in Evotix Assure.
Fire	Smoke, dust and airborne particulates	Implement the Fire Prevention Plan and notify the appropriate authorities where required.

4.3 Response to Abnormal Events

Where an abnormal event has the potential to affect dust control measures, the following actions will be taken:

- Assess the nature and extent of the event.

(DEMP)

- Suspend or modify operations where necessary.
- Deploy additional dust suppression equipment.
- Notify the Site Manager.
- Implement appropriate corrective actions.
- Record the event within the Site Diary.
- Where appropriate, record the investigation and corrective actions within Evotix Assure.
- Review the effectiveness of the response and identify opportunities for improvement.

Operations will only recommence once site management is satisfied that adequate dust control measures have been reinstated.

4.4 Review Following an Incident

Following any abnormal event or environmental complaint, Cheshire West Recycling Ltd will review:

- the effectiveness of existing dust control measures.
- the adequacy of emergency response arrangements.
- whether additional engineering or operational controls are required.
- whether further staff training is necessary; and
- whether this DEMP requires amendment.

Lessons learned will be incorporated into the site's Environmental Management System to support continual improvement.

5. Environmental Complaints, Incident Investigation and Corrective Action

5.1 Purpose

Cheshire West Recycling Ltd is committed to operating the Canalside Operations Hub in a manner that prevents pollution and protects neighbouring businesses, environmental receptors and the wider community from environmental nuisance.

Any environmental complaint or dust-related incident is treated as an opportunity to identify the root cause, implement corrective actions and continually improve operational performance.

Environmental complaints are investigated promptly and proportionately in accordance with the site's Environmental Management System.

5.2 Reporting Environmental Complaints

Environmental complaints may be received from:

- members of the public.
- neighbouring businesses.
- Cheshire West and Chester Council.
- the Environment Agency.
- employees.
- contractors; or
- other interested parties.

All complaints relating to dust, particulate emissions or housekeeping are reported immediately to Site Management and the HSEQ Manager and immediately logged on the Evotix Assure System under Environmental Incidents.

The following information is recorded where available:

- date and time of complaint.
- complainant details (where provided);
- location of the alleged impact.
- nature of the complaint.
- prevailing weather conditions.
- operational activities taking place.
- any photographs or supporting information.

Where appropriate, immediate operational controls are implemented whilst the complaint is investigated.

5.3 Complaint Investigation

The HSEQ Manager will coordinate the investigation in conjunction with the Site Manager and other relevant personnel to ensure the nature, cause and extent of the complaint are fully understood and that appropriate corrective and preventative actions are identified.

Each investigation will be proportionate to the nature and significance of the complaint and may include, where appropriate:

- inspection of the operational area.
- inspection of the site boundary.
- review of weather conditions.
- review of operational activities at the time of the complaint.
- review of housekeeping inspection records.
- review of Site Diary entries.

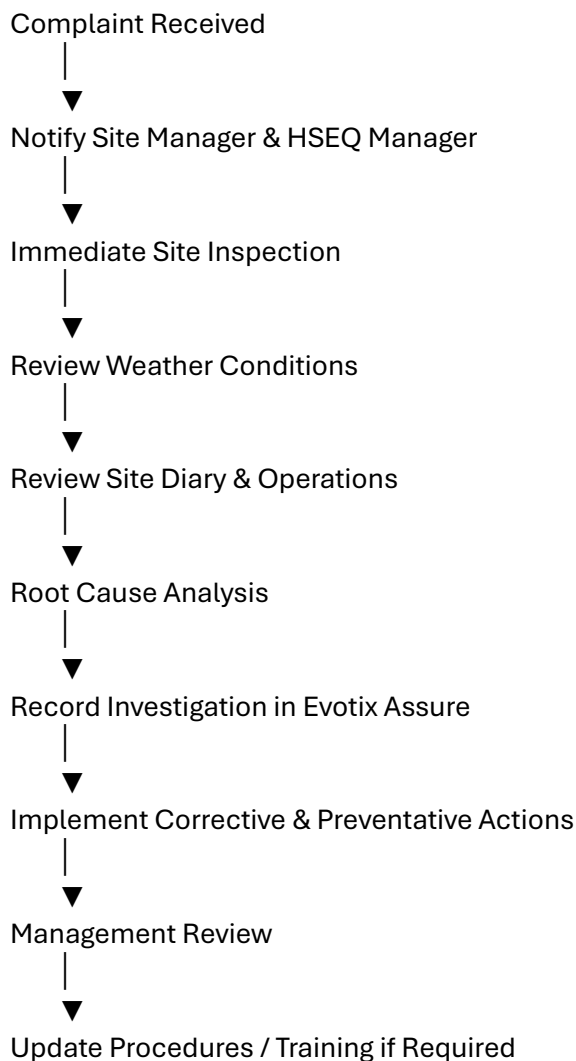
(DEMP)

- interviews with relevant personnel.
- assessment of dust suppression measures deployed.
- identification of the root cause.

