Dust Emissions Management Plan Newquay

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VERSION CONTROL

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25/11/2025	V2	Arabella Sharrock	Crusher and Screener Details added

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DUST EMISSIONS MANAGEMENT PLAN

Introduction

Recycle It Global Ltd. ("RIG") Dust Emissions Management Plan for the waste management facility near Newquay, at St Eval.

The site will accept 250,000 tonnes per annum (125,000t to be washed & 125,000t to be dry crushed & screened) Soil washing will be undertaken using a state-of-the-art wash plant designed to treat a wide range of inert soils, stones and aggregate wastes. A crusher will also be deployed to site when operational needs require.

The Site is located on the land adjacent to an unnamed Road to the SW of St Eval, Wadebridge. The Site is located approximately 1 km West of St Eval town and 9 km northeast of Newquay town centre. The full Site address is Recycle It Global Newquay, Karanza Yard, Wadebridge PL27 7UN. The National Grid Reference (NGR) for the Site is SW 86214 69073.

The purpose of this Dust Emissions Management Plan (DEMP) is to set out the potential sources of dust emissions from the on-site activities, describe the mitigation and control measures which will be in place to ensure that the activities will be undertaken whilst ensuring dust, mud and other particulate debris are controlled, removed and prevented where possible. The aim of this DEMP is to ensure there are no adverse releases of dust during the operation of the facility.

This DEMP considers the day-to-day operations and all foreseeable circumstances of the facility's undertakings (e.g. adverse meteorological conditions) which may exacerbate dusty conditions at the Site. This DEMP includes:

- Consideration and identification of all activities capable of generating dust at the Site including a Conceptual Source-Pathway-Receptor Model;
- Identification of all sensitive receptors located nearby which have the potential to be impacted by dust emissions should no control measures be implemented; and
- Site and activity specific mitigation measures.

The DEMP has been prepared in line with the following Guidance:

- Environment Agency – Control and Monitor Emissions for your Environmental Permit; and

- Institute of Air Quality Management, 2014. Guidance on the Assessment of Dust from Demolition and Construction.

SENSITIVE RECEPTORS

The Site is located in a predominantly rural area with a MOD communication station and disused airfield directly to the South of the site, & St Eval village to the East with St Eval Kart track to the West and a Solar farm to the north.

Farmland predominately makes up the rest of the surrounding area adjacent to the site.

The nearest residential receptor is located at Downhill, approximately 410m to the SW of the Site.

Table 2.1 below lists the potentially sensitive receptors within 500m of the Site boundary. Dust transported via the atmosphere will often deposit within 100m of the source. The IAQM guidance document recognises dust can deposit up to 350m (specified in Construction Guidance) and 400m (specified in the Quarry Guidance). By 500m, it is expected any airborne dust will have dispersed and deposited before arriving at the sensitive receptor.

A map provides a receptor plan for the Site, showing sensitive receptors within 2km of the Site boundary.

The Site is not located within an existing Air Quality Management Area (AQMA), nor within 2km of an AQMA for PM10.

Table 2.1: Summary of Sensitive receptor locations

Receptor	Receptor Type	Location (NGR)	Distance and Direction from Site
A	**Private house**	**SW 8703 6943**	**410m NE**
B	**Downhill Cottage**	**SW 86255 6907**	**450m SW**
C	**Great Engollan Farm**	**SW 8637 6992**	**770m NW**

Prevailing Conditions

A review of long-term average wind direction data available from the Met Office at the nearest available location to the Site, Plymouth Mount Batten, indicates the prevailing wind direction is from the southwest.

Figure 1a below from the Met Office report on below provides a wind rose summarising this data. Figure 1b shows the wind rose available on Willy Weather website for and shows annual data over a five-year average.

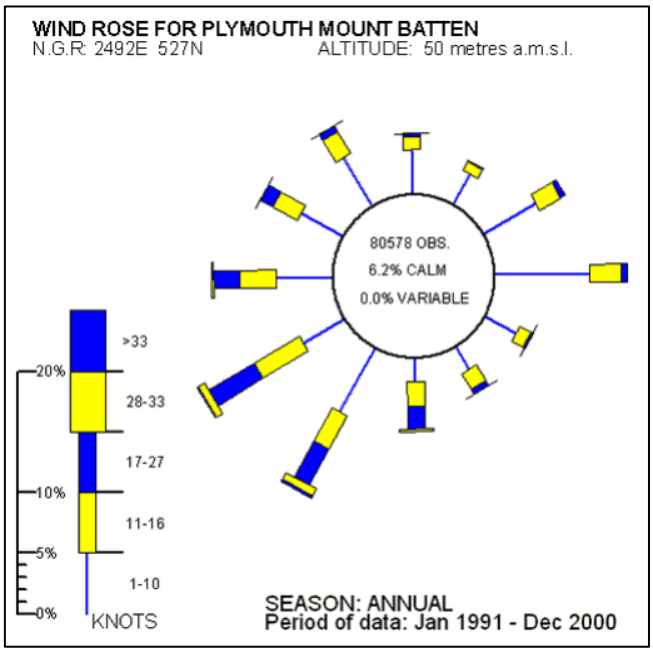

Figure 1a – Met Office Wind Rose

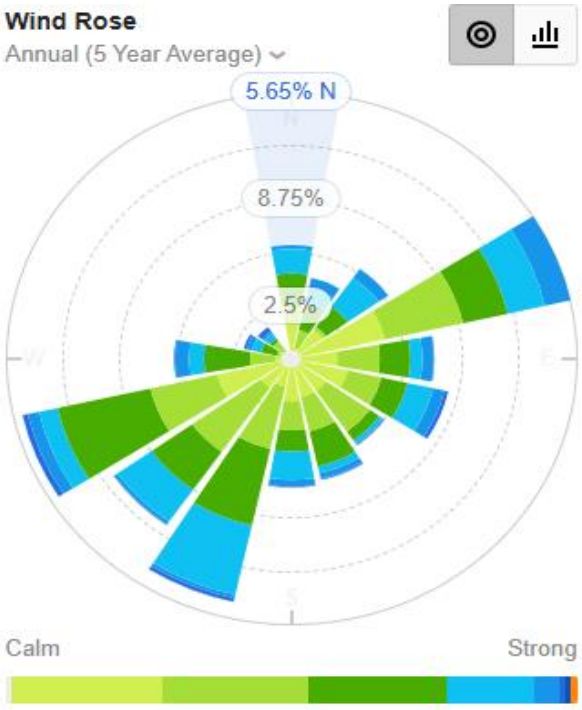

Figure 2b – Wind Rose showing annual (5 year average) wind direction and wind strength

Therefore, the prevailing wind direction is considered to be from the southwest. with a secondary component from the northeast.

Source-Pathway-Receptor Conceptual Model

A conceptual model has been developed to summarise the potential sources of dust, the nearby receptors and the pathway from the source to the receptor, and the control measures required to either break the pathway or prevent dust generation at source.

Table 2.2 below provides a conceptual source-pathway-receptor model identifying the likely dust risk to sensitive receptors.

Table 2.2: Source-Pathway-Receptor Conceptual Site Model

Source	Pathway	Receptor	Control Measure
Open air stockpiles of wastes	Airbourne Wind whipping of dusty materials	Residents, nearby habitats	Minimising the stockpiling of material as far as possible Dampening of dry material with water
Vehicle Movements	Airborne Tracked out of the Site by vehicles	Residents nearby habitats	Maintain clean surfaces. Dampening or sweeping of Site roads where necessary
Unloading/loading of materials	Airbourne Wind whipping of dusty materials	Residents, nearby habitats	Maintaining drop heights Dampening where necessary
Fugitive Emissions	Airbourne Wind whipping of dusty materials	Residents, nearby habitats	Dampening where necessary Maintaining Site plant and equipment
Crushing and Screening	Airbourne Processing of dusty materials	Residents, nearby habitats	Dampening where necessary Use of sprayers where equipment is operating in dusty conditions Maintaining Site plant and equipment

POTENTIAL DUST SOURCES

The Site will handle a variety of waste soils and aggregates for treatment to produce recycled aggregate products. The wastes the Site will accept include inert soils, stones, aggregates

The waste will be physico-chemically treatment via washing through a wash plant. The treatment process is a wet process, and therefore the greatest risk of dust prior to treatment though the handling, movement and storage of the wastes.