Where an investigation identifies an immediate risk of environmental pollution or off-site nuisance, appropriate operational controls will be implemented without delay. These may include increased dust suppression, modification of operational activities or temporary suspension of the activity pending completion of the investigation.

The purpose of the investigation is to establish whether site activities contributed to the complaint and to identify any opportunities for improvement.

Figure 5.1 – Environmental Complaint Investigation Process



5.4 Corrective and Preventative Actions

Where investigations identify deficiencies or opportunities for improvement, appropriate corrective and preventative actions (CAPA) are implemented.

Corrective actions may include:

- increasing dust suppression.
- modifying operational activities.
- additional housekeeping.
- equipment maintenance.
- staff retraining.
- amendment of operational procedures.
- increased environmental monitoring.
- temporary suspension of specific activities where necessary.

Preventative actions are implemented to reduce the likelihood of recurrence.

5.5 Evotix Assure Management System

Environmental complaints, incidents, investigations and corrective actions are recorded within the Evotix Assure management system.

Evotix Assure provides a structured process for:

- recording incidents.
- assigning investigation responsibilities.
- undertaking root cause analysis.
- allocating corrective actions.
- monitoring action completion.
- recording evidence.
- identifying trends.
- supporting continual improvement.

The system ensures that investigations are fully documented and that corrective actions remain traceable through to completion.

5.6 Regulatory Notifications

Where an environmental incident results in actual or potential pollution, Cheshire West Recycling Ltd will notify the Environment Agency where required by the Environmental Permit or applicable legislation.

(DEMP)

The level of notification will be proportionate to the nature and significance of the incident.

Records of regulatory notifications will be retained as part of the site's Environmental Management System.

5.7 Management Review

Information obtained through:

- environmental complaints.
- inspection findings.
- incident investigations.
- audit findings.
- Evotix Assure reports.
- management observations.

is reviewed weekly at plan, deliver, review operational meeting by site management and at a higher level in the monthly SMT meetings to identify recurring issues and opportunities for improvement. Monthly reports are also issued and discussed with the board of directors.

Where necessary, findings are incorporated into:

- operational procedures.
- staff training.
- maintenance programmes.
- environmental inspections.
- this Dust and Emissions Management Plan.

6. Record Keeping, Auditing and Document Control

6.1 Purpose

Effective environmental management relies upon accurate record keeping, routine auditing and regular review of operational procedures.

Cheshire West Recycling Ltd maintains environmental records to demonstrate compliance with the Environmental Permit, monitor the effectiveness of dust control measures and support continual improvement.

Records are retained in accordance with the company's Environmental Management System and are made available to the Environment Agency upon request.

6.2 Environmental Records

The following records are maintained to support implementation of this Dust and Emissions Management Plan:

- Daily Site Diary records.
- Housekeeping inspection records.
- Dust monitoring inspections.
- CMS supervisor inspection records.
- Environmental complaint records.
- Incident investigation reports.
- Evotix Assure corrective action records.
- Staff training records.
- Equipment inspection and maintenance records.
- Vehicle wash inspections.
- Road sweeping records (where applicable).
- Environmental audit findings.
- DEMP review records.

These records provide evidence that dust management measures are being implemented and maintained.

6.3 Auditing

Environmental performance is routinely reviewed through a programme of inspections, management oversight and internal audits.

Audits assess compliance with:

- Environmental Permit conditions.
- this Dust and Emissions Management Plan.
- the Environmental Management System.
- site operating procedures.
- housekeeping standards.
- environmental legislation.

Audit findings are reviewed by management and, where necessary, corrective actions are implemented and monitored through to completion.

6.4 Document Control

This Dust and Emissions Management Plan is a controlled document forming part of the Cheshire West Recycling Ltd Environmental Management System.

(DEMP)

The DEMP is reviewed:

- annually.
- following changes to operational activities.
- following permit variations.
- following environmental incidents.
- following substantiated complaints.
- following significant changes to legislation or Environment Agency guidance.
- where improvements are identified through inspections or audits.

Superseded versions of the DEMP are archived to ensure document history is maintained.