Aggregate materials will be stockpiles and stored on Site.

Any potential dust emissions generated by the activities will be fugitive in nature and will predominantly arise during adverse weather conditions including high winds, and prolonged dry periods. There will be no point source emissions of dust from the site as the wash plant comprises a wet treatment process.

Emissions to air may arise from the following activities on Site:

- Vehicle movements, both in and outbound from trucks and movement from mobile plant.
- Loading and unloading of materials from trucks and mobile plant.
- Storage and stockpiles of waste, soils and aggregates.
- Processing and treatment of waste soils in the soil washing facility in dry phase.

Crushing and screening processes may produce dust however these pieces of plant are fitted with dust suppression as part of their specs. There are spray bars on the screener and self-cleaning screen decks to prevent residual dust from accumulating. The crusher also has plant specific dust suppression built into the equipment.

MITIGATION MEASURES

Introduction

RIG will implement a range of dust control measures on Site, the prevent and minimise fugitive dust emissions as far as possible. The remainder of this section outlines the dust control and suppression measures to be implemented.

Site Management and Daily Site Inspections

The Facility Manager (or another appointed member of personnel) shall carry out as minimum one daily visual inspection of the working areas of the Site and outside the entrance. The visual inspection shall consider, as a minimum, the following:

- Current dust generating activities (upon identifying dust generation, additional mitigation will be employed as necessary);
- Access route to ensure mud and debris is not being tracked out of the Site onto the surrounding roads.
- Ensuring employees are carrying out the actions outlined in this DEMP; and
- Details of daily activities.

The results of the visual inspection shall be recorded in an Environmental Logbook which will be kept on Site at all times. The logbook will be made available to the Environment Agency upon request. The Logbook can be adapted for all visual inspections required and a specific 'dust inspection sheet' will be completed and included.

Information which should be recorded In the Logbook includes details including the date, time, signature of completion and inspector, meteorological conditions and the results of the visual checks and actions taken if necessary, and any information relating to dust management implemented that differs from day-to-day operation.

During operational hours, an awareness of meteorological conditions will be maintained. Prolonged dry periods and moderate to high winds can increase dust generation which may then become airborne and be carried on the prevailing winds. Dust management will be adjusted to suit the prevailing conditions.

Contact details for emergency third party contractors (e.g. road sweeper hire, mobile water bowser hire) will be set out in the Logbook, ensuring additional measures can be put in place quickly where required.

In the event of equipment failure that is vital to the dust suppression, replacement equipment will be sourced promptly and maintained on Site until such time that the equipment is repaired or replaced.

There will be a Site wide speed limit set at 10 mph for all waste delivery and aggregate collection vehicles.

Waste Storage

Stockpiles shall be compacted, shaped where possible and dampened periodically to ensure the risk of dust generation and transportation from the materials bays is low.

Where possible, stockpiles will also be orientated to be sympathetic to prevailing wind conditions, again minimising surface exposure to strong gusts and wind whipping.

Waste and Material Loading and Unloading

Wherever possible, loading and unloading of wastes and processed materials will take place in sheltered areas of the Site and around stockpiles to prevent the entrainment of dust in the wind.

Drop heights will be minimised where possible and consideration given to postponing material loading and unloading under excessively windy conditions to minimise generation of dust emissions.

Material will be placed as soon as possible under any conditions to ensure minimal dust mobilisation, with double handling of materials minimised where possible and avoiding any temporary storage as much as is possible.

Where temporary stockpiles are required for on-site activities, materials will be shaped to be stable to avoid undue generation of dusty emissions.

If any stockpiles are identified as generating dust sources, alternative measures will be reviewed to find a solution to reduce or suppress generation of dust material arising.

Waste Soils Treatment

Incoming materials will be crushed and screened where required to ensure they are an appropriate size for the wash plant feedstock. If weather conditions are adverse crushing and screening will be reduced appropriately to prevent excessive dust generation.

Once the waste feedstock has been fed into the wash plant, the washing treatment stages will be enclosed and will require the addition of water to the process, resulting in minimal generation of dusty material to be emitted from the process. Outputs from

the process will be in the form of wash waters and a sludge which is then pressed into a compacted filter cake. These outputs are not expected to generate fugitive emissions of dust.

The processed aggregates will be stored in product bays at the north of the Site, awaiting dispatch. The bays are designated according to the product type and as far as possible the material within each bay will be stored 0.5m below the top of the bay walls to prevent wind whipping.

Water Suppression

The Site is supplied by boreholes, supply will be utilised where required for dust suppression. Water will be supplied via a hose/bowser where required to dampen down stockpiles, haul routes, access routes and the processing areas.

Dampening activities may be required during unloading and movement to storage activities. Visual inspections shall inform when and whether these dampening activities are required.

Stockpiles will be dampened as and when necessary to reduce dust generation.

Continuous water suppression across the Site is not deemed to be necessary due to the low risk identified. Suppression should be used as and when dust is visually seen in the airflow.

Road Surfaces and Cleanliness

The concrete surfaces present on Site shall be maintained and kept in good repair.

The access route shall be monitored daily by Site personnel and be kept in a clean state and deposits of mud and dust shall be removed.

General Mitigation and Maintenance

The following general measures shall be implemented at the Site:

- Laden vehicles will be sheeted prior to entering and leaving the Site;
- Drop heights from loading/unloading activities will be minimised. This applies to inbound/outbound vehicles and mobile plant;
- Plant, equipment and seals will be checked regularly to ensure they are in full working order, defective equipment which may give rise to fugitive emissions will be repaired or replaced as soon as possible.
- Plant and machinery shall not be left running unnecessarily;
- Dry sweeping of large areas will be avoided.

Complaints

In the event that any complaints are received, details of the complaint will be recorded in the Environmental Logbook and potential sources or occurrences on Site will be investigated. Records of all complaints and remedial action taken shall be recorded in the site diary/log.

The results of the complaint investigation and the measures taken to resolve the complaint will be made available to the Environment Agency upon request.

Additional mitigation will be employed as and when necessary to resolve the complaint(s).

Any complaints received will be recorded and investigated in accordance with Recycle It Global Environmental Management System and working procedures. Outcomes will be reviewed by Site management and fed into Site management plans such as this DEMP, as appropriate to ensure ongoing improvement to minimising risks from the activities on Site.

Distribution and Training

A physical copy of the DEMP will be kept on Site at all times and made available to employees. A digital copy will also be held at the head office. The DEMP shall be made available to the Environment Agency upon request.

The Site manager will ensure each employee and subcontractor at and/or arriving to the Site are familiar with the control measures and procedures outlined in this plan and are aware of their individual role in reducing dust emissions.

Personal protective equipment shall be provided as necessary for employees and visitors.

Upon arrival at the Site and/or beginning of employment the employee will be trained to carry out the mitigation actions required of their role. The training will make the employee aware of the wider dust management controls active at the Site. Suitable training may include a Site-specific toolbox talk and annual refresher sessions.

Review and Responsibility

The DEMP will be reviewed by the Site Manager annually. New versions of the DEMP will be issued as and when necessary, with mitigation and/or operational changes outlined. The version history shall be updated each time.

It is the responsibility of the Operator and the Site Manager to ensure the DEMP is enforced and that all employees are suitably trained. Failure to do so could result in adverse environmental conditions and enforcement by the Environment Agency.