The current version is made available to relevant personnel to ensure operational activities are undertaken in accordance with the latest approved procedures.

6.5 Management Review

The effectiveness of this DEMP is reviewed as part of routine management meetings.

The review considers:

- inspection findings.
- environmental incidents.
- complaints.
- audit findings.
- corrective actions.
- legislative updates.
- operational changes.
- opportunities for continual improvement.

Where appropriate, amendments are made to this DEMP to ensure it continues to reflect current operations and best practice.

Record	Responsibility	Retained Within
Site Diary	Site Supervisor	Evotix Assure
Housekeeping Inspections	Operational Staff	Site Diary
CMS Inspections	CMS Supervisor	Evotix Assure
Environmental Complaints	HSEQ Manager	Evotix Assure
Incident Investigations	HSEQ Manager	Evotix Assure
Corrective Actions	HSEQ Manager	Evotix Assure
Training Records	Management	Training Matrix/Evotix Asure

(DEMP)

Record	Responsibility	Retained Within
DEMP Reviews	Louise Burns/HSEQ	Evotix Assure

7. Continual Improvement

7.1 Commitment to Environmental Improvement

Cheshire West Recycling Ltd is committed to the continual improvement of environmental performance through the implementation of robust management systems, investment in operational infrastructure and the ongoing review of site activities.

The Company recognises that effective dust management is achieved through a combination of engineering controls, competent personnel, routine monitoring and a proactive approach to environmental management.

This Dust and Emissions Management Plan forms part of the site's wider Environmental Management System and will continue to evolve as operational practices, technology and regulatory requirements develop.

7.2 Performance Review

Environmental performance is routinely reviewed using information obtained from:

- Daily Site Diary inspections.
- Housekeeping inspections.
- CMS supervisor inspections.
- Environmental audits.
- Complaints.
- Incident investigations.
- Evotix Assure reports.
- Management observations.
- Feedback from the Environment Agency.

The information obtained is used to identify opportunities to improve operational performance and reduce environmental risk.

7.3 Investment in Dust Management

Cheshire West Recycling Ltd is committed to maintaining appropriate engineering controls and operational equipment to minimise fugitive dust emissions.

(DEMP)

Existing investment includes:

- Reinforced concrete storage bays.
- Covered Zappshelter storage.
- Dedicated 4,000-litre mobile water bowser.
- Mobile pressure washing equipment.
- Vehicle wash facilities.
- One-way traffic management system.
- Daily environmental inspections.
- Competent operational supervision.
- Environmental management software (Evotix Assure).

Future improvements will continue to be considered where they provide additional environmental benefit or further reduce the potential for fugitive emissions.

7.4 Review of this Dust and Emissions Management Plan

This DEMP will be reviewed:

- at least annually.
- following significant operational changes.
- following Environmental Permit variations.
- following substantiated environmental complaints.
- following environmental incidents.
- following changes to legislation or Environment Agency guidance.
- where improvements are identified through audits or inspections.

Any revisions will be communicated to relevant personnel and incorporated into the site's Environmental Management System.

7.5 Cheshire West Recycling Ltd Environmental Commitment

Cheshire West Recycling Ltd is committed to operating the Canalside Operations Hub in a manner that prevents pollution, protects neighbouring receptors and continually improves environmental performance.

Through the implementation of this Dust and Emissions Management Plan, the Company will continue to:

- minimise fugitive dust emissions.
- protect the local environment.
- maintain compliance with the Environmental Permit.
- provide appropriate training and supervision.
- investigate complaints and incidents.

(DEMP)

- review operational performance; and
- promote a culture of continual environmental improvement.

The Company considers this Dust and Emissions Management Plan to be a live management document that will continue to develop alongside operational improvements and regulatory best practice.

References

- Environmental Permitting (England and Wales) Regulations 2016.
- Environment Agency – *Dust and Emissions Management Plan Guidance (Version 12)*.
- Environmental Permitting: General Guidance Manual.
- Cheshire West Recycling Ltd Environmental Management System.
- Fire Prevention Plan.
- Environmental Incident Management Plan.
- Site Operating Procedures.

Appendices

- Appendix 4a – Sensitive Receptor Plan
- Appendix 11 – Site Layout
- Appendix 23 – Dust Suppression Equipment
- Appendix 24 – Housekeeping Inspection Form
- Appendix 24a – End of Day checks Form
- Appendix 25– Dust Monitoring Form
- Appendix 26 – Complaint Investigation Flowchart
- Appendix 27– Appropriate Measures Summary