Monitoring points

Figure 31 – Receptor Location Plan

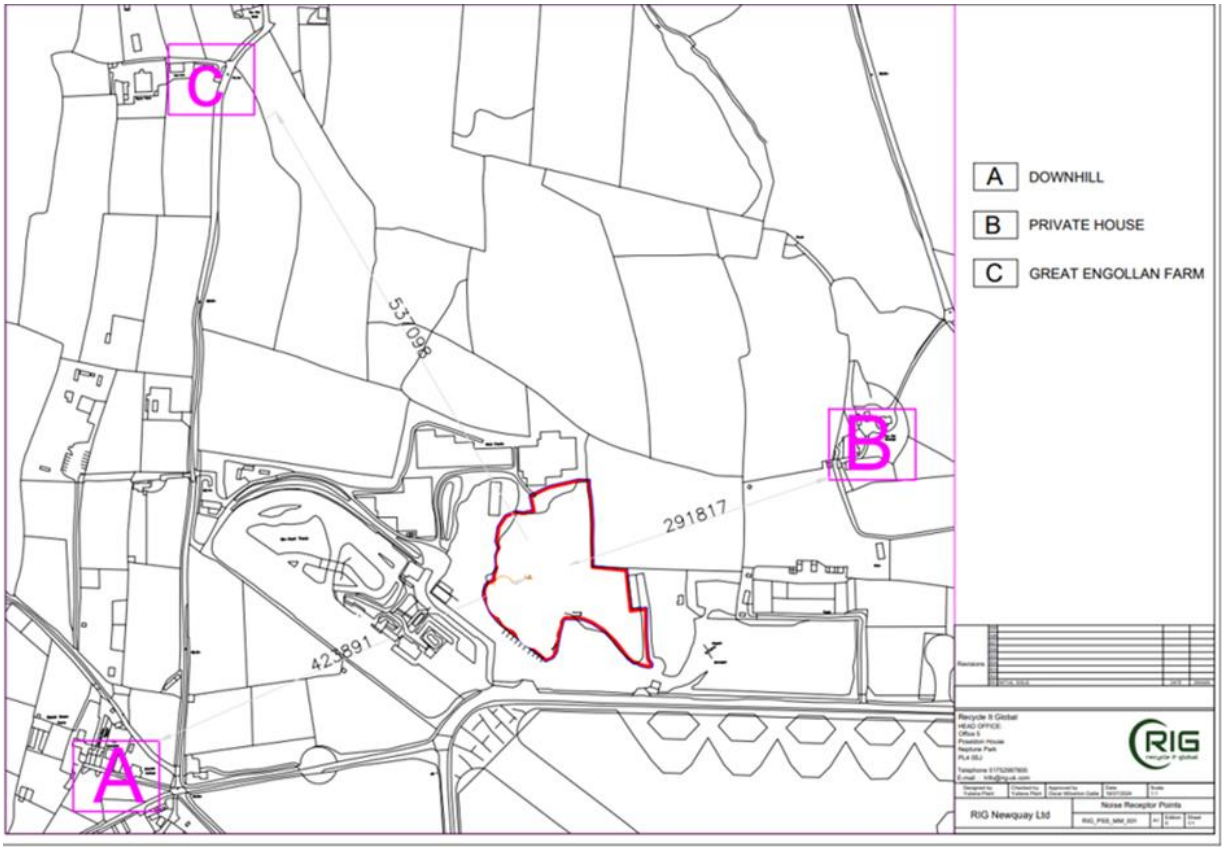

Figure 12 – Monitoring Points for Checkproof App

Figure 13 –Checkproof App Monitoring Log for Fugitive Emissions

Date -	Person Conducting -	Signature -
Time -	Weather -	Wind direction -
Other relivant information -		

Monitoring Points (See over leaf)	1	2	3	
Noise dB Reading				
Take reading at 1.5m above the ground & 3m from buildings ETC (to stop sound reflecting)	**MAX 45dB** (shield from wind) Note other works in the area (IE Roadworks)	**MAX 45dB** (shield from wind) Note other works in the area (IE Roadworks)	**MAX 45dB** (shield from wind) Note other works in the area (IE Roadworks)	)
Vibration Detectable Y/N				
Note any other activities the area				
Odour Detectable Y/N				
Include Agriculture- ETC	Any other activities in the area	Any other activities in the area	Any other activities in the area	
Dust-Mud Visible Y/N				
Note other sources and their origin	Any other sources	Any other sources	Any other sources	

The above has now been transferred to Checkproof which is an app that is then uploaded to sites online